AF

Knight Piésold
CONSULTING

COPY

Our Reference: VA101-1/6-A.01

Continuity No.: V4-0816

Knight Piésold Ltd.
Suite 1400
750 West Pender Street
Vancouver, British Columbia
Canada V6C 2T8
Telephone: (604) 685-0543
Facsimile: (604) 685-0147
E-mail: vancouver@knightpiesold.com

July 30, 2004

Mr. Brian Kynoch
Mount Polley Mine
Imperial Metals Corporation
200 - 580 Hornby Street
Vancouver, B.C. V6C 3B6

Dear Brian,

Re: Mount Polley Water Balance

We have developed a water balance for the Mount Polley Mine Site as requested.

1.0 INTRODUCTION

A water balance has been developed for the Mount Polley Mine Site to aid in water management planning and to predict water surplus or deficit volumes after the resumption of operations in 2004. This water balance updates an earlier water balance by adding new development areas (including Springer Pit, Wight Pit, and the Northeast Rock Disposal Site (RDS)), updating precipitation estimates, and modifying other aspects of the balance to match the new mine plan.

The water management plan includes the following objectives:

- To effectively manage the water to minimize the need for regulated discharges to surface water and prevent the need for water removal from Polley Lake.
- To capture and manage all water that has been affected by mine components.
- To divert runoff from undisturbed areas away from the mine site and tailings facility (TSF).
- To store some excess TSF water to be used to accelerate pit filling at closure.
- To drain the TSF at closure by routing the water into the open pits.

Linked water balances have been completed for the assumed 7 years of mine life. The base case water balance assumes average precipitation conditions, a tailings dry density of 1.4 tonnes/m^3, and no discharge of water from the seepage pond.

2.0 WATER MANAGEMENT

Careful water management at the site will ensure that the discharge of TSF water will be minimized and that the removal of water from Polley Lake will not be required. Table 1 summarizes the water management timeline used for the water balance.

For average precipitation conditions a surplus of water will be produced on the site. Water reporting to the Tailings Storage Facility (TSF) includes precipitation and runoff from the TSF catchment, runoff from mine disturbed areas including Rock Disposal Sites (RDS), and groundwater from some of the open pits.

During Years 1 to 3 the Wight and Bell Pits are being developed. All runoff and groundwater from these pits will be directed to the TSF. In addition, water from the Cariboo Pit (500,000 m^3/year for 3 years) will be pumped to the TSF for storage to facilitate mining of the Bell Pit and to make room for the placement of waste rock from the Bell and Springer Pits into Cariboo Pit. "Clean " waste from the Bell Pit will be placed in the North RDS. During Year 2, development of the Springer Pit will commence, adding that pits runoff and groundwater to the tailings facility. At Year 3, the maximum water surplus will occur (approximately 1.5 million m^3 for the base case) as the Wight and Bell Pits are completed and the Northeast Rock Disposal Site (RDS) is fully developed. It is assumed that the maximum groundwater inflow for the pits will occur once the final pit depth is reached in Year 3 and the maximum runoff from the Northeast RDS will also occur in Year 3 once runoff from the entire area is captured and directed to the TSF.

After Year 3, the Wight Pit will be allowed to fill with water. Runoff and groundwater from this pit will therefore no longer be directed to the TSF but will be allowed to accumulate in place. Runoff from the Northeast RDS will be directed to the Wight Pit in Year 4 to accelerate pit filling. Also during Year 4, the Northeast RDS will be reclaimed and the runoff from this area will be released to the environment in subsequent years.

Development of the Springer Pit and North RDS will continue to Year 7. "Clean" waste rock from the Springer Pit will be placed in the North RDS. Runoff from this area is not captured. Other waste from the Springer Pit will be backfilled into the Cariboo and Bell Pits. Water will continue to be pumped from the Cariboo Pit to the TSF until Year 3 to increase the pit's storage capacity for waste rock. Between 1.5 and 2 million m^3 of water will be allowed to remain in the Cariboo Pit to fill the voids in the rock pile. Runoff and groundwater from the Bell Pit will be allowed to accumulate in the Bell Pit to fill the voids in the waste rock. It is expected that an equilibrium will be established over time. Runoff and groundwater from the Bell Pit will no longer contribute to the TSF volume after Year 3. Runoff and groundwater from the Springer Pit will report to the TSF for the life of the mine.

When development ceases in Year 7, the TSF will be drained by pumping the water to Springer Pit to accelerate pit filling.

Another iteration of the water balance was conducted assuming that the seepage, groundwater, and surface runoff that collects in the seepage pond were discharged. Approximately 400,000 m^3 of water was assumed discharged per year. A discharge of 2,000 m^3/day (or approximately 700,000 m^3) is allowed in Mount Polley's present permit for the care and maintenance period. This discharge allowance is no longer valid once operations resume but it may be beneficial to pursue the extension of the discharge permit for during operations. Water quality monitoring of the seepage pond by Mount Polley staff reports consistent water quality from during operations to the present at levels well below those in the present permit. If discharge through the seepage pond were to continue throughout operations, the volume of stored water in the TSF would be reduced, increasing the tailings beach and improving the stability of the facility. The discharge of good quality water would also help maintain the water levels in downstream waterways.

The water balance, including inputs and assumptions, is described in the following sections.

3.0 PROJECT COMPONENTS

The water balance includes water reporting to the main mine components including the open pits, rock disposal sites (RDS), the mill site, and the tailings facility. Figure 1 illustrates the main mine components and watershed areas. The assumed development sequences used for the project water balance are summarized in Tables 2, 3, and 4 for the Tailings Storage Facility (TSF) development, Open Pit development, and Rock Disposal Site (RDS) development.

4.0 HYDROMETEOROLOGY

PRECIPITATION

Precipitation estimates used for the model are presented in Table 5.

Mean annual precipitation for the site was estimated at 740 mm. This value reflects data collected at an on-site weather station and updates a previously estimated mean annual precipitation value of 755 mm used for previous work. Site data was available for May 1997 to December 2003. Precipitation data for the 1997 to 2002 period was available for Horsefly Lake Gruhs Lake and Barkerville, two climatologically similar stations in the area. Average annual precipitation values for the 1998 to 2002 period for the site and nearby stations are presented in Table 6. Also in Table 6 are the long-term average annual precipitation values for Horsefly Lake Gruhs Lake and Barkerville which were used to estimate long term average annual precipitation values for the site. The Horsefly Lake Gruhs Lake station is closer to the Mount Polley site and considered to be more representative of site conditions so the estimate for average annual precipitation generated with this station's data was chosen to represent the site.

A comparison of average monthly precipitation data for the three sites for the 1997 to 2002 period is shown graphically in Figure 2. Figure 3 compares the average monthly % of annual precipitation for these sites. The general pattern for monthly precipitation is similar for all three sites with the exception of the February data. The Mount Polley site data shows an increase in precipitation in February followed by a decrease in March while the other stations show a decrease in precipitation in February. The February Mount Polley site data is considered to be anomalous and the precipitation pattern for the site is assumed to mirror the other stations in the area. Again the Horsefly Lake Gruhs Lake station was chosen to represent the site. Monthly precipitation data for the Horsefly Lake Gruhs Lake station is presented in Table 7 for that station's period of record. The longer term average monthly % of annual precipitation values are also presented in Table 7 and are used for the Mount Polley water balance.

SNOWMELT

All snowfall at the site was considered to melt and contribute to runoff for the months of March to November. Snowfall between December and February was assumed to accumulate as snowpack. The accumulated snow was assumed to melt between March and May with 10% of the snowpack melting in March, 50% in April, and 40% in May. These assumptions were refined by Mount Polley staff based on observations at the mine site.

EVAPORATION

Evaporation data for the site was collected between 1997 and 2003 and is presented in Table 8. This data was compared to the site precipitation data for the same period to see if a correlation between evaporation and precipitation could be developed. No correlation was found for these parameters as illustrated in Figure 4, which plots evaporation against precipitation. The site data was found to closely match the estimates used in previous work so these were maintained for the current water balance.

RUNOFF COEFFICIENTS

Runoff coefficients were developed and calibrated by Mount Polley site staff based on observation and careful record taking on site from 1997 to 2003. Three sets of runoff coefficients were used for the water balance as presented in Table 9. The general runoff coefficients were used for the months of November to February and are estimates from the MTC Drainage Manual – Design Flood Estimates for Small Watersheds (MTO 1984). Freshet runoff coefficients were used for the months of March, April, and May. It was observed that runoff during these months, when the ground was either frozen (in the early period) or water saturated, was being under estimated by the general runoff coefficients for some catchment areas. Runoff coefficients for these areas were set to 100% for the freshet period. Conversely, during the dry summer and early fall months from June through October, it was observed that water from some areas (including the East RDS) was never reporting to the TSF or collection areas and was instead being absorbed into the dry ground or seeping out of the collection ditches. The runoff coefficients for these areas were set to zero for the dry period.

GROUNDWATER INPUT

Groundwater infiltration rates used for the water balance are presented in Table 10. The ultimate groundwater infiltration rate for Bell Pit once the final depth has been reached was estimated at 100 gpm or approximately 17,000 m^3/month. Bell Pit is already partly developed but has accumulated very little water (about 16 million gallons/3 years or 10 gpm) over the last 3 years. 100 gpm was chosen as a conservatively high infiltration rate. The ultimate infiltration rate for Springer Pit was estimated at 240 gpm or approximate 40,600 m^3/month. The ultimate rate for the Wight Pit was estimated at 450 gpm or 76,000 m^3/month because of its proximity to Polley Lake. The infiltration rates used in the water balance can be refined by comparison to pumping rates from the pits once operations resume.

The groundwater inflow to the open pits is assumed to relate to pit depth and therefore to development time. Yearly groundwater inflow rates were estimated using a linear relationship between inflow rate and time. Groundwater infiltration is assumed to be 0 until pit development starts and reaches its ultimate rate in the year development of the pit is concluded.

The Cariboo Pit is already storing water at year 0 so no groundwater infiltration is included for this pit. It is not known if infiltration to or seepage from the pit is actually occurring. The Wight and Bell Pits, which are allowed to flood, are assumed to have a constant groundwater infiltration rate (the ultimate rate) once pit development has finished. In reality, as the pit fills, the groundwater infiltration rate will decline as the seepage gradient into the pit reduces. The final storage volumes for these pits are therefore conservatively high.

5.0 WATER BALANCE RESULTS

BASE CASE OPERATIONS OPTION

The overall water balance is illustrated schematically in Figure 5 with results presented for Years 1, 3, and 7. Year 3 is included because the maximum water surplus is experienced during this year. General assumptions used for the water balance are summarized in Table 11.

By the end of Year 7 approximately 7 million m^3 of water will be stored in the TSF. At closure this water will be routed to the Springer Pit, which will have a capacity to store 18 million m^3 of water, to accelerate pit filling. Runoff from disturbed areas will also be directed to the Springer Pit until the areas are reclaimed. The Springer Pit will have a large storage capacity and will benefit from water inputs to accelerate the filling of the pit. At the end of Year 7 the Cariboo and Bell Pit wills be storing backfilled waste rock with approximately 3 million m^3 of water filling the voids between the rocks. Cariboo Pit has a capacity of approximately 6.2 million m^3 and the Bell Pit has a capacity of approximately 4.1 million m^3. A void ratio of about 30% is assumed. The Springer Pit will contain up to approximately 3.7 million m^3 of water. This is a conservatively high number as it assumes a constant infiltration rate as the pit fills.

It is estimated that approximately 2 million m^3 of storage capacity is available for each meter rise in the tailings pond level. If the TSF is storing 7 million m^3 of water as predicted by the water balance, a rise of about 3.5 m is expected. The increased pond level will result in a larger pond area with more of the beaches inundated by water. The beaches have an average slope of about 1% so water will extend across the beach approximately 350 m horizontally as the pond rises 3.5 m. Sufficient beaches will be maintained upstream of the embankments to prevent any stability concerns. The embankment crest elevation will be adjusted to maintain freeboard requirements for storage of the probable maximum precipitation (PMP) event plus 1 m for wave runup as required by the current permit.

DISCHARGE OPTION

A separate water balance has also been conducted which assumes that the existing water discharge permit is amended to also be applicable when operations recommence. The water balance with discharge assumed from the Main Embankment seepage recycle pond indicates that, approximately 4 million m^3 of water will be stored in the TSF as shown in Figure 6, which presents a schematic of the water balance for Years 1, 3, and 7. It may be beneficial to discharge water through the seepage pond to reduce TSF water storage requirements.

WET AND DRY CONDITION

Dry conditions have been experienced at the mine site in recent years. To ensure that sufficient water was available if a string of dry years were to occur over the mine lifetime, another iteration of the water balance was run assuming an annual precipitation of 595 mm for all 7 years of operations. Results from this model run are presented schematically in Figure 7 for Years 1, 3, and 7. At the end of Year 7, approximately 3.5 million m^3 of water is stored in the TSF indicating that enough water will be available throughout operations. It is extremely unlikely that the annual precipitation at the site will be constant at 595 mm for 7 consecutive years but this represents a worst-case scenario.

The @RISK risk analysis software was used to generate statistical estimates of minimum and maximum water volumes. The water balance was run using the @RISK program with monthly precipitation modeled as a normal distribution. The software used 1000 iterations of different precipitation conditions to generate minimum and maximum values for the water balance. Figure 8 presents the @RISK predictions for dry climatic conditions. An absolute minimum volume of approximately 4.5 million m^3 of water stored in the TSF is predicted for Year 7. Figure 9 presents the @RISK predictions for wet climatic conditions. An absolute maximum volume of approximately 10 million m^3 of water stored in the TSF is predicted for Year 7. Both the minimum and maximum values predicted by at risk are unlikely to occur. The 5% and 95% limits for dry and wet years are also illustrated in Figure 8.

Knight Piésold
CONSULTING

ADDITIONAL WATER SAVINGS

We understand that the Mount Polley Mine will continue to look at ways to further reduce fresh water inputs at the mine site by utilizing pit water to the extent possible. One possibility is to use pit water for the fresh makeup water required in the milling process. By using pit water instead of introducing additional fresh water to the system, approximately 2,000,000 m^3 of water can be prevented from entering the water balance. The TSF would then be storing 2,000,000 m^3 less water than presented in the current water balance.

We trust that this provides you with the information that you require. Please feel free to contact the undersigned if you have any comments or questions.

Yours very truly,
KNIGHT PIESOLD LTD.

Prepared by:

Michelle Hasebe
Michelle Hasebe
Project Engineer

Reviewed by:

K Brouwer
Ken Brouwer, P.Eng.
Managing Director

Encl: Tables and Figures

cc: Art Frye

Knight Piésold CONSULTING

TABLE 1

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT

WATER MANAGEMENT TIMELINE

Print 7/30/2004 16:31
Rev'd 7/30/2004

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 3.xls]Table 1_r0

Year	
0	* Bell Pit is already partly developed * Springer Pit has a small starter pit. * The East RDS is developed to it's ultimate surface area. * The North RDS is partly developed. * The Cariboo Pit is already storing water (2.5 million m^3).
1	* The Bell and Wight Pits are developed. Their ultimate surface area is disturbed. * Development starts on the Northeast RDS. * Waste from the Bell Pit is placed in the Cariboo Pit necessitating some water removal. * Water from the Cariboo Pit is pumped to the Mill and ends up in the TSF for storage (approximately 1.5 million m^3 over 3 years) * Surface runoff and groundwater from the Bell and Wight Pits is pumped to the Mill and ends up in the TSF.
2	* Development of the Springer Pit starts. The ultimate surface area is disturbed. * Development continues on Bell and Wight Pits * Waste from the Bell and Springer Pits is placed in the Cariboo Pit necessitating some water removal. * Water from the Cariboo Pit is pumped to the Mill and ends up in the TSF for storage (approximately 1.5 million m^3 over 3 years) * Surface runoff and groundwater from the Bell, Wight, and Springer Pits is pumped to the Mill and ends up in the TSF
3	*Development of Bell and Wight Pits is completed. * Development of the Northeast RDS is completed. * Waste from the Bell and Springer Pits is placed in the Cariboo Pit necessitating some water removal. * Water from the Cariboo Pit is pumped to the Mill and ends up in the TSF for storage (approximately 1.5 million m^3 over 3 years) * Surface runoff and groundwater from the Bell, Wight and Springer Pits is pumped to the Mill and ends up in the TSF
4	* Development of the Springer Pit continues * Filling of Wight Pit with water commences as groundwater and surface runoff is allowed to accumulate. * Runoff from the Northeast RDS is diverted to the Wight Pit to accelerate pit filling * Waste from the Springer Pit is placed in the Cariboo and Bell Pits * Reclamation of the Northeast RDS is initiated and finished by year end. * Surface runoff and groundwater from the Springer Pit is pumped to the Mill and ends up in the TSF. * Runoff and groundwater from the Bell Pit is no longer pumped to the TSF. Water is allowed to fill the voids in the waste rock.
5	* Development of the Springer Pit continues. * Runoff from the reclaimed Northeast RDS area is not collected. * Surface runoff and groundwater from the Springer Pit is pumped to the Mill and ends up in the TSF.
6	* Development of the Springer Pit continues. * Surface runoff and groundwater from the Springer Pit is pumped to the Mill and ends up in the TSF
7	* Development of the Springer Pit is completed. * Development of the North RDS is completed. * Surface runoff and groundwater from the Springer Pit is pumped to the Mill and ends up in the TSF.
Closure	* The TSF is drained by pumping water to the Springer Pit, accelerating pit filling.

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 2

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY DEVELOPMENT

Print 7/30/2004 16:31

M: 1'01 00001 06 A Data'water balance July 30'[Tables and Figures_rev 0 xls]Table 2_r0

Rev'd 7/28/2004

END OF YEAR	AREAS (ha)				
	UNPREP'D BASIN	BEACH ONLY	POND	POND AND BEACH	TOTAL AREA
t=0	55	80	100	180	235
1	51	74	110	184	235
2	48	67	120	187	235
3	45	60	130	190	235
4	42	58	135	193	235
5	39	56	140	196	235
6	37	53	145	198	235
7	35	50	150	200	235

Notes: 1) Unprep'd Basin = Total Impoundment - Beach (incl. pond)
2) (Pond + Beach) areas for years 0 and 7 taken off the DAC Curve.

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 3

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
OPEN PIT DEVELOPMENT

Print 7/30/2004 16:31

M P01 0000106 A Data water balance July 30[Tables and Figures_rev 0 xls]Table 3_r0 Rev'd 7/28/2004

END OF YEAR	PIT CATCHMENT AREAS (ha)				TOTAL AREA (ha)
	Cariboo	Bell	Springer	Wight	
0	67	6	2	0	75
1	67	17	2	16	102
2	67	17	36	16	136
3	67	17	36	16	136
4	67	17	36	16	136
5	67	17	36	16	136
6	67	17	36	16	136
7	67	17	36	16	136

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 4

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
WASTE DUMP DEVELOPMENT

Print 7/30/2004 16:31
Rev'd 7/28/2004

M:\1\01\00001\06\A\Data\water balance July 30\Tables and Figures_rev 0.xls]Table 4_r0

YEAR	ROCK DISPOSAL SITES (RDS) CATCHMENT AREAS (ha)					
	EAST RDS		NORTH RDS		NORTHEAST RDS	
	DISTURBED	UNDIST'BD	DISTURBED	UNDIST'BD	DISTURBED	UNDIST'BD
0	55	89	5	11	0	0
1	55	89	7	9	15	21
2	55	89	9	7	26	10
3	55	89	11	5	36	0
4	55	89	13	3	36	0
5	55	89	14	2	0	0.0
6	55	89	15	1	0	0.0
7	55	89	16	0	0	0.0

Notes:

1. Assumes that the East RDS is not expanded beyond the present disturbed area. Both disturbed and undisturbed runoff is captured.
2. Assumes staged development of the North RDS over 7 years. Runoff from clean rock stored in the North RDS is monitored and released (not captured
3. Assumes staged development of the Northeast RDS over 3 years. Only runoff from disturbed areas is captured.
4. Assumes the Northeast RDS is reclaimed by year 5 and the water is released. Runoff is routed into Wight Pit for Year 4.

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 5

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

PRECIPITATION AND EVAPORATION ESTIMATES USED FOR THE WATER BALANCE

Print 7/30/2004 16:31

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Table 5_r0

Rev'd 7/30/2004

	% of Annual Precipitation[1]	Average Monthly Precipitation (mm)	Standard Deviation[3]	@RISK Monthly Precipitation (used for Model)	Snowfall[4]	Snowpack[4]	Evaporation[5] (mm)
January	8.6%	63.7	25	64	accumulates		0
February	5.1%	37.7	26	42	accumulates		0
March	4.1%	30.0	8	30	melts	10% melts	0
April	5.4%	40.1	23	42	melts	50% melts	0
May	7.4%	55.1	27	56	melts	40% melts	47
June	15.0%	111.2	38	111	melts		112
July	10.8%	80.1	32	81	melts		107
August	12.2%	90.6	44	93	melts		92
September	6.3%	46.6	19	47	melts		50
October	7.7%	56.9	20	57	melts		15
November	8.6%	63.9	33	66	melts		0
December	8.7%	64.0	30	65	accumulates		0
Average Annual Precipitation[2] (mm)	740			754			
Average Annual Evaporation[5] (mm)	423						

Notes:

1. % of Annual Precipitation estimates are based on long term records from the Horsefly Lake Gruhs Lake Station.
2. Site data was adjusted by comparison with long term records from the Horsefly Lake Gruhs Lake Station.
3. The standard deviation is assumed to be consistent with the Horsefly Lake Gruhs Lake long term data.
4. Assumptions regarding snowmelt were adopted from a previous water balance supplied by Mount Polley Mine.

Rev 0 - Issued to Client

Knight Piésold CONSULTING

TABLE 6

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

AVERAGE ANNUAL PRECIPITATION

Print 7/30/2004 16:31

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures Rev'd 7/16/2004

	Average Annual Precipitation (mm)		
	Period of Site Record	Regional Long Term Average	Site Long Term Average
Mount Polley Site[1]	595	-	-
Horsefly Lake Gruhs Lake[2]	533	664	742
Barkerville[3]	960	1014	629
Likely[4]	na	701	-

Notes:

1. Data was available for the site from May 1997 - December 2003. The average annual value presented here is the average of 1998 - 2002 data.
2. Data for Horsefly Lake Gruhs Lake was available for approximately 20 years between 1950 - 2002 on the Environment Canada web site (http://www.climate.weatheroffice.ec.gc.ca/climateData/canada_e.html). Data was missing for a number of years.
3. Data for Barkerville was available for 1888 to 2002 on the Environment Canada web site. The site long term average value is from the Canadian Climate Normals 1971 - 2000.
4. Data for Likely was available for 1974 -1993 on the Canadian Daily Climate Data CD, Environment Canada. This station's period of record did not overlap with the site period of record so this station could not be used to estimate a long term average for the site.
5. Average annual precipitation values shown for the period of site record provide a comparison between the mine site and nearby weather stations but are not accurate average annual values because data was not available for several months. The averages are therefore based on incomplete data. Only months with data available at all sites were used in the calculation of annual averages for the period of site record values.

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 7

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

PRECIPITATION DATA FOR HORSEFLY LAKE GRUHS LAKE

Latitude: 52° 21' N	Longitude: 121° 21' W	Elevation: 777.00 m
Climate ID: 1093600		

Print 7/30/2004 16 31
Rev'd 7/16/2004

#REF!

	Average Monthly Precipitation												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1952	64.3	43.7	30.5	30.2	51.3	156.2	77.7	48	43.9	47	30.2	11.4	634.4
1953	73.7	21.8	40.1	109	33	118.6	70.1	104.1	44.5	81.5	31.8	42.7	770.9
1954	52.8	34.3	31.2	29	124	162.1	85.9	204	61.5	24.9	51.6	43.2	904.5
1956	41.9	85.1	32.5	16.3	29.7	140.2	57.7	93	34.8	40.6	29.2	93.2	694.2
1957	75.2	35.6	19.1	40.6	62.2	148.8	119.4	101.3	32.5	56.9	66.3	10.7	768.6
1958	72.4	42.4	29.2	19.3	11.7	89.9	4.3	30.2	62.7	21.6	20.6	59.2	463.5
1988	19.5	87.5	24	40.5	71.5	60	47	71.1	51.6	28.8	36.6	84.9	623
1989	80.1	18.6	24.9	12.1	58.2	60.2	71.4	137.8	18.6	46.4	113.2	73.2	714.7
1990	79.8	57.2	21.9	48.2	70.6	106.4	34.4	29.8	10.8	87.4	109.2	118.6	774.3
1991	31.2	25	40.4	22.6	13.6	77	103.2	65.8	45.8	72.2	57.6	52.2	606.6
1992	59.4	5.8	7.4	43.8	39.4	33.8	65.5	45	54.4	46.2	68.8	103.2	572.7
1993	40.4	4.8	32.8	50.4	70.8	104	57	102.4	11.2	42	44.8	44.6	605.2
1994	105.4	65.4	19.4	20.6	50	84.8	51	47.4	58.8	28.4	44.4	33.8	609.4
1995	27	16.6	25	50.2	35.2	73.8	94.8	108.4	30.2	71.8	99	52.4	684.4
1996	78.2	14.6	17.8	39	47.5	57.2	53	77.2	80.2	66.4	120	69.4	720.5
2000	53.2	8.4	30.2	14	47	122.4	95.6	53.8	36.2	60.2	26.2	53	600.2
2001	19.9	10.8	33.4	27.6	27.6	106.2	137.2	67	35.6	47.8	28.6	34.3	576
Average	57	34	27	36	50	100	72	82	42	51	58	58	666
% of annual	8.6%	5.1%	4.1%	5.4%	7.4%	15.0%	10.8%	12.2%	6.3%	7.7%	8.6%	8.7%	100.0%
Standard Deviation	25	26	8	23	27	38	32	44	19	20	33	30	

Note
1. Years with missing or incomplete data were not used. Years with estimated values were used
2. Estimated values

Rev 0 - Issued to Client

Knight Piésold CONSULTING

TABLE 8

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

MONTHLY EVAPORATION

Print 7/30/2004 16:31
Rev'd 7/16/2004

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Table 8_r0

	Monthly Evaporation												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1997	-	-	-	-	47	71	65.7	94.2	51.6	14.9	2.8	0	347.2
1998	0	0	0	0	40	139.9	143.4	144	59	16.7	0	0	543
1999	0	0	0	0	47	105.8	108.9	110	49	26.9	0	0	447.6
2000	0	0	0	0	64.3	105.5	107	92	50	15	0	0	433.8
2001	0	0	0	0	21.5	89.8	103.5	78.8	50	26	0	0	369.6
2002	0	0	0	0	47	98.3	107	92	43.3	22.5	0	0	410.1
2003	0	0	0	0	47	112	145	145	50	15	0	0	514
Average	0	0	0	0	45	103	112	108	50	20	0	0	438
KP Prediction 1995	0	0	0	0	47	112	107	92	50	15	0	0	423

Notes:

1. Site data supplied by Mount Polley Mine.
2. The weather station was down so an estimate is reported.

Rev 0 - Issued to Client

TABLE 9

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
RUNOFF COEFFICIENTS

Print 7/30/2004 16:31

M:\1 01 00001\06\A Data\water balance July 30\[Tables and Figures_rev 0.xls Rev'd 7/28/2004

	Runoff Coefficients		
	General	Freshet	Dry Period
TSF Areas			
Unprepared Basin	0.35	1	0
Tailings Beach	0.9	0.9	0.9
Open Pit Areas	0.5	0.5	0.5
Undisturbed RDS Areas	0.24	1	0
Disturbed RDS Areas	0.60	1	0
Millsite Area	0.50	0.5	0.5
Downstream Tailings Areas	0.7	1	0
Undisturbed Catchment	0.24	0.24	0.24

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 10

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
GROUNDWATER INFILTRATION ESTIMATES

Print 7/30/2004 16:31

=REF! Rev'd 7/30/2004

Year	Groundwater Infiltration Estimates (gpm) Bell	Springer	Wight
0	10	0	0
1	40	0	150
2	70	40	300
3	100	80	450
4	100	120	450
5	100	160	450
6	100	200	450
7	100	240	450

Assumptions:

* The Bell Pit is already partly developed. It has accumulated very little water over the last 3 years (approximately 16 million gallons or 10 gpm). A conservatively high value of 100 gpm is used for this pit's ultimate rate in Year 3. After Year 3 the rate is assumed to be 100 gpm although in actual fact infiltration will slow down as water fills the voids in the backfilled waste rock.

* The Wight Pit will be developed in Year 1. Its ultimate depth will be reached in Year 3. Its ultimate groundwater infiltration rate is assumed to be 450 gpm. After Year 3 the rate is assumed to be 450 gpm although in actual fact infiltration will slow down as the pit fills with water.

* The Springer Pit is developed in Year 2. Its ultimate depth is reached in Year 7. Its ultimate groundwater infiltration rate is assumed to be 240 gpm.

* Groundwater inflow to the pit is assumed to relate to pit depth, and therefore development time, so yearly inflow rates are estimated using a linear relationship between time and inflow rate.

* Groundwater inflitration is assumed to be 0 until pit devlopment commences and then estimated at 100 gpm for Bell Pit, 240 gpm for Springer Pit and 450 gpm for Wight Pit once they are fully developed.

* After Year 3 the Springer Pit and Bell Pit will start accumulating water and the groundwater will no longer effect the TSF volume.

* The Cariboo Pit is already storing water at Year 0. No groundwater infiltration is assumed for this pit as it is not know if infiltration or seepage is occurring.

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 11

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
GENERAL ASSUMPTIONS USED FOR THE WATER BALANCE

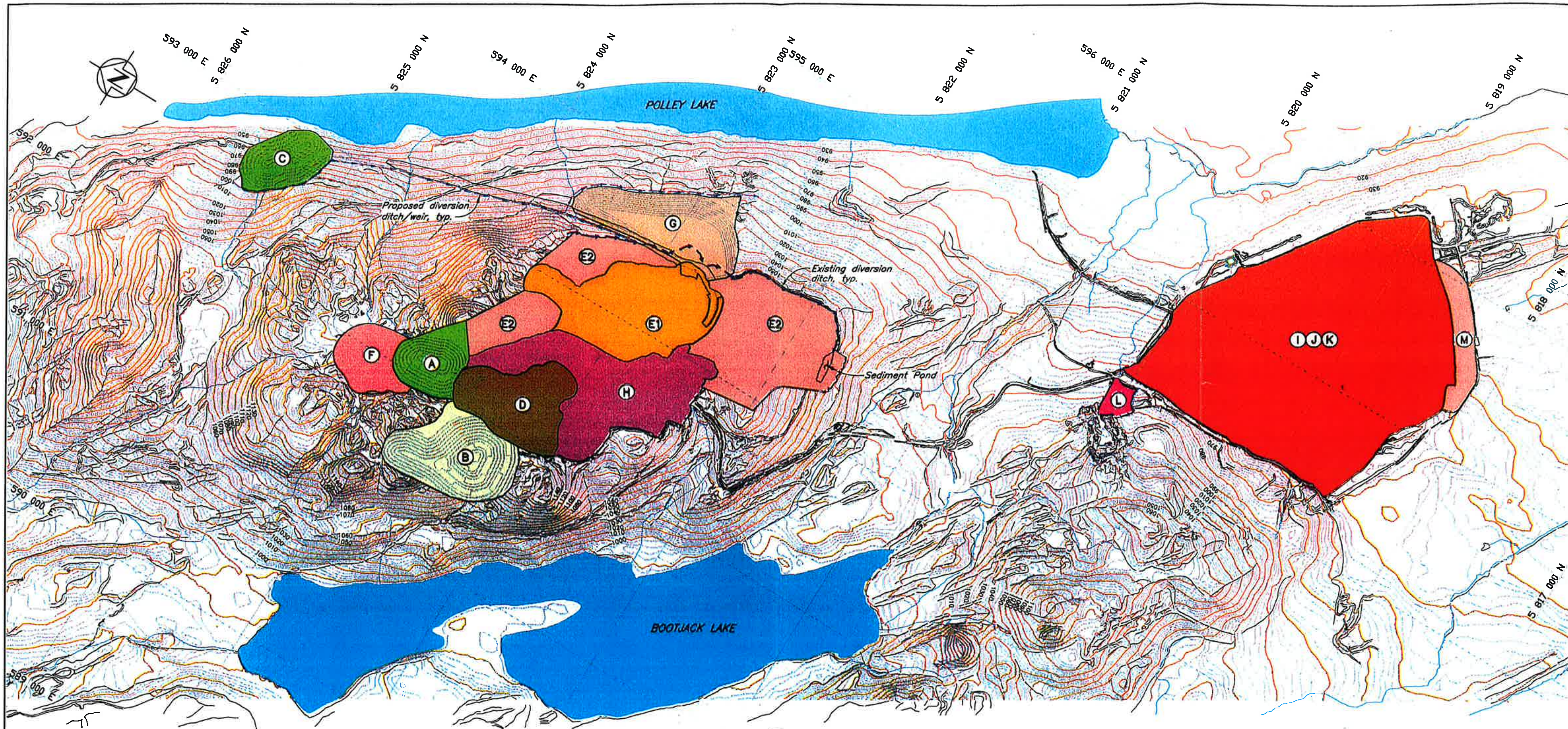
Print 7/30/2004 16:31

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Table 11_r0

Rev'd 7/28/2004

Daily Ore Throughput (tpd)	17,808
Solids Content	35%
Tailings S.G.	2.65
Water Content of Ore	4%
Dry Density (t/m^3)	1.4
Initial Volume TSF (m^3)	2,500,000
Initial Volume Cariboo Pit (m3)	2,500,000
Intitial Volume Wight Pit	0
Initial Volume Bell Pit (m3)	75,000
Minimum Fresh Water Makeup	2.4%
Underdrainage Recovery - Back to TSF (m^3)	0
Groundwater Seepage Loss (m^3/month)	5,840
Total Groundwater and Seepage (m3/month)	35,355

Rev 0 - Issued to Client



CATCHMENT AREAS IN WATER BALANCE FOR FINAL CONFIGURATION		
Catchment Area Description	*Area ID*	*Area (ha)*
PIT AREAS:		
Bell Pit	A	17
Springer Pit	B	36
Wight Pit	C	17
Cariboo Pit	D	31
ROCK DISPOSAL SITE (RDS):		
East RDS – Disturbed	E1	55
East RDS – Undisturbed	E2	86
North RDS	F	16
Northeast RDS	G	38
MILLSITE AREA	H	59
TAILINGS STORAGE FACILITY (TSF):		
Pond Area	I	
Beach Area	J	
Unprepared TSF Area	K	235
Biosolids Stockpile	L	4
Downstream Tailings Area	M	13

REV. 0 | ISSUED FOR CLIENT

MOUNT POLLEY MINING CORPORATION

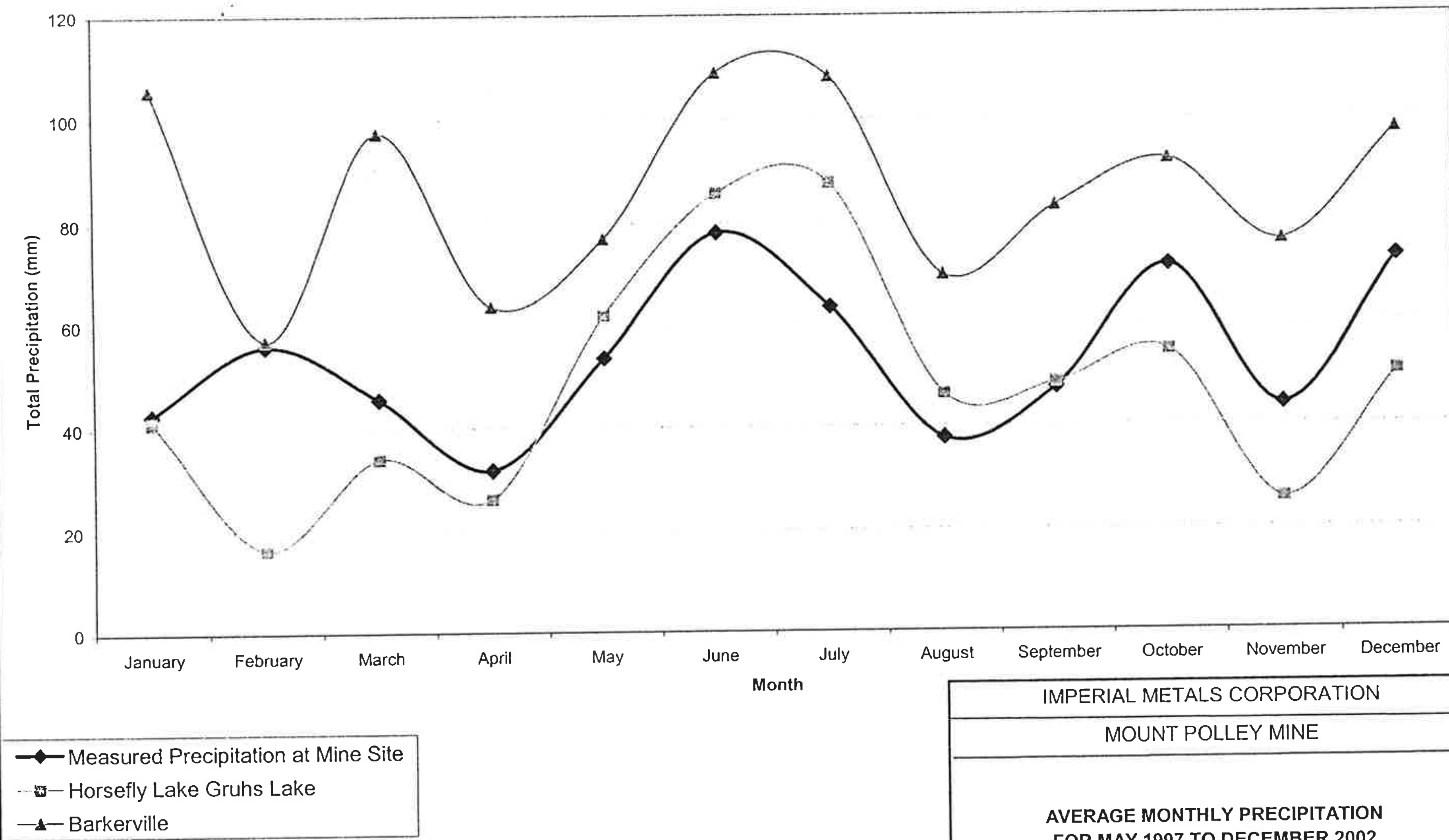
MOUNT POLLEY MINE

MINE COMPONENTS & WATERSHED AREAS USED FOR THE WATER BALANCE

Knight Piésold CONSULTING

PROJECT/ASSIGNMENT NO.	REF. NO.	REV.
VA101-1/6	V4-0816	0

FIGURE 1



Note: 1. Site data supplied by Mount Polley Mine.

IMPERIAL METALS CORPORATION

MOUNT POLLEY MINE

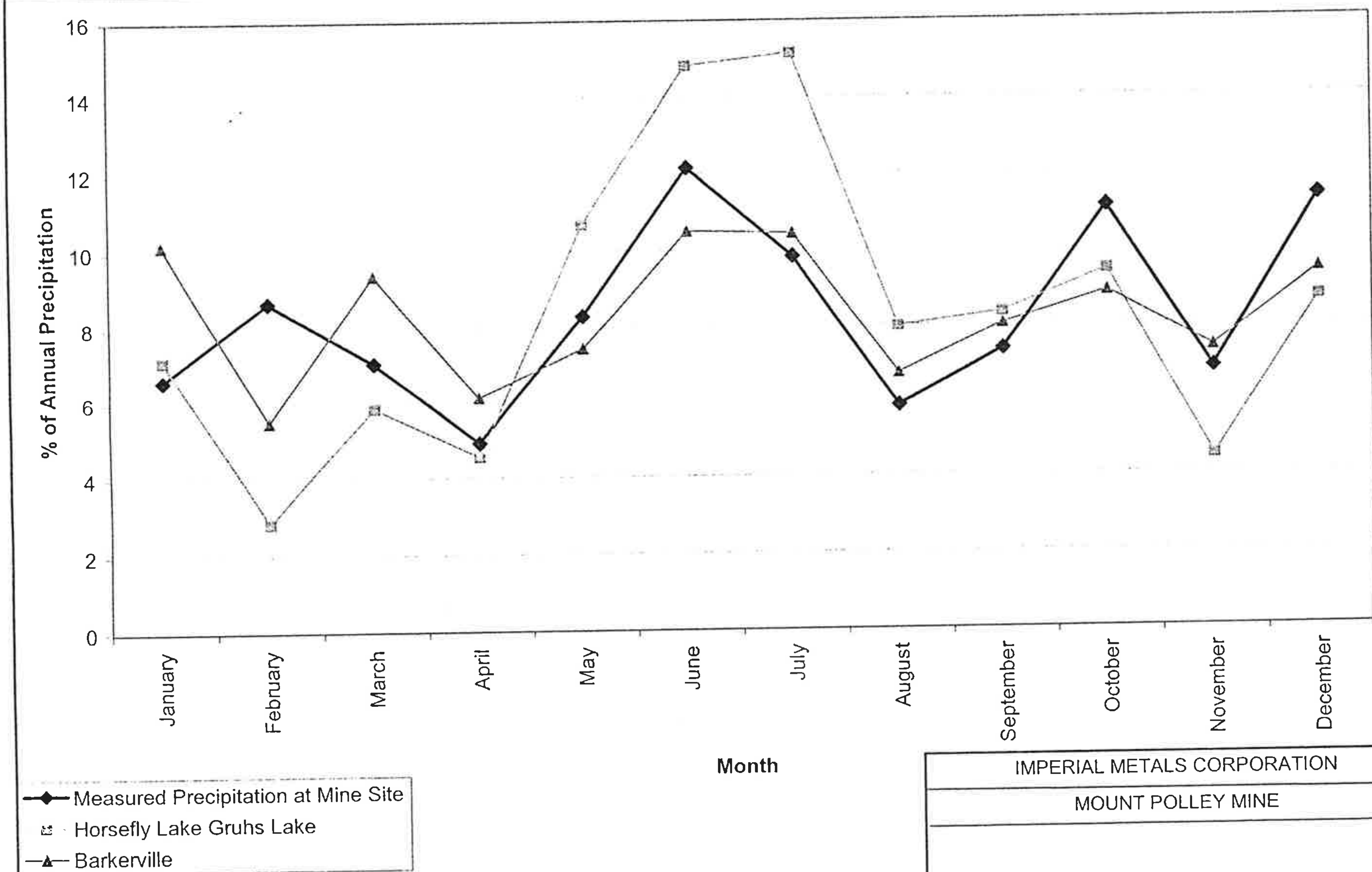
AVERAGE MONTHLY PRECIPITATION FOR MAY 1997 TO DECEMBER 2002

Knight Piésold CONSULTING

PROJECT NO	REF NO	REV
101-1/6	V4-0816	0

FIGURE 2

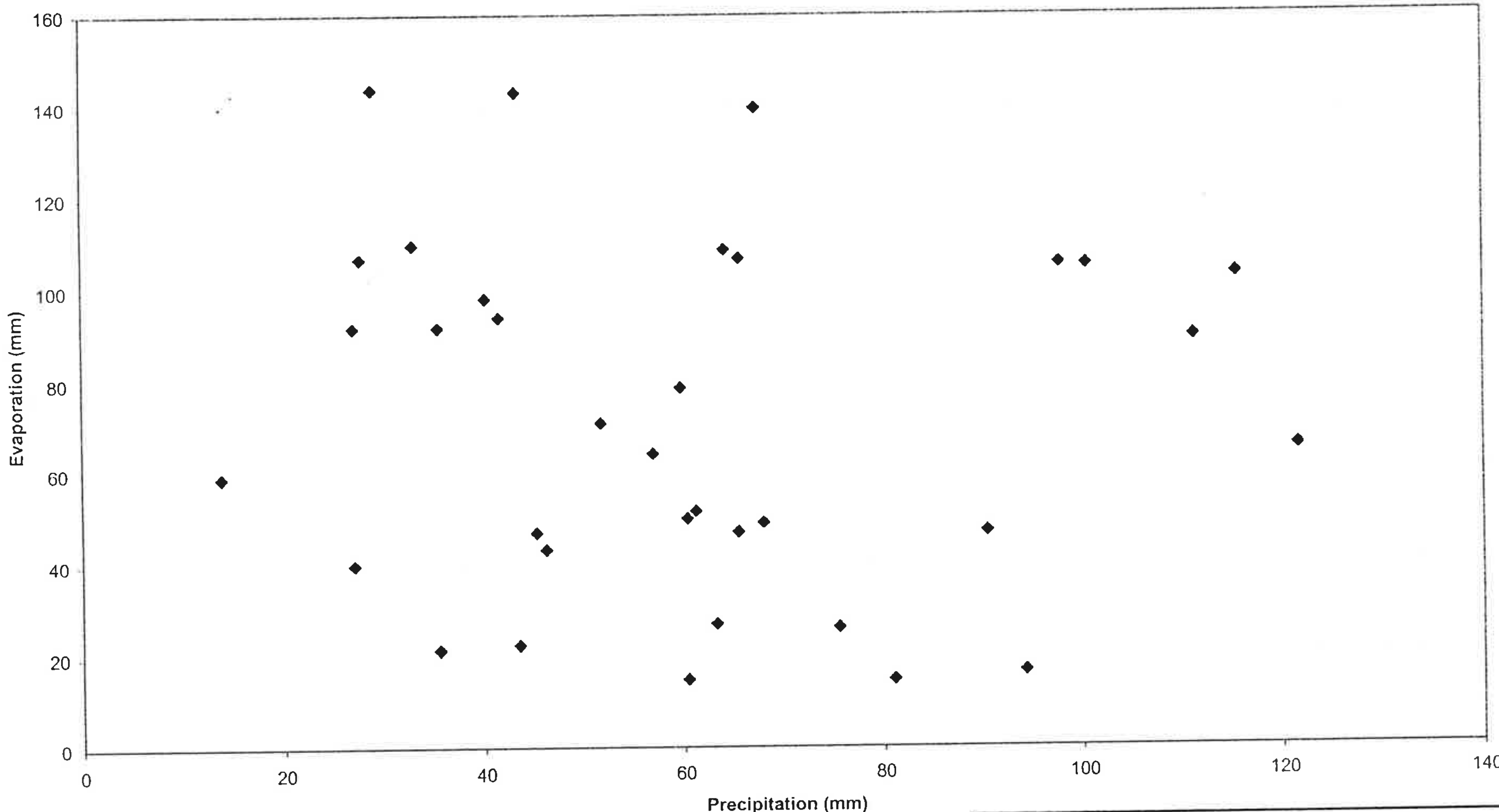
Rev 0 - Issued to Client



Note: 1. Site data supplied by Mount Polley Mine.

IMPERIAL METALS CORPORATION			
MOUNT POLLEY MINE			
MONTHLY % OF ANNUAL PRECIPITATION			
Knight Piésold CONSULTING	PROJECT NO 101-1/6	REF NO V4-0816	REV 0
	FIGURE 3		

Rev 0 - Issued to Client



Note: 1. Data for November to April, when no evaporation is expected, is not included in this gragh.

IMPERIAL METALS CORPORATION

MOUNT POLLEY MINE

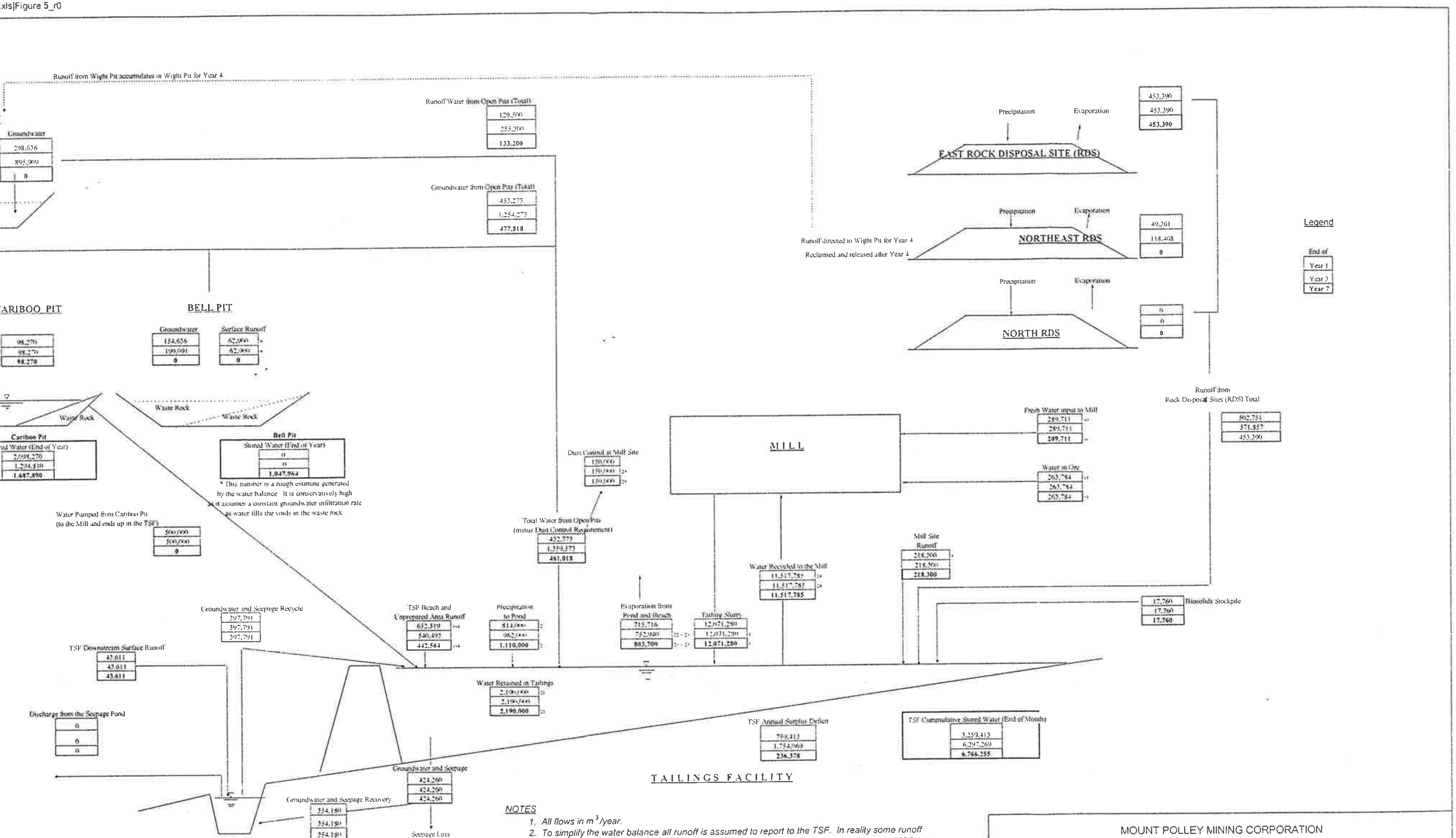
EVAPORATION VS PRECIPITATION
FOR THE SITE (1997 - 2003)

Knight Piésold CONSULTING

PROJECT NO	REF. NO	REV
101-1/6	V4-0816	0

FIGURE 4

Rev 0 - Issued to Client

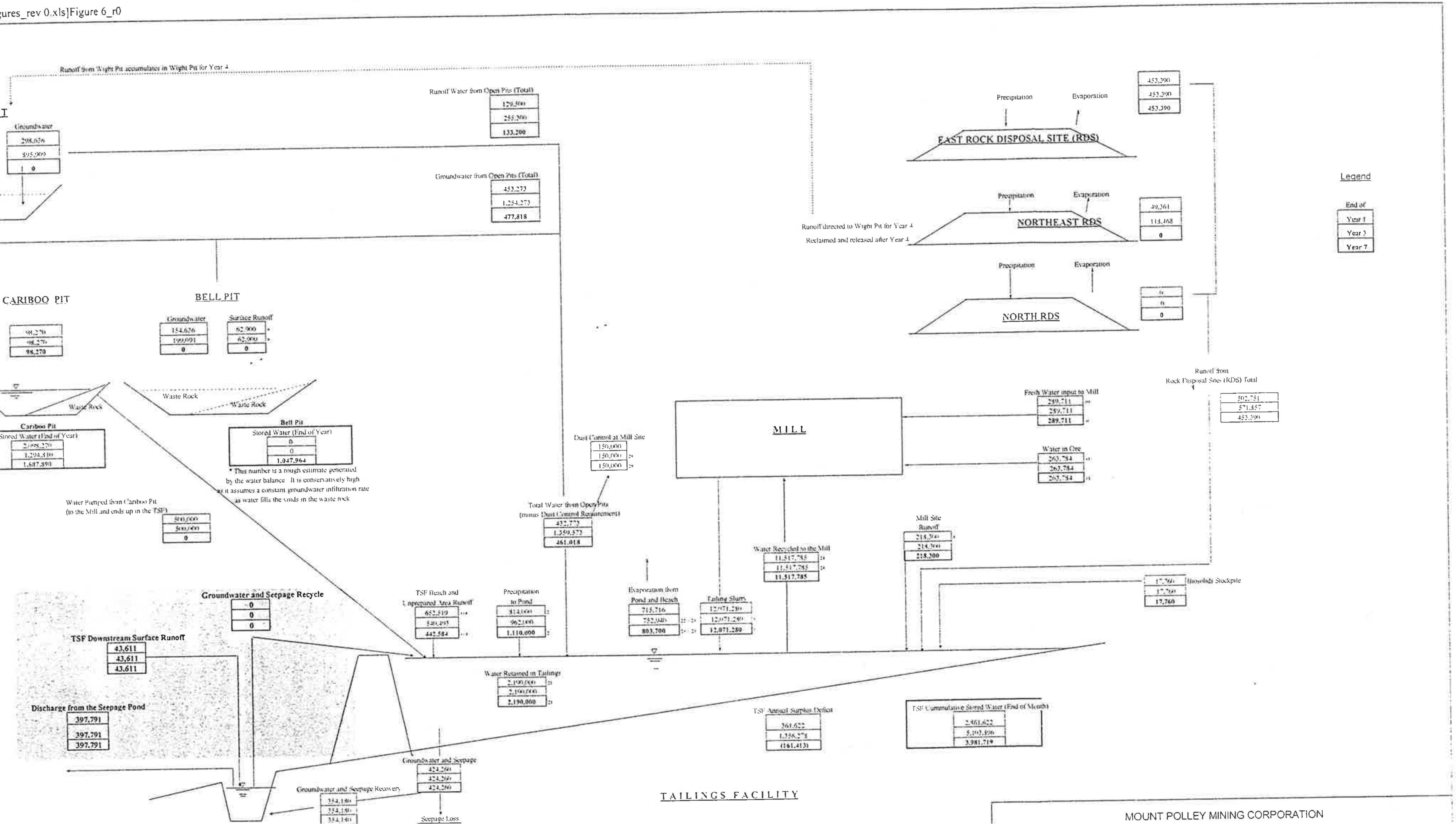


NOTES

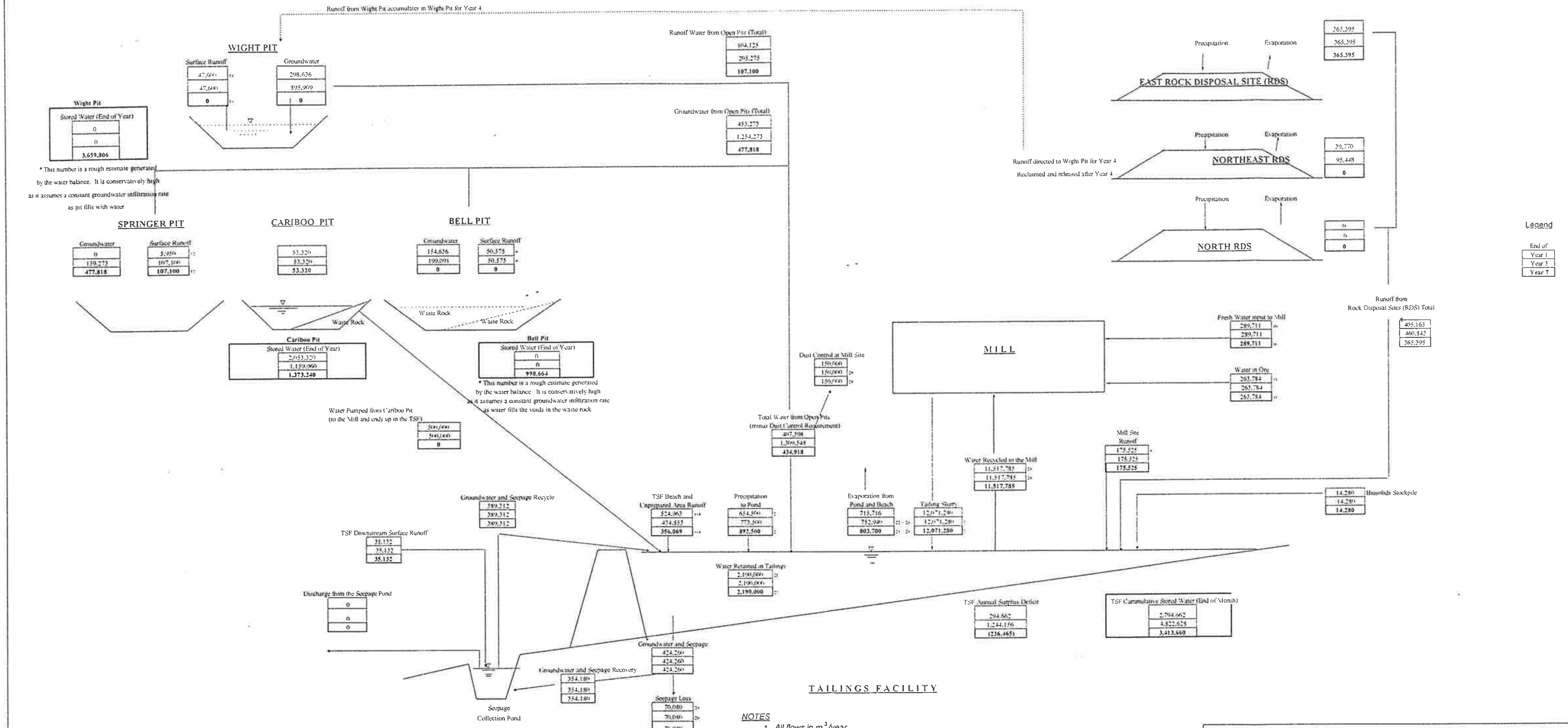
1. *All flows in m³/year.*
2. *To simplify the water balance all runoff is assumed to report to the TSF. In reality some runoff*

MOUNT POLLEY MINING CORPORATION

gures_rev 0.xls]Figure 6_r0



M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Figure 7_r0



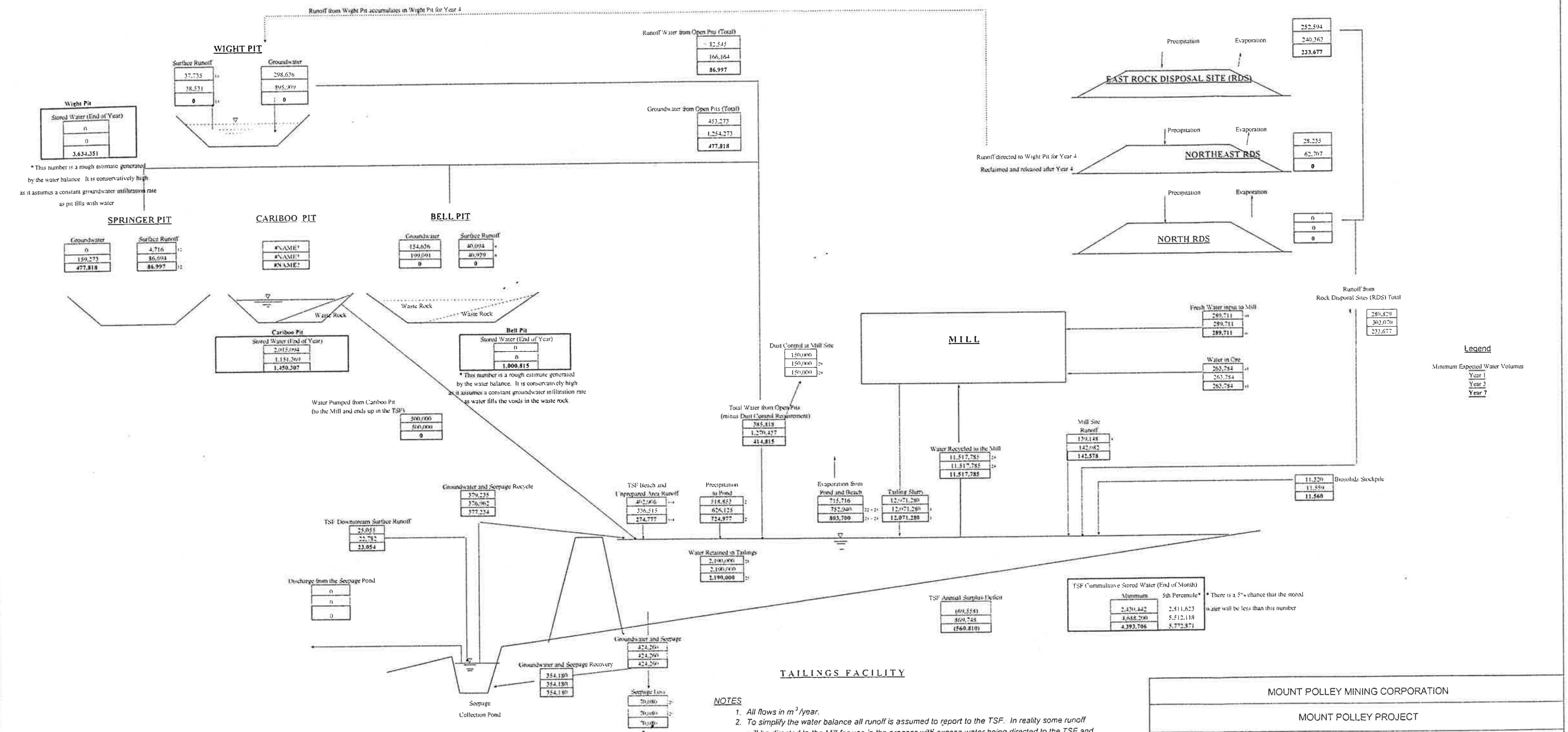
NOTES

1. All flows in m^3/year.
2. To simplify the water balance all runoff is assumed to report to the TSF. In reality some runoff will be directed to the Mill for use in the process,with excess water being directed to the TSF and additional makeup water requirements taken from the TSF.
3. Bell and Wright Pits are completed in Year 3. After Year 3 these Pits are available for the storage of excess TSF water.
4. Year 3 is expected to have the maximum water surplus.
5. **This option assumes 7 dry years (ie. based on actual 2002/3 site records) in succession.**

MOUNT POLLEY MINING CORPORATION	
MOUNT POLLEY PROJECT	
TAILINGS STORAGE FACILITY SCHEMATIC ILLUSTRATION OF WATER BALANCE DRY CONDITIONS WITH NO DISCHARGE OPTION - YEARS 1, 3, AND 7	
Knight Piésold CONSULTING	PROJECT ASSIGNMENT NO. VA101-1/6 REF NO. V4-0816 REV. 0 FIGURE 7

Rev 0 - Issued to Client

M:\1'01\00001'06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Figure 8_r0



NOTES

1. *All flows in m³/year.*
2. *To simplify the water balance all runoff is assumed to report to the TSF. In reality some runoff will be directed to the Mill for use in the process, with excess water being directed to the TSF and additional makeup water requirements taken from the TSF.*
3. *Bell and Wright Pits are completed in Year 3. After Year 3 these Pits are available for the storage of excess TSF water.*
4. *Year 3 is expected to have the maximum water surplus.*
5. ***The @RISK software was used with 1000 iterations to predict Minimum Water Volumes for the water balance (no discharge).***

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
SCHEMATIC ILLUSTRATION OF WATER BALANCE
@RISK ANALYSIS FOR DRY CONDITIONS - YEARS 1, 3, AND 7

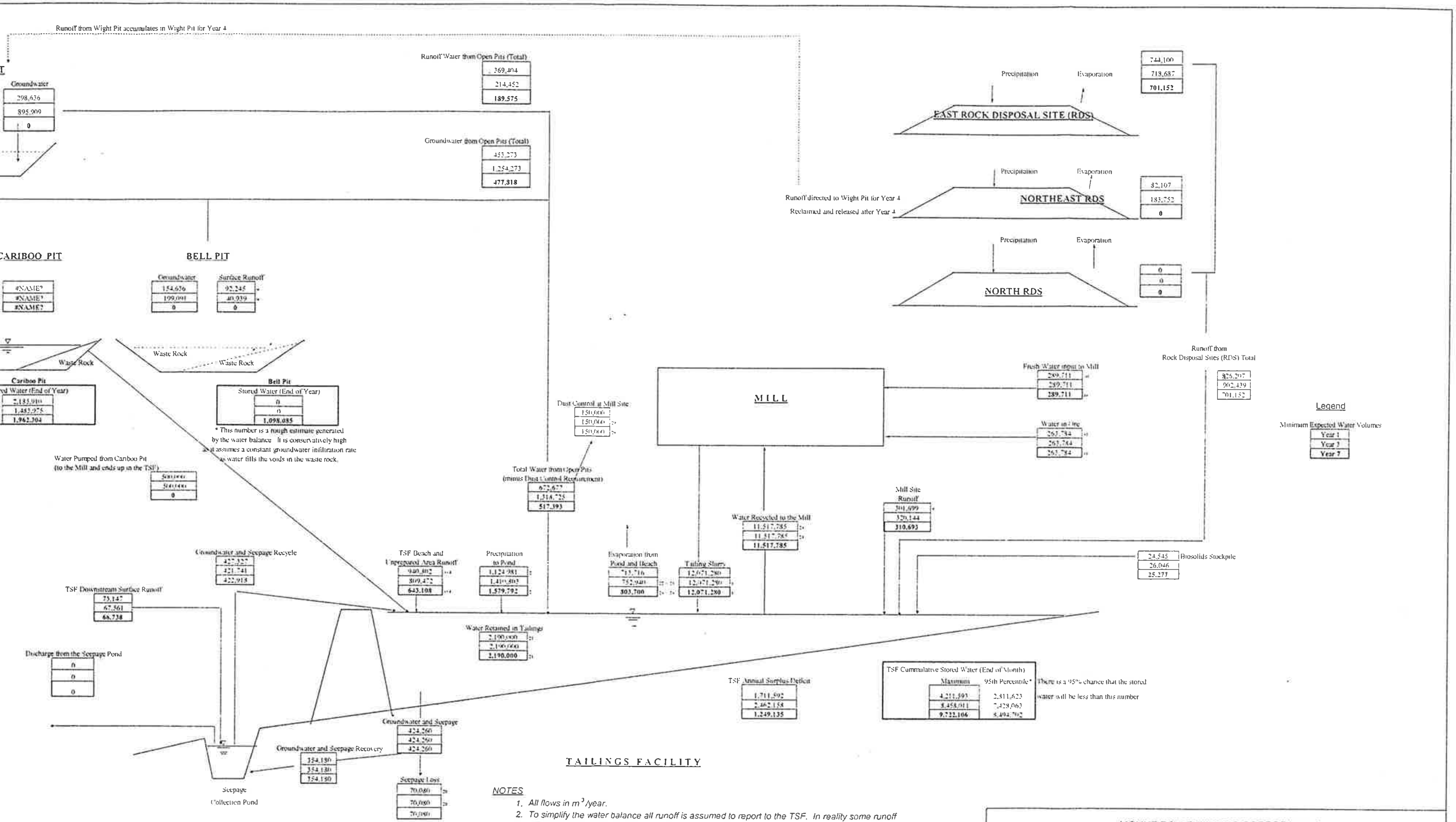
Knight Piésold CONSULTING

PROJECT ASSIGNMENT NO	REF NO	REV
VA101-1/6	V4-0816	0

FIGURE 8

Rev 0 - Issued to Client

] Figures_rev 0.xls]Figure 9_r0



Knight Piésold
CONSULTING

Knight Piésold Ltd.
Suite 1400
750 West Pender Street
Vancouver, British Columbia
Canada V6C 2T8
Telephone: (604) 685-0543
Facsimile: (604) 685-0147
E-mail: vancouver@knightpiesold.com

Our Reference: VA101-1/6-A.01

Continuity No.: V4-0816

July 30, 2004

Mr. Brian Kynoch
Mount Polley Mine
Imperial Metals Corporation
200 - 580 Hornby Street
Vancouver, B.C. V6C 3B6

Dear Brian,

Re: Mount Polley Water Balance

We have developed a water balance for the Mount Polley Mine Site as requested.

1.0 INTRODUCTION

A water balance has been developed for the Mount Polley Mine Site to aid in water management planning and to predict water surplus or deficit volumes after the resumption of operations in 2004. This water balance updates an earlier water balance by adding new development areas (including Springer Pit, Wight Pit, and the Northeast Rock Disposal Site (RDS)), updating precipitation estimates, and modifying other aspects of the balance to match the new mine plan.

The water management plan includes the following objectives:

- To effectively manage the water to minimize the need for regulated discharges to surface water and prevent the need for water removal from Polley Lake.
- To capture and manage all water that has been affected by mine components.
- To divert runoff from undisturbed areas away from the mine site and tailings facility (TSF).
- To store some excess TSF water to be used to accelerate pit filling at closure.
- To drain the TSF at closure by routing the water into the open pits.

Linked water balances have been completed for the assumed 7 years of mine life. The base case water balance assumes average precipitation conditions, a tailings dry density of 1.4 tonnes/m^3, and no discharge of water from the seepage pond.

2.0 WATER MANAGEMENT

Careful water management at the site will ensure that the discharge of TSF water will be minimized and that the removal of water from Polley Lake will not be required. Table 1 summarizes the water management timeline used for the water balance.

For average precipitation conditions a surplus of water will be produced on the site. Water reporting to the Tailings Storage Facility (TSF) includes precipitation and runoff from the TSF catchment, runoff from mine disturbed areas including Rock Disposal Sites (RDS), and groundwater from some of the open pits.

During Years 1 to 3 the Wight and Bell Pits are being developed. All runoff and groundwater from these pits will be directed to the TSF. In addition, water from the Cariboo Pit (500,000 m^3/year for 3 years) will be pumped to the TSF for storage to facilitate mining of the Bell Pit and to make room for the placement of waste rock from the Bell and Springer Pits into Cariboo Pit. "Clean " waste from the Bell Pit will be placed in the North RDS. During Year 2, development of the Springer Pit will commence, adding that pits runoff and groundwater to the tailings facility. At Year 3, the maximum water surplus will occur (approximately 1.5 million m^3 for the base case) as the Wight and Bell Pits are completed and the Northeast Rock Disposal Site (RDS) is fully developed. It is assumed that the maximum groundwater inflow for the pits will occur once the final pit depth is reached in Year 3 and the maximum runoff from the Northeast RDS will also occur in Year 3 once runoff from the entire area is captured and directed to the TSF.

After Year 3, the Wight Pit will be allowed to fill with water. Runoff and groundwater from this pit will therefore no longer be directed to the TSF but will be allowed to accumulate in place. Runoff from the Northeast RDS will be directed to the Wight Pit in Year 4 to accelerate pit filling. Also during Year 4, the Northeast RDS will be reclaimed and the runoff from this area will be released to the environment in subsequent years.

Development of the Springer Pit and North RDS will continue to Year 7. "Clean" waste rock from the Springer Pit will be placed in the North RDS. Runoff from this area is not captured. Other waste from the Springer Pit will be backfilled into the Cariboo and Bell Pits. Water will continue to be pumped from the Cariboo Pit to the TSF until Year 3 to increase the pit's storage capacity for waste rock. Between 1.5 and 2 million m^3 of water will be allowed to remain in the Cariboo Pit to fill the voids in the rock pile. Runoff and groundwater from the Bell Pit will be allowed to accumulate in the Bell Pit to fill the voids in the waste rock. It is expected that an equilibrium will be established over time. Runoff and groundwater from the Bell Pit will no longer contribute to the TSF volume after Year 3. Runoff and groundwater from the Springer Pit will report to the TSF for the life of the mine.

When development ceases in Year 7, the TSF will be drained by pumping the water to Springer Pit to accelerate pit filling.

Another iteration of the water balance was conducted assuming that the seepage, groundwater, and surface runoff that collects in the seepage pond were discharged. Approximately 400,000 m^3 of water was assumed discharged per year. A discharge of 2,000 m^3/day (or approximately 700,000 m^3) is allowed in Mount Polley's present permit for the care and maintenance period. This discharge allowance is no longer valid once operations resume but it may be beneficial to pursue the extension of the discharge permit for during operations. Water quality monitoring of the seepage pond by Mount Polley staff reports consistent water quality from during operations to the present at levels well below those in the present permit. If discharge through the seepage pond were to continue throughout operations, the volume of stored water in the TSF would be reduced, increasing the tailings beach and improving the stability of the facility. The discharge of good quality water would also help maintain the water levels in downstream waterways.

The water balance, including inputs and assumptions, is described in the following sections.

3.0 PROJECT COMPONENTS

The water balance includes water reporting to the main mine components including the open pits, rock disposal sites (RDS), the mill site, and the tailings facility. Figure 1 illustrates the main mine components and watershed areas. The assumed development sequences used for the project water balance are summarized in Tables 2, 3, and 4 for the Tailings Storage Facility (TSF) development, Open Pit development, and Rock Disposal Site (RDS) development.

4.0 HYDROMETEOROLOGY

PRECIPITATION

Precipitation estimates used for the model are presented in Table 5.

Mean annual precipitation for the site was estimated at 740 mm. This value reflects data collected at an on-site weather station and updates a previously estimated mean annual precipitation value of 755 mm used for previous work. Site data was available for May 1997 to December 2003. Precipitation data for the 1997 to 2002 period was available for Horsefly Lake Gruhs Lake and Barkerville, two climatologically similar stations in the area. Average annual precipitation values for the 1998 to 2002 period for the site and nearby stations are presented in Table 6. Also in Table 6 are the long-term average annual precipitation values for Horsefly Lake Gruhs Lake and Barkerville which were used to estimate long term average annual precipitation values for the site. The Horsefly Lake Gruhs Lake station is closer to the Mount Polley site and considered to be more representative of site conditions so the estimate for average annual precipitation generated with this station's data was chosen to represent the site.

A comparison of average monthly precipitation data for the three sites for the 1997 to 2002 period is shown graphically in Figure 2. Figure 3 compares the average monthly % of annual precipitation for these sites. The general pattern for monthly precipitation is similar for all three sites with the exception of the February data. The Mount Polley site data shows an increase in precipitation in February followed by a decrease in March while the other stations show a decrease in precipitation in February. The February Mount Polley site data is considered to be anomalous and the precipitation pattern for the site is assumed to mirror the other stations in the area. Again the Horsefly Lake Gruhs Lake station was chosen to represent the site. Monthly precipitation data for the Horsefly Lake Gruhs Lake station is presented in Table 7 for that station's period of record. The longer term average monthly % of annual precipitation values are also presented in Table 7 and are used for the Mount Polley water balance.

SNOWMELT

All snowfall at the site was considered to melt and contribute to runoff for the months of March to November. Snowfall between December and February was assumed to accumulate as snowpack. The accumulated snow was assumed to melt between March and May with 10% of the snowpack melting in March, 50% in April, and 40% in May. These assumptions were refined by Mount Polley staff based on observations at the mine site.

EVAPORATION

Evaporation data for the site was collected between 1997 and 2003 and is presented in Table 8. This data was compared to the site precipitation data for the same period to see if a correlation between evaporation and precipitation could be developed. No correlation was found for these parameters as illustrated in Figure 4, which plots evaporation against precipitation. The site data was found to closely match the estimates used in previous work so these were maintained for the current water balance.

RUNOFF COEFFICIENTS

Runoff coefficients were developed and calibrated by Mount Polley site staff based on observation and careful record taking on site from 1997 to 2003. Three sets of runoff coefficients were used for the water balance as presented in Table 9. The general runoff coefficients were used for the months of November to February and are estimates from the MTC Drainage Manual – Design Flood Estimates for Small Watersheds (MTO 1984). Freshet runoff coefficients were used for the months of March, April, and May. It was observed that runoff during these months, when the ground was either frozen (in the early period) or water saturated, was being under estimated by the general runoff coefficients for some catchment areas. Runoff coefficients for these areas were set to 100% for the freshet period. Conversely, during the dry summer and early fall months from June through October, it was observed that water from some areas (including the East RDS) was never reporting to the TSF or collection areas and was instead being absorbed into the dry ground or seeping out of the collection ditches. The runoff coefficients for these areas were set to zero for the dry period.

GROUNDWATER INPUT

Groundwater infiltration rates used for the water balance are presented in Table 10. The ultimate groundwater infiltration rate for Bell Pit once the final depth has been reached was estimated at 100 gpm or approximately 17,000 m^3/month. Bell Pit is already partly developed but has accumulated very little water (about 16 million gallons/3 years or 10 gpm) over the last 3 years. 100 gpm was chosen as a conservatively high infiltration rate. The ultimate infiltration rate for Springer Pit was estimated at 240 gpm or approximate 40,600 m^3/month. The ultimate rate for the Wight Pit was estimated at 450 gpm or 76,000 m^3/month because of its proximity to Polley Lake. The infiltration rates used in the water balance can be refined by comparison to pumping rates from the pits once operations resume.

The groundwater inflow to the open pits is assumed to relate to pit depth and therefore to development time. Yearly groundwater inflow rates were estimated using a linear relationship between inflow rate and time. Groundwater infiltration is assumed to be 0 until pit development starts and reaches its ultimate rate in the year development of the pit is concluded.

The Cariboo Pit is already storing water at year 0 so no groundwater infiltration is included for this pit. It is not known if infiltration to or seepage from the pit is actually occurring. The Wight and Bell Pits, which are allowed to flood, are assumed to have a constant groundwater infiltration rate (the ultimate rate) once pit development has finished. In reality, as the pit fills, the groundwater infiltration rate will decline as the seepage gradient into the pit reduces. The final storage volumes for these pits are therefore conservatively high.

5.0 WATER BALANCE RESULTS

BASE CASE OPERATIONS OPTION

The overall water balance is illustrated schematically in Figure 5 with results presented for Years 1, 3, and 7. Year 3 is included because the maximum water surplus is experienced during this year. General assumptions used for the water balance are summarized in Table 11.

By the end of Year 7 approximately 7 million m^3 of water will be stored in the TSF. At closure this water will be routed to the Springer Pit, which will have a capacity to store 18 million m^3 of water, to accelerate pit filling. Runoff from disturbed areas will also be directed to the Springer Pit until the areas are reclaimed. The Springer Pit will have a large storage capacity and will benefit from water inputs to accelerate the filling of the pit. At the end of Year 7 the Cariboo and Bell Pit wills be storing backfilled waste rock with approximately 3 million m^3 of water filling the voids between the rocks. Cariboo Pit has a capacity of approximately 6.2 million m^3 and the Bell Pit has a capacity of approximately 4.1 million m^3. A void ratio of about 30% is assumed. The Springer Pit will contain up to approximately 3.7 million m^3 of water. This is a conservatively high number as it assumes a constant infiltration rate as the pit fills.

It is estimated that approximately 2 million m^3 of storage capacity is available for each meter rise in the tailings pond level. If the TSF is storing 7 million m^3 of water as predicted by the water balance, a rise of about 3.5 m is expected. The increased pond level will result in a larger pond area with more of the beaches inundated by water. The beaches have an average slope of about 1% so water will extend across the beach approximately 350 m horizontally as the pond rises 3.5 m. Sufficient beaches will be maintained upstream of the embankments to prevent any stability concerns. The embankment crest elevation will be adjusted to maintain freeboard requirements for storage of the probable maximum precipitation (PMP) event plus 1 m for wave runup as required by the current permit.

DISCHARGE OPTION

A separate water balance has also been conducted which assumes that the existing water discharge permit is amended to also be applicable when operations recommence. The water balance with discharge assumed from the Main Embankment seepage recycle pond indicates that, approximately 4 million m^3 of water will be stored in the TSF as shown in Figure 6, which presents a schematic of the water balance for Years 1, 3, and 7. It may be beneficial to discharge water through the seepage pond to reduce TSF water storage requirements.

WET AND DRY CONDITION

Dry conditions have been experienced at the mine site in recent years. To ensure that sufficient water was available if a string of dry years were to occur over the mine lifetime, another iteration of the water balance was run assuming an annual precipitation of 595 mm for all 7 years of operations. Results from this model run are presented schematically in Figure 7 for Years 1, 3, and 7. At the end of Year 7, approximately 3.5 million m^3 of water is stored in the TSF indicating that enough water will be available throughout operations. It is extremely unlikely that the annual precipitation at the site will be constant at 595 mm for 7 consecutive years but this represents a worst-case scenario.

The @RISK risk analysis software was used to generate statistical estimates of minimum and maximum water volumes. The water balance was run using the @RISK program with monthly precipitation modeled as a normal distribution. The software used 1000 iterations of different precipitation conditions to generate minimum and maximum values for the water balance. Figure 8 presents the @RISK predictions for dry climatic conditions. An absolute minimum volume of approximately 4.5 million m^3 of water stored in the TSF is predicted for Year 7. Figure 9 presents the @RISK predictions for wet climatic conditions. An absolute maximum volume of approximately 10 million m^3 of water stored in the TSF is predicted for Year 7. Both the minimum and maximum values predicted by at risk are unlikely to occur. The 5% and 95% limits for dry and wet years are also illustrated in Figure 8.

ADDITIONAL WATER SAVINGS

We understand that the Mount Polley Mine will continue to look at ways to further reduce fresh water inputs at the mine site by utilizing pit water to the extent possible. One possibility is to use pit water for the fresh makeup water required in the milling process. By using pit water instead of introducing additional fresh water to the system, approximately 2,000,000 m^3 of water can be prevented from entering the water balance. The TSF would then be storing 2,000,000 m^3 less water than presented in the current water balance.

We trust that this provides you with the information that you require. Please feel free to contact the undersigned if you have any comments or questions.

Yours very truly,
KNIGHT PIESOLD LTD.

Prepared by:

Michelle Hasebe
Michelle Hasebe
Project Engineer

Reviewed by:

K Brouwer
Ken Brouwer, P.Eng.
Managing Director

Encl: Tables and Figures

cc: Art Frye

Knight Piésold CONSULTING

TABLE 1

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT

WATER MANAGEMENT TIMELINE

Print 7/30/2004 16 31
M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Table 1_r0 Rev'd 7/30/2004

Year	
0	* Bell Pit is already partly developed. * Springer Pit has a small starter pit. * The East RDS is developed to it's ultimate surface area. * The North RDS is partly developed. * The Cariboo Pit is already storing water (2.5 million m^3).
1	* The Bell and Wight Pits are developed. Their ultimate surface area is disturbed. * Development starts on the Northeast RDS. * Waste from the Bell Pit is placed in the Cariboo Pit necessitating some water removal. * Water from the Cariboo Pit is pumped to the Mill and ends up in the TSF for storage (approximately 1.5 million m^3 over 3 years) * Surface runoff and groundwater from the Bell and Wight Pits is pumped to the Mill and ends up in the TSF.
2	* Development of the Springer Pit starts. The ultimate surface area is disturbed. * Development continues on Bell and Wight Pits * Waste from the Bell and Springer Pits is placed in the Cariboo Pit necessitating some water removal. * Water from the Cariboo Pit is pumped to the Mill and ends up in the TSF for storage (approximately 1.5 million m^3 over 3 years) * Surface runoff and groundwater from the Bell, Wight, and Springer Pits is pumped to the Mill and ends up in the TSF.
3	*Development of Bell and Wight Pits is completed. * Development of the Northeast RDS is completed. * Waste from the Bell and Springer Pits is placed in the Cariboo Pit necessitating some water removal. * Water from the Cariboo Pit is pumped to the Mill and ends up in the TSF for storage (approximately 1.5 million m^3 over 3 years) * Surface runoff and groundwater from the Bell, Wight and Springer Pits is pumped to the Mill and ends up in the TSF
4	* Development of the Springer Pit continues. * Filling of Wight Pit with water commences as groundwater and surface runoff is allowed to accumulate. * Runoff from the Northeast RDS is diverted to the Wight Pit to accelerate pit filling. * Waste from the Springer Pit is placed in the Cariboo and Bell Pits. * Reclamation of the Northeast RDS is initiated and finished by year end. * Surface runoff and groundwater from the Springer Pit is pumped to the Mill and ends up in the TSF. * Runoff and groundwater from the Bell Pit is no longer pumped to the TSF. Water is allowed to fill the voids in the waste rock.
5	* Development of the Springer Pit continues. * Runoff from the reclaimed Northeast RDS area is not collected. * Surface runoff and groundwater from the Springer Pit is pumped to the Mill and ends up in the TSF.
6	* Development of the Springer Pit continues. * Surface runoff and groundwater from the Springer Pit is pumped to the Mill and ends up in the TSF.
7	* Development of the Springer Pit is completed. * Development of the North RDS is completed. * Surface runoff and groundwater from the Springer Pit is pumped to the Mill and ends up in the TSF.
Closure	* The TSF is drained by pumping water to the Springer Pit, accelerating pit filling.

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 2

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY DEVELOPMENT

Print 7/30/2004 16:31

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Table 2_r0

Rev'd 7/28/2004

END OF YEAR	AREAS (ha)				
	UNPREP'D BASIN	BEACH ONLY	POND	POND AND BEACH	TOTAL AREA
t=0	55	80	100	180	235
1	51	74	110	184	235
2	48	67	120	187	235
3	45	60	130	190	235
4	42	58	135	193	235
5	39	56	140	196	235
6	37	53	145	198	235
7	35	50	150	200	235

Notes: 1) Unprep'd Basin = Total Impoundment - Beach (incl. pond)
2) (Pond + Beach) areas for years 0 and 7 taken off the DAC Curve.

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 3

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
OPEN PIT DEVELOPMENT

Print 7/30/2004 16:31

M .1\01:00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0 xls]Table 3_r0 Rev'd 7/28/2004

END OF YEAR	PIT CATCHMENT AREAS (ha)				TOTAL AREA (ha)
	Cariboo	Bell	Springer	Wight	
0	67	6	2	0	75
1	67	17	2	16	102
2	67	17	36	16	136
3	67	17	36	16	136
4	67	17	36	16	136
5	67	17	36	16	136
6	67	17	36	16	136
7	67	17	36	16	136

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 4

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
WASTE DUMP DEVELOPMENT

Print 7/30/2004 16 31

M:\1\01\00001\06\A\Data water balance July 30\[Tables and Figures_rev 0.xls]Table 4_r0

Rev'd 7/28/2004

YEAR	ROCK DISPOSAL SITES (RDS) CATCHMENT AREAS (ha)					
	EAST RDS		NORTH RDS		NORTHEAST RDS	
	DISTURBED	UNDIST'BD	DISTURBED	UNDIST'BD	DISTURBED	UNDIST'BD
0	55	89	5	11	0	0
1	55	89	7	9	15	21
2	55	89	9	7	26	10
3	55	89	11	5	36	0
4	55	89	13	3	36	0
5	55	89	14	2	0	0.0
6	55	89	15	1	0	0.0
7	55	89	16	0	0	0.0

Notes:

1. Assumes that the East RDS is not expanded beyond the present disturbed area. Both disturbed and undisturbed runoff is captured.
2. Assumes staged development of the North RDS over 7 years. Runoff from clean rock stored in the North RDS is monitored and released (not captured
3. Assumes staged development of the Northeast RDS over 3 years. Only runoff from disturbed areas is captured.
4. Assumes the Northeast RDS is reclaimed by year 5 and the water is released. Runoff is routed into Wight Pit for Year 4.

Rev 0 - Issued to Client

Knight Piésold CONSULTING

TABLE 5

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

PRECIPITATION AND EVAPORATION ESTIMATES USED FOR THE WATER BALANCE

Print 7/30/2004 16:31

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Table 5_r0 Rev'd 7/30/2004

	% of Annual Precipitation[1]	Average Monthly Precipitation (mm)	Standard Deviation[3]	@RISK Monthly Precipitation (used for Model)	Snowfall[4]	Snowpack[4]	Evaporation[5] (mm)
January	8.6%	63.7	25	64	accumulates		0
February	5.1%	37.7	26	42	accumulates		0
March	4.1%	30.0	8	30	melts	10% melts	0
April	5.4%	40.1	23	42	melts	50% melts	0
May	7.4%	55.1	27	56	melts	40% melts	47
June	15.0%	111.2	38	111	melts		112
July	10.8%	80.1	32	81	melts		107
August	12.2%	90.6	44	93	melts		92
September	6.3%	46.6	19	47	melts		50
October	7.7%	56.9	20	57	melts		15
November	8.6%	63.9	33	66	melts		0
December	8.7%	64.0	30	65	accumulates		0
Average Annual Precipitation[2] (mm)	740			754			
Average Annual Evaporation[5] (mm)	423						

Notes:

1. % of Annual Precipitation estimates are based on long term records from the Horsefly Lake Gruhs Lake Station.
2. Site data was adjusted by comparison with long term records from the Horsefly Lake Gruhs Lake Station.
3. The standard deviation is assumed to be consistent with the Horsefly Lake Gruhs Lake long term data.
4. Assumptions regarding snowmelt were adopted from a previous water balance supplied by Mount Polley Mine.

Rev 0 - Issued to Client

Knight Piésold CONSULTING

TABLE 6

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

AVERAGE ANNUAL PRECIPITATION

Print 7/30/2004 16:31

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures

Rev'd 7/16/2004

	Average Annual Precipitation (mm)		
	Period of Site Record	Regional Long Term Average	Site Long Term Average
Mount Polley Site[1]	595	-	-
Horsefly Lake Gruhs Lake[2]	533	664	742
Barkerville[3]	960	1014	629
Likely[4]	na	701	-

Notes:

1. Data was available for the site from May 1997 - December 2003. The average annual value presented here is the average of 1998 - 2002 data.
2. Data for Horsefly Lake Gruhs Lake was available for approximately 20 years between 1950 - 2002 on the Environment Canada web site (http://www.climate.weatheroffice.ec.gc.ca/climateData/canada_e.html). Data was missing for a number of years.
3. Data for Barkerville was available for 1888 to 2002 on the Environment Canada web site. The site long term average value is from the Canadian Climate Normals 1971 - 2000.
4. Data for Likely was available for 1974 -1993 on the Canadian Daily Climate Data CD, Environment Canada. This station's period of record did not overlap with the site period of record so this station could not be used to estimate a long term average for the site.
5. Average annual precipitation values shown for the period of site record provide a comparison between the mine site and nearby weather stations but are not accurate average annual values because data was not available for several months. The averages are therefore based on incomplete data. Only months with data available at all sites were used in the calculation of annual averages for the period of site record values.

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 7

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

PRECIPITATION DATA FOR HORSEFLY LAKE GRUHS LAKE

Latitude: 52° 21' N   Longitude: 121° 21' W   Elevation: 777.00 m
Climate ID: 1093600

Print 7/30/2004 16 31

#REF!

Rev'd 7/16/2004

	Average Monthly Precipitation												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1952	64.3	43.7	30.5	30.2	51.3	156.2	77.7	48	43.9	47	30.2	11.4	634.4
1953	73.7	21.8	40.1	109	33	118.6	70.1	104.1	44.5	81.5	31.8	42.7	770.9
1954	52.8	34.3	31.2	29	124	162.1	85.9	204	61.5	24.9	51.6	43.2	904.5
1956	41.9	85.1	32.5	16.3	29.7	140.2	57.7	93	34.8	40.6	29.2	93.2	694.2
1957	75.2	35.6	19.1	40.6	62.2	148.8	119.4	101.3	32.5	56.9	66.3	10.7	768.6
1958	72.4	42.4	29.2	19.3	11.7	89.9	4.3	30.2	62.7	21.6	20.6	59.2	463.5
1988	19.5	87.5	24	40.5	71.5	60	47	71.1	51.6	28.8	36.6	84.9	623
1989	80.1	18.6	24.9	12.1	58.2	60.2	71.4	137.8	18.6	46.4	113.2	73.2	714.7
1990	79.8	57.2	21.9	48.2	70.6	106.4	34.4	29.8	10.8	87.4	109.2	118.6	774.3
1991	31.2	25	40.4	22.6	13.6	77	103.2	65.8	45.8	72.2	57.6	52.2	606.6
1992	59.4	5.8	7.4	43.8	39.4	33.8	65.5	45	54.4	46.2	68.8	103.2	572.7
1993	40.4	4.8	32.8	50.4	70.8	104	57	102.4	11.2	42	44.8	44.6	605.2
1994	105.4	65.4	19.4	20.6	50	84.8	51	47.4	58.8	28.4	44.4	33.8	609.4
1995	27	16.6	25	50.2	35.2	73.8	94.8	108.4	30.2	71.8	99	52.4	684.4
1996	78.2	14.6	17.8	39	47.5	57.2	53	77.2	80.2	66.4	120	69.4	720.5
2000	53.2	8.4	30.2	14	47	122.4	95.6	53.8	36.2	60.2	26.2	53	600.2
2001	19.9	10.8	33.4	27.6	27.6	106.2	137.2	67	35.6	47.8	28.6	34.3	576
Average	57	34	27	36	50	100	72	82	42	51	58	58	666
% of annual	8.6%	5.1%	4.1%	5.4%	7.4%	15.0%	10.8%	12.2%	6.3%	7.7%	8.6%	8.7%	100.0%
Standard Deviation	25	26	8	23	27	38	32	44	19	20	33	30	

Note
1 Years with missing or incomplete data were not used   Years with estimated values were used
2. Estimated values

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 8

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

MONTHLY EVAPORATION

Print 7/30/2004 16:31
Rev'd 7/16/2004

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Table 8_r0

	Monthly Evaporation												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1997	-	-	-	-	47	71	65.7	94.2	51.6	14.9	2.8	0	347.2
1998	0	0	0	0	40	139.9	143.4	144	59	16.7	0	0	543
1999	0	0	0	0	47	105.8	108.9	110	49	26.9	0	0	447.6
2000	0	0	0	0	64.3	105.5	107	92	50	15	0	0	433.8
2001	0	0	0	0	21.5	89.8	103.5	78.8	50	26	0	0	369.6
2002	0	0	0	0	47	98.3	107	92	43.3	22.5	0	0	410.1
2003	0	0	0	0	47	112	145	145	50	15	0	0	514
Average	0	0	0	0	45	103	112	108	50	20	0	0	438
KP Prediction 1995	0	0	0	0	47	112	107	92	50	15	0	0	423

Notes:

1. Site data supplied by Mount Polley Mine.
2. The weather station was down so an estimate is reported.

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 9

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
RUNOFF COEFFICIENTS

Print 7/30/2004 16:31

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0 xls Rev'd 7/28/2004

	Runoff Coefficients		
	General	Freshet	Dry Period
TSF Areas			
Unprepared Basin	0.35	1	0
Tailings Beach	0.9	0.9	0.9
Open Pit Areas	0.5	0.5	0.5
Undisturbed RDS Areas	0.24	1	0
Disturbed RDS Areas	0.60	1	0
Millsite Area	0.50	0.5	0.5
Downstream Tailings Areas	0.7	1	0
Undisturbed Catchment	0.24	0.24	0.24

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 10

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
GROUNDWATER INFILTRATION ESTIMATES

Print 7/30/2004 16:31

#REF! Rev'd 7/30/2004

Year	Groundwater Infiltration Estimates (gpm) Bell	Springer	Wight
0	10	0	0
1	40	0	150
2	70	40	300
3	100	80	450
4	100	120	450
5	100	160	450
6	100	200	450
7	100	240	450

Assumptions:

* The Bell Pit is already partly developed. It has accumulated very little water over the last 3 years (approximately 16 million gallons or 10 gpm). A conservatively high value of 100 gpm is used for this pit's ultimate rate in Year 3. After Year 3 the rate is assumed to be 100 gpm although in actual fact infiltration will slow down as water fills the voids in the backfilled waste rock.

* The Wight Pit will be developed in Year 1. Its ultimate depth will be reached in Year 3. Its ultimate groundwater infiltration rate is assumed to be 450 gpm. After Year 3 the rate is assumed to be 450 gpm although in actual fact infiltration will slow down as the pit fills with water.

* The Springer Pit is developed in Year 2. Its ultimate depth is reached in Year 7. Its ultimate groundwater infiltration rate is assumed to be 240 gpm.

* Groundwater inflow to the pit is assumed to relate to pit depth, and therefore development time, so yearly inflow rates are estimated using a linear relationship between time and inflow rate.

* Groundwater inflitration is assumed to be 0 until pit devlopment commences and then estimated at 100 gpm for Bell Pit, 240 gpm for Springer Pit and 450 gpm for Wight Pit once they are fully developed.

* After Year 3 the Springer Pit and Bell Pit will start accumulating water and the groundwater will no longer effect the TSF volume.

* The Cariboo Pit is already storing water at Year 0. No groundwater infiltration is assumed for this pit as it is not know if infiltration or seepage is occurring.

Rev 0 - Issued to Client

Knight Piésold
CONSULTING

TABLE 11

MOUNT POLLEY MINING CORPORATION
MT. POLLEY PROJECT
GENERAL ASSUMPTIONS USED FOR THE WATER BALANCE

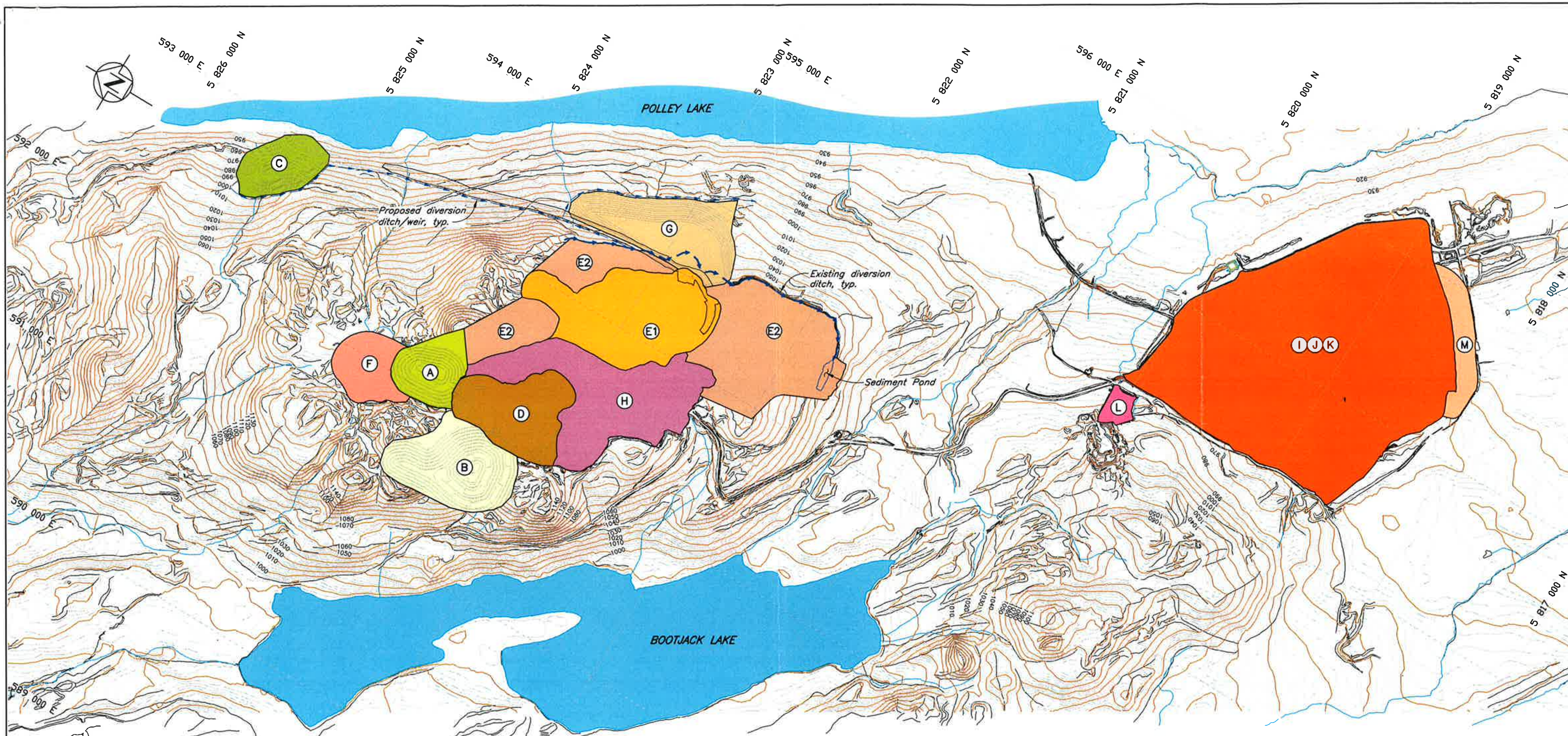
Print 7/30/2004 16:31

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0 xls]Table 11_r0

Rev'd 7/28/2004

Daily Ore Throughput (tpd)	17,808
Solids Content	35%
Tailings S.G.	2.65
Water Content of Ore	4%
Dry Density (t/m^3)	1.4
Initial Volume TSF (m^3)	2,500,000
Initial Volume Cariboo Pit (m3)	2,500,000
Intitial Volume Wight Pit	0
Initial Volume Bell Pit (m3)	75,000
Minimum Fresh Water Makeup	2.4%
Underdrainage Recovery - Back to TSF (m^3)	0
Groundwater Seepage Loss (m^3/month)	5,840
Total Groundwater and Seepage (m3/month)	35,355

Rev 0 - Issued to Client



CATCHMENT AREAS IN WATER BALANCE FOR FINAL CONFIGURATION		
Catchment Area Description	*Area ID*	*Area (ha)*
PIT AREAS:		
Bell Pit	A	17
Springer Pit	B	36
Wight Pit	C	17
Cariboo Pit	D	31
ROCK DISPOSAL SITE (RDS):		
East RDS – Disturbed	E1	55
East RDS – Undisturbed	E2	86
North RDS	F	16
Northeast RDS	G	38
MILLSITE AREA	H	59
TAILINGS STORAGE FACILITY (TSF):		
Pond Area	I	
Beach Area	J	
Unprepared TSF Area	K	235
Biosolids Stockpile	L	4
Downstream Tailings Area	M	13

Scale 250 0 250 500 750 1000 1250 m

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

MINE COMPONENTS & WATERSHED AREAS USED FOR THE WATER BALANCE

Knight Piésold CONSULTING

PROJECT/ASSIGNMENT NO.	REF. NO.	REV.
VA101-1/6	V4-0816	0

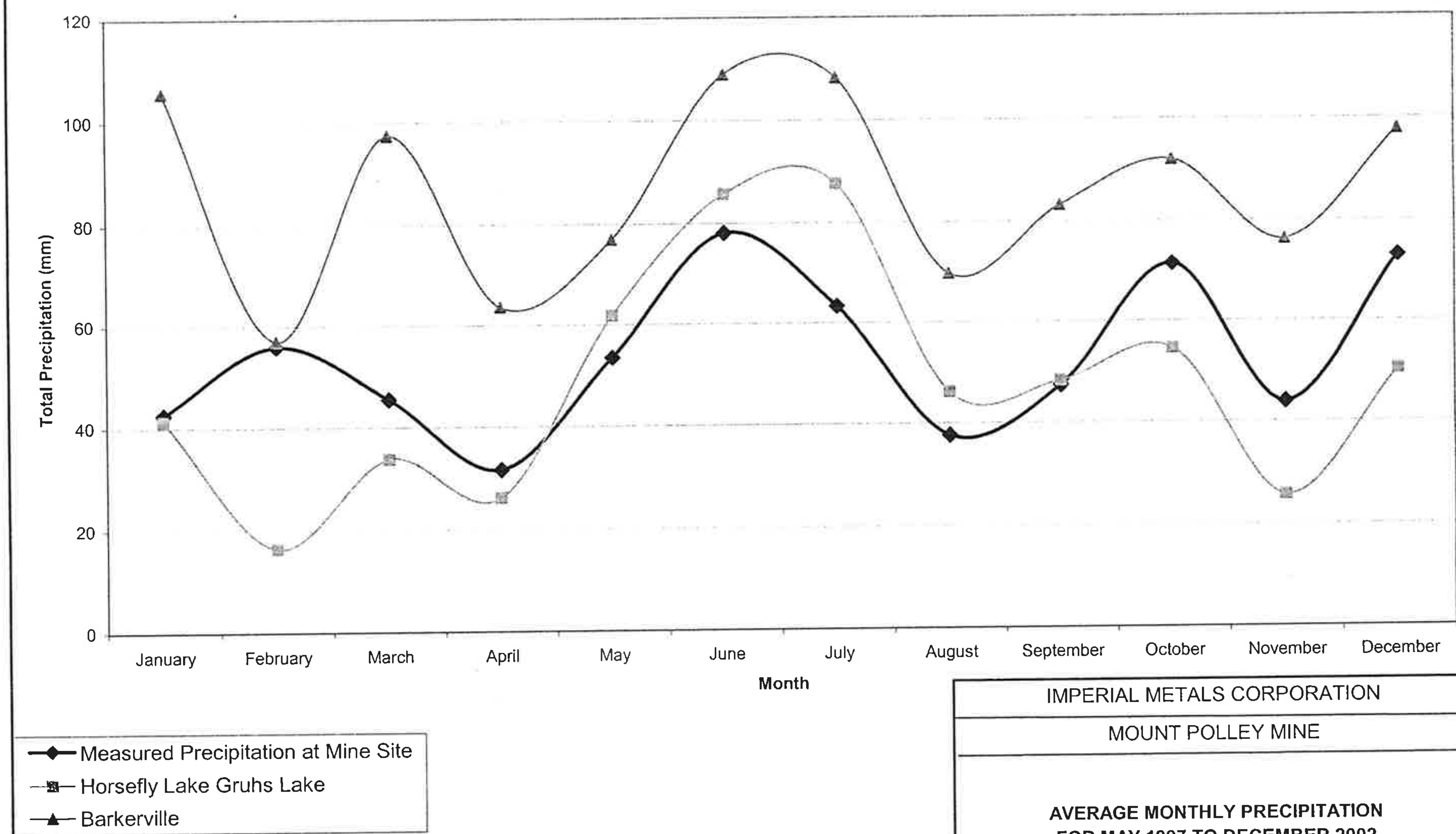
FIGURE 1

REV'D JULY 30 2004

VANCOUVER B.C.

XREF FILE : -

REV. 0	ISSUED FOR CLIENT



Note: 1. Site data supplied by Mount Polley Mine.

IMPERIAL METALS CORPORATION

MOUNT POLLEY MINE

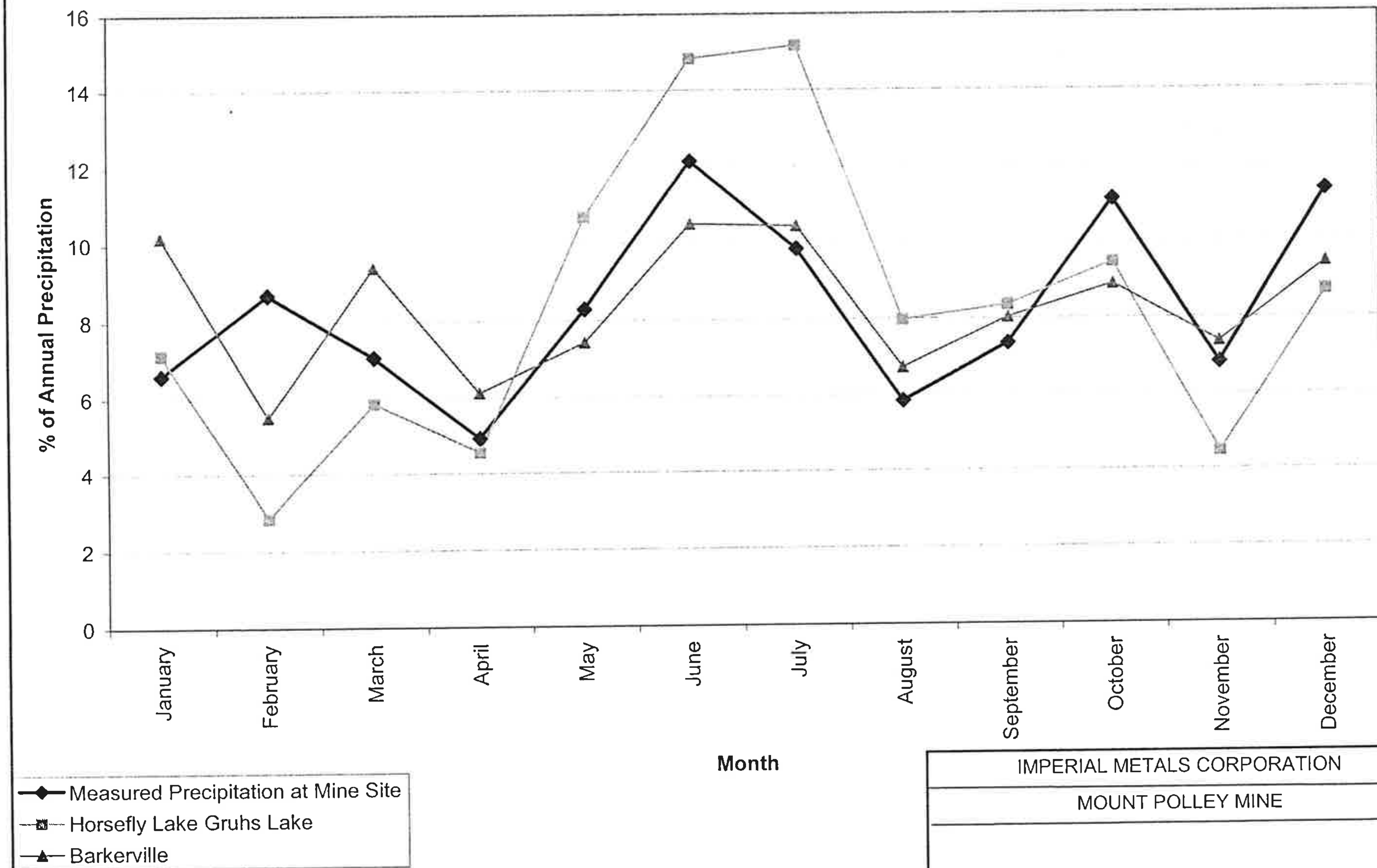
AVERAGE MONTHLY PRECIPITATION FOR MAY 1997 TO DECEMBER 2002

Knight Piésold CONSULTING

PROJECT NO	REF. NO	REV
101-1/6	V4-0816	0

FIGURE 2

Rev 0 - Issued to Client



Note: 1. Site data supplied by Mount Polley Mine.

IMPERIAL METALS CORPORATION

MOUNT POLLEY MINE

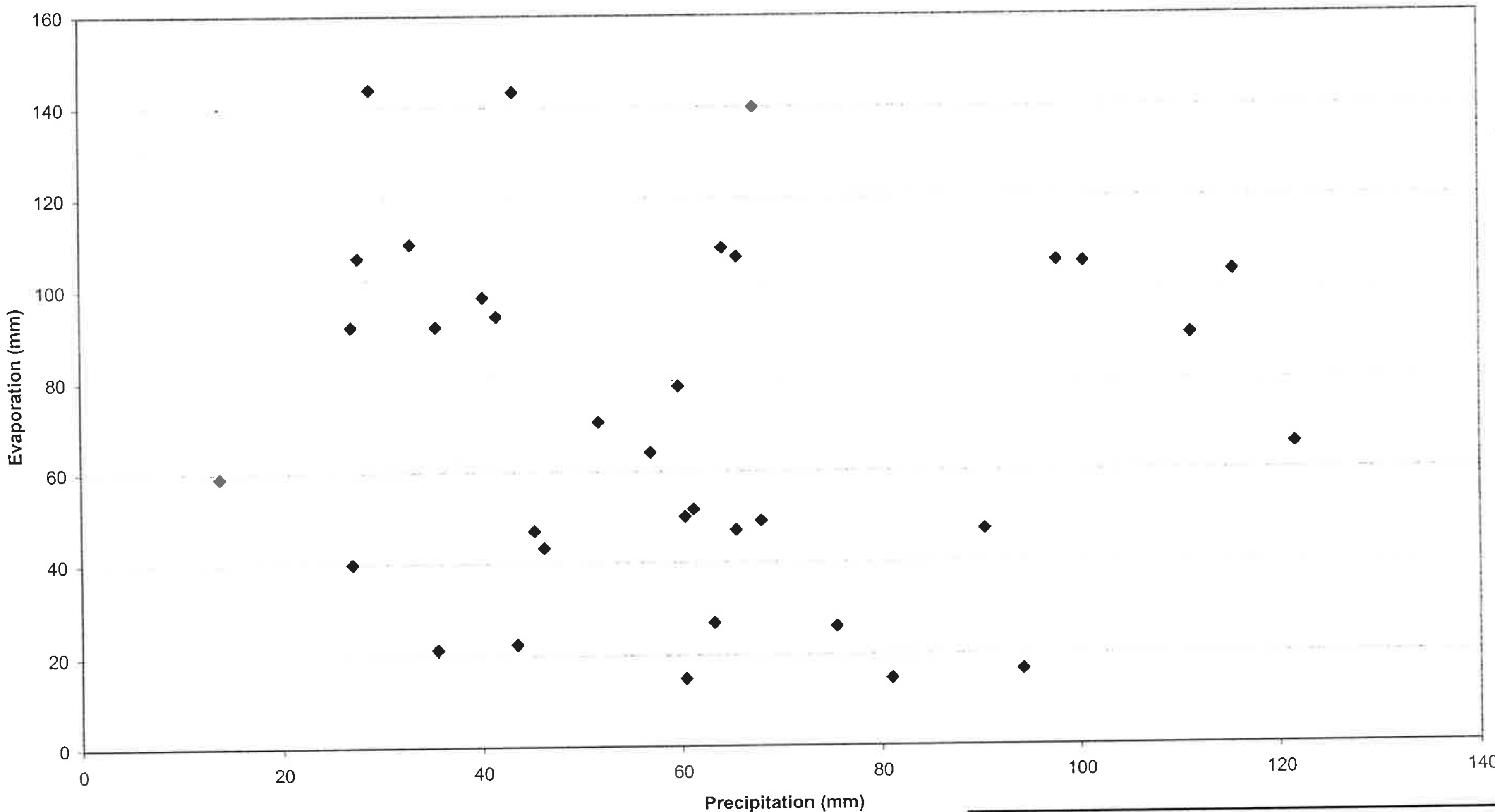
MONTHLY % OF ANNUAL PRECIPITATION

Knight Piésold CONSULTING

PROJECT NO	REF NO	REV
101-1/6	V4-0816	0

FIGURE 3

Rev 0 - Issued to Client

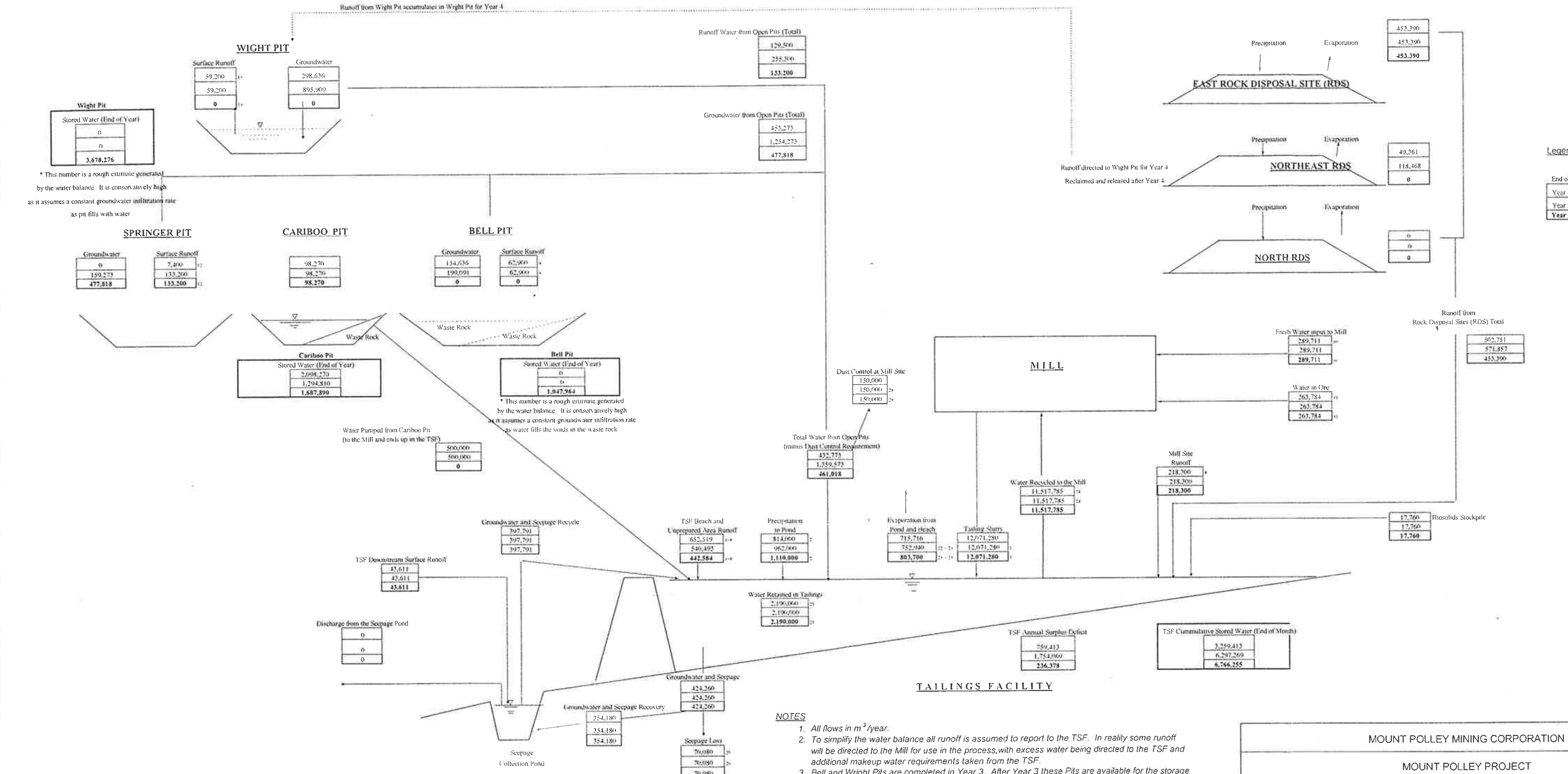


Note: 1. Data for November to April, when no evaporation is expected, is not included in this gragh.

IMPERIAL METALS CORPORATION			
MOUNT POLLEY MINE			
EVAPORATION VS PRECIPITATION FOR THE SITE (1997 - 2003)			
Knight Piésold CONSULTING	PROJECT NO 101-1/6	REF NO V4-0816	REV 0
	FIGURE 4		

Rev 0 - Issued to Client

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Figure 5_r0



NOTES

1. All flows in m^3/year.
2. To simplify the water balance all runoff is assumed to report to the TSF. In reality some runoff will be directed to the Mill for use in the process, with excess water being directed to the TSF and additional makeup water requirements taken from the TSF.
3. Bell and Wright Pits are completed in Year 3. After Year 3 these Pits are available for the storage of excess TSF water.
4. Year 3 is expected to have the maximum water surplus.

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
SCHEMATIC ILLUSTRATION OF WATER BALANCE
BASE CASE OPERATIONS OPTION - YEARS 1, 3, AND 7

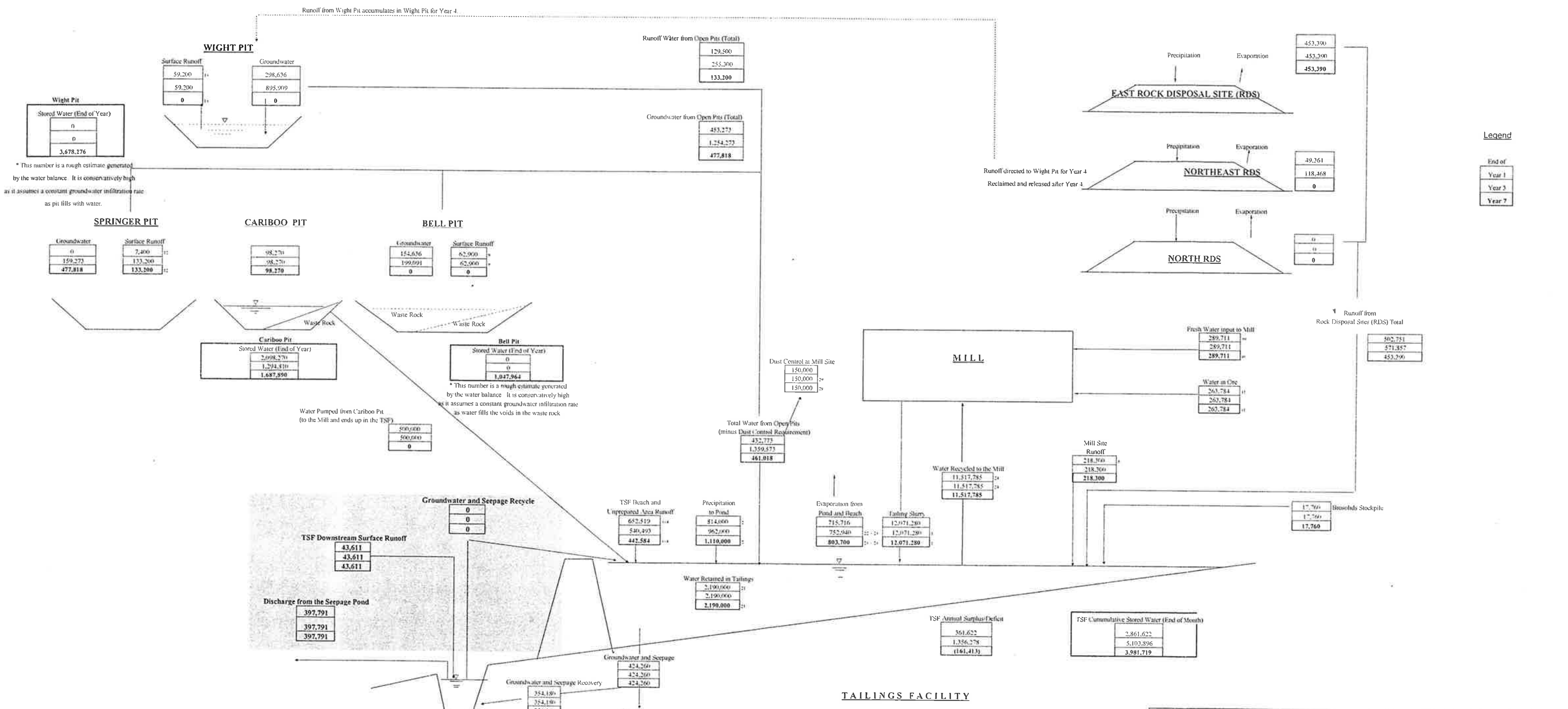
Knight Piésold CONSULTING

PROJECT ASSIGNMENT NO VA101-1/6 | REF NO V4-0816 | REV 0

FIGURE 5

Rev 0 - Issued to Client

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Figure 6_r0



NOTES

1. *All flows in m^3/year.*
2. *To simplify the water balance all runoff is assumed to report to the TSF. In reality some runoff will be directed to the Mill for use in the process, with excess water being directed to the TSF and additional makeup water requirements taken from the TSF.*
3. *Bell and Wright Pits are completed in Year 3. After Year 3 these Pits are available for the storage of excess TSF water.*
4. *Year 3 is expected to have the maximum water surplus.*

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
SCHEMATIC ILLUSTRATION OF WATER BALANCE
DISCHARGE OPTION - YEARS 1, 3, AND 7

Knight Piésold
CONSULTING

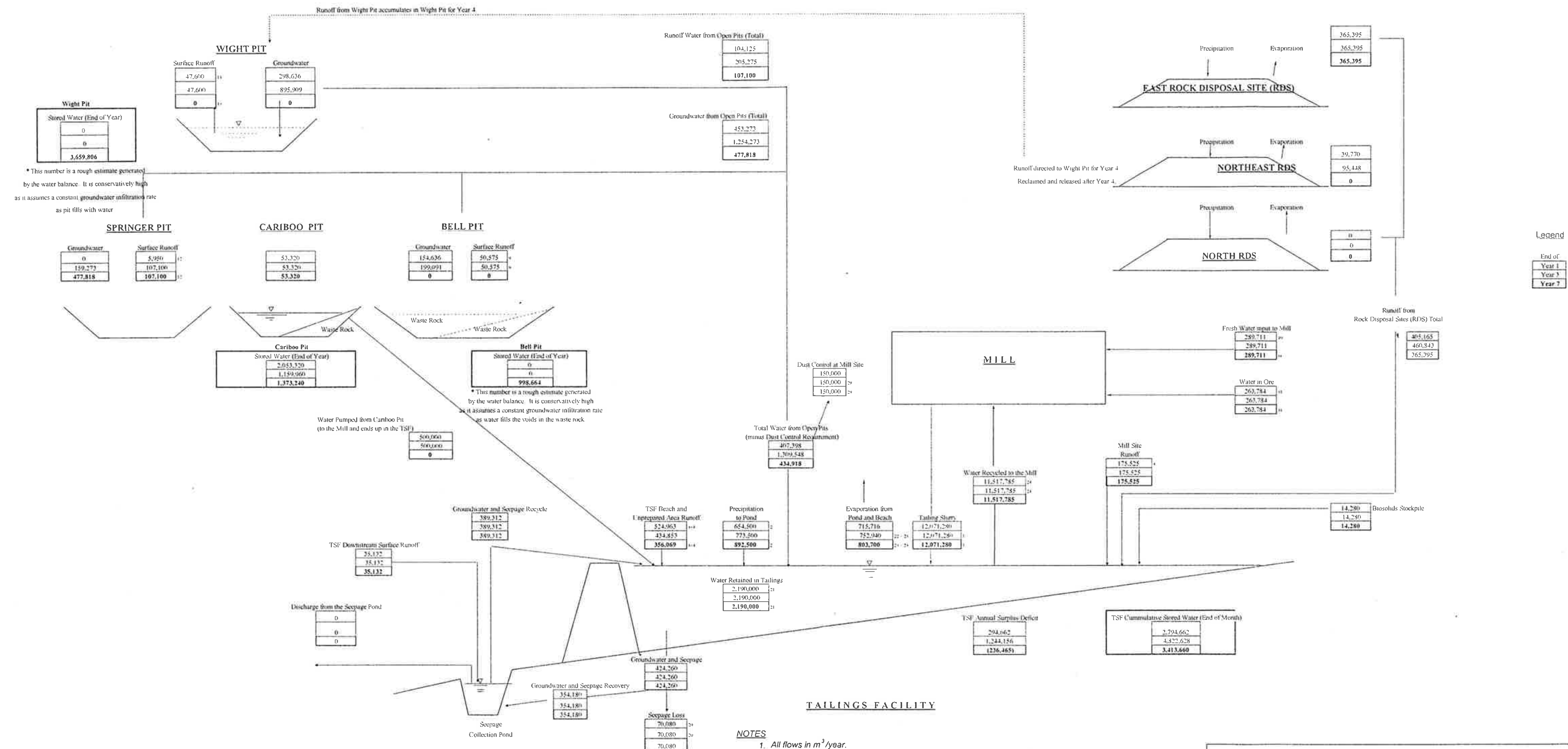
PROJECT ASSIGNMENT NO: VA101-1/6

REF NO: V4-0816

REV: 0

FIGURE 6

Rev 0 - Issued to Client



NOTES

1. *All flows in m^3/year.*
2. *To simplify the water balance all runoff is assumed to report to the TSF. In reality some runoff will be directed to the Mill for use in the process, with excess water being directed to the TSF and additional makeup water requirements taken from the TSF*
3. *Bell and Wright Pits are completed in Year 3. After Year 3 these Pits are available for the storage of excess TSF water.*
4. *Year 3 is expected to have the maximum water surplus.*
5. ***This option assumes 7 dry years (ie. based on actual 2002/3 site records) in succession.***

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
SCHEMATIC ILLUSTRATION OF WATER BALANCE
DRY CONDITIONS WITH NO DISCHARGE OPTION
- YEARS 1, 3, AND 7

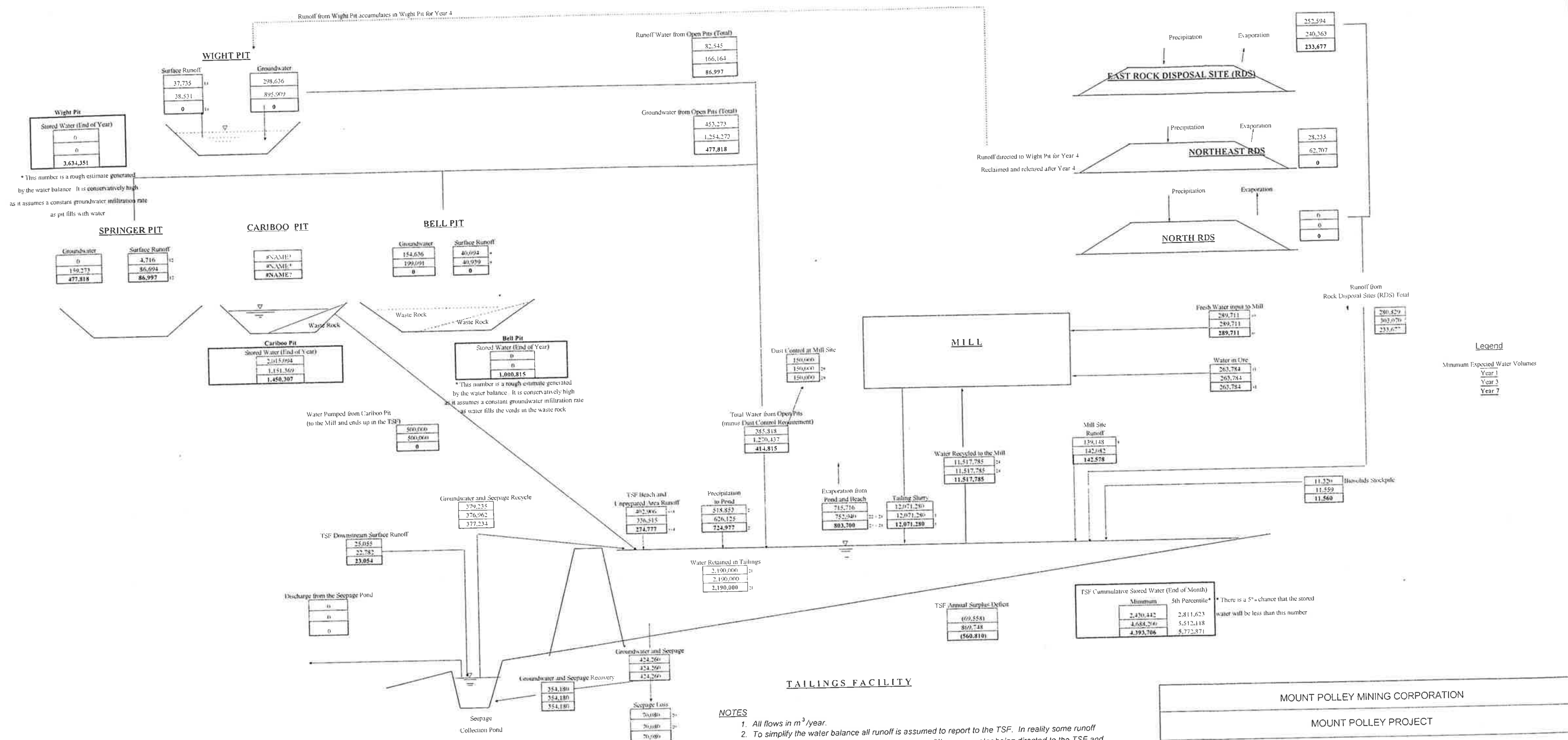
Knight Piésold CONSULTING

PROJECT ASSIGNMENT NO. VA101-1/6 | REF NO. V4-0816 | REV 0

FIGURE 7

Rev 0 - Issued to Client

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Figure 8_r0



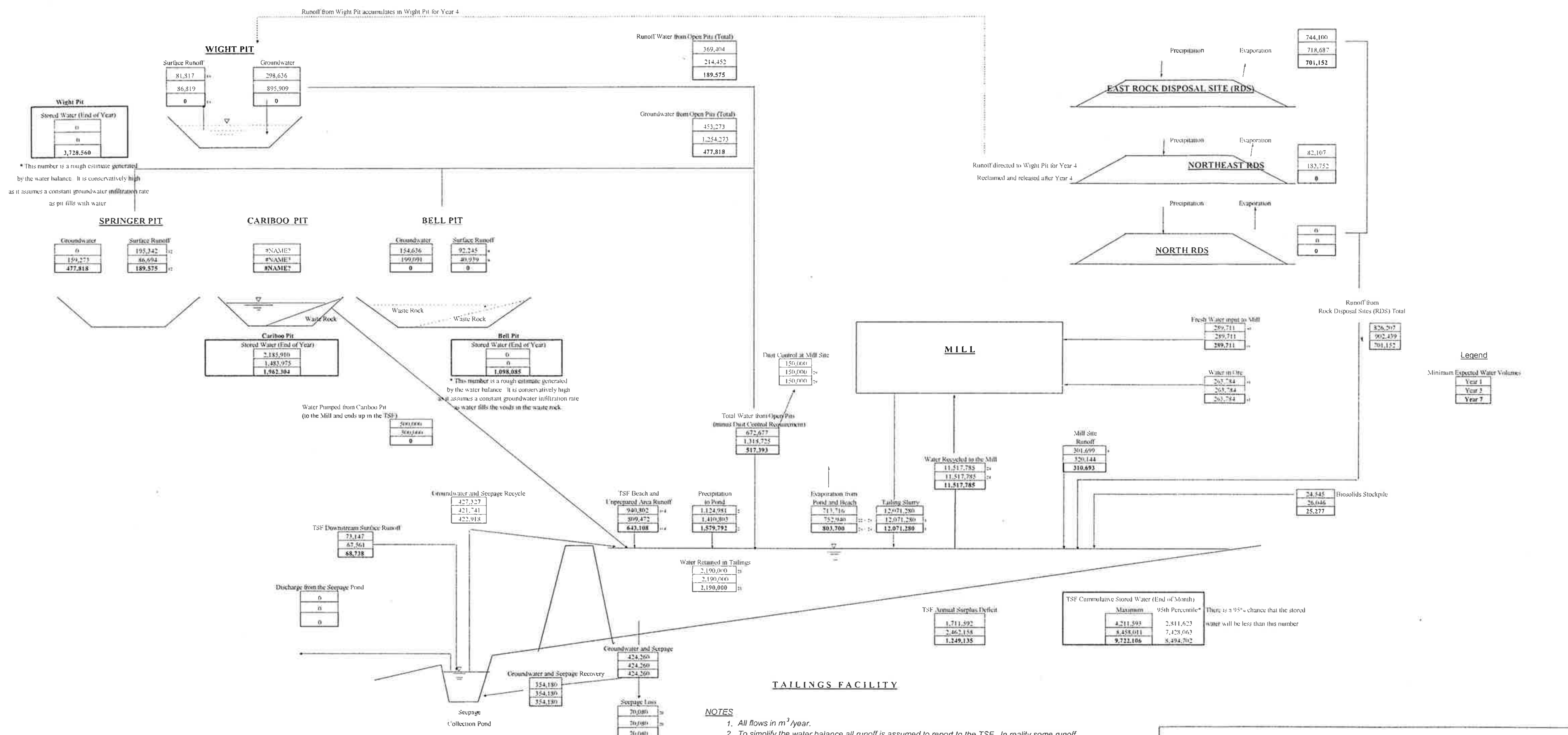
NOTES

1. *All flows in m^3/year.*
2. *To simplify the water balance all runoff is assumed to report to the TSF. In reality some runoff will be directed to the Mill for use in the process,with excess water being directed to the TSF and additional makeup water requirements taken from the TSF.*
3. *Bell and Wright Pits are completed in Year 3. After Year 3 these Pits are available for the storage of excess TSF water.*
4. *Year 3 is expected to have the maximum water surplus.*
5. ***The @RISK software was used with 1000 iterations to predict Minimum Water Volumes for the water balance (no discharge).***

MOUNT POLLEY MINING CORPORATION	
MOUNT POLLEY PROJECT	
TAILINGS STORAGE FACILITY SCHEMATIC ILLUSTRATION OF WATER BALANCE @RISK ANALYSIS FOR DRY CONDITIONS - YEARS 1, 3, AND 7	
Knight Piésold CONSULTING	PROJECT / ASSIGNMENT NO. VA101-1/6 · REF NO. V4-0816 · REV 0
	FIGURE 8

Rev 0 - Issued to Client

M:\1\01\00001\06\A\Data\water balance July 30\[Tables and Figures_rev 0.xls]Figure 9_r0



TAILINGS FACILITY

NOTES

1. All flows in m^3/year.
2. To simplify the water balance all runoff is assumed to report to the TSF. In reality some runoff will be directed to the Mill for use in the process,with excess water being directed to the TSF and additional makeup water requirements taken from the TSF.
3. Bell and Wright Pits are completed in Year 3. After Year 3 these Pits are available for the storage of excess TSF water.
4. Year 3 is expected to have the maximum water surplus.
5. **The @RISK software was used with 1000 iterations to predict Maximum Water Volumes for the water balance (no discharge).**

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
SCHEMATIC ILLUSTRATION OF WATER BALANCE
@RISK ANALYSIS FOR WET CONDITIONS - YEARS 1, 3, AND 7

Knight Piésold CONSULTING

PROJECT ASSIGNMENT NO.	REF NO.	REV
VA101-1/6	V4-0816	0

FIGURE 9

Rev 0 - Issued to Client