ANNUAL MONITORING REPORT

HYDROLOGY 1993

CYPRUS PLATEAU MINING CORPORATION

VOLUME I OF II

APPENDIX A,AA,B,C,D,E

PLATEAU MINING CORP.
A Subsidiary of Cyprus Coal Company
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Plateau Mining

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June 17, 1994

Utah Coal Regulatory Program
Division of Oil, Gas and Mining
355 West North Temple
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Salt Lake City, Utah 84180-1203

Dear Ms. Littig,

Enclosed is a copy of the 1993 Annual Hydrology Report for the Star Point Mines. Your extension of time dated May 27, 1994 was appreciated.

RECEIVED
JUN 20 1994
DIV. OF OIL, GAS & MINING

Respectfully,

Ben Grimes
Sr. Environmental Engineer

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1993 HYDROLOGIC MONITORING REPORT

I. INTRODUCTION

The Star Point Mines, owned and operated by Cyprus Plateau Mining Corporation (CPMC), are located approximately 12 miles southwest of Price, Utah. The entries to underground workings are on the east face of the Wasatch Plateau. The surface facilities occupy 173 acres which drain into sedimentation ponds. The sedimentation ponds drain into Serviceberry Creek, an ephemeral channel. Water from underground workings is generally pumped into old workings, but has been discharged at Mudwater Canyon, an NPDES permitted discharge point. The surface over the mine is drained by streams including the Tie Fork Canyon and its tributaries, Right Fork Miller Creek and its tributaries, Mud Water Canyon and its tributaries, and Corner Canyon and its tributaries. The locations of all monitoring stations are described in Table 1 and are shown on Figure 1 located at the end of this report.

Water samples collected during 1993 were analyzed by ACZ Laboratories, Steamboat Springs, Colorado.

Table 2 contains a list of water quality sampling parameters for springs, mine inflows, and surface and ground waters. Table 3 contains the water quality sampling parameters for the NPDES discharge points located at the CPMC operation.

This document reports the results of hydrologic monitoring which was conducted during 1992. Plots of pertinent data are provided as figures, tables are provided for data.

II. GROUND WATER MONITORING

A. SPRINGS

Twenty nine springs were monitored by CPMC during 1993. Monitoring data are arranged according to formation in which the springs originate. The formations of interest, beginning with the lowest, are the Star Point Sandstone, the Blackhawk, the Castlegate Sandstone, the Price River, and the North Horn. The Castlegate is actually a member of the Price River Formation but is sampled separate from the Price River Formation because of its significance. A review of the surficial geology shows that two of the twenty nine springs identified issue from the Star Point Sandstone, three from the Blackhawk Formation, three issue from the Castlegate Sandstone,

five from the rest of the Price River Formation, and sixteen from the North Horn Formation. A brief discussion of each formation source is given below.

1. STAR POINT SANDSTONE FORMATION SPRINGS

Two springs issuing from the Star Point Sandstone Formation were sampled during 1993, Birch Spring and Big Bear Spring. These springs were monitored as a part of the Gentry Ridge Impact evaluation involving the Castle Valley Special Service District and the Huntington Cleveland Irrigation Company. These water companies have concerns that mining may impact their water sources in the Huntington Canyon area. Birch and Big Bear springs are two of the larger springs downgradient from mining and offer an opportunity to mointor ground water that may originate in the mining zone.

Results of the analyses of the samples are presented in Tables AA-1 and AA-2 in Appendix AA. The average TDS value for Birch spring was 439 ppm and 303 ppm for Big Bear spring. The flow at Birch spring (Figure AA-1, Appendix AA) showed a slight rise mid year but, declined in October; the historic flow is shown on Figure !!-1!, as con be seen the trend has been downward since about mid-1987. The flow at Big Bear spring (Figure AA-2, Appendix AA) showed a rise through October 1993; the historic flow is shown on Figure AA-2A, as con be seen, the long term trend from about mid-1983 has been downward. The flow from Big Bear spring in 1993 exhibited a moderate peak reminiscent of those in 1983-1986.

The reason for the long term downward flow trend at Birch and Big Bear springs could possibly be due to two factors, the drought experienced since about 1984, and/or mining impacts created by another company in close proximity to both springs. The anomalous flow from Birch spring from August 1988 through August 1990 is not typical of flow characteristics for springs anywhere in the area. The extremely high peak during October 1989 through January 1990 occurred at about the time most springs reach their base, or low flow condition. This anomalous event was very unusual and may have been man caused, not by Plateau.

There is not enough data to evaluate trends in water quality from the Star Point Sandstone springs at this time.

2. BLACKHAWK FORMATION SPRINGS

Three springs issuing from the Blackhawk Formation were sampled during 1993, spring 530, CVS6 and CVS7. These springs were sampled three times during the year. Plots of the flow and TDS for these springs are

presented as Figures 2, B-1 and B-2. Results of the analyses of the samples are presented in Tables 4, 5, B-1 and B-2 in Appendix B. During 1993, the TDS at station 530 was slightly below average at 297 ppm. The flow at station 530 was below the average of 0.01 cfs at 0.007 cfs. All three springs are predominantly calcium bicarbonate type water. No trends are apparent in any other parameters measured.

3. CASTLEGATE FORMATION SPRINGS

Three springs, 238, 492 and 494 which issue from the Castlegate Sandstone were sampled during 1993. Plots of the flows and TDS values for these springs are presented on Figures 3, 4, and 5 in Appendix C. The results of the analyses of the samples are reported in Tables 6, 7, 8, 9, 10, and 11 in Appendix C. Flows at springs 238 and 492 exhibited a more normal flow pattern in 1993 than in 1992 while spring 494 had a higher early flow that tapered off through the season. TDS values increased some in 1993 later in the year; TDS appears to have reacted to flow more than in 1992, with lower TDS values at the peak flow and increasing as flow decreased. Water quality is primarily calcium bicarbonate type. No trends are apparent in any other parameters measured at these springs.

4. PRICE RIVER FORMATION SPRINGS

Five springs issuing from the Price River Formation were monitored in 1993. These springs are S14-9, S18-2, 229, 458 and 500. Plots of the flows and TDS values for these springs are presented on Figures 6, 7, 8, 9, and 10 in Appendix D. Sample analyses results are reported in Tables 12, 13, 14, 15, 16, 17, 18, 19, 20, and 21 in Appendix D. The following table provides average flows and TDS concentrations for the historic record and 1993 for comparison.

Spring	Water Type	Flow cfs			TDS ppm		
		Historic	1993	Diff.	Historic	1993	Diff
S14-9	CaHCO3	0.032	0.04	Up	304	345	Up
S18-2	CaHCO3	0.017	Dry	-	-	-	-
229	CaHCO3	0.037	*	*	192	174	Down
458	CaHCO3	0.013	0.03	Up	293	295	-
500	CaHCO3	0.01	Dry	-	-	-	-

* Only flowed in June 1993

The reason for no flows from springs S18-2, 229 and 500 is unknown at this time. Spring depletion curves for these springs suggest that there is a three year delay in the springs' responses to precipitation. All three springs had high flows in 1987, possibly in response to the high precipitation during 1983-1984. The flows of all three springs have been declining since 1987, which correlates with the drought conditions since 1984. In the 1990-1991 period the flows of all three springs dropped to zero. Spring 229 had a flow in June but, dried up by July. If the flow declines are a time delayed response to drought, the spring flows may not be restored until three years after termination of the drought. If the flow declines are subsidence related, they may not change upon entering a wetter cycle. As shown in the table above, the other two Price River Formation springs experienced increasing flows in 1993. The flows of many streams in the vicinity of CPMC are experiencing declines in flow as a result of the drought. The general decline of spring flows from springs in the Price River Formation may also be a result of the prolonged drought, however, there is flow evidence in 1993 that suggests the ground water may be recharging, causing increased flows. Monitoring of these springs will continue in order to determine the cause of the decreased flows. No trends are apparent in any other parameters measured at these springs.

5. NORTH HORN FORMATION SPRINGS

Sixteen springs which issue from the North Horn Formation were sampled in 1993. These springs are listed in the table below. Plots of the flows and TDS values for these springs are presented on Figures 11 through 25 and E-1 in Appendix E. Sample analyses results are reported in Tables 22 through 50 and E-1 in Appendix E. The following table provides average flows and TDS concentrations for the historic record and 1993 for comparison.

Spring	Water Type	Flow cfs			TDS ppm		
		Historic	1993	Diff.	Historic	1993	Diff
S11-1	MgHCO3	0.004	0.001	Down	204	153	Down
232	CaHCO3	0.008	0.007	Down	190	176	Down
424	CaHCO3	0.113	0.010	Down	273	266	Down
429	CaHCO3	0.015	0.013	Down	241	215	Down
444	CaHCO3	0.024	0.030	Up	263	257	Down
450	CaHCO3	0.011	0.021	Up	265	265	-

Spring	Water Type	Flow cfs			TDS ppm		
		Historic	1993	Diff.	Historic	1993	Diff
452	CaMgHCO3	0.024	0.032	Up	230	220	Down
518	CaHCO3	0.024	0.014	Down	260	223	Down
748	MgHCO3	0.017	0.013	Down	216	208	Down
749	CaHCO3	0.012	0.006	Down	255	257	-
751	CaHCO3	0.013	0.012	-	218	182	Down
753	CaHCO3	0.018	0.010	Down	246	224	Down
971	CaHCO3	0.001	0	Down	183	-	-
978	CaHCO3	0.049	0.037	Down	240	219	Down
85-26-1	CaMgHCO3	0.034	0.032	Down	259	247	Down
438	CaHCO3	-	0.008	-	-	264	-

During 1993, the average flows of the springs issuing from the North Horn Formation were generally down from historic flows. The TDS values were more variable, 12 were down from historic flows, none were up and 3 showed no change. Spring 438 does not have enough data to make a comparison. No trends are apparent in any other parameters measured at these springs.

B. MONITORING WELLS

1. WATER LEVELS

The well monitoring program consisted of monitoring eleven wells, eight within the mine (P86-01-TD, P86-02-HD & P86-03-WD, P92-01-WD, P92-02-WD, P92-03-WD, P92-04-WD, and P93-01-WD) and three located on the surface (86-26-6, 86-35-2-3, & 92-10-1). Well P-92-01-WD is a triple nested well with pipes labeled A, B and C, from shallowest to deepest respectively. Well P92-01C-WD was monitored for quality and water depth, P92-01A-WD and P92-01B-WD were monitored for water depth only. The eight in-mine wells were completed below the coal seams, and are meant to identify and monitor the ground water level below the mining zone. The surface wells are located south of current mining on Gentry Ridge, in Tie Fork Canyon, and northwest of current mining. The locations of all of these wells can be found on Figure 1.

Wells 86-35-2-3 are located in Tie Fork Canyon and consist of two artesian

wells approximately 200 feet apart; composite samples of the waters from both wells were collected in 1993. Prior to 1988, the wells were sampled separately; due to accessibility problems, composite samples have been taken since 1988. Data and plots of the individual wells (86-35-2 and 86-35-3 can be found in prior annual hydrology reports). Since mining started in the Gentry Ridge area in 1992, the composite data presented in this report is adequate to monitor mining impacts. There could have been no mining impacts to 86-35-2-3 prior to 1992; the data plotted on Figure 26 and shown on Table 51 in Appendix F represent four years of data prior to mining in the area. Data prior to 1988 represent additional background data for historic flows and quality.

As can be seen on Figure 26, the flow from wells 86-35-2-3 has steadily decreased over the past four years but, increased greatly during the last couple of months of 1993. The meter for these wells was moved during October 1993 by the Castle Valley Special Service District (CVSSD). It has come to our attention that the meter was improperly installed allowing a vacuum to build up inside the meter causing erroneous meter readings. According to Darrel Leamaster of the CVSSD, the meter was reworked and the flow in late May was 69 GPM or 0.154 cfs. This seems to indicate that the well flow has continued to decline. The large increase in flow during 1988 followed closely after a series of earthquakes in August. These earthquakes were recorded by the University of Utah Seismology Department as follows: August 14, 1:07 PM, magnitude 3.8; August 14, 2:03 PM, magnitude 5.3; August 15, 8:50 AM, magnitude 3.0; and August 18, 6:57 AM, magnitude 4.4. The epicenters of all of these earthquakes were in approximately the same location, approximately 15 miles east of Ferron, Utah, approximately 29 miles southeast of wells 86-35-2-3. The 5.3 and 4.4 magnitude quakes were felt by residents in northern Emery county north of well 86-35-2-3. In addition, there were many smaller magnitude earthquakes during this same time period. It appears that the quakes may have loosened up or opened up the fractures and faults that are documented to be the source of water for these wells. As a result, the large increase in flow may have been caused by the loosening or opening up of the fractures or faults allowing more water to be discharged.

The flow rate may be steadily decreasing as a result of the prolonged drought, or the flow rate may still be stabilizing from the earthquakes, or a combination of both factors. The historic flow is shown on Figure26-A in Appendix F. As can be seen on this flow plot, these wells had a very consistent flow at about 80 to 85 GPM before the earthquakes. After the quakes, the flow steadily dropped until August of 1992, since then the flow has dropped dramatically. As stated above, the apparent sudden increase

at the end of 1993 did not occur but was due to an impropper meter installation.

Water levels in wells P86-01-TD, P86-02-HD, P86-03-WD, P92-01A-WD, P92-01B-WD, P92-01C-WD, P-92-02-WD, P92-03-WD, P92-04-WD, and 86-26-6 can be found on Figures 28 through 37 respectively. The water level in well P86-01-TD has been relatively stable over the past several years, however, the level has risen 13 feet since April 1993. These wells are in the older mining areas. The water level in well P86-03-WD exhibited a steady decline through mid-1992 but, has risen 6 feet by April 1994. Since the area of this well is at the south end of longwall panels 1 through 7, it is possible that mining has impacted the water level in this location, however, there are extensive mine workings immediately south of this location in the US Fuel mining area. The impacts of mining by US Fuel for many years in the area makes it impossible to estimate any impact by CPMC. It is a possibility that the water level in this well could have reacted to the prolonged drought.

Monitoring wells P92-01A-WD, P92-01B-WD, P92-01C-WD, P92-02-WD, P92-03-WD, and P92-04-WD were placed in early 1992 in the current longwall mining area. The water levels of all of these wells have exhibited a marked drop in elevation since their placement. Well P92-01A-WD, the shallowest of the wells has exhibited a rise in water level of 10 feet from late January 1994 to late April 1994. The wells completed in the Blackhawk Formation below the seam being mined, (P92-01A-WD, P92-01B-WD, and P92-03-WD), have dropped an average of 38.12 feet, while the wells completed in the Spring Canyon Sandstone (P92-01C-WD, P92-02-WD, and P92-04-WD) have dropped an average of 106.8 feet. This condition may be a result of the higher permeability of the sandstone of the Spring Canyon as compared to the mudstones and siltstones of the Blackhawk Formation. Since mining in the longwall area is currently below the water table, and since these wells are exhibiting dropping water tables, the area appears to be experiencing localized dewatering.

The water level drop in these wells in the longwall mining area is rapid in relationship to the mining schedule. It could be expected that after mining is completed in the area, the water level will also rise quickly, depending on the recharge rate.

Monitoring well 86-26-6 which is located approximately four thousand feet south of the current mining area has shown a slight decline in water level over the past six years, probably as a result of the drought. The water level dropped 40 feet from mid-1986 through September 1993, since then, the

water level has dropped 16 feet as of mid-June, 1994. A plot of the water level in this well can be found on Figure 37 in Appendix F.

2. QUALITY

Quality samples were taken from wells 86-35-2-3, P92-01C-WD, and P92-02-WD. Data are shown on Tables 51, 53, and 54, respectively in Appendix F. The TDS value in well 86-35-2-3 was generally the same in 1993 as in 1992. The TDS levels in the in-mine wells P92-01C-WD, and P92-02-WD decreased during 1993. There are no other apparent trends in any of the other parameters measured.

III. SURFACE WATER MONITORING

There are twelve surface water monitoring locations. Mine surface facilities are located in Sage Brush Canyon, a tributary to Serviceberry Canyon, both of which are ephemeral drainages. Monitoring station 10-1 is located directly downstream from the facilities. Station 5-1 is located in Mud Water Creek below the mine discharge point. No water has been discharged from the mine at this location since 1987. The remaining surface water monitoring stations are located on streams which drain areas over and around mine workings. The locations of these monitoring stations are described in Table 1 and are shown on Figure 1.

A. Sage Brush Canyon

There has been no flow in Sage Brush Canyon at station 10-1 since 1988. Historical flows and TDS values are presented on Figure 38, and quality data are shown on Tables 56 and 57 all in Appendix G.

B. MUD WATER CREEK

There are two sampling locations in Mud Water Canyon, one is at the Mud Water discharge from the underground workings. Mud Water discharge is also designated as Station 001, NPDES Permit UT-0023736. There has been no flow from the discharge point since 1987. The discharges will be addressed in section IV. The other location is Mud Water Creek which was sampled in 1992 at station 5-1. A plot of flow and TDS for Mud Water Creek can be found on Figure 39, quality data can be found on Tables 58 and 59, all in Appendix G. The flow in Mud Water Creek was approximately the same in 1993 compared to 1992, and exhibited a continued impacts due to the drought. The TDS concentrations showed an increase in 1993 over the long term average probably as a result of lower flows due to the

drought. The water in Mud Water Creek is a magnesium sulfate type. No other trends are evident in data from other monitored parameters.

C. CORNER CANYON

A plot of flow and TDS concentrations can be found on Figure 40, and quality data can be found on Tables 60 and 61, all in Appendix G. Flow was very low in 1993, continuing the drought impact of the past 8 to 9 years. The TDS concentration was abnormally high in June but, dropped back to average later in the season. Corner Canyon water is predominately a magnesium bicarbonate type. No other trends are evident in data from other monitored parameters.

D. TIE FORK CANYON

Two sampling stations are located in tributaries to Tie Fork Canyon, Wild Cattle Hollow Stream, station 34-1, and Gentry Hollow Stream, station 34-2. Plots of flows and TDS concentrations are found on Figures 41 and 42 respectively. Quality data can be found on Tables 62, 63, 64 and 65, all in Appendix G. Both monitoring stations showed higher flows in 1993 compared to 1992. TDS concentrations were down in 1993 compared to 1992. No other trends are evident in data from other monitored parameters.

E. RIGHT FORK, MILLER CREEK

Samples were taken at three monitoring locations on the Right Fork of Miller Creek during 1993. These locations are ST-1, ST-2, and M-8. Figures 43, 44, and 45 respectively show graphs of flows and dissolved solids concentrations for these monitoring locations. Tables 66 through 71 present quality data for these sites. These figures and tables can be found in Appendix G. The average flow at station M-8 increased in 1993 (0.007 cfs) compared to 1992 (0.004 cfs). The average flow at station ST-1 downstream from M-8 increased from (0.039 cfs) in 1992 to (0.094 cfs) in 1993. A general decline in flow at station ST-1 from about 1985 is evident, even before mining was conducted in 1989, however, increased snowfall during the 1992-1993 winter resulted in an increase in the flow during 1993. All other streams in the area, even those outside of mining areas show the same downward trend in flows.

The flow of the North Fork, Right Fork of Miller Creek was diverted into the ground in 1989 just above monitoring point M-6 in the Southwest Quarter of the Northeast Quarter of Section 18, Township 15 South, Range 8 East as shown on Figure 53 (found at the end of this report) when longwall

mining caused subsidence of the stream channel. Base flow recharged the stream approximately 1000 feet below the place of water loss between monitoring points M-6 and M-8. The flow was still disappearing into the ground in 1992. In 1991, subsidence caused the stream to flow into the ground at about monitoring station M-4 but, in 1992, flow returned to the channel just below station M-4. The average flow at this location (20.9 GPM) is higher than the stream flow immediately above station M-4. Disruption of bedding planes in the stream channel may have caused the water loss from the stream, the return of flow to the stream channel may be a result of healing of the strata. Table 46-1 presents data on flows and quality for this location, figure 46 shows a plot of the flows for this area.

The Total Dissolved Solids (TDS) average concentration at station M-8 was considerably higher in 1993 (2439) than in 1992 (1450), however, when compared to the pre-mining level in 1988 of 293 it appears that mining has impacted the TDS level. The average 1993 TDS levels at station ST-1 also increased to 2557 as compared to the pre-mining average in 1988 of 785. It appears here also that mining may have increased the TDS level.

In addition to CPMC monitoring of the North Fork, Right Fork, Miller Creek, a joint U.S. Geological Survey and Utah Division of Oil, Gas and Mining study is being conducted. The study has been completed, and findings of the study will be reported by the U.S. Geological Survey in 1994.

Table 46-1 in Appendix G presents data on flows, pH, temperature, and conductivity for the North Fork Right Fork Miller Creek inventory sites involved in the U.S Geological study. The locations of these sites can be seen on Figure 53 at the end of this report. Station ST-2, which is in the South Fork, North Fork, Miller Creek where CPMC does not conduct mining except beneath the very head of the drainage showed an increase in flow during 1993. In 1992, the flow at ST-2 was higher than in 1991. TDS concentrations in 1993 increased during the year. The TDS levels in 1993 were below the eight year upward trend that ended in 1990. The North Fork, ST-1, is predominantly a magnesium sulfate type water while the South Fork, ST-2, is primarily magnesium bicarbonate. No other trends are evident in data from other monitored parameters.

Four new stream monitoring stations were added in 1993 to monitor the Castle Valley Ridge area. These stations are 87101CV, Little Park Canyon; 87102CV, Nuck Woodward Stream above Little Park Canyon; 87103CV, Nuck Woodward Stream below Little Park Canyon; and 93341CV, Nuck Woodward Stream above the mining zone. Flow and TDS plots of these stations can be found on Figures G-1, G-2, G-3 and G-4 respectively.

Quality data can be found on Tables G-1, G-2, G-3, and G-4 respectively in Appendix G.

As can be seen on Figure G-1, Little Park canyon had flow in 1987, 1988 and part of 1990, dried up later in 1990, flowed in June 1993 and dried up by July, 1993. At stations 87102CV and 87103CV, Nuck Woodward stream, the flows decreased from 1988 through 1990; but were considerably higher in 1993. The TDS levels were lower in 1993 than previously as a result of higher flows. Station 93341CV was added as a monitoring site in 1993 at the request of the U.S. Forest Service, no comparisons can be made with previous data.

IV. UNDERGROUND MINE FLOW MONITORING & MUDWATER DISCHARGE

There are five locations in the mine where underground waters are monitored. These locations are First West 4 (1W4), First West North 6 (1WN6), Ninth Left 12 (9L12), Gentry Ridge, and Mudwater Canyon discharge. The flow at First West North 6 was dry in 1993. Plots of flow and TDS concentrations can be found on Figures 47, 48, 49, 50, and 51, and quality data can be found on Tables 72 through 78 in Appendix H.

The flow at First West 4 showed a decreasing trend through 1992, while the TDS concentration has been increasing. The flow at Ninth Left 12 has also been decreasing, with a general upward trend in the TDS concentration through mid-1991, since then the TDS level has been decreasing. It appears that the TDS level increased due to freshly broken rock in the subsided coal seam zone contributing dissolved minerals to a peak in 1991 and then started to decline. Mining was conducted in the drainage area for monitoring station 9L12 from 1984 to 1989. It appears that two years after mining ceased, the TDS levels started to decline. The Gentry Ridge monitoring station measures waters intercepted in the Federal Coal Lease U-13097 beneath Gentry Ridge, the current longwall mining area. Most of the water intercepted in this lease is collected and discharged into an old area of the mine in Section 18, Township 15 South, Range 8 East. The initial high flow at the Gentry Ridge monitoring station was a result of dewatering ponded water in the longwall area. After the ponded water was pumped down, the flow leveled off at an average of 0.693 cfs for the remainder of 1992. The flow increased dramatically in 1993 and rose throughout the year. As more area is mined out and as the mine gets farther below the pre-existing water table, the inflow increases. Currently the flow from the area is approximately 1200 GPM or 2.67 cfs. The TDS concentration decreased during the year and leveled off at 400 ppm. The water in First West 4 and First North 6 are both of the magnesium sulfate, the water in

Ninth Left 12 is primarily calcium-magnesium sulfate, and the water in Gentry Ridge is primarily calcium bicarbonate.

Mitigation agreements were signed during 1993 with the Castle Valley Special Service District and the Huntington Cleveland Irrigation Company to resolve their concerns about possible mining impacts to their sources. Under the agreements, Cyprus Plateau will continue to monitor the quantity and quality of the water from 86-35-2-3, and other sources to determine if mining has any impact.

Mud Water discharge is also designated as Station 001, NPDES Permit UT-0023736. There has been no flow from the discharge point since 1987. A plot of the flows and TDS concentrations for the discharges can be found on Figure 51, and quality data can be found on Table 78 in Appendix H.

V. SEDIMENTATION POND MONITORING

There are nine sedimentation ponds which treat run off from disturbed areas. Of these ponds, Ponds 2, 4, 6, 8, and 9 discharged during 1993. The current NPDES permit discharge limits are shown on Table 3 in Appendix A.

All discharges were within the limits during 1993.

Tables 79 through 84 give flow and quality data for all ponds that have discharged during CPMC operations. These tables can be found in Appendix I.

VI. CLIMATOLOGICAL DATA

Figures 52 and 53 in Appendix J present precipitation for 1993.

APPENDIX A

SITE LOCATION & PARAMETER LISTS

Table 1
Monitoring Station Index

Station Name	Figure No.	Table No.	Appendix	Volume
North Horn Formation Springs continued				
424	13	26 & 27	E	II
429	14	28 & 29	E	II
444	15	30 & 31	E	II
450	16	32 & 33	E	II
452	17	34 & 35	E	II
518	18	36 & 37	E	II
748	19	38 & 39	E	II
749	20	40 & 41	E	II
751	21	42 & 43	E	II
753	22	44 & 45	E	II
971	23	46 & 47	E	II
978	24	48 & 49	E	II
85261	25	50	E	II
438	E-1	E-1	E	II
Ground Water Wells				
863523 - Tie Fork Wells	26	51	F	III
863523 Historic Flow	26-A		F	III
P8601TD	28		F	III
P8602HD	29		F	III
P8603WD	30		F	III
P9201AWD	31		F	III

Table 1
Monitoring Station Index

Station Name	Figure No.	Table No.	Appendix	Volume
Ground Water Wells continued				
P9201BWD	32		F	III
P9201CWD	33	53	F	III
P9202WD	34	54	F	III
P9203WD	35	55	F	III
P9204WD	36		F	III
86266	37		F	III
P9301WD	F-1		F	III
92101	F-2		F	III
Surface Water				
101 - Sage Brush Canyon	38	56 & 57	G	III
51 - Mudwater Canyon	39	58 & 59	G	III
361 - So. Fork Corner Canyon	40	60 & 61	G	III
341 - Wild Cattle Draw	41	62 & 63	G	III
342 - Gentry Hollow	42	64 & 65	G	III
ST1 - No. Fork Right Fork Miller Creek	43	66 & 67	G	III
ST2 - So. Fork Right Fork Miller Creek	44	68 & 69	G	III
M8 - No. Fork Right Fork Miller Creek	45	79 & 71	G	III
NFRF Miller Creek	46		G	III
87101CV - Little Park Canyon	G-1	G-1	G	III
87102CV - Nuck Woodward Stream	G-2	G-2	G	III
87103CV - Nuck Woodward Stream	G-3	G-3	G	III

Table 1
Monitoring Station Index

Station Name	Figure No.	Table 2 Sampling Parameters List No.	Appendix	Volume
Surface Water continued				
93341CV - Nuck Woodward Stream	G-4	G-4	G	III
Underground Mine Flows				
1W4	47	72 & 73	H	IV
1WN6	48	74 & 75	H	IV
9L12	49	76	H	IV
Gentry Ridge	50	77	H	IV
Mudwater discharge	51	78	H	IV
Sediment Pond Mnitoring				
NSP1 - Sediment Pond No. 1		79	I	IV
NSP4 - Sediment Pond No. 4		80	I	IV
NSP5 - Sediment Pond No. 5		81	I	IV
NSP6 - Sediment Pond No. 6		82	I	IV
NSP8 - Sediment Pond No. 8		83	I	IV
NSP9 - Sediment Pond No. 9		84	I	IV
NSP2 - Sediment Pond No. 2		85	I	IV
NSP7 - Sediment Pond No. 7		86	I	IV

Table 2
Sampling Parameters List

Field Parameters	Surface Water		Ground Water	
	Baseline	Operational	Baseline	Operational
FIELD MEASUREMENTS				
Water Level or Flow				
pH				
Specific Conductivity				
Water Temperature, °C				
LABORATORY MEASUREMENTS				
Anion - Cation Balance				
Bicarbonate				
Calcium, Diss				
Carbonate				
Chloride, Diss				
Iron, Dissolved				
Iron, Total				
Lead, Total++				
Magnesium, Diss				
Manganese, Total				
Nitrate, Diss+				
Nitrite, Diss+				
Oil & Grease				
Potassium, Diss				
Sodium, Diss				
Sulfate, Diss				
Sulfide, Diss++				
Total Dissolved Solids				
Total Suspended Solids				
Total Hardness				

\+ Stations 51 Mudwater and ST-1 only
\+ + One year.

Appendix AA

Star Point Formation Springs

Figure AA-1
Birch Spring

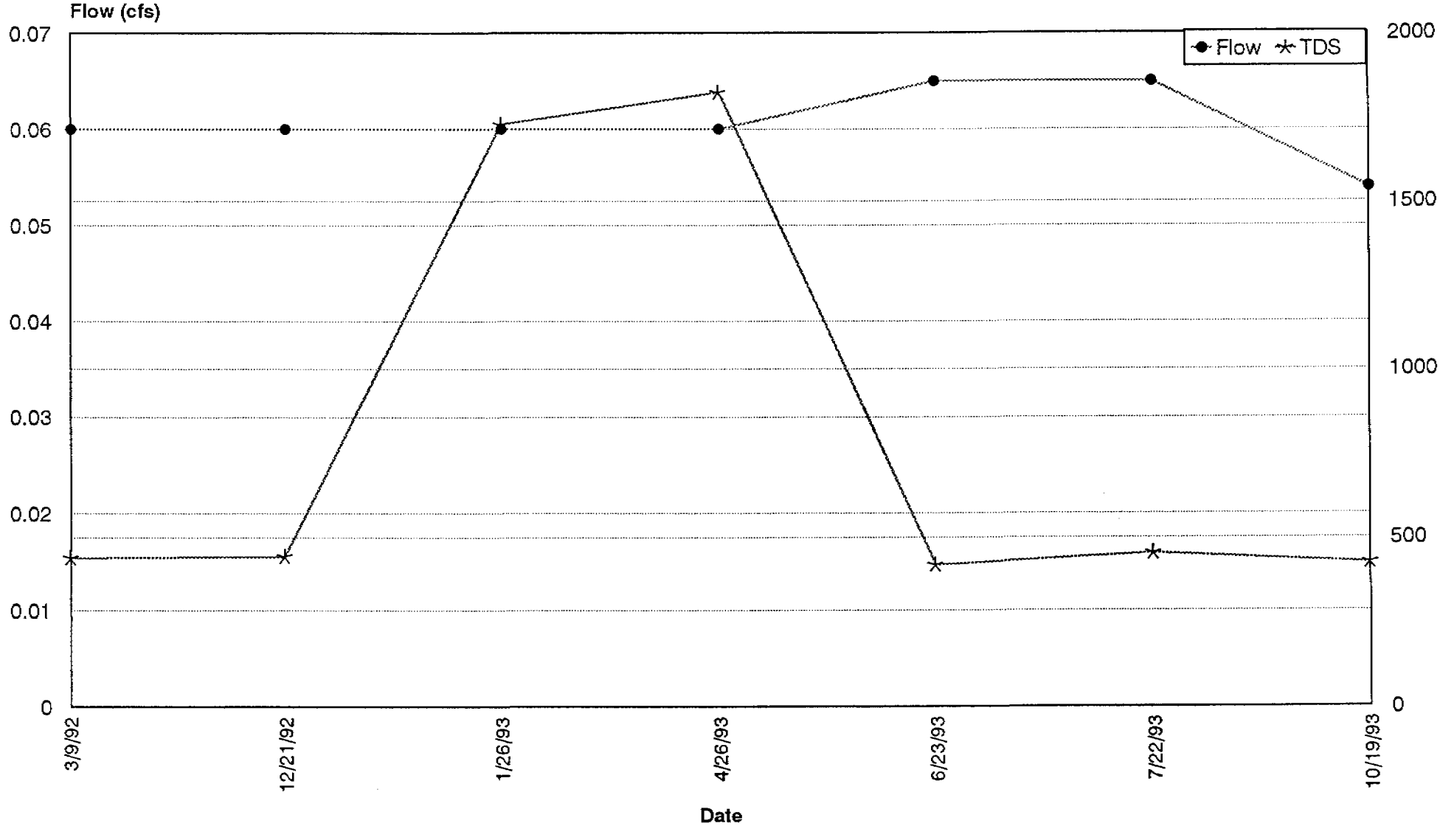


TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: BIRCHSP ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	10.967	0.5	11.800	10.500	DEGREES C	9	10/92 - 10/93
CONDUCTIVITY	FIELD	751.111	64.6	840.000	680.000	UMHOS/CM	9	10/92 - 10/93
PH	FIELD	6.229	0.1	6.390	6.100	PH	9	10/92 - 10/93
ALKALINITY	TOTAL	307.111	23.3	360.000	286.000	MG/L	9	10/92 - 10/93
HARDNESS	TOTAL	427.000	12.1	443.000	415.000	MG/L	7	01/93 - 10/93
SOLIDS	DISSOLVED	439.143	15.9	456.000	418.000	MG/L	7	01/93 - 10/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.060	0.0	0.060	0.060	CFS	2	10/92 - 12/92
CATIONS								
CALCIUM	DISSOLVED	95.111	3.9	104.000	91.000	MG/L	9	10/92 - 10/93
MAGNESIUM	DISSOLVED	46.889	2.0	50.000	45.000	MG/L	9	10/92 - 10/93
	TOTAL	47.286	4.5	55.000	42.000	MG/L	7	12/92 - 07/93
SODIUM	DISSOLVED	6.667	0.5	7.000	6.000	MG/L	9	10/92 - 10/93
POTASSIUM	DISSOLVED	2.333	0.5	3.000	2.000	MG/L	9	10/92 - 10/93
ANIONS								
BICARBONATE	AS HCO3	351.222	49.8	439.000	270.000	MG/L	9	10/92 - 10/93
CARBONATE	AS CO3	5.333	6.6	16.000	0.000	MG/L	9	10/92 - 10/93
HYDROXIDE	AS OH	0.000	0.0	0.000	0.000	MG/L	2	01/93 - 01/93
CHLORIDE	N/A	6.000	1.6	10.000	5.000	MG/L	9	10/92 - 10/93
SULFATE	N/A	119.000	12.6	140.000	107.000	MG/L	9	10/92 - 10/93

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: BIRCHSP ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.140	0.1	0.200	0.100	MG/L	5	12/92 - 04/93
GASES									
	SULPHIDE	TOTAL	-0.020	0.0	-0.020	-0.020	MG/L	5	01/93 - 10/93
PRIMARY									
	ARSENIC	DISSOLVED	-0.800	0.4	-0.001	-1.000	UG/L	5	12/92 - 04/93
	BARIUM	DISSOLVED	40.010	22.3	50.000	0.050	UG/L	5	12/92 - 04/93
	CADMIUM	DISSOLVED	-4.001	2.2	-0.005	-5.000	UG/L	5	12/92 - 04/93
	CHROMIUM	DISSOLVED	-0.010	0.0	-0.010	-0.010	UG/L	1	12/92 - 12/92
		TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	4	01/93 - 04/93
	LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	6	01/93 - 10/93
	MERCURY	DISSOLVED	-0.080	0.0	0.000	-0.100	UG/L	5	12/92 - 04/93
	SELENIUM	DISSOLVED	-0.800	0.4	-0.001	-1.000	UG/L	5	12/92 - 04/93
SECONDARY									
	COPPER	DISSOLVED	-8.002	4.5	-0.010	-10.000	UG/L	5	12/92 - 04/93
	ZINC	DISSOLVED	0.020	0.0	0.020	0.020	UG/L	1	12/92 - 12/92
		TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	5	01/93 - 07/93
	IRON	DISSOLVED	-15.560	8.8	-0.020	-20.000	UG/L	9	10/92 - 10/93
		TOTAL	-12.857	18.9	30.000	-20.000	UG/L	7	01/93 - 10/93
	MANGANESE	DISSOLVED	-8.570	3.8	0.010	-10.000	UG/L	7	12/92 - 07/93
		TOTAL	-7.143	7.6	10.000	-10.000	UG/L	7	01/93 - 10/93

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: BIRCHSP ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-39.998	22.4	0.010	-50.000	UG/L	5	12/92 - 04/93
BORON	DISSOLVED	20.004	12.2	30.000	0.020	UG/L	5	12/92 - 04/93
MOLYBDENUM	DISSOLVED	-24.010	24.1	-0.050	-50.000	UG/L	5	12/92 - 04/93
NICKEL	DISSOLVED	-16.004	8.9	-0.020	-20.000	UG/L	5	12/92 - 04/93
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	-0.010	0.1	0.050	-0.050	MG/L	5	12/92 - 04/93
	AMMIA-FREE	0.000	0.0	0.000	0.000	MG/L	1	12/92 - 12/92
	NITRATE	0.088	0.1	0.150	0.040	MG/L	5	12/92 - 04/93
	NO3+NO2	0.100	0.1	0.150	0.050	MG/L	4	01/93 - 04/93
PHOSPHATE	ORTHO-DISS	-0.005	0.0	-0.005	-0.005	UG/L	4	01/93 - 04/93
ORGANICS								
OIL&GREASE	N/A	1.000	2.3	3.000	-1.000	MG/L	4	01/93 - 04/93

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: BIRCHSP BIRCH SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
30-OCT-92			0.06000	CFS	, , , , , ,
21-DEC-92			0.06000	CFS	, , , , , ,
26-JAN-93			0.00000		
26-JAN-93			0.06000		
26-APR-93			0.00000		
26-APR-93			0.06000		
23-JUN-93			0.06500		
22-JUL-93			0.06500		
19-OCT-93			0.05400		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: BIRCHSP BIRCH SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
30-OCT-92	11.6	840.0		6.2		286.0		416.0				
21-DEC-92	10.6	777.0		6.3		310.0		465.0				
26-JAN-93	42.0	3280.0		24.9		1168.0		1668.0	1728.0			
26-APR-93	43.2	2752.0		25.6		1224.0		1772.0	1824.0			
23-JUN-93	11.1	680.0		6.2		324.0		430.0	418.0			
22-JUL-93	11.8	704.0		6.1		288.0		415.0	454.0			
19-OCT-93	11.0	743.0		6.1		360.0		424.0	426.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: BIRCHSP BIRCH SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
30-OCT-92	91.0	46.0	6.0	2.0	
21-DEC-92	104.0	50.0	7.0	2.0	
26-JAN-93	186.0	90.0	12.0	4.0	
26-APR-93	194.0	98.0	14.0	4.0	
23-JUN-93	95.0	47.0	7.0	3.0	
22-JUL-93	92.0	45.0	7.0	3.0	
19-OCT-93	94.0	46.0	7.0	3.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE A A-i

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: BIRCHSP BIRCH SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
21-DEC-92		55.0			
26-JAN-93		90.0			
26-APR-93		100.0			
23-JUN-93		42.0			
22-JUL-93		44.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: BIRCHSP BIRCH SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
30-OCT-92	270.	16.		10.	140.		
21-DEC-92	310.	0.		6.	134.	0.1	
26-JAN-93	337.	10.	0.	5.	109.	0.1	0.02
	337.	10.	0.	5.	109.	0.1	0.02
26-JAN-93	337.	10.	0.	5.	109.	0.1	0.02
	337.	10.	0.	5.	109.	0.1	0.02
26-APR-93	373.	0.		6.	126.	0.2	0.02
	373.	0.		6.	126.	0.2	0.02
26-APR-93	373.	0.		6.	126.	0.2	0.02
	373.	0.		6.	126.	0.2	0.02
23-JUN-93	395.	0.		6.	107.		
22-JUL-93	327.	12.		5.	109.		
19-OCT-93	439.	0.		5.	111.		0.02

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: BIRCHSP BIRCH SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
21-DEC-92	-0.0	0.1	-0.0			-0.0	0.0	-0.0	
26-JAN-93	-2.0	100.0	-10.0				-0.2	-2.0	
26-APR-93	-2.0	100.0	-10.0				-0.2	-2.0	

TABLE A A-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: BIRCHSP BIRCH SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
26-JAN-93						-40.0			
26-APR-93						-40.0			
22-JUL-93						-20.0			
19-OCT-93						-20.0			

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: BIRCHSP BIRCH SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
26-JAN-93									
26-APR-93									

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: BIRCHSP BIRCH SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-OCT-92			-0.0	
21-DEC-92	-0.0	0.0	-0.0	0.0
26-JAN-93	-20.0		-40.0	-20.0
26-APR-93	-20.0		-40.0	-20.0
23-JUN-93			-20.0	-10.0
22-JUL-93			-20.0	-10.0
19-OCT-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: BIRCHSP BIRCH SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
26-JAN-93		-20.0	-40.0	-20.0
26-APR-93		-20.0	-40.0	-20.0
23-JUN-93			-20.0	-10.0
22-JUL-93		-10.0	-20.0	-10.0
19-OCT-93			30.0	10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE AA-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: BIRCHSP BIRCH SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
21-DEC-92	0.0	0.0	-0.1	-0.0
26-JAN-93	-100.0	60.0	-100.0	-40.0
26-APR-93	-100.0	40.0	-20.0	-40.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure AA-1A
Birch Spring Historic Flow

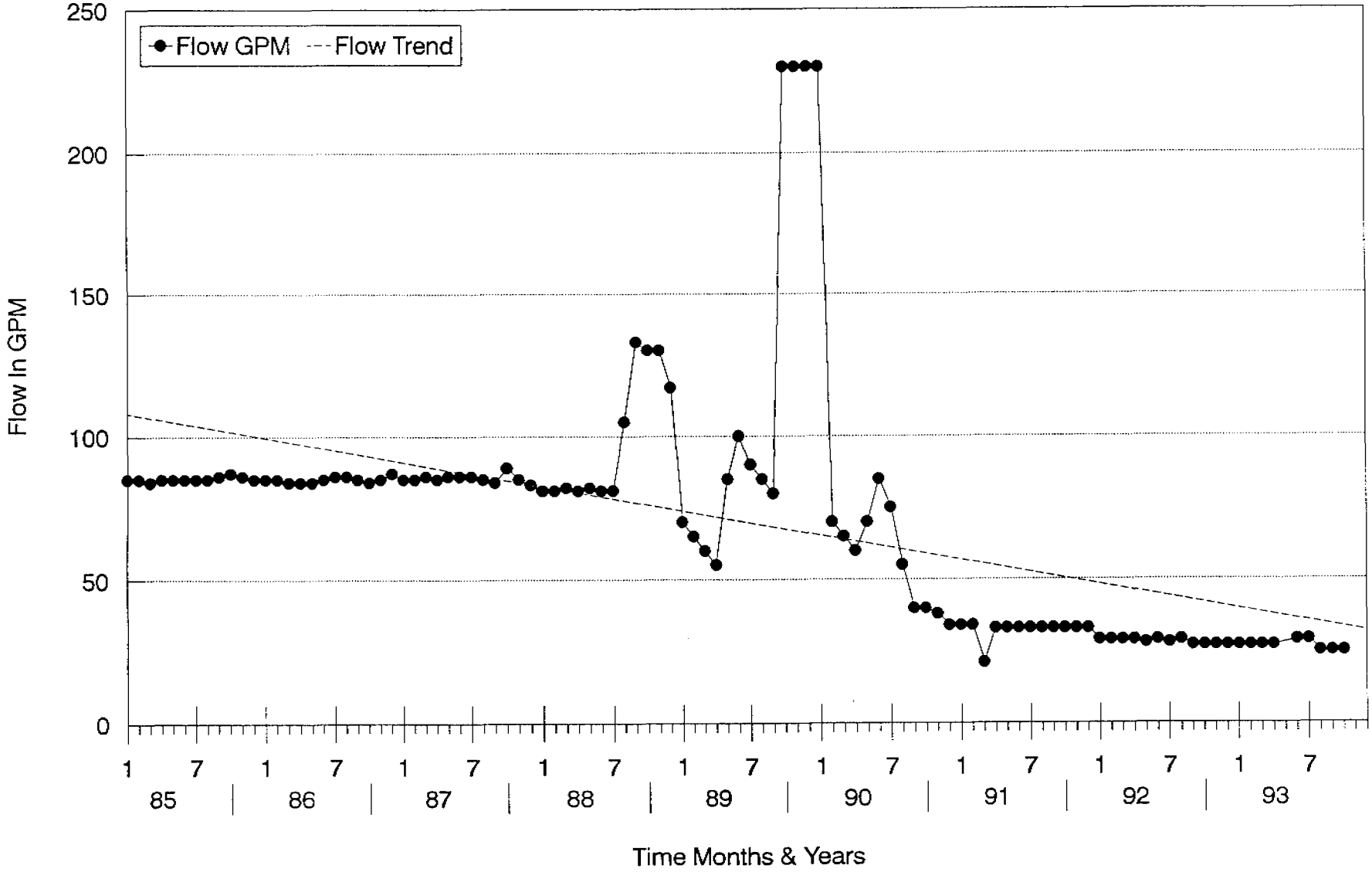


Figure AA-2
Big Bear Spring

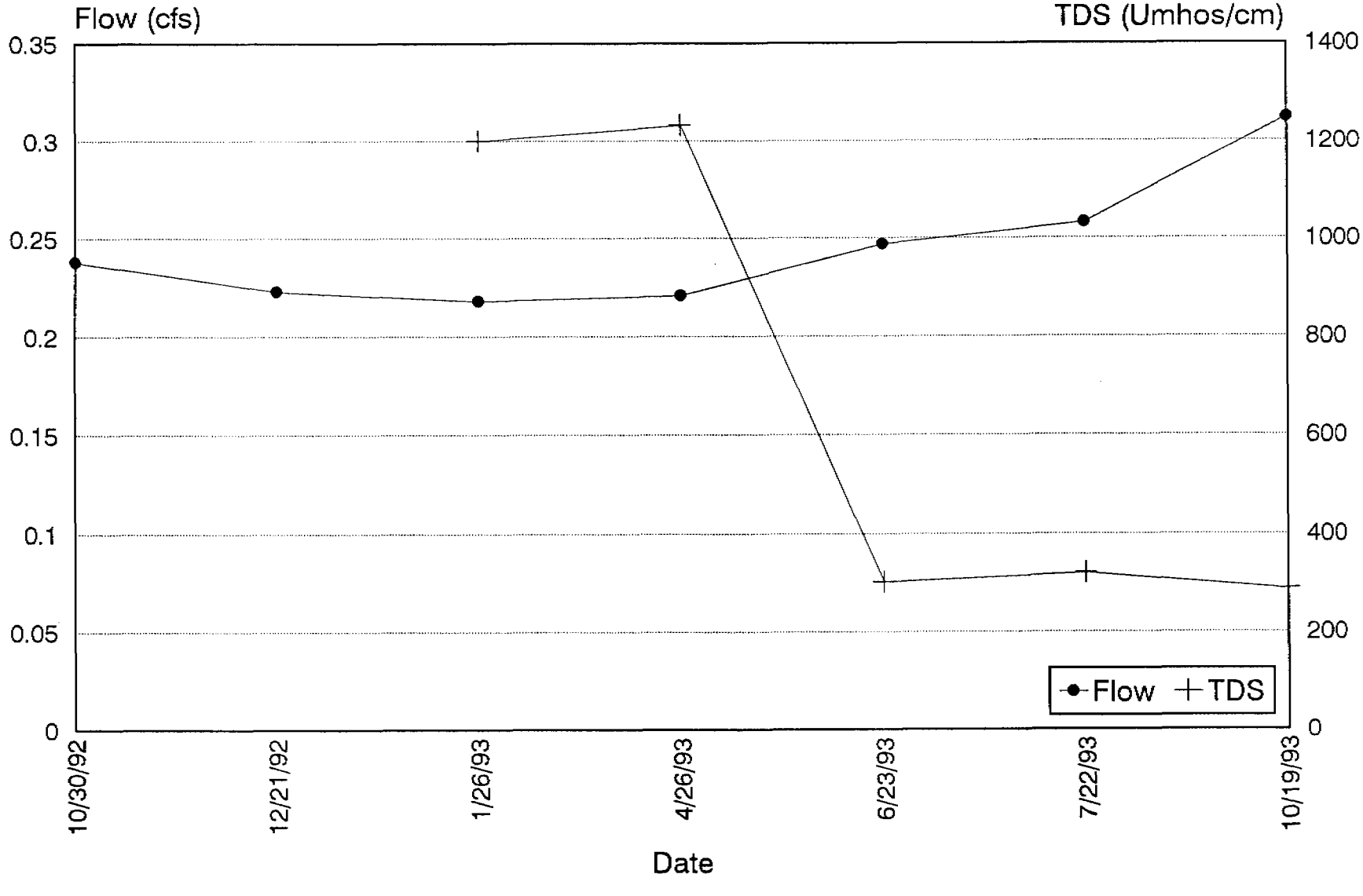


TABLE AA-2
CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: BIGBEAR ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	9.689	0.2	9.900	9.500	DEGREES C	9	10/92 - 10/93
CONDUCTIVITY	FIELD	575.000	46.5	637.000	525.000	UMHOS/CM	9	10/92 - 10/93
PH	FIELD	6.441	0.0	6.510	6.360	PH	9	10/92 - 10/93
ALKALINITY	TOTAL	270.667	13.4	300.000	258.000	MG/L	9	10/92 - 10/93
HARDNESS	TOTAL	292.875	80.8	344.000	99.999	MG/L	8	10/92 - 10/93
SOLIDS	DISSOLVED	303.714	9.8	320.000	288.000	MG/L	7	01/93 - 10/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.231	0.0	0.238	0.223	CFS	2	10/92 - 12/92
CATIONS								
CALCIUM	DISSOLVED	77.222	4.9	82.000	67.000	MG/L	9	10/92 - 10/93
MAGNESIUM	DISSOLVED	31.444	2.2	34.000	27.000	MG/L	9	10/92 - 10/93
	TOTAL	31.857	3.2	36.000	28.000	MG/L	7	12/92 - 07/93
SODIUM	DISSOLVED	4.222	0.4	5.000	4.000	MG/L	9	10/92 - 10/93
POTASSIUM	DISSOLVED	0.556	0.9	1.000	-1.000	MG/L	9	10/92 - 10/93
ANIONS								
BICARBONATE	AS HCO3	307.333	39.0	366.000	238.000	MG/L	9	10/92 - 10/93
CARBONATE	AS CO3	6.222	8.5	24.000	0.000	MG/L	9	10/92 - 10/93
CHLORIDE	N/A	3.222	0.4	4.000	3.000	MG/L	9	10/92 - 10/93
SULFATE	N/A	50.778	11.8	72.000	35.000	MG/L	9	10/92 - 10/93

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: BIGBEAR ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.180	0.0	0.200	0.100	MG/L	5	12/92 - 04/93
GASES									
	SULPHIDE	TOTAL	-0.020	0.0	-0.020	-0.020	MG/L	5	01/93 - 10/93
PRIMARY									
	ARSENIC	DISSOLVED	-0.800	0.4	-0.001	-1.000	UG/L	5	12/92 - 04/93
	BARIUM	DISSOLVED	92.022	51.6	120.000	0.110	UG/L	5	12/92 - 04/93
	CADMIUM	DISSOLVED	-4.001	2.2	-0.005	-5.000	UG/L	5	12/92 - 04/93
	CHROMIUM	DISSOLVED	-0.010	0.0	-0.010	-0.010	UG/L	1	12/92 - 12/92
		TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	4	01/93 - 04/93
	LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	6	01/93 - 10/93
	MERCURY	DISSOLVED	0.000	0.1	0.100	-0.100	UG/L	5	12/92 - 04/93
	SELENIUM	DISSOLVED	-0.800	0.4	-0.001	-1.000	UG/L	5	12/92 - 04/93
SECONDARY									
	COPPER	DISSOLVED	-8.002	4.5	-0.010	-10.000	UG/L	5	12/92 - 04/93
	ZINC	DISSOLVED	-0.010	0.0	-0.010	-0.010	UG/L	1	12/92 - 12/92
		TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	5	01/93 - 07/93
	IRON	DISSOLVED	-15.560	8.8	-0.020	-20.000	UG/L	9	10/92 - 10/93
		TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	7	01/93 - 10/93
	MANGANESE	DISSOLVED	-7.503	4.6	-0.010	-10.000	UG/L	8	10/92 - 07/93
		TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	7	01/93 - 10/93

TABLE AA-2
CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: BIGBEAR ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-39.996	22.4	0.020	-50.000	UG/L	5	12/92 - 04/93
BORON	DISSOLVED	-16.004	8.9	-0.020	-20.000	UG/L	5	12/92 - 04/93
MOLYBDENUM	DISSOLVED	-24.010	24.1	-0.050	-50.000	UG/L	5	12/92 - 04/93
NICKEL	DISSOLVED	-16.004	8.9	-0.020	-20.000	UG/L	5	12/92 - 04/93
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.134	0.3	0.410	-0.050	MG/L	5	12/92 - 04/93
	AMMIA-FREE	0.000	0.0	0.000	0.000	MG/L	1	12/92 - 12/92
	NITRATE	0.240	0.0	0.290	0.200	MG/L	5	12/92 - 04/93
	NO3+NO2	0.250	0.0	0.290	0.210	MG/L	4	01/93 - 04/93
PHOSPHATE	ORTHO-DISS	-0.005	0.0	-0.005	-0.005	UG/L	4	01/93 - 04/93
ORGANICS								
OIL&GREASE	N/A	0.500	1.7	2.000	-1.000	MG/L	4	01/93 - 04/93

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: BIGBEAR BIG BEAR SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
30-OCT-92			0.23800	CFS	, , , , , ,
21-DEC-92			0.22300	CFS	, , , , , ,
26-JAN-93			0.00000		
26-JAN-93			0.21800		
26-APR-93			0.00000		
26-APR-93			0.22100		
23-JUN-93			0.24700		
22-JUL-93			0.25800		
19-OCT-93			0.00000		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: BIGBEAR BIG BEAR SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
30-OCT-92	9.9	614.0		6.5		262.0		415.0				
21-DEC-92	9.5	600.0		6.5		272.0		340.0				
26-JAN-93	38.0	2548.0		25.4		1032.0		1280.0	1200.0			
26-APR-93	39.2	2156.0		25.8		1080.0		1376.0	1232.0			
23-JUN-93	9.7	525.0		6.5		282.0		329.0	302.0			
22-JUL-93	9.9	532.0		6.5		264.0		278.0	320.0			
19-OCT-93	9.6	552.0		6.5		300.0		308.0	288.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: BIGBEAR BIG BEAR SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
30-OCT-92	75.0	31.0	4.0	1.0	
21-DEC-92	82.0	33.0	4.0	1.0	
26-JAN-93	154.0	62.0	8.0	-2.0	
26-APR-93	164.0	68.0	10.0	2.0	
23-JUN-93	79.0	32.0	4.0	1.0	
22-JUL-93	67.0	27.0	4.0	1.0	
19-OCT-93	74.0	30.0	4.0	1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: BIGBEAR BIG BEAR SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
21-DEC-92		33.0			
26-JAN-93		60.0			
26-APR-93		72.0			
23-JUN-93		28.0			
22-JUL-93		30.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: BIGBEAR BIG BEAR SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
30-OCT-92	238.	24.		4.	58.		
21-DEC-92	272.	0.		3.	72.	0.1	
26-JAN-93	295.	10.		3.	54.	0.2	0.02
	295.	10.		3.	54.	0.2	0.02
26-JAN-93	295.	10.		3.	54.	0.2	0.02
	295.	10.		3.	54.	0.2	0.02
26-APR-93	329.	0.		3.	54.	0.2	0.02
	329.	0.		3.	54.	0.2	0.02
26-APR-93	329.	0.		3.	54.	0.2	0.02
	329.	0.		3.	54.	0.2	0.02
23-JUN-93	344.	0.		4.	35.		
22-JUL-93	298.	12.		3.	37.		
19-OCT-93	366.	0.		3.	39.		0.02

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: BIGBEAR BIG BEAR SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
21-DEC-92	-0.0	0.1	-0.0			-0.0	0.0	-0.0	
26-JAN-93	-2.0	220.0	-10.0				0.2	-2.0	
26-APR-93	-2.0	240.0	-10.0				-0.2	-2.0	

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: BIGBEAR BIG BEAR SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
26-JAN-93						-40.0			
26-APR-93						-40.0			
22-JUL-93						-20.0			
19-OCT-93						-20.0			

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: BIGBEAR BIG BEAR SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
26-JAN-93									
26-APR-93									

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: BIGBEAR BIG BEAR SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-OCT-92			-0.0	-0.0
21-DEC-92	-0.0	-0.0	-0.0	-0.0
26-JAN-93	-20.0		-40.0	-20.0
26-APR-93	-20.0		-40.0	-20.0
23-JUN-93			-20.0	-10.0
22-JUL-93			-20.0	-10.0
19-OCT-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: BIGBEAR BIG BEAR SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
26-JAN-93		-20.0	-40.0	-20.0
26-APR-93		-20.0	-40.0	-20.0
23-JUN-93			-20.0	-10.0
22-JUL-93		-10.0	-20.0	-10.0
19-OCT-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE AA-2

CYPRUS PLATEAU MINING COMPANY

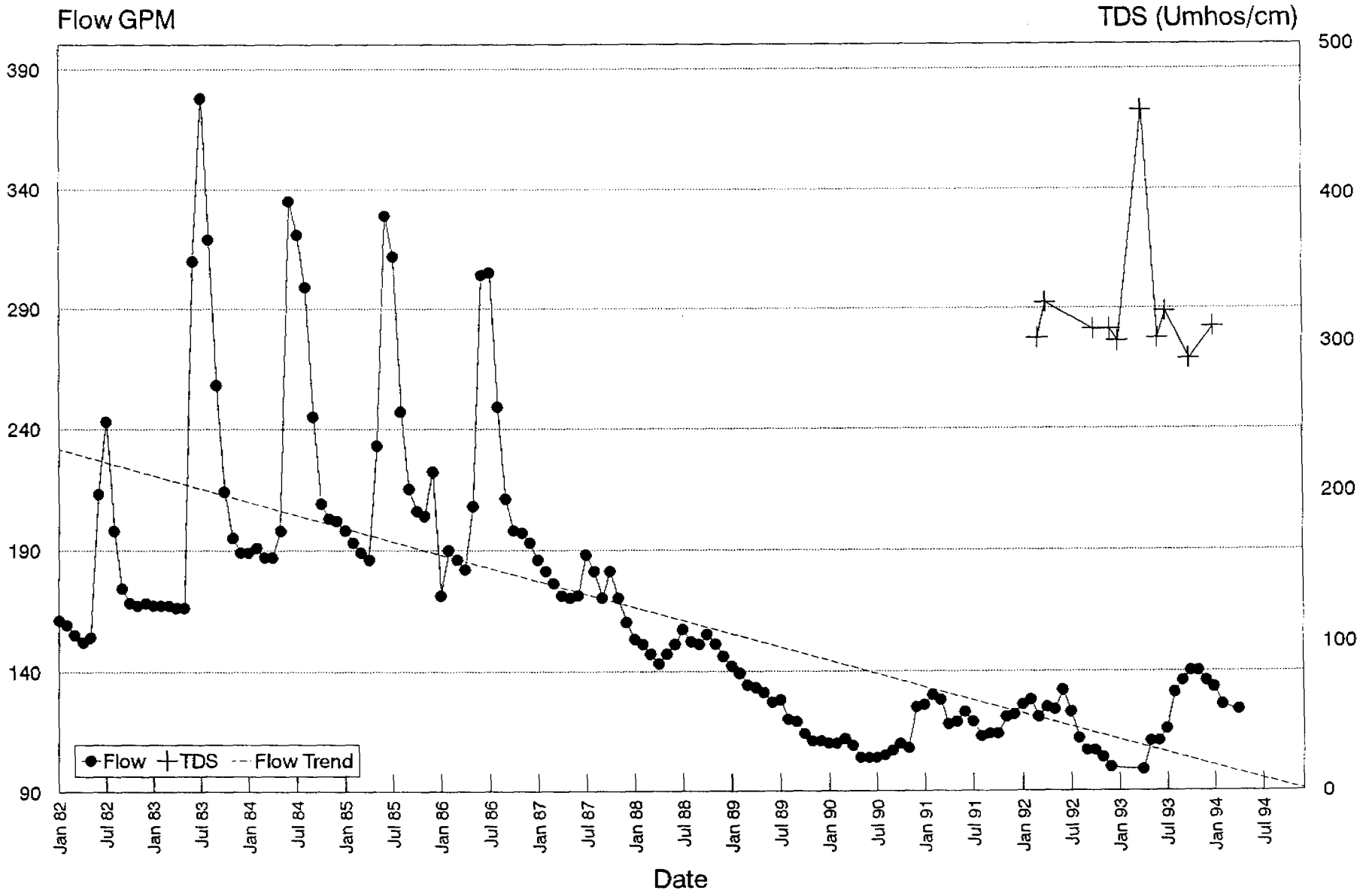
WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: BIGBEAR BIG BEAR SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
21-DEC-92	0.0	-0.0	-0.1	-0.0
26-JAN-93	-100.0	-40.0	-100.0	-40.0
26-APR-93	-100.0	-40.0	-20.0	-40.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure AA-2A
Big Bear Spring Historic Flow



Flow data from Castle Valley Special Service District, TDS from CPMC

APPENDIX B

BLACK HAWK SPRINGS

Figure 2

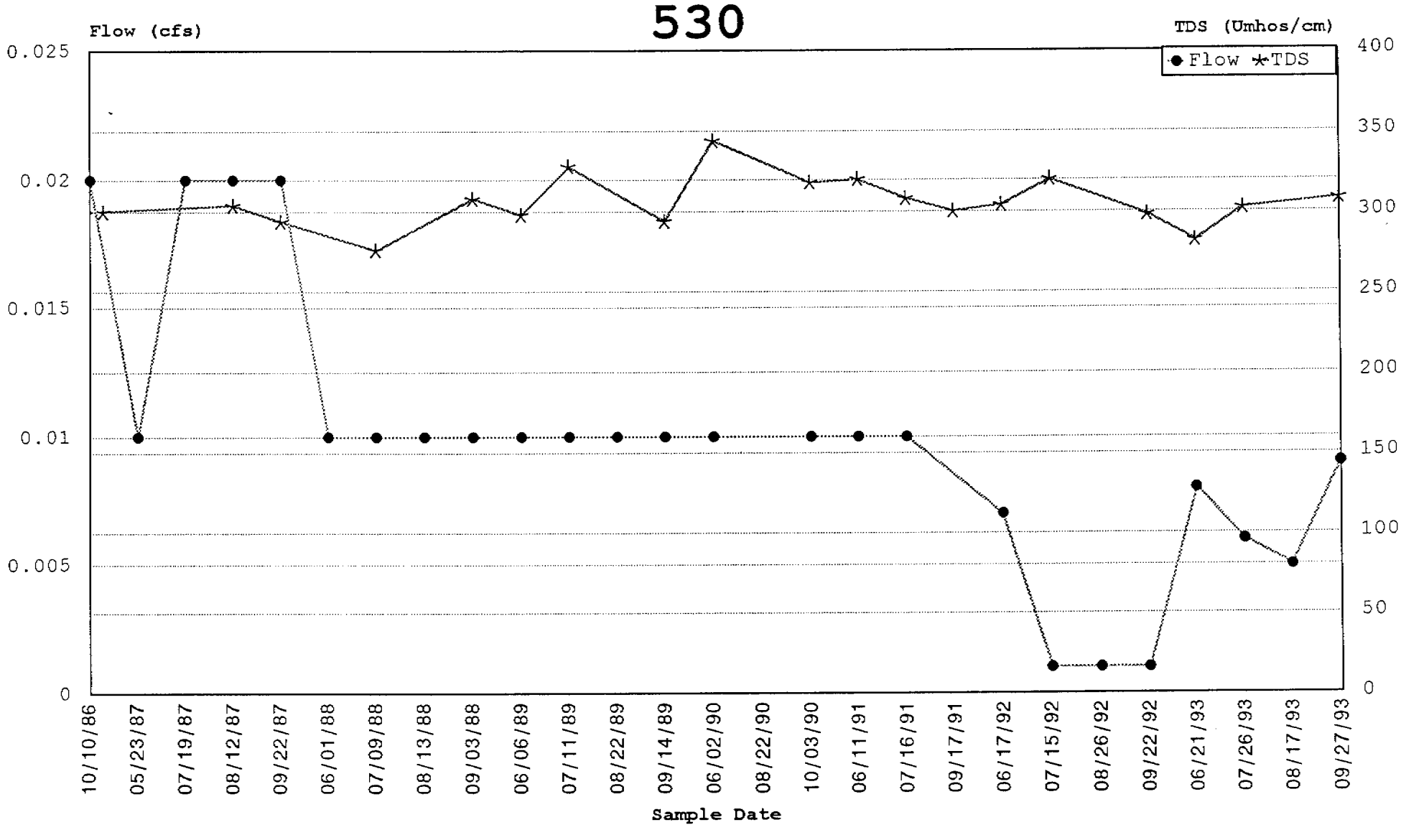

530
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.025
0.02
0.015
0.01
0.005
0
400
350
300
250
200
150
100
50
0
10/10/86
05/23/87
07/19/87
08/12/87
09/22/87
06/01/88
07/09/88
08/13/88
09/03/88
06/06/89
07/11/89
08/22/89
09/14/89
06/02/90
08/22/90
10/03/90
06/11/91
07/16/91
09/17/91
06/17/92
07/15/92
08/26/92
09/22/92
06/21/93
07/26/93
08/17/93
09/27/93
Sample Date

TABLE 4

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 530 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	8.711	2.2	13.000	5.500	DEGREES C	27	10/86 - 09/93
CONDUCTIVITY	FIELD	500.963	127.2	920.000	230.000	UMHOS/CM	27	10/86 - 09/93
PH	FIELD	7.719	0.6	8.750	6.370	PH	26	05/87 - 09/93
ALKALINITY	TOTAL	257.800	17.7	292.000	218.000	MG/L	20	10/86 - 09/93
ACIDITY	AS CACO3	-0.250	0.5	0.000	-1.000	MG/L	4	10/86 - 09/89
HARDNESS	TOTAL	293.389	23.9	337.000	238.000	MG/L	18	08/87 - 09/93
SOLIDS	DISSOLVED	305.579	15.7	344.000	276.000	MG/L	19	10/86 - 09/93
	SUSPENDED	1.000	0.0	1.000	1.000	MG/L	1	10/86 - 10/86
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.010	0.0	0.020	0.001	CFS	21	10/86 - 09/92
CATIONS								
CALCIUM	DISSOLVED	69.737	10.4	87.000	41.000	MG/L	19	08/87 - 09/93
	TOTAL	66.000	0.0	66.000	66.000	MG/L	1	10/86 - 10/86
MAGNESIUM	DISSOLVED	29.556	2.9	33.000	23.000	MG/L	18	08/87 - 09/93
	TOTAL	31.356	1.7	33.000	29.000	MG/L	9	10/86 - 07/93
SODIUM	DISSOLVED	4.947	0.6	6.000	4.000	MG/L	19	08/87 - 09/93
	TOTAL	5.900	0.0	5.900	5.900	MG/L	1	10/86 - 10/86
POTASSIUM	DISSOLVED	0.368	1.2	3.000	-1.000	MG/L	19	08/87 - 09/93
	TOTAL	1.900	0.0	1.900	1.900	MG/L	1	10/86 - 10/86

TABLE 4

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 530 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS									
	BICARBONATE	AS HCO3	311.000	25.2	356.000	256.000	MG/L	20	10/86 - 09/93
	CARBONATE	AS CO3	2.091	4.5	12.000	-1.000	MG/L	11	10/86 - 09/93
	CHLORIDE	N/A	4.520	1.1	7.400	3.000	MG/L	20	10/86 - 09/93
	SULFATE	N/A	31.500	16.4	80.000	-2.000	MG/L	20	10/86 - 09/93
MINOR									
	FLUORIDE	N/A	0.160	0.1	0.300	0.100	MG/L	5	08/87 - 09/91
GASES									
	SULPHIDE	TOTAL	-0.043	0.2	0.300	-0.200	MG/L	6	08/87 - 09/91
PRIMARY									
	ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	5	08/87 - 09/91
		TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	1	10/86 - 10/86
	BARIUM	DISSOLVED	56.000	32.1	110.000	30.000	UG/L	5	08/87 - 09/91
		TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	1	10/86 - 10/86
	CADMIUM	DISSOLVED	-5.000	0.0	-5.000	-5.000	UG/L	5	08/87 - 09/91
		TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	1	10/86 - 10/86
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	4	06/88 - 09/91
	LEAD	TOTAL	-18.571	20.4	20.000	-50.000	UG/L	7	10/86 - 09/91
	MERCURY	DISSOLVED	-0.125	0.1	-0.100	-0.200	UG/L	4	06/88 - 09/91
		TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	2	10/86 - 08/87
	SELENIUM	DISSOLVED	0.500	1.0	1.000	-1.000	UG/L	4	06/88 - 09/91
		TOTAL	-2.000	4.2	1.000	-5.000	UG/L	2	10/86 - 08/87

TABLE 4

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 530 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	DISSOLVED	-5.000	10.0	10.000	-10.000	UG/L	4	06/88 - 09/91
	TOTAL	0.000	28.3	20.000	-20.000	UG/L	2	10/86 - 08/87
ZINC	TOTAL	-4.429	14.7	29.000	-10.000	UG/L	7	10/86 - 09/91
IRON	DISSOLVED	-15.000	17.9	30.000	-50.000	UG/L	20	10/86 - 09/93
	TOTAL	141.500	238.8	950.000	-50.000	UG/L	20	10/86 - 09/93
MANGANESE	DISSOLVED	-6.429	13.4	40.000	-10.000	UG/L	14	10/86 - 07/93
	TOTAL	-6.471	10.6	30.000	-10.000	UG/L	17	10/86 - 09/93
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	5	09/87 - 09/91
BORON	DISSOLVED	26.000	57.3	120.000	-20.000	UG/L	5	08/87 - 09/91
	TOTAL	100.000	0.0	100.000	100.000	UG/L	1	10/86 - 10/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	5	09/87 - 09/91
	TOTAL	-50.000	0.0	-50.000	-50.000	UG/L	1	08/87 - 08/87
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	4	06/88 - 09/91
	TOTAL	-30.000	14.1	-20.000	-40.000	UG/L	2	10/86 - 08/87
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.006	0.0	0.060	-0.020	MG/L	5	08/87 - 09/91
	AMMIA-FREE	-0.000	0.0	0.002	-0.001	MG/L	4	06/88 - 09/91
	NITRATE	1.190	0.5	1.670	0.080	MG/L	7	10/86 - 09/91
	NO3+NO2	1.368	0.3	1.670	1.030	MG/L	6	08/87 - 09/91

TABLE 4

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 530 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ORGANICS								
OIL&GREASE	N/A	-0.500	0.0	-0.500	-0.500	MG/L	1	10/86 - 10/86

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 530 530 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
10-OCT-86		9160.00	0.02000	CFS	
23-MAY-87		9160.00	0.01000	CFS	
19-JUL-87		9160.00	0.02000	CFS	
12-AUG-87		9160.00	0.02000	CFS	
22-SEP-87		9160.00	0.02000	CFS	
01-JUN-88		9160.00	0.01000	CFS	
09-JUL-88		9160.00	0.01000	CFS	
13-AUG-88		9160.00	0.01000	CFS	

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 530 530 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
03-SEP-88		9160.00	0.01000	CFS	
06-JUN-89		9160.00	0.01000	CFS	
11-JUL-89		9160.00	0.01000	CFS	
22-AUG-89		9160.00	0.01000	CFS	
14-SEP-89		9160.00	0.01000	CFS	
02-JUN-90		9160.00	0.01000	CFS	
22-AUG-90		9160.00	0.00000	CFS	
03-OCT-90		9160.00	0.01000	CFS	

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 530 530 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
11-JUN-91		9160.00	0.01000	CFS	
16-JUL-91		9160.00	0.01000	CFS	
17-SEP-91		9160.00	0.00000	CFS	
17-JUN-92		9160.00	0.00700	CFS	, , , , , ,
15-JUL-92		9160.00	0.00100	CFS	, , , , , ,
26-AUG-92		9160.00	0.00100	CFS	, , , , , ,
22-SEP-92		9160.00	0.00100	CFS	, , , , , ,
21-JUN-93			0.00800		
26-JUL-93			0.00600		
17-AUG-93		9160.00	0.00500		
27-SEP-93			0.00900		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 530 530 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
10-OCT-86	6.0	920.0	564.0		8.1	249.0	-1.0		300.0	1.0		
23-MAY-87	5.5	490.0		8.1								
19-JUL-87	9.0	440.0		8.3								
12-AUG-87	7.0	440.0	627.0	8.3	7.5	267.0		313.0	304.0			
22-SEP-87	6.2	650.0	491.0	7.8		245.0		337.0	294.0			
01-JUN-88	7.5	355.0		7.3		263.0						
09-JUL-88	12.6	390.0		8.2		239.0		238.0	276.0			
13-AUG-88	11.0	329.0		8.3								
03-SEP-88	13.0	230.0		7.8		262.0		310.0	308.0			
06-JUN-89	8.5	540.0		8.4		240.0	0.0	276.0	298.0			
11-JUL-89	12.0	580.0		7.5		248.0	0.0	295.0	328.0			
22-AUG-89	9.0	590.0		8.1								
14-SEP-89	8.0	540.0		8.0		262.0	0.0	302.0	294.0			
02-JUN-90	6.0	560.0		7.5		270.0		298.0	344.0			
22-AUG-90	11.0	530.0		8.4								
03-OCT-90	6.0	470.0		8.0		273.0		326.0	318.0			
11-JUN-91	6.0	540.0		7.2		242.0		267.0	320.0			
16-JUL-91	12.0	510.0		8.8		264.0		288.0	308.0			
17-SEP-91	10.0	530.0		8.2	8.2	266.0		287.0	300.0			
17-JUN-92	8.3	568.0		8.1		218.0		268.0	304.0			
15-JUL-92	9.1	345.0		8.2		274.0		312.0	320.0			
26-AUG-92	9.2	354.0		7.2								
22-SEP-92	9.9	529.0		6.4		236.0		310.0	298.0			
21-JUN-93	8.5	539.0		6.6		280.0		285.0	282.0			
26-JUL-93	10.2	521.0		6.9		266.0		271.0	302.0			
17-AUG-93	7.2	528.0		6.7								
27-SEP-93	6.5	508.0		6.9		292.0		298.0	308.0			

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 530 530 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
12-AUG-87	71.0	33.0	6.0	1.0	
22-SEP-87	84.0	31.0	5.0	1.0	
01-JUN-88	85.0		5.0	1.0	
09-JUL-88	41.0	33.0	5.0	1.0	
03-SEP-88	70.0	33.0	5.0	1.0	
06-JUN-89	61.0	30.0	4.0	1.0	
11-JUL-89	64.0	33.0	5.0	1.0	
14-SEP-89	70.0	31.0	5.0	-1.0	
02-JUN-90	70.0	30.0	5.0	-1.0	
03-OCT-90	83.0	29.0	5.0	-1.0	
11-JUN-91	64.0	26.0	4.0	1.0	
16-JUL-91	71.0	27.0	6.0	1.0	
17-SEP-91	69.0	28.0	4.0	1.0	
17-JUN-92	63.0	27.0	5.0	1.0	
15-JUL-92	87.0	23.0	4.0	-1.0	
22-SEP-92	70.0	33.0	6.0	3.0	
21-JUN-93	68.0	28.0	5.0	-1.0	
26-JUL-93	64.0	27.0	5.0	-1.0	
27-SEP-93	70.0	30.0	5.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 530 530 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
10-OCT-86	66.0	29.2	5.9	1.9	
12-AUG-87		33.0			
22-SEP-87		31.0			
01-JUN-88		33.0			
09-JUL-88		33.0			
03-SEP-88		33.0			
17-SEP-91		29.0			
21-JUN-93		31.0			
26-JUL-93		30.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 530 530 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
10-OCT-86	304.	1.		7.	40.		
23-MAY-87							
19-JUL-87							
12-AUG-87	326.			5.	27.	0.3	0.20
22-SEP-87	299.			5.	23.		0.30
01-JUN-88	321.			5.	25.	0.2	0.20
09-JUL-88	292.			5.	27.	0.1	0.20
13-AUG-88							
03-SEP-88	320.			6.	21.	0.1	0.02
06-JUN-89	293.			5.	27.		
11-JUL-89	303.			5.	29.		
22-AUG-89							
14-SEP-89	320.			3.	25.		
02-JUN-90	325.	2.		4.	39.		
22-AUG-90							
03-OCT-90	333.			4.	25.		
11-JUN-91	271.	12.		3.	43.		
16-JUL-91	322.	0.		5.	23.		
17-SEP-91	325.	0.		3.	21.	0.1	0.02
17-JUN-92	256.	0.		4.	56.		
15-JUL-92	334.	0.		4.	45.		
26-AUG-92							
22-SEP-92	273.	0.		4.	80.		
21-JUN-93	342.	0.		4.	31.		
26-JUL-93	305.	10.		4.	2.		
17-AUG-93							
27-SEP-93	356.	0.		5.	25.		

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 530 530 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
12-AUG-87	-1.0	30.0	-5.0						
01-JUN-88	-1.0	110.0	-5.0				-0.2	1.0	
09-JUL-88	-1.0	60.0	-5.0				-0.1	1.0	
03-SEP-88	-1.0	40.0	-5.0				-0.1	1.0	
17-SEP-91	-1.0	40.0	-5.0				-0.1	-1.0	

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 530 530 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
10-OCT-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
12-AUG-87						-20.0	-0.2	1.0	
22-SEP-87						-20.0			
01-JUN-88						-20.0			
09-JUL-88						-20.0			
03-SEP-88						-20.0			
17-SEP-91						20.0			

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 530 530 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
01-JUN-88									
09-JUL-88									
03-SEP-88									
17-SEP-91									

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 530 530 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
10-OCT-86									
12-AUG-87									

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 530 530 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
10-OCT-86			-50.0	-10.0
12-AUG-87			-20.0	-10.0
22-SEP-87			-20.0	-10.0
01-JUN-88	10.0		-20.0	
09-JUL-88	-10.0		20.0	
03-SEP-88	-10.0		-20.0	
06-JUN-89			-20.0	-10.0
11-JUL-89			-20.0	-10.0
14-SEP-89			-20.0	-10.0
02-JUN-90			-20.0	-10.0
03-OCT-90			-20.0	-10.0
11-JUN-91			-20.0	
16-JUL-91			-20.0	
17-SEP-91	-10.0		30.0	-10.0
17-JUN-92			-20.0	-10.0
15-JUL-92			-20.0	40.0
22-SEP-92			20.0	-10.0
21-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 530 530 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
10-OCT-86	-20.0	29.0	-50.0	-10.0
12-AUG-87	20.0	-10.0	30.0	-10.0
22-SEP-87		-10.0	50.0	-10.0
01-JUN-88		-10.0	210.0	-10.0
09-JUL-88		-10.0	130.0	10.0
03-SEP-88		-10.0	-20.0	-10.0
06-JUN-89			50.0	-10.0
11-JUL-89			70.0	-10.0
14-SEP-89			80.0	-10.0
02-JUN-90			70.0	-10.0
03-OCT-90			660.0	30.0
11-JUN-91			80.0	-10.0
16-JUL-91			120.0	-10.0
17-SEP-91		-10.0	130.0	-10.0
17-JUN-92			30.0	
15-JUL-92			130.0	
22-SEP-92			950.0	
21-JUN-93			30.0	-10.0
26-JUL-93			30.0	-10.0
27-SEP-93			50.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 5

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 530 530 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
12-AUG-87		-20.0		
22-SEP-87	-50.0		-50.0	
01-JUN-88	-50.0	120.0	-50.0	-20.0
09-JUL-88	-50.0	20.0	-50.0	-20.0
03-SEP-88	-50.0	-20.0	-50.0	-20.0
17-SEP-91	-50.0	30.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 5

CYPRUS PLATEAU MINING COMPANY

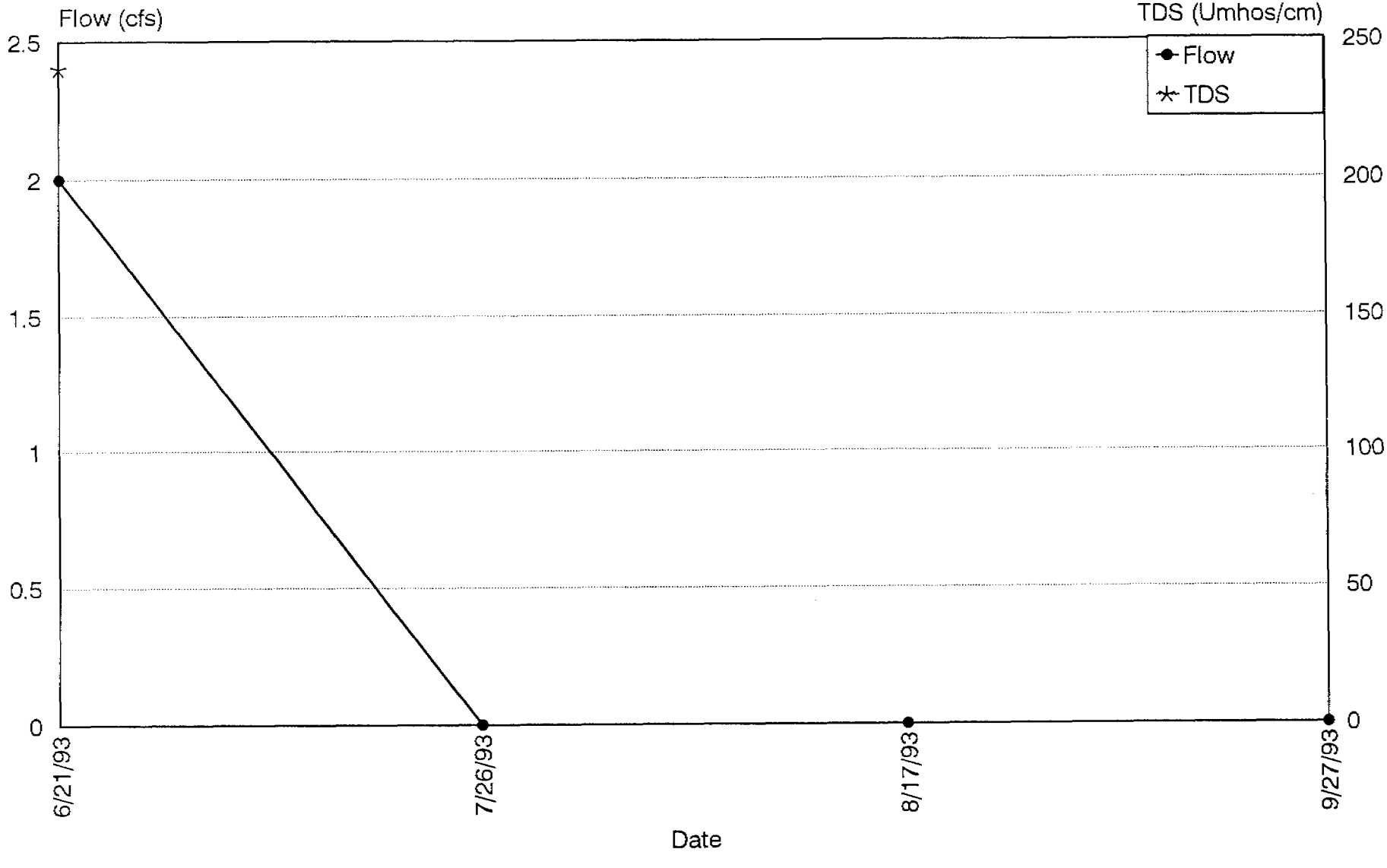
WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL

STATION: 530 530 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
10-OCT-86		100.0		-40.0
12-AUG-87	-50.0		-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure B-1
CVS6



TA 6-1

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: CVS6 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	9.200	0.0	9.200	9.200	DEGREES C	1	06/93 - 06/93
CONDUCTIVITY	FIELD	478.000	0.0	478.000	478.000	UMHOS/CM	1	06/93 - 06/93
PH	FIELD	6.150	0.0	6.150	6.150	PH	1	06/93 - 06/93
ALKALINITY	TOTAL	238.000	0.0	238.000	238.000	MG/L	1	06/93 - 06/93
HARDNESS	TOTAL	268.000	0.0	268.000	268.000	MG/L	1	06/93 - 06/93
SOLIDS	DISSOLVED	240.000	0.0	240.000	240.000	MG/L	1	06/93 - 06/93
CATIONS								
CALCIUM	DISSOLVED	63.000	0.0	63.000	63.000	MG/L	1	06/93 - 06/93
MAGNESIUM	DISSOLVED	27.000	0.0	27.000	27.000	MG/L	1	06/93 - 06/93
	TOTAL	28.000	0.0	28.000	28.000	MG/L	1	06/93 - 06/93
SODIUM	DISSOLVED	3.000	0.0	3.000	3.000	MG/L	1	06/93 - 06/93
POTASSIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	MG/L	1	06/93 - 06/93
ANIONS								
BICARBONATE	AS HCO3	290.000	0.0	290.000	290.000	MG/L	1	06/93 - 06/93
CARBONATE	AS CO3	0.000	0.0	0.000	0.000	MG/L	1	06/93 - 06/93
CHLORIDE	N/A	3.000	0.0	3.000	3.000	MG/L	1	06/93 - 06/93
SULFATE	N/A	25.000	0.0	25.000	25.000	MG/L	1	06/93 - 06/93

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: CVS6 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
IRON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	06/93 - 06/93
	TOTAL	80.000	0.0	80.000	80.000	UG/L	1	06/93 - 06/93
MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	06/93 - 06/93
	TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	1	06/93 - 06/93

TABLE 8-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: CVS6 CVS6 SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
21-JUN-93			0.00200		
26-JUL-93			0.00000		NO FLOW
17-AUG-93			0.00000		NO FLOW
27-SEP-93			0.00000		NO FLOW

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 8-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: CVS6 CVS6 SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
21-JUN-93	9.2	478.0		6.2		238.0		268.0	240.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE B-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: CVS6 CVS6 SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
21-JUN-93	63.0	27.0	3.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE B-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: CVS6 CVS6 SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
21-JUN-93		28.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 6-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: CVS6 CVS6 SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
21-JUN-93	290.	0.		3.	25.		
26-JUL-93							
17-AUG-93							
27-SEP-93							

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 8-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: CVS6 CVS6 SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
21-JUN-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 8-1

CYPRUS PLATEAU MINING COMPANY

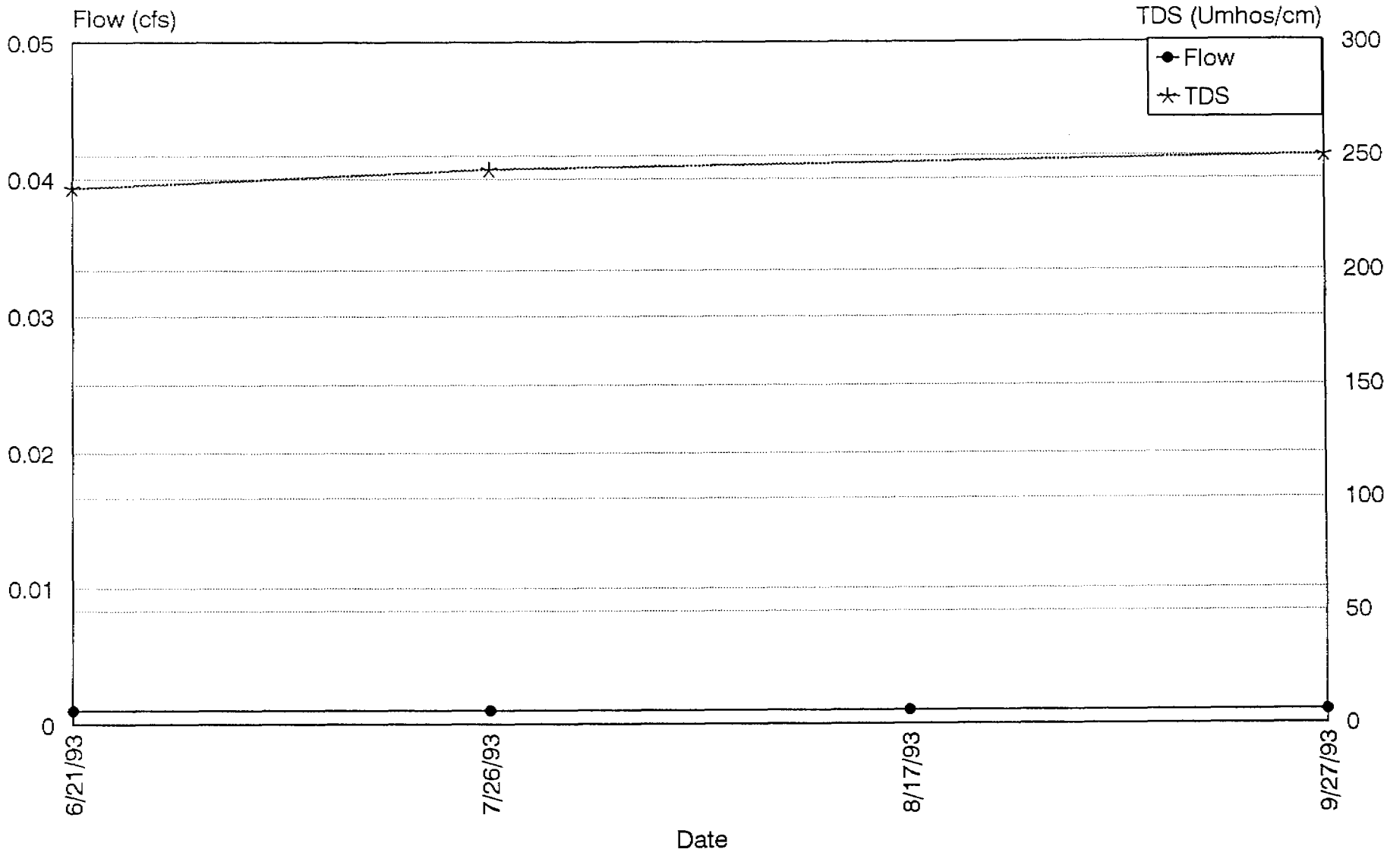
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: CVS6 CVS6 SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
21-JUN-93			80.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

Figure B-2


CVS7
Flow (cfs)
TDS (Umhos/cm)
0.05
0.04
0.03
0.02
0.01
0
300
250
200
150
100
50
0
Flow
TDS
6/21/93
7/26/93
8/17/93
9/27/93
Date

T 8-2

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: CVS7 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	8.600	2.9	12.300	5.200	DEGREES C	4	06/93 - 09/93
CONDUCTIVITY	FIELD	459.250	8.5	470.000	452.000	UMHOS/CM	4	06/93 - 09/93
PH	FIELD	6.435	0.1	6.550	6.300	PH	4	06/93 - 09/93
ALKALINITY	TOTAL	235.333	3.1	238.000	232.000	MG/L	3	06/93 - 09/93
HARDNESS	TOTAL	238.667	17.6	253.000	219.000	MG/L	3	06/93 - 09/93
SOLIDS	DISSOLVED	243.333	7.0	250.000	236.000	MG/L	3	06/93 - 09/93
CATIONS								
CALCIUM	DISSOLVED	58.333	4.7	62.000	53.000	MG/L	3	06/93 - 09/93
MAGNESIUM	DISSOLVED	22.667	1.5	24.000	21.000	MG/L	3	06/93 - 09/93
	TOTAL	23.500	0.7	24.000	23.000	MG/L	2	06/93 - 07/93
SODIUM	DISSOLVED	3.667	0.6	4.000	3.000	MG/L	3	06/93 - 09/93
POTASSIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	MG/L	3	06/93 - 09/93
ANIONS								
BICARBONATE	AS HCO3	282.000	8.5	290.000	273.000	MG/L	3	06/93 - 09/93
CARBONATE	AS CO3	2.333	4.0	7.000	0.000	MG/L	3	06/93 - 09/93
CHLORIDE	N/A	3.333	0.6	4.000	3.000	MG/L	3	06/93 - 09/93
SULFATE	N/A	6.000	6.9	10.000	-2.000	MG/L	3	06/93 - 09/93
GASES								
SULPHIDE	TOTAL	-0.020	0.0	-0.020	-0.020	MG/L	1	09/93 - 09/93

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: CVS7 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PRIMARY								
LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	2	07/93 - 09/93
SECONDARY								
ZINC	TOTAL	20.000	0.0	20.000	20.000	UG/L	1	07/93 - 07/93
IRON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	3	06/93 - 09/93
	TOTAL	76.667	167.4	270.000	-20.000	UG/L	3	06/93 - 09/93
MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	2	06/93 - 07/93
	TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	3	06/93 - 09/93

TABLE B-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: CVS7 CVS7 SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
21-JUN-93			0.00100		
26-JUL-93			0.00100		
17-AUG-93			0.00100		
27-SEP-93			0.00100		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 8-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: CVS7 CVS7 SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
21-JUN-93	8.5	453.0		6.3		238.0		253.0	236.0			
26-JUL-93	12.3	452.0		6.6		236.0		244.0	244.0			
17-AUG-93	8.4	462.0		6.4								
27-SEP-93	5.2	470.0		6.5		232.0		219.0	250.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE B-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: CVS7 CVS7 SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
21-JUN-93	62.0	24.0	3.0	-1.0	
26-JUL-93	60.0	23.0	4.0	-1.0	
27-SEP-93	53.0	21.0	4.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 8-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: CVS7 CVS7 SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
21-JUN-93		24.0			
26-JUL-93		23.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE B-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: CVS7 CVS7 SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
21-JUN-93	290.	0.		3.	10.		
26-JUL-93	273.	7.		3.	10.		
17-AUG-93							
27-SEP-93	283.	0.		4.	2.		0.02

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 8-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: CVS7 CVS7 SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
26-JUL-93						-20.0			
27-SEP-93						-20.0			

TABLE 3 - 2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: CVS7 CVS7 SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
21-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 8-2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: CVS7 CVS7 SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

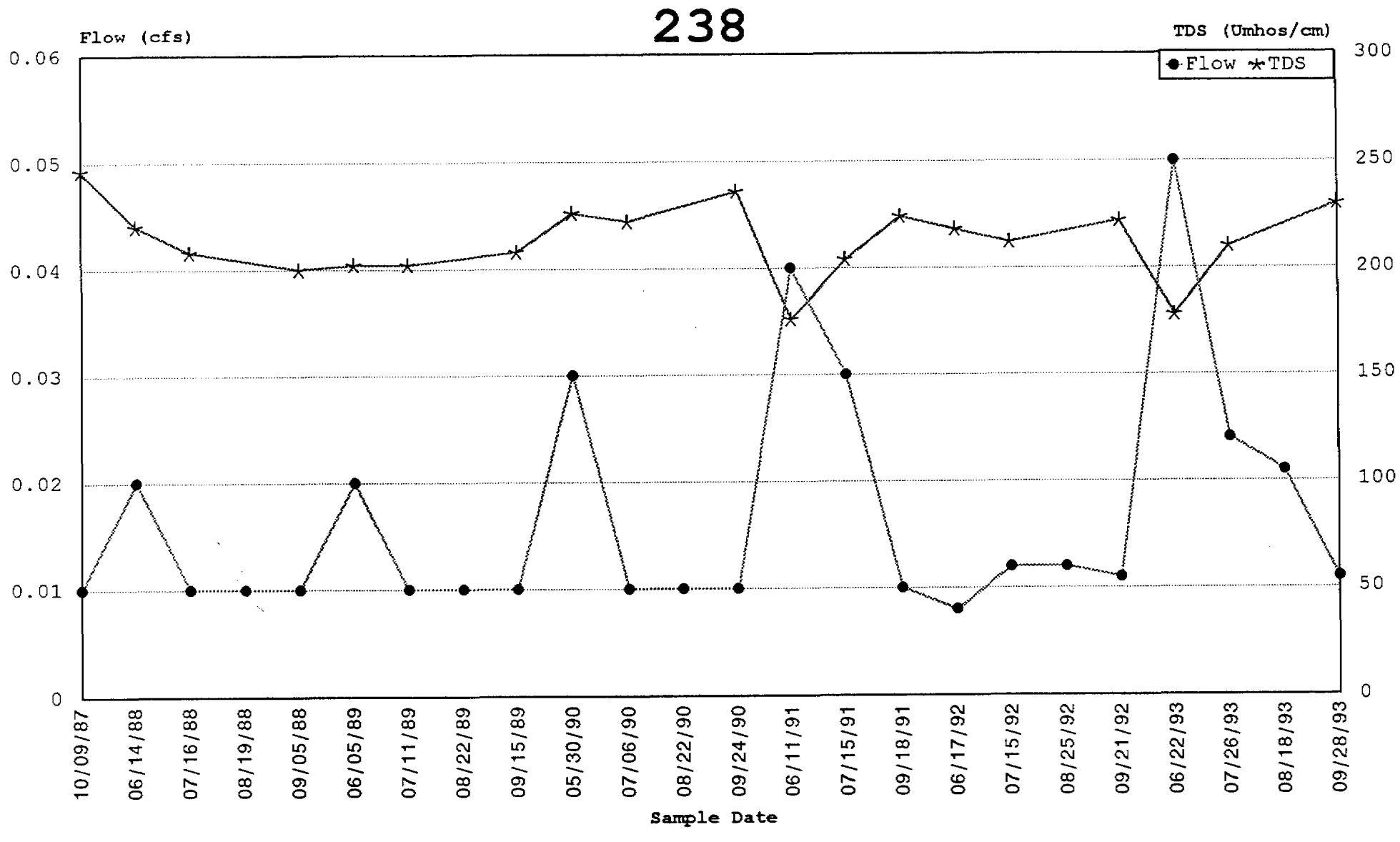
Date	Copper	Zinc	Iron	Manganese
21-JUN-93			270.0	-10.0
26-JUL-93		20.0	-20.0	-10.0
27-SEP-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

Appendix C

Castle Gate Formation Springs

Figure 3


238
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.06
0.05
0.04
0.03
0.02
0.01
0
300
250
200
150
100
50
0
10/09/87
06/14/88
07/16/88
08/19/88
09/05/88
06/05/89
07/11/89
08/22/89
09/15/89
05/30/90
07/06/90
08/22/90
09/24/90
06/11/91
07/15/91
09/18/91
06/17/92
07/15/92
08/25/92
09/21/92
06/22/93
07/26/93
08/18/93
09/28/93
Sample Date

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 238 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	6.338	1.7	10.200	4.000	DEGREES C	24	10/87 - 09/93
CONDUCTIVITY	FIELD	361.292	65.0	490.000	232.000	UMHOS/CM	24	10/87 - 09/93
PH	FIELD	7.603	0.9	8.720	6.070	PH	24	10/87 - 09/93
ALKALINITY	TOTAL	183.947	21.4	227.000	124.000	MG/L	19	10/87 - 09/93
ACIDITY	AS CACO3	0.000	0.0	0.000	0.000	MG/L	1	05/90 - 05/90
HARDNESS	TOTAL	202.833	23.8	245.000	142.000	MG/L	18	10/87 - 09/93
SOLIDS	DISSOLVED	212.842	17.6	246.000	176.000	MG/L	19	10/87 - 09/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.015	0.0	0.040	0.008	CFS	20	10/87 - 09/92
CATIONS								
CALCIUM	DISSOLVED	62.000	7.9	77.000	42.000	MG/L	19	10/87 - 09/93
MAGNESIUM	DISSOLVED	12.167	2.9	22.000	9.000	MG/L	18	10/87 - 09/93
	TOTAL	14.500	5.4	25.000	10.000	MG/L	10	10/87 - 07/93
SODIUM	DISSOLVED	1.684	0.6	3.000	1.000	MG/L	19	10/87 - 09/93
POTASSIUM	DISSOLVED	0.842	0.7	2.000	-1.000	MG/L	19	10/87 - 09/93
ANIONS								
BICARBONATE	AS HCO3	221.105	27.2	277.000	151.000	MG/L	19	10/87 - 09/93
CARBONATE	AS CO3	2.333	2.9	7.000	0.000	MG/L	12	09/89 - 09/93
CHLORIDE	N/A	2.211	7.1	31.000	-1.000	MG/L	19	10/87 - 09/93
SULFATE	N/A	16.158	13.8	45.000	-2.000	MG/L	19	10/87 - 09/93

TABLE 6

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 238 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.043	0.1	0.100	-0.100	MG/L	7	06/88 - 09/91
GASES									
	SULPHIDE	TOTAL	0.054	0.1	0.300	-0.100	MG/L	8	10/87 - 09/91
PRIMARY									
	ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	7	06/88 - 09/91
	BARIUM	DISSOLVED	101.429	72.0	260.000	40.000	UG/L	7	06/88 - 09/91
	CADMIUM	DISSOLVED	-1.714	5.7	8.000	-5.000	UG/L	7	06/88 - 09/91
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	7	06/88 - 09/91
	LEAD	TOTAL	-10.000	18.5	20.000	-20.000	UG/L	8	10/87 - 09/91
	MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	7	06/88 - 09/91
	SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	7	06/88 - 09/91
SECONDARY									
	COPPER	DISSOLVED	-7.143	7.6	10.000	-10.000	UG/L	7	06/88 - 09/91
	ZINC	TOTAL	11.250	20.3	40.000	-10.000	UG/L	8	10/87 - 09/91
	IRON	DISSOLVED	-2.105	32.2	70.000	-20.000	UG/L	19	10/87 - 09/93
		TOTAL	331.579	407.2	1360.000	-20.000	UG/L	19	10/87 - 09/93
	MANGANESE	DISSOLVED	-8.462	5.5	10.000	-10.000	UG/L	13	10/87 - 07/93
		TOTAL	1.875	16.4	30.000	-10.000	UG/L	16	10/87 - 09/93

TABLE 6

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 238 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-11.250	53.6	60.000	-50.000	UG/L	8	10/87 - 09/91
BORON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	7	06/88 - 09/91
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	8	10/87 - 09/91
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	7	06/88 - 09/91
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.034	0.1	0.150	-0.020	MG/L	7	06/88 - 09/91
	AMMIA-FREE	0.000	0.0	0.003	-0.001	MG/L	7	06/88 - 09/91
	NITRATE	0.865	0.2	1.170	0.470	MG/L	8	10/87 - 09/91
	NO3+NO2	0.858	0.2	1.160	0.480	MG/L	8	10/87 - 09/91

TABLE 7
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 238 238 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
09-OCT-87		9200.00	0.01000	CFS	
14-JUN-88		9200.00	0.02000	CFS	
16-JUL-88		9200.00	0.01000	CFS	
19-AUG-88		9200.00	0.01000	CFS	
05-SEP-88		9200.00	0.01000	CFS	
05-JUN-89		9200.00	0.02000	CFS	
11-JUL-89		9200.00	0.01000	CFS	
22-AUG-89		9200.00	0.01000	CFS	

TABLE 7
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 238 238 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
15-SEP-89		9200.00	0.01000	CFS	
30-MAY-90		9200.00	0.03000	CFS	
06-JUL-90		9200.00	0.01000	CFS	
22-AUG-90		9200.00	0.01000	CFS	
24-SEP-90		9200.00	0.01000	CFS	
11-JUN-91		9200.00	0.04000	CFS	
15-JUL-91		9200.00	0.03000	CFS	
18-SEP-91		9200.00	0.01000	CFS	

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 238 238 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
17-JUN-92		9200.00	0.00800	CFS	, , , , , ,
15-JUL-92		9200.00	0.01200	CFS	, , , , , ,
25-AUG-92		9200.00	0.01200	CFS	, , , , , ,
21-SEP-92		9200.00	0.01100	CFS	, , , , , ,
22-JUN-93			0.05000		
26-JUL-93			0.02400		
18-AUG-93		9200.00	0.02100		
28-SEP-93			0.01100		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 238 238 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
09-OCT-87	5.0	490.0		8.5		227.0		245.0	246.0			
14-JUN-88	7.2	232.0		8.5		194.0			220.0			
16-JUL-88	10.2	242.0		8.4		165.0		178.0	208.0			
19-AUG-88	10.0	235.0		8.7								
05-SEP-88	8.0	245.0		8.3		188.0		211.0	200.0			
05-JUN-89	4.0	320.0		8.5		124.0		142.0	202.0			
11-JUL-89	9.0	360.0		8.5		160.0		206.0	202.0			
22-AUG-89	7.0	380.0		8.3								
15-SEP-89	8.0	400.0		8.3		184.0		189.0	208.0			
30-MAY-90	6.0	400.0		7.2		187.0	0.0	199.0	226.0			
06-JUL-90	7.0	420.0		7.6		178.0		207.0	222.0			
22-AUG-90	7.0	370.0		8.6								
24-SEP-90	7.0	340.0		7.6		188.0		226.0	236.0			
11-JUN-91	5.0	370.0		7.2		188.0		186.0	176.0			
15-JUL-91	6.0	370.0		7.8		180.0		237.0	204.0			
18-SEP-91	5.0	420.0		7.9	7.9	182.0		202.0	224.0			
17-JUN-92	5.0	407.0		7.4		184.0		219.0	218.0			
15-JUL-92	5.0	383.0		7.4		218.0		212.0	212.0			
25-AUG-92	5.7	389.0		6.8								
21-SEP-92	5.1	400.0		6.2		170.0		213.0	222.0			
22-JUN-93	5.4	339.0		6.2		196.0		176.0	178.0			
26-JUL-93	4.8	373.0		6.3		186.0		209.0	210.0			
18-AUG-93	4.6	397.0		6.1								
28-SEP-93	5.1	389.0		6.3		196.0		194.0	230.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 238 238 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
09-OCT-87	62.0	22.0	3.0	1.0	
14-JUN-88	77.0		1.0	1.0	
16-JUL-88	53.0	11.0	2.0	1.0	
05-SEP-88	63.0	13.0	1.0	2.0	
05-JUN-89	42.0	9.0	1.0	1.0	
11-JUL-89	61.0	13.0	2.0	1.0	
15-SEP-89	56.0	12.0	2.0	1.0	
30-MAY-90	63.0	10.0	2.0	1.0	
06-JUL-90	63.0	12.0	2.0	-1.0	
24-SEP-90	69.0	13.0	1.0	1.0	
11-JUN-91	58.0	10.0	1.0	1.0	
15-JUL-91	72.0	14.0	2.0	1.0	
18-SEP-91	61.0	12.0	2.0	1.0	
17-JUN-92	73.0	9.0	1.0	1.0	
15-JUL-92	65.0	12.0	1.0	1.0	
21-SEP-92	64.0	13.0	2.0	1.0	
22-JUN-93	54.0	10.0	2.0	-1.0	
26-JUL-93	64.0	12.0	2.0	1.0	
28-SEP-93	58.0	12.0	2.0	1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 238 238 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
09-OCT-87		24.0			
14-JUN-88		13.0			
16-JUL-88		11.0			
05-SEP-88		13.0			
05-JUN-89		10.0			
11-JUL-89		25.0			
15-SEP-89		14.0			
18-SEP-91		12.0			
22-JUN-93		11.0			
26-JUL-93		12.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 238 238 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
09-OCT-87	277.			3.	12.		0.10
14-JUN-88	237.			1.	16.	0.1	0.30
16-JUL-88	201.			1.	14.	0.1	0.20
19-AUG-88							
05-SEP-88	229.			2.	4.	0.1	0.04
05-JUN-89	151.			1.	12.	0.1	0.01
11-JUL-89	195.			1.	16.	0.1	0.01
22-AUG-89							
15-SEP-89	220.	2.		1.	8.	0.1	0.01
30-MAY-90	221.	4.		2.	2.		
06-JUL-90	205.	6.		1.	35.		
22-AUG-90							
24-SEP-90	229.			2.	35.		
11-JUN-91	215.	7.		2.	10.		
15-JUL-91	215.	2.		31.	8.		
18-SEP-91	222.	0.		1.	25.	0.1	0.02
17-JUN-92	220.	0.		1.	45.		
15-JUL-92	266.	0.		1.	2.		
25-AUG-92							
21-SEP-92	193.	7.		1.	39.		
22-JUN-93	239.	0.		1.	2.		
26-JUL-93	227.	0.		1.	10.		
18-AUG-93							
28-SEP-93	239.	0.		2.	20.		

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 238 238 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
14-JUN-88	-1.0	90.0	-5.0				-0.1	-1.0	
16-JUL-88	-1.0	80.0	5.0				-0.1	-1.0	
05-SEP-88	-1.0	70.0	-5.0				-0.1	-1.0	
05-JUN-89	-1.0	90.0	-5.0				-0.1	-1.0	
11-JUL-89	-1.0	40.0	-5.0				-0.1	-1.0	
15-SEP-89	-1.0	260.0	8.0				-0.1	-1.0	
18-SEP-91	-1.0	80.0	-5.0				-0.1	-1.0	

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 238 238 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
09-OCT-87						20.0			
14-JUN-88						20.0			
16-JUL-88						-20.0			
05-SEP-88						-20.0			
05-JUN-89						-20.0			
11-JUL-89						-20.0			
15-SEP-89						-20.0			
18-SEP-91						-20.0			

TABLE 7
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS
STATION: 238 238 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
14-JUN-88									
16-JUL-88									
05-SEP-88									
05-JUN-89									
11-JUL-89									
15-SEP-89									
18-SEP-91									

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 238 238 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
09-OCT-87			-20.0	-10.0
14-JUN-88	10.0		-20.0	
16-JUL-88	-10.0		-20.0	
05-SEP-88	-10.0		40.0	
05-JUN-89	-10.0		30.0	-10.0
11-JUL-89	-10.0		-20.0	-10.0
15-SEP-89	-10.0		-20.0	-10.0
30-MAY-90			30.0	-10.0
06-JUL-90			70.0	10.0
24-SEP-90			-20.0	-10.0
11-JUN-91			-20.0	
15-JUL-91			-20.0	
18-SEP-91	-10.0		70.0	-10.0
17-JUN-92			-20.0	-10.0
15-JUL-92			-20.0	-10.0
21-SEP-92			-20.0	-10.0
22-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
28-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 238 238 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
09-OCT-87		-10.0	30.0	-10.0
14-JUN-88		40.0	40.0	-10.0
16-JUL-88		10.0	30.0	-10.0
05-SEP-88		10.0	1360.0	30.0
05-JUN-89		-10.0	960.0	20.0
11-JUL-89		-10.0	270.0	-10.0
15-SEP-89		30.0	1020.0	20.0
30-MAY-90			580.0	20.0
06-JUL-90			110.0	10.0
24-SEP-90			220.0	-10.0
11-JUN-91			50.0	-10.0
15-JUL-91			160.0	-10.0
18-SEP-91		30.0	710.0	30.0
17-JUN-92			-20.0	
15-JUL-92			290.0	
21-SEP-92			390.0	
22-JUN-93			140.0	-10.0
26-JUL-93			-20.0	-10.0
28-SEP-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 238 238 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
09-OCT-87	-50.0		-50.0	
14-JUN-88	-50.0	-20.0	-50.0	-20.0
16-JUL-88	-50.0	-20.0	-50.0	-20.0
05-SEP-88	-50.0	-20.0	-50.0	-20.0
05-JUN-89	50.0	-20.0	-50.0	-20.0
11-JUL-89	60.0	-20.0	-50.0	-20.0
15-SEP-89	-50.0	-20.0	-50.0	-20.0
18-SEP-91	50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 4

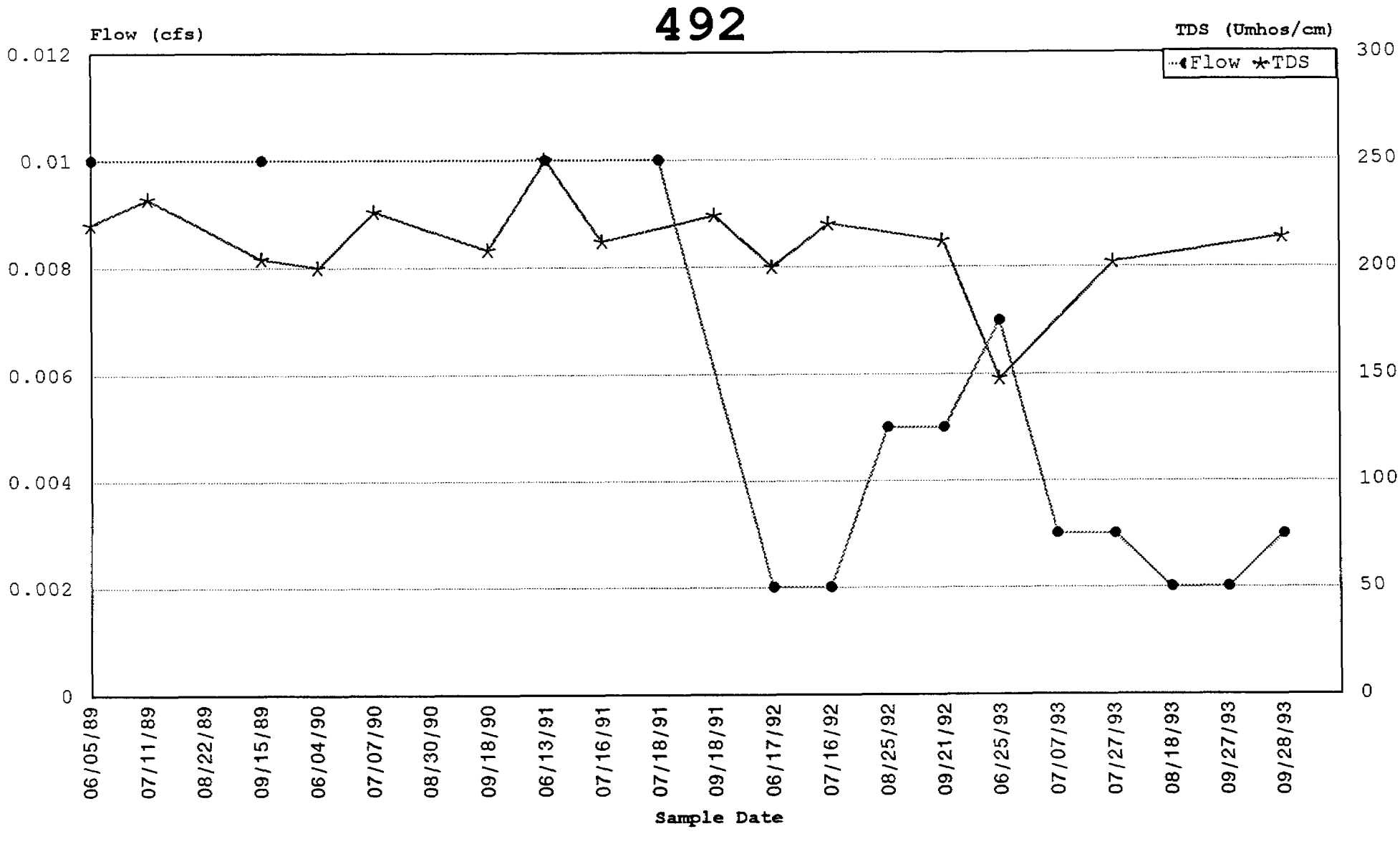

492
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.012
0.01
0.008
0.006
0.004
0.002
0
300
250
200
150
100
50
0
06/05/89
07/11/89
08/22/89
09/15/89
06/04/90
07/07/90
08/30/90
09/18/90
06/13/91
07/16/91
07/18/91
09/18/91
06/17/92
07/16/92
08/25/92
09/21/92
06/25/93
07/07/93
07/27/93
08/18/93
09/27/93
09/28/93
Sample Date

TABLE 8

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 492 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	5.391	0.7	7.000	4.000	DEGREES C	22	06/89 - 09/93
CONDUCTIVITY	FIELD	404.045	104.7	852.000	336.000	UMHOS/CM	22	06/89 - 09/93
PH	FIELD	7.319	0.8	8.600	6.180	PH	22	06/89 - 09/93
ALKALINITY	TOTAL	181.867	20.9	214.000	130.000	MG/L	15	06/89 - 09/93
HARDNESS	TOTAL	196.600	18.5	217.000	145.000	MG/L	15	06/89 - 09/93
SOLIDS	DISSOLVED	211.467	22.2	250.000	148.000	MG/L	15	06/89 - 09/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.007	0.0	0.010	0.002	CFS	8	06/89 - 09/92
CATIONS								
CALCIUM	DISSOLVED	50.133	5.3	62.000	40.000	MG/L	15	06/89 - 09/93
MAGNESIUM	DISSOLVED	17.400	2.4	20.000	11.000	MG/L	15	06/89 - 09/93
	TOTAL	17.750	3.3	20.000	10.000	MG/L	8	06/89 - 07/93
SODIUM	DISSOLVED	2.933	1.3	7.000	2.000	MG/L	15	06/89 - 09/93
POTASSIUM	DISSOLVED	-0.333	1.0	1.000	-1.000	MG/L	15	06/89 - 09/93
ANIONS								
BICARBONATE	AS HCO3	221.867	23.5	251.000	159.000	MG/L	15	06/89 - 09/93
CARBONATE	AS CO3	1.889	3.5	10.000	0.000	MG/L	9	06/91 - 09/93
CHLORIDE	N/A	2.267	0.7	3.000	1.000	MG/L	15	06/89 - 09/93
SULFATE	N/A	12.867	10.8	33.000	-2.000	MG/L	15	06/89 - 09/93

TABLE 8

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 492 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.083	0.1	0.200	-0.100	MG/L	6	06/89 - 09/91
GASES									
	SULPHIDE	TOTAL	-0.012	0.0	-0.010	-0.020	MG/L	6	06/89 - 09/91
PRIMARY									
	ARSENIC	DISSOLVED	-0.667	0.8	1.000	-1.000	UG/L	6	06/89 - 09/91
	BARIUM	DISSOLVED	46.667	70.3	190.000	10.000	UG/L	6	06/89 - 09/91
	CADMIUM	DISSOLVED	-6.667	2.6	-5.000	-10.000	UG/L	6	06/89 - 09/91
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	6	06/89 - 09/91
	LEAD	TOTAL	-25.000	12.2	-20.000	-50.000	UG/L	6	06/89 - 09/91
	MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	6	06/89 - 09/91
	SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	6	06/89 - 09/91
SECONDARY									
	COPPER	DISSOLVED	-6.667	8.2	10.000	-10.000	UG/L	6	06/89 - 09/91
	ZINC	TOTAL	16.667	8.2	30.000	10.000	UG/L	6	06/89 - 09/91
	IRON	DISSOLVED	1.333	54.2	180.000	-20.000	UG/L	15	06/89 - 09/93
		TOTAL	164.667	131.6	460.000	-20.000	UG/L	15	06/89 - 09/93
	MANGANESE	DISSOLVED	-8.333	5.8	10.000	-10.000	UG/L	12	06/89 - 07/93
		TOTAL	-7.500	8.7	20.000	-10.000	UG/L	12	06/89 - 09/93

TABLE 8

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 492 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-23.333	65.3	110.000	-50.000	UG/L	6	06/89 - 09/91
BORON	DISSOLVED	-5.000	23.5	30.000	-20.000	UG/L	6	06/89 - 09/91
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	6	06/89 - 09/91
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	6	06/89 - 09/91
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.043	0.0	0.080	-0.010	MG/L	6	06/89 - 09/91
	AMMIA-FREE	-0.001	0.0	0.001	-0.001	MG/L	6	06/89 - 09/91
	NITRATE	2.402	0.1	2.610	2.170	MG/L	6	06/89 - 09/91
	NO3+NO2	2.425	0.2	2.800	2.160	MG/L	6	06/89 - 09/91

TABLE 9
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 492 492 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
05-JUN-89		9435.00	0.01000	CFS	
11-JUL-89		9435.00	0.00000	CFS	
22-AUG-89		9435.00	0.00000	CFS	
15-SEP-89		9435.00	0.01000	CFS	
04-JUN-90		9435.00	0.00000	CFS	
07-JUL-90		9435.00	0.00000	CFS	
30-AUG-90		9435.00	0.00000	CFS	
18-SEP-90		9435.00	0.00000	CFS	

TABLE 9

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 492 492 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
13-JUN-91		9435.00	0.01000	CFS	
16-JUL-91		9435.00	0.00000	CFS	
18-JUL-91		9435.00	0.01000	CFS	
18-SEP-91		9435.00	0.00000	CFS	
17-JUN-92		9435.00	0.00200	CFS	, , , , , ,
16-JUL-92		9435.00	0.00200	CFS	, , , , , ,
25-AUG-92		9435.00	0.00500	CFS	, , , , , ,
21-SEP-92		9435.00	0.00500	CFS	, , , , , ,
25-JUN-93			0.00700		
07-JUL-93		9435.00	0.00300		
27-JUL-93			0.00300		
18-AUG-93		9435.00	0.00200		
27-SEP-93		9435.00	0.00200		
28-SEP-93			0.00300		

TABLE 9

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 492 492 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
05-JUN-89	5.0	350.0		7.7		148.0		177.0	220.0			
11-JUL-89	6.0	380.0		8.2		176.0		214.0	232.0			
22-AUG-89	5.0	350.0		7.5								
15-SEP-89	5.0	390.0		7.7		186.0		186.0	204.0			
04-JUN-90	4.0	390.0		7.5		190.0		210.0	200.0			
07-JUL-90	5.0	440.0		8.0		161.0		183.0	226.0			
30-AUG-90	5.0	450.0		8.0								
18-SEP-90	5.0	370.0		8.3		187.0		193.0	208.0			
13-JUN-91	4.0	390.0		7.3		194.0		207.0	250.0			
16-JUL-91	6.0	420.0		7.8		190.0		201.0	212.0			
18-JUL-91	6.0	390.0		8.6								
18-SEP-91	7.0	420.0		8.0	8.0	186.0		199.0	224.0			
17-JUN-92	5.3	389.0		7.6		186.0		203.0	200.0			
16-JUL-92	5.5	391.0		7.6		188.0		212.0	220.0			
25-AUG-92	6.0	380.0		7.0								
21-SEP-92	5.9	338.0		6.2		214.0		208.0	212.0			
25-JUN-93	5.9	852.0		6.3		130.0		145.0	148.0			
07-JUL-93	4.9	338.0		6.4								
27-JUL-93	6.0	366.0		6.5		196.0		217.0	202.0			
18-AUG-93	6.0	365.0		6.4								
27-SEP-93	4.8	336.0		6.2								
28-SEP-93	5.3	394.0		6.5		196.0		194.0	214.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 9

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 492 492 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
05-JUN-89	43.0	17.0	2.0	-1.0	
11-JUL-89	56.0	18.0	3.0	1.0	
15-SEP-89	45.0	18.0	3.0	-1.0	
04-JUN-90	53.0	19.0	3.0	-1.0	
07-JUL-90	47.0	16.0	2.0	-1.0	
18-SEP-90	51.0	16.0	4.0	1.0	
13-JUN-91	50.0	20.0	7.0	-1.0	
16-JUL-91	51.0	18.0	3.0	1.0	
18-SEP-91	50.0	18.0	2.0	-1.0	
17-JUN-92	50.0	19.0	3.0	1.0	
16-JUL-92	62.0	14.0	2.0	-1.0	
21-SEP-92	52.0	19.0	3.0	1.0	
25-JUN-93	40.0	11.0	2.0	-1.0	
27-JUL-93	54.0	20.0	3.0	-1.0	
28-SEP-93	48.0	18.0	2.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 9

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 492 492 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
05-JUN-89		17.0			
11-JUL-89		18.0			
15-SEP-89		19.0			
04-JUN-90		19.0			
18-SEP-90		20.0			
18-SEP-91		19.0			
25-JUN-93		10.0			
27-JUL-93		20.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 9

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 492 492 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
05-JUN-89	181.			3.	10.	0.2	0.01
11-JUL-89	215.			2.	16.	0.1	0.01
22-AUG-89							
15-SEP-89	227.			1.	6.	0.1	0.01
04-JUN-90	232.			2.	6.	0.2	0.01
07-JUL-90	240.			3.	31.		
30-AUG-90							
18-SEP-90	228.			3.	8.	0.1	0.01
13-JUN-91	217.	10.		1.	27.		
16-JUL-91	227.	2.		3.	6.		
18-JUL-91							
18-SEP-91	227.	0.		2.	12.	0.2	0.02
17-JUN-92	217.	0.		2.	33.		
16-JUL-92	229.	0.		2.	23.		
25-AUG-92							
21-SEP-92	251.	5.		2.	2.		
25-JUN-93	159.	0.		3.	2.		
07-JUL-93							
27-JUL-93	239.	0.		2.	9.		
18-AUG-93							
27-SEP-93							
28-SEP-93	239.	0.		3.	6.		

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 9

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 492 492 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
05-JUN-89	-1.0	20.0	-5.0				-0.1	-1.0	
11-JUL-89	-1.0	10.0	-5.0				-0.1	-1.0	
15-SEP-89	-1.0	190.0	-5.0				-0.1	-1.0	
04-JUN-90	-1.0	20.0	-10.0				-0.1	-1.0	
18-SEP-90	-1.0	20.0	-10.0				-0.1	-1.0	
18-SEP-91	1.0	20.0	-5.0				-0.1	-1.0	

TABLE 9

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 492 492 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
05-JUN-89						-20.0			
11-JUL-89						-20.0			
15-SEP-89						-20.0			
04-JUN-90						-20.0			
18-SEP-90						-50.0			
18-SEP-91						-20.0			

TABLE 9

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 492 492 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
05-JUN-89									
11-JUL-89									
15-SEP-89									
04-JUN-90									
18-SEP-90									
18-SEP-91									

TABLE

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 492 492 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
05-JUN-89	-10.0		-20.0	-10.0
11-JUL-89	-10.0		-20.0	-10.0
15-SEP-89	10.0		-20.0	-10.0
04-JUN-90	-10.0		-20.0	-10.0
07-JUL-90			-20.0	-10.0
18-SEP-90	-10.0		-20.0	-10.0
13-JUN-91			-20.0	
16-JUL-91			20.0	
18-SEP-91	-10.0		180.0	10.0
17-JUN-92			-20.0	-10.0
16-JUL-92			-20.0	-10.0
21-SEP-92			-20.0	-10.0
25-JUN-93			60.0	-10.0
27-JUL-93			-20.0	-10.0
28-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 492 492 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
05-JUN-89		20.0	200.0	-10.0
11-JUL-89		30.0	240.0	-10.0
15-SEP-89		10.0	320.0	-10.0
04-JUN-90		10.0	130.0	-10.0
07-JUL-90			70.0	-10.0
18-SEP-90		20.0	120.0	-10.0
13-JUN-91			-20.0	-10.0
16-JUL-91			240.0	-10.0
18-SEP-91		10.0	460.0	20.0
17-JUN-92			80.0	
16-JUL-92			90.0	
21-SEP-92			100.0	
25-JUN-93			150.0	-10.0
27-JUL-93			-20.0	-10.0
28-SEP-93			310.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 9

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 492 492 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
05-JUN-89	-50.0	20.0	-50.0	-20.0
11-JUL-89	-50.0	-20.0	-50.0	-20.0
15-SEP-89	-50.0	-20.0	-50.0	-20.0
04-JUN-90	-50.0	-20.0	-50.0	-20.0
18-SEP-90	-50.0	30.0	-50.0	-20.0
18-SEP-91	110.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 5

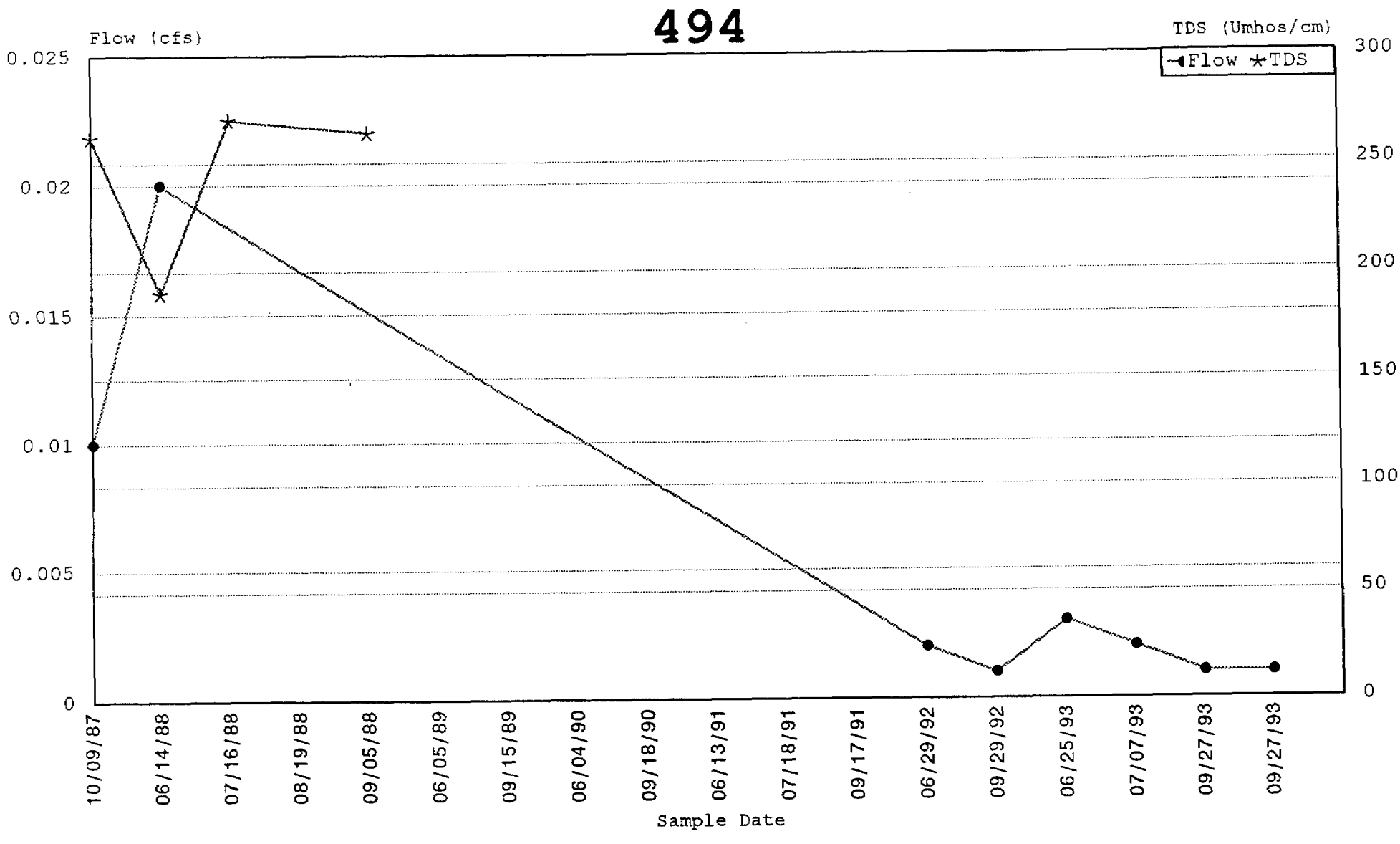

494
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.025
0.02
0.015
0.01
0.005
0
300
250
200
150
100
50
0
10/09/87
06/14/88
07/16/88
08/19/88
09/05/88
06/05/89
09/15/89
06/04/90
09/18/90
06/13/91
07/18/91
09/17/91
06/29/92
09/29/92
06/25/93
07/07/93
09/27/93
09/27/93
Sample Date

TABLE 10

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 494 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	8.234	3.3	16.000	4.000	DEGREES C	17	10/87 - 09/93
CONDUCTIVITY	FIELD	394.588	95.0	525.000	180.000	UMHOS/CM	17	10/87 - 09/93
PH	FIELD	7.725	0.7	8.410	6.390	PH	17	10/87 - 09/93
ALKALINITY	TOTAL	187.250	19.0	200.000	159.000	MG/L	4	10/87 - 09/88
HARDNESS	TOTAL	250.000	18.7	270.000	233.000	MG/L	3	10/87 - 09/88
SOLIDS	DISSOLVED	246.500	37.8	270.000	190.000	MG/L	4	10/87 - 09/88
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.008	0.0	0.020	0.001	CFS	4	10/87 - 09/92
CATIONS								
CALCIUM	DISSOLVED	60.000	5.3	67.000	55.000	MG/L	4	10/87 - 09/88
MAGNESIUM	DISSOLVED	23.333	1.5	25.000	22.000	MG/L	3	10/87 - 09/88
	TOTAL	22.250	5.7	26.000	14.000	MG/L	4	10/87 - 09/88
SODIUM	DISSOLVED	3.250	1.0	4.000	2.000	MG/L	4	10/87 - 09/88
POTASSIUM	DISSOLVED	0.000	1.2	1.000	-1.000	MG/L	4	10/87 - 09/88
ANIONS								
BICARBONATE	AS HCO3	228.500	23.2	244.000	194.000	MG/L	4	10/87 - 09/88
CHLORIDE	N/A	3.000	1.4	4.000	1.000	MG/L	4	10/87 - 09/88
SULFATE	N/A	32.750	15.2	41.000	10.000	MG/L	4	10/87 - 09/88

TABLE 10

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 494 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.133	0.1	0.200	0.100	MG/L	3	06/88 - 09/88
GASES									
	SULPHIDE	TOTAL	0.245	0.3	0.500	-0.100	MG/L	4	10/87 - 09/88
PRIMARY									
	ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	3	06/88 - 09/88
	BARIUM	DISSOLVED	20.000	10.0	30.000	10.000	UG/L	3	06/88 - 09/88
	CADMIUM	DISSOLVED	-1.667	5.8	5.000	-5.000	UG/L	3	06/88 - 09/88
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	3	06/88 - 09/88
	LEAD	TOTAL	0.000	23.1	20.000	-20.000	UG/L	4	10/87 - 09/88
	MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	3	06/88 - 09/88
	SELENIUM	DISSOLVED	0.667	1.5	2.000	-1.000	UG/L	3	06/88 - 09/88
SECONDARY									
	COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	3	06/88 - 09/88
	ZINC	TOTAL	7.500	12.6	20.000	-10.000	UG/L	4	10/87 - 09/88
	IRON	DISSOLVED	55.000	113.6	220.000	-20.000	UG/L	4	10/87 - 09/88
		TOTAL	280.000	241.0	480.000	-20.000	UG/L	4	10/87 - 09/88
	MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	10/87 - 10/87
		TOTAL	-5.000	10.0	10.000	-10.000	UG/L	4	10/87 - 09/88

TABLE 10

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 494 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	4	10/87 - 09/88
BORON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	3	06/88 - 09/88
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	4	10/87 - 09/88
NICKEL	DISSOLVED	-6.667	23.1	20.000	-20.000	UG/L	3	06/88 - 09/88
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.000	0.0	0.040	-0.020	MG/L	3	06/88 - 09/88
	AMMIA-FREE	-0.001	0.0	-0.001	-0.001	MG/L	3	06/88 - 09/88
	NITRATE	1.270	0.6	2.010	0.660	MG/L	4	10/87 - 09/88
	NO3+NO2	1.265	0.6	2.020	0.650	MG/L	4	10/87 - 09/88

TABLE II

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 494 494 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
09-OCT-87		9380.00	0.01000	CFS	
14-JUN-88		9380.00	0.02000	CFS	
16-JUL-88		9380.00	0.00000	CFS	
19-AUG-88		9380.00	0.00000	CFS	
05-SEP-88		9380.00	0.00000	CFS	
05-JUN-89		9380.00	0.00000	CFS	
15-SEP-89		9380.00	0.00000	CFS	
04-JUN-90		9380.00	0.00000	CFS	

TABLE 14
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 494 494 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
18-SEP-90		9380.00	0.00000	CFS	
13-JUN-91		9380.00	0.00000	CFS	
18-JUL-91		9380.00	0.00000	CFS	
17-SEP-91		9380.00	0.00000	CFS	
29-JUN-92			0.00200	CFS	
29-SEP-92		9380.00	0.00100	CFS	, , , , , ,
25-JUN-93		9380.00	0.00300		
07-JUL-93		9380.00	0.00200		
27-SEP-93		9380.00	0.00100		
27-SEP-93		9380.00	0.00100		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0
NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE II

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 494 494 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
09-OCT-87	5.9	525.0		8.4		196.0		247.0	262.0			
14-JUN-88	5.5	180.0		7.7		159.0			190.0			
16-JUL-88	13.0	262.0		8.3		194.0		233.0	270.0			
19-AUG-88	9.0	290.0		8.3								
05-SEP-88	6.4	280.0		7.7		200.0		270.0	264.0			
05-JUN-89	16.0	380.0		8.4								
15-SEP-89	8.0	460.0		8.1								
04-JUN-90	11.0	450.0		7.7								
18-SEP-90	6.0	450.0		8.3								
13-JUN-91	4.0	450.0		8.3								
18-JUL-91	8.0	500.0		8.4								
17-SEP-91	7.0	420.0		7.9								
29-SEP-92	6.2	503.0		6.9								
25-JUN-93	5.4	360.0		6.4								
07-JUL-93	12.7	410.0		7.2								
27-SEP-93	10.2	418.0		7.1								
27-SEP-93	5.7	370.0		6.4								

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 11
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED
STATION: 494 494 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
09-OCT-87	61.0	23.0	4.0	1.0	
14-JUN-88	55.0		2.0	1.0	
16-JUL-88	57.0	22.0	4.0	-1.0	
05-SEP-88	67.0	25.0	3.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 14

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 494 494 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
09-OCT-87		26.0			
14-JUN-88		14.0			
16-JUL-88		23.0			
05-SEP-88		26.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE II

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 494 494 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
09-OCT-87	239.			4.	39.		0.10
14-JUN-88	194.			1.	10.	0.1	0.50
16-JUL-88	237.			3.	41.	0.2	0.50
19-AUG-88							
05-SEP-88	244.			4.	41.	0.1	0.08
05-JUN-89							
15-SEP-89							
04-JUN-90							
18-SEP-90							
13-JUN-91							
18-JUL-91							
17-SEP-91							
29-JUN-92							
29-SEP-92							
25-JUN-93							
07-JUL-93							
27-SEP-93							
27-SEP-93							

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE #1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 494 494 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
14-JUN-88	-1.0	30.0	-5.0				-0.1	-1.0	
16-JUL-88	-1.0	20.0	5.0				-0.1	1.0	
05-SEP-88	-1.0	10.0	-5.0				-0.1	2.0	

TABLE 11

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 494 494 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
09-OCT-87						20.0			
14-JUN-88						20.0			
16-JUL-88						-20.0			
05-SEP-88						-20.0			

TABLE 11

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 494 494 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
14-JUN-88									
16-JUL-88									
05-SEP-88									

TABLE II

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 494 494 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
09-OCT-87			-20.0	-10.0
14-JUN-88	-10.0		40.0	
16-JUL-88	-10.0		220.0	
05-SEP-88	-10.0		-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE II

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 494 494 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
09-OCT-87		-10.0	480.0	-10.0
14-JUN-88		10.0	190.0	-10.0
16-JUL-88		10.0	-20.0	-10.0
05-SEP-88		20.0	470.0	10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE II

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 494 494 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
09-OCT-87	-50.0		-50.0	
14-JUN-88	-50.0	-20.0	-50.0	-20.0
16-JUL-88	-50.0	-20.0	-50.0	-20.0
05-SEP-88	-50.0	-20.0	-50.0	20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

APPENDIX D

PRICE RIVER FORMATION SPRINGS

Figure 6

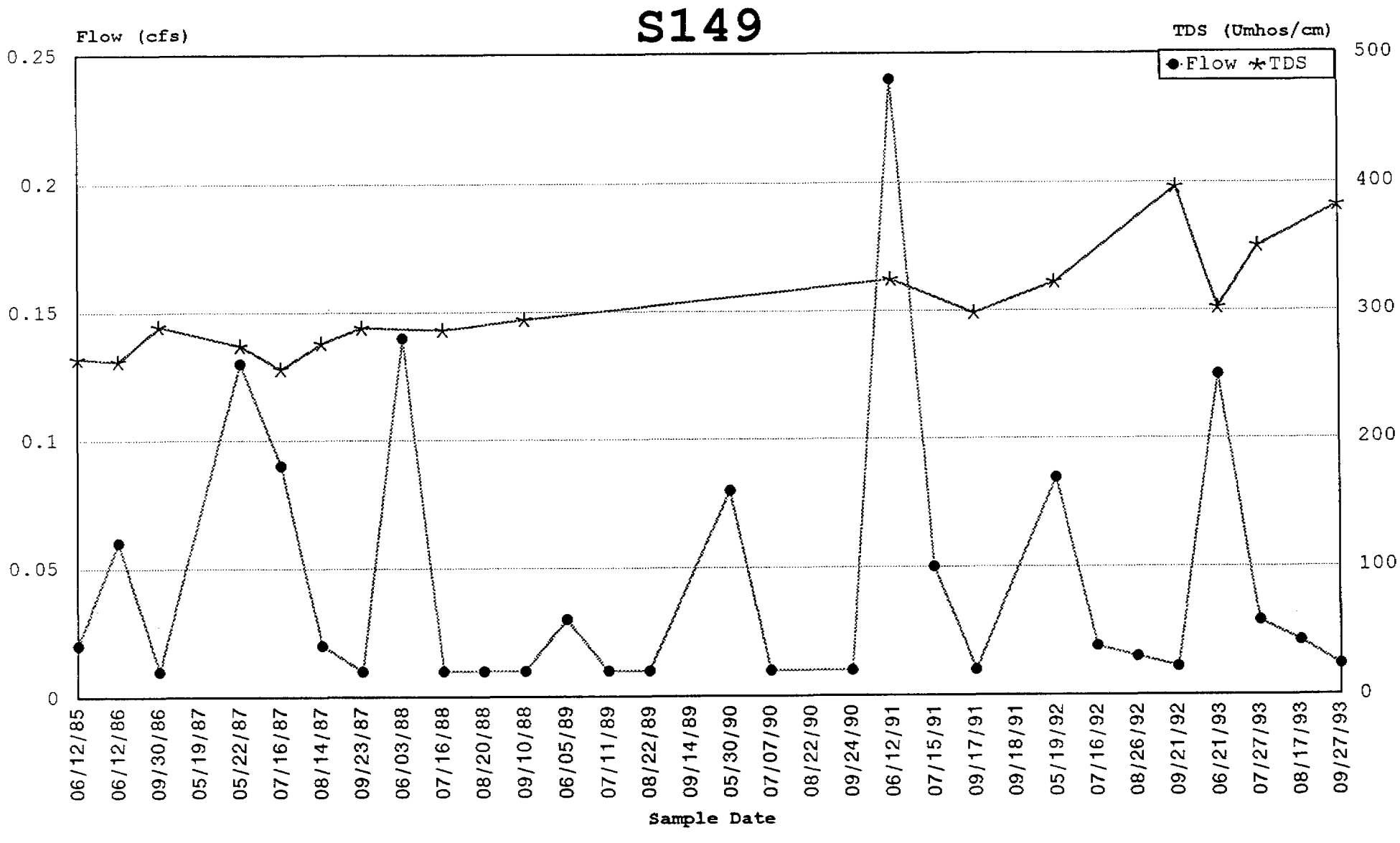

S149
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.25
0.2
0.15
0.1
0.05
0
500
400
300
200
100
0
06/12/85
06/12/86
09/30/86
05/19/87
05/22/87
07/16/87
08/14/87
09/23/87
06/03/88
07/16/88
08/20/88
09/10/88
06/05/89
07/11/89
08/22/89
09/14/89
05/30/90
07/07/90
08/22/90
09/24/90
06/12/91
07/15/91
09/17/91
09/18/91
05/19/92
07/16/92
08/26/92
09/21/92
06/21/93
07/27/93
08/17/93
09/27/93
Sample Date

TABLE 12
CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: S149 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	5.863	0.9	8.000	4.000	DEGREES C	30	06/86 - 09/93
CONDUCTIVITY	FIELD	472.828	94.6	649.000	268.000	UMHOS/CM	29	09/86 - 09/93
PH	FIELD	7.382	0.8	8.980	5.980	PH	29	06/86 - 09/93
ALKALINITY	TOTAL	240.353	26.9	272.000	150.000	MG/L	17	06/85 - 09/93
ACIDITY	AS CACO3	-0.500	0.5	0.000	-1.000	MG/L	6	06/85 - 09/88
HARDNESS	TOTAL	278.615	42.7	334.000	191.000	MG/L	13	07/87 - 09/93
SOLIDS	DISSOLVED	303.938	41.4	396.000	256.000	MG/L	16	06/85 - 09/93
	SUSPENDED	29.000	0.0	29.000	29.000	MG/L	1	06/86 - 06/86
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.045	0.1	0.240	0.010	CFS	24	06/85 - 09/92
CATIONS								
CALCIUM	DISSOLVED	77.429	15.3	95.000	47.000	MG/L	14	05/87 - 09/93
	TOTAL	80.000	0.0	80.000	80.000	MG/L	3	06/85 - 09/86
MAGNESIUM	DISSOLVED	19.143	4.0	26.000	13.000	MG/L	14	05/87 - 09/93
	TOTAL	18.850	2.8	25.000	15.000	MG/L	10	06/85 - 07/93
SODIUM	DISSOLVED	3.500	1.9	10.000	2.000	MG/L	14	05/87 - 09/93
	TOTAL	2.433	0.4	2.700	2.000	MG/L	3	06/85 - 09/86
POTASSIUM	DISSOLVED	0.714	0.7	1.000	-1.000	MG/L	14	05/87 - 09/93
	TOTAL	0.867	0.1	1.000	0.800	MG/L	3	06/85 - 09/86

TABLE 12

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: S149 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS									
	BICARBONATE	AS HCO3	298.294	17.9	332.000	268.000	MG/L	17	06/85 - 09/93
	CARBONATE	AS CO3	1.375	4.3	12.000	-1.000	MG/L	8	09/86 - 09/93
	CHLORIDE	N/A	1.941	1.0	3.000	-1.000	MG/L	17	06/85 - 09/93
	SULFATE	N/A	35.059	27.8	91.000	7.000	MG/L	17	06/85 - 09/93
MINOR									
	FLUORIDE	N/A	0.250	0.3	0.500	-0.100	MG/L	4	05/87 - 09/91
GASES									
	SULPHIDE	TOTAL	-0.145	0.1	0.020	-0.200	MG/L	4	07/87 - 09/91
PRIMARY									
	ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	4	05/87 - 09/91
		TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	1	09/86 - 09/86
	BARIUM	DISSOLVED	70.000	8.2	80.000	60.000	UG/L	4	05/87 - 09/91
		TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	1	09/86 - 09/86
	CADMIUM	DISSOLVED	-5.000	0.0	-5.000	-5.000	UG/L	4	05/87 - 09/91
		TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	1	09/86 - 09/86
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	1	09/91 - 09/91
	LEAD	TOTAL	-25.000	12.2	-20.000	-50.000	UG/L	6	09/86 - 09/91
	MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	1	09/91 - 09/91
		TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	4	09/86 - 08/87
	SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	09/91 - 09/91
		TOTAL	-0.750	3.1	2.000	-5.000	UG/L	4	09/86 - 08/87

TABLE 12

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: S149 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	09/91 - 09/91
	TOTAL	-12.500	5.0	-10.000	-20.000	UG/L	4	09/86 - 08/87
ZINC	TOTAL	-2.500	9.9	10.000	-10.000	UG/L	6	09/86 - 09/91
IRON	DISSOLVED	-10.000	33.7	60.000	-50.000	UG/L	17	06/85 - 09/93
	TOTAL	362.941	576.6	1720.000	-50.000	UG/L	17	06/85 - 09/93
MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	12	06/85 - 07/93
	TOTAL	-2.667	13.3	30.000	-10.000	UG/L	15	06/85 - 09/93
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	2	09/87 - 09/91
BORON	DISSOLVED	2.500	26.3	30.000	-20.000	UG/L	4	05/87 - 09/91
	TOTAL	100.000	0.0	100.000	100.000	UG/L	1	09/86 - 09/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	2	09/87 - 09/91
	TOTAL	-50.000	0.0	-50.000	-50.000	UG/L	3	05/87 - 08/87
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	09/91 - 09/91
	TOTAL	-10.000	34.6	40.000	-40.000	UG/L	4	09/86 - 08/87
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.003	0.0	0.070	-0.020	MG/L	4	05/87 - 09/91
	AMMIA-FREE	0.002	0.0	0.002	0.002	MG/L	1	09/91 - 09/91
	NITRATE	0.832	0.4	1.160	0.030	MG/L	6	09/86 - 09/91
	NO3+NO2	0.988	0.1	1.160	0.780	MG/L	5	05/87 - 09/91

TABLE 12

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: S149 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ORGANICS								
OIL&GREASE	N/A	-0.500	0.0	-0.500	-0.500	MG/L	2	06/86 - 09/86

TABLE 13
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: S149 S14-9 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
12-JUN-85		9340.00	0.02000	CFS	
12-JUN-86		9340.00	0.06000	CFS	
30-SEP-86		9340.00	0.01000	CFS	
19-MAY-87					
22-MAY-87		9340.00	0.13000	CFS	
16-JUL-87		9340.00	0.09000	CFS	
14-AUG-87		9340.00	0.02000	CFS	
23-SEP-87		9340.00	0.01000	CFS	

TABLE 13

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: S149 S14-9 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
03-JUN-88		9340.00	0.14000	CFS	
16-JUL-88		9340.00	0.01000	CFS	
20-AUG-88		9340.00	0.01000	CFS	
10-SEP-88		9340.00	0.01000	CFS	
05-JUN-89		9340.00	0.03000	CFS	
11-JUL-89		9340.00	0.01000	CFS	
22-AUG-89		9340.00	0.01000	CFS	
14-SEP-89		9340.00	0.00000	CFS	

TABLE 13
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: S149 S14-9 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
30-MAY-90		9340.00	0.08000	CFS	
07-JUL-90		9340.00	0.01000	CFS	
22-AUG-90		9340.00	0.00000	CFS	
24-SEP-90		9340.00	0.01000	CFS	
12-JUN-91		9340.00	0.24000	CFS	
15-JUL-91		9340.00	0.05000	CFS	
17-SEP-91		9340.00	0.01000	CFS	
18-SEP-91		9340.00	0.00000	CFS	NO FLOW

TABLE 1 3

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: S149 S14-9 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
19-MAY-92		9340.00	0.08470	CFS	, , , , , ,
16-JUL-92			0.01900	CFS	
26-AUG-92		9340.00	0.01500	CFS	, , , , , ,
21-SEP-92		9340.00	0.01100	CFS	, , , , , ,
21-JUN-93			0.12500		
27-JUL-93			0.02900		
17-AUG-93		9340.00	0.02100		
27-SEP-93			0.01200		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 13

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
12-JUN-85			440.0		7.9	235.0	-1.0		264.0			
12-JUN-86	5.0		478.0	7.8	8.0	235.0	-1.0		262.0	29.0		
30-SEP-86	5.0	400.0	520.0		8.1	245.0	-1.0		289.0			
19-MAY-87	4.9	420.0		7.6								
22-MAY-87	4.2	415.0	522.0	8.0	7.9	150.0			274.0			
16-JUL-87	5.0	410.0	471.0	8.7	7.9	222.0		191.0	256.0			
14-AUG-87	6.1	420.0	474.0	8.2	8.1	221.0		240.0	276.0			
23-SEP-87	6.0	500.0	492.0	7.2		251.0		294.0	288.0			
03-JUN-88	5.5	268.0		7.2		249.0	0.0	273.0				
16-JUL-88	7.0	317.0		8.1		240.0	0.0	246.0	286.0			
20-AUG-88	6.0	318.0		7.5								
10-SEP-88	8.0	330.0		9.0		248.0	0.0	320.0	294.0			
05-JUN-89	5.0	460.0		7.4								
11-JUL-89	6.0	520.0		7.5								
22-AUG-89	6.0	520.0		7.2								
14-SEP-89	6.0	510.0		7.3								
30-MAY-90	7.0	410.0		7.0								
07-JUL-90	7.0	500.0		7.1								
22-AUG-90	6.0	480.0		8.4								
24-SEP-90	5.0	440.0		8.3								
12-JUN-91	4.0	500.0		7.2		240.0		228.0	324.0			
15-JUL-91	6.0	430.0		7.5								
17-SEP-91	7.0	490.0		8.2	8.2	246.0		263.0	298.0			
19-MAY-92	5.1	552.0		7.6		258.0		303.0	322.0			
16-JUL-92	5.9	583.0		7.2								
26-AUG-92	6.2	620.0		6.7								
21-SEP-92	6.5	649.0		6.1		250.0		300.0	396.0			
21-JUN-93	5.4	533.0		6.0		260.0		310.0	302.0			

TABLE 13
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
27-JUL-93	6.0	550.0		6.2		264.0		334.0	350.0			
17-AUG-93	6.8	557.0		6.1								
27-SEP-93	6.3	610.0		6.2		272.0		320.0	382.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 13

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
22-MAY-87	47.0	17.0	3.0	1.0	
16-JUL-87	47.0	18.0	3.0	1.0	
14-AUG-87	68.0	17.0	3.0	1.0	
23-SEP-87	88.0	18.0	4.0	1.0	
03-JUN-88	83.0	16.0	3.0	1.0	
16-JUL-88	72.0	16.0	3.0	-1.0	
10-SEP-88	95.0	20.0	3.0	1.0	
12-JUN-91	70.0	13.0	2.0	1.0	
17-SEP-91	79.0	16.0	3.0	-1.0	
19-MAY-92	90.0	19.0	3.0	1.0	
21-SEP-92	79.0	25.0	10.0	1.0	
21-JUN-93	88.0	22.0	3.0	1.0	
27-JUL-93	91.0	26.0	3.0	1.0	
27-SEP-93	87.0	25.0	3.0	1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 13

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
12-JUN-85	80.0	20.0	2.0	0.8	
12-JUN-86	80.0	16.0	2.6	0.8	
30-SEP-86	80.0	19.5	2.7	1.0	
22-MAY-87		15.0			
16-JUL-87		18.0			
14-AUG-87		18.0			
23-SEP-87		19.0			
17-SEP-91		17.0			
21-JUN-93		21.0			
27-JUL-93		25.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 13

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
12-JUN-85	287.			3.	7.		
12-JUN-86	286.			2.	32.		
30-SEP-86	299.	1.		3.	35.		
19-MAY-87							
22-MAY-87	298.			1.	8.	0.5	
16-JUL-87	271.			2.	12.	0.4	0.20
14-AUG-87	270.			3.	10.	0.2	0.20
23-SEP-87	306.			2.	21.		0.20
03-JUN-88	304.			2.	8.		
16-JUL-88	293.			2.	21.		
20-AUG-88							
10-SEP-88	303.			2.	91.		
05-JUN-89							
11-JUL-89							
22-AUG-89							
14-SEP-89							
30-MAY-90							
07-JUL-90							
22-AUG-90							
24-SEP-90							
12-JUN-91	268.	12.		3.	14.		
15-JUL-91							
17-SEP-91	300.	0.		1.	19.	0.1	0.02
18-SEP-91							
19-MAY-92	310.	0.		1.	54.		
16-JUL-92							
26-AUG-92							
21-SEP-92	305.	0.		2.	70.		
21-JUN-93	317.	0.		2.	70.		

TABLE 13

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
27-JUL-93	322.	0.		2.	47.		
17-AUG-93							
27-SEP-93	332.	0.		2.	77.		

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 13

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
22-MAY-87	-1.0	60.0	-5.0						
16-JUL-87	-1.0	80.0	-5.0						
14-AUG-87	-1.0	70.0	-5.0						
17-SEP-91	-1.0	70.0	-5.0				-0.1	-1.0	

TABLE 13
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
30-SEP-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
22-MAY-87						-20.0	-0.2	-1.0	
16-JUL-87						-20.0	-0.2	2.0	
14-AUG-87						-20.0	-0.2	1.0	
23-SEP-87						-20.0			
17-SEP-91						-20.0			

TABLE 13
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS
STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
17-SEP-91									

TABLE 13
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL
STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
30-SEP-86									
22-MAY-87									
16-JUL-87									
14-AUG-87									

TABLE 13
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED
STATION: S149 S14-9 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
12-JUN-85			-50.0	-10.0
12-JUN-86			-50.0	-10.0
30-SEP-86			-50.0	-10.0
22-MAY-87			-20.0	-10.0
16-JUL-87			40.0	-10.0
14-AUG-87			-20.0	-10.0
23-SEP-87			-20.0	-10.0
03-JUN-88			-20.0	
16-JUL-88			40.0	
10-SEP-88			-20.0	
12-JUN-91			-20.0	
17-SEP-91	-10.0		60.0	-10.0
19-MAY-92			-20.0	-10.0
21-SEP-92			40.0	-10.0
21-JUN-93			-20.0	-10.0
27-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 13
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: S149 S14-9 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
12-JUN-85			80.0	-10.0
12-JUN-86			-50.0	-10.0
30-SEP-86	-20.0	-5.0	-50.0	-10.0
22-MAY-87	-10.0	-10.0	170.0	-10.0
16-JUL-87	-10.0	10.0	1490.0	30.0
14-AUG-87	-10.0	-10.0	500.0	-10.0
23-SEP-87		10.0	200.0	-10.0
03-JUN-88			-20.0	-10.0
16-JUL-88			20.0	-10.0
10-SEP-88			20.0	10.0
12-JUN-91			-20.0	-10.0
17-SEP-91		-10.0	310.0	10.0
19-MAY-92			-20.0	
21-SEP-92			1280.0	
21-JUN-93			-20.0	-10.0
27-JUL-93			560.0	-10.0
27-SEP-93			1720.0	20.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 13

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
22-MAY-87		30.0		
16-JUL-87		-20.0		
14-AUG-87		-20.0		
23-SEP-87	-50.0		-50.0	
17-SEP-91	-50.0	20.0	-50.0	-20.0

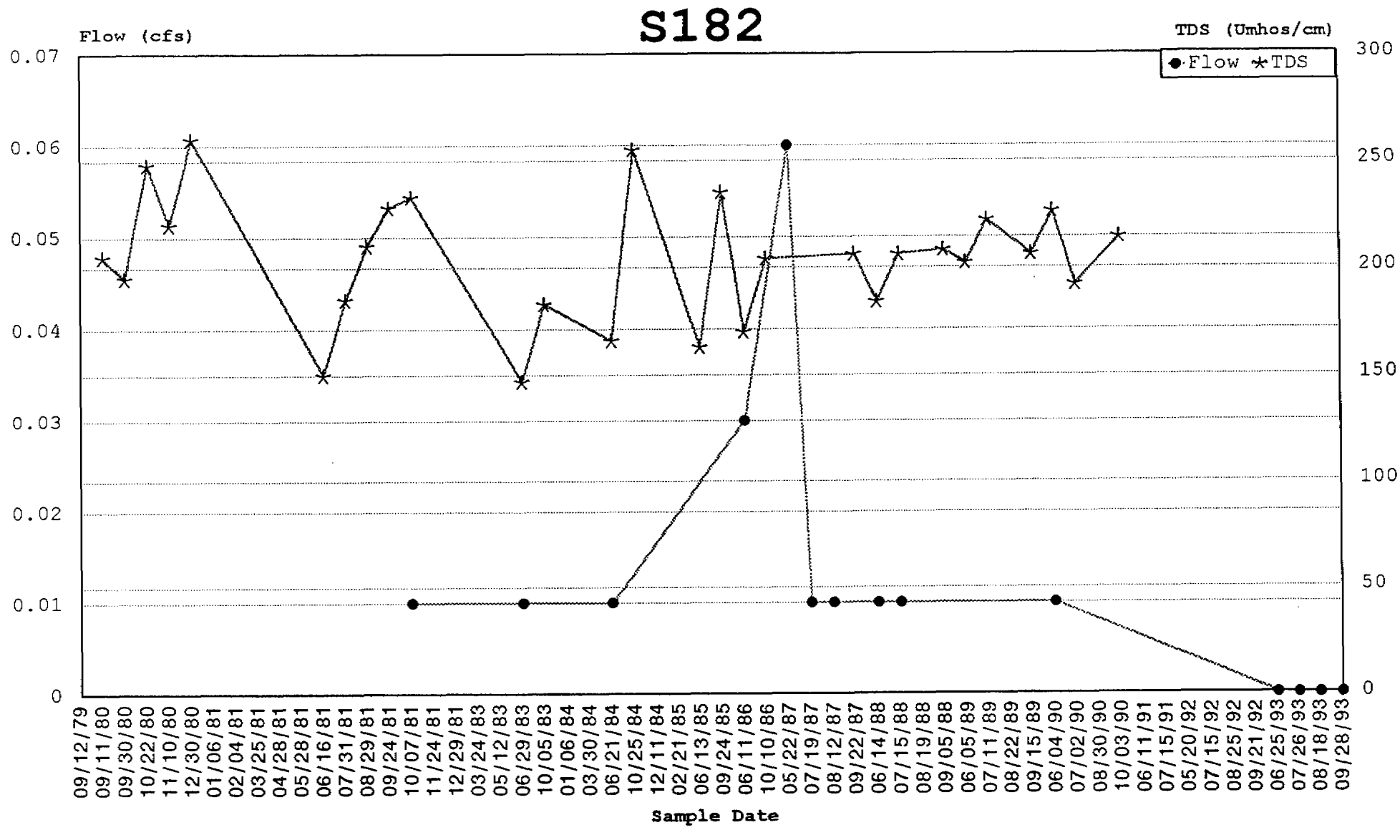
Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 13
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL
STATION: S149 S14-9 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
30-SEP-86		100.0		-40.0
22-MAY-87	-50.0		-50.0	-20.0
16-JUL-87	1150.0		-50.0	40.0
14-AUG-87	540.0		-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 7


S182
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
300
250
200
150
100
50
0
09/12/79
09/11/80
09/30/80
10/22/80
11/10/80
12/30/80
01/06/81
02/04/81
03/25/81
04/28/81
05/28/81
06/16/81
07/31/81
08/29/81
09/24/81
10/07/81
11/24/81
12/29/81
03/24/83
05/12/83
06/29/83
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03/30/84
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02/21/85
06/13/85
09/24/85
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10/10/86
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06/05/89
07/11/89
08/22/89
09/15/89
06/04/90
07/02/90
08/30/90
10/03/90
06/11/91
07/15/91
05/20/92
07/15/92
08/25/92
09/21/92
06/25/93
07/26/93
08/18/93
09/28/93
Sample Date

TABLE 14

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: S182 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	9.059	2.9	17.000	4.000	DEGREES C	29	09/79 - 10/90
CONDUCTIVITY	FIELD	322.471	91.3	585.000	195.000	UMHOS/CM	17	10/86 - 10/90
PH	FIELD	7.446	0.5	8.250	6.440	PH	17	06/86 - 10/90
ALKALINITY	TOTAL	155.852	24.1	220.000	114.000	MG/L	25	09/80 - 10/90
ACIDITY	AS CACO3	2.571	5.3	18.000	-1.000	MG/L	21	09/80 - 09/89
HARDNESS	TOTAL	181.300	24.4	213.000	132.000	MG/L	10	09/87 - 10/90
SOLIDS	DISSOLVED	204.393	29.3	260.000	147.000	MG/L	28	09/80 - 10/90
	SUSPENDED	4.113	5.1	15.000	-0.500	MG/L	12	09/80 - 10/86
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.017	0.0	0.060	0.010	CFS	10	10/81 - 06/90
CATIONS								
CALCIUM	DISSOLVED	53.800	7.4	64.000	38.000	MG/L	10	09/87 - 10/90
	TOTAL	55.567	7.6	71.000	40.000	MG/L	18	09/80 - 10/86
MAGNESIUM	DISSOLVED	11.400	1.6	13.000	9.000	MG/L	10	09/87 - 10/90
	TOTAL	11.388	4.4	26.400	5.280	MG/L	20	09/80 - 06/88
SODIUM	DISSOLVED	3.900	1.1	6.000	2.000	MG/L	10	09/87 - 10/90
	TOTAL	4.439	1.9	10.800	1.500	MG/L	18	09/80 - 10/86
POTASSIUM	DISSOLVED	0.100	1.2	2.000	-1.000	MG/L	10	09/87 - 10/90
	TOTAL	2.170	3.1	9.600	0.300	MG/L	18	09/80 - 10/86

TABLE 14

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: S182 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS								
BICARBONATE	AS HCO3	190.902	29.9	268.000	139.000	MG/L	28	09/80 - 10/90
CARBONATE	AS CO3	-1.000	0.0	-1.000	-1.000	MG/L	4	10/83 - 10/86
CHLORIDE	N/A	3.801	1.7	8.000	0.650	MG/L	28	09/80 - 10/90
SULFATE	N/A	25.036	14.4	76.000	10.000	MG/L	28	09/80 - 10/90
MINOR								
FLUORIDE	N/A	0.130	0.0	0.130	0.130	MG/L	1	09/80 - 09/80
GASES								
SULPHIDE	TOTAL	-0.200	0.0	-0.200	-0.200	MG/L	1	09/87 - 09/87
PRIMARY								
ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	06/88 - 06/88
	TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	5	09/80 - 10/86
BARIUM	TOTAL	-70.000	67.1	50.000	-100.000	UG/L	5	09/80 - 10/86
CADMIUM	TOTAL	5.600	21.5	44.000	-5.000	UG/L	5	09/80 - 10/86
LEAD	TOTAL	-34.667	25.8	12.000	-50.000	UG/L	6	09/80 - 09/87
MERCURY	TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	5	09/80 - 10/86
SELENIUM	TOTAL	-3.260	2.4	-0.300	-5.000	UG/L	5	09/80 - 10/86

TABLE 14

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: S182 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	TOTAL	-4.000	23.0	30.000	-20.000	UG/L	5	09/80 - 10/86
ZINC	TOTAL	1.333	9.0	11.000	-10.000	UG/L	6	09/80 - 09/87
IRON	DISSOLVED	18.893	52.3	140.000	-50.000	UG/L	28	09/80 - 10/90
	TOTAL	118.429	168.5	700.000	-50.000	UG/L	28	09/80 - 10/90
MANGANESE	DISSOLVED	-8.875	3.1	-1.000	-10.000	UG/L	16	12/80 - 10/90
	TOTAL	2.321	18.8	80.000	-10.000	UG/L	28	09/80 - 10/90
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	1	09/87 - 09/87
BORON	TOTAL	124.400	79.2	230.000	12.000	UG/L	5	09/80 - 10/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	1	09/87 - 09/87
NICKEL	TOTAL	-40.000	0.0	-40.000	-40.000	UG/L	4	10/83 - 10/86
NUTRIENTS								
NITROGEN	NITRATE	0.794	0.6	1.310	0.010	MG/L	7	09/80 - 06/88
	NO3+NO2	1.240	0.0	1.260	1.220	MG/L	2	09/87 - 06/88
ORGANICS								
OIL&GREASE	N/A	-0.067	0.7	1.200	-0.500	MG/L	6	09/80 - 10/86

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: S182 S18-2 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
12-SEP-79		9650.00	0.00000	CFS	
11-SEP-80		9650.00			
30-SEP-80		9650.00	0.00000	CFS	
22-OCT-80		9650.00	0.00000	CFS	
10-NOV-80		9650.00	0.00000	CFS	
30-DEC-80		9650.00	0.00000	CFS	
06-JAN-81		9650.00			IN-ACCESSIBLE - SNOW
04-FEB-81		9650.00			IN-ACCESSIBLE - SNOW

TABLE 15
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: S182 S18-2 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
25-MAR-81		9650.00			IN-ACCESSIBLE - SNOW
28-APR-81		9650.00			IN-ACCESSIBLE - SNOW
28-MAY-81		9650.00			IN-ACCESSIBLE - RAIN & MUD
16-JUN-81		9650.00	0.00000	CFS	
31-JUL-81		9650.00			
29-AUG-81		9650.00	0.00000	CFS	
24-SEP-81		9650.00			
07-OCT-81		9650.00	0.01000	CFS	

TABLE 15
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: S182 S18-2 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
24-NOV-81		9650.00			IN-ACCESSIBLE
29-DEC-81		9650.00			IN-ACCESSIBLE
24-MAR-83		9650.00			IN-ACCESSIBLE
12-MAY-83		9650.00			IN-ACCESSIBLE
29-JUN-83		9650.00	0.01000	CFS	
05-OCT-83		9650.00	0.00000	CFS	
06-JAN-84		9650.00			COVERED W/SNOW NOT POSS TO SAMPLE
30-MAR-84		9650.00			COVERED W/SNOW NOT POSS TO SAMPLE

TABLE 15
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: S182 S18-2 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
21-JUN-84		9650.00	0.01000	CFS	
25-OCT-84		9650.00			
11-DEC-84		9650.00			IN-ACCESSIBLE - SNOW
21-FEB-85		9650.00			IN-ACCESSIBLE - SNOW
13-JUN-85		9650.00	0.00000	CFS	
24-SEP-85		9650.00	0.00000	CFS	
11-JUN-86		9650.00	0.03000	CFS	
10-OCT-86		9650.00	0.00000	CFS	

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: S182 S18-2 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
22-MAY-87		9650.00	0.06000	CFS	
19-JUL-87		9650.00	0.01000	CFS	
12-AUG-87		9650.00	0.01000	CFS	
22-SEP-87		9650.00	0.00000	CFS	
14-JUN-88		9650.00	0.01000	CFS	
15-JUL-88		9650.00	0.01000	CFS	
19-AUG-88		9650.00	0.00000	CFS	
05-SEP-88		9650.00	0.00000	CFS	

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: S182 S18-2 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
05-JUN-89		9650.00	0.00000	CFS	
11-JUL-89		9650.00	0.00000	CFS	
22-AUG-89		9650.00	0.00000	CFS	
15-SEP-89		9650.00	0.00000	CFS	
04-JUN-90		9650.00	0.01000	CFS	
02-JUL-90		9650.00	0.00000	CFS	
30-AUG-90		9650.00	0.00000	CFS	
03-OCT-90		9650.00	0.00000	CFS	

TABLE 1
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: S182 S18-2 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
11-JUN-91		9650.00	0.00000	CFS	NO FLOW
15-JUL-91		9650.00	0.00000	CFS	
20-MAY-92		9650.00			, , , , , ,
15-JUL-92		9650.00			, , , , , ,
25-AUG-92		9650.00			, , , , , ,
21-SEP-92		9650.00			, , , , , ,
25-JUN-93		9650.00	0.00000		NO FLOW
26-JUL-93		9650.00	0.00000		NO FLOW
18-AUG-93		9650.00	0.00000		NO FLOW
28-SEP-93		9650.00	0.00000		NO FLOW

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0
NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 15
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
12-SEP-79	8.0		365.0		6.9							
11-SEP-80						158.0	8.0		205.0	3.0		
30-SEP-80	9.0		300.0		7.1				195.0	2.0		
22-OCT-80	7.0		380.0		7.0				248.0	15.0		
10-NOV-80			340.0		7.2				220.0			
30-DEC-80	4.0		198.0		7.0	178.0	12.0		260.0			
16-JUN-81			195.0		7.6	126.0	5.7		150.0			
31-JUL-81			360.0			158.0	5.7		185.0	-0.1		
29-AUG-81	17.0					158.0	18.0		210.0			
24-SEP-81			350.0		7.3	186.0	4.6		228.0	9.0		
07-OCT-81	7.0		360.0		7.2	186.3	8.0		233.0	10.0		
29-JUN-83	8.0		285.0		6.8	114.0	-1.0		147.0	-0.1		
05-OCT-83	9.0		360.0		7.9	148.0	-1.0		183.0	-0.5		
21-JUN-84	7.0		315.0		7.0	145.0	-1.0		166.0	-0.5		
25-OCT-84			435.0		7.0	220.0	-1.0		255.0	7.0		
13-JUN-85	9.0		270.0		7.1	120.0	-1.0		163.0			
24-SEP-85	6.0		376.0		6.7	173.0	-1.0		235.0	5.0		
11-JUN-86	7.0		263.0	6.9	6.5	130.0	-1.0		170.0			
10-OCT-86	16.0	585.0	372.0		8.0	155.0	-1.0		204.0	-0.5		
22-MAY-87	6.5	220.0		8.3								
19-JUL-87	8.0	290.0		7.7								
12-AUG-87	10.0	310.0		7.7								
22-SEP-87	9.6	335.0	367.0	7.0		169.0		213.0	206.0			
14-JUN-88	9.6	195.0		8.2		137.0	0.0	154.0	184.0		-0.2	
15-JUL-88	12.0	257.0		6.4		160.0	0.0	178.0	206.0			
19-AUG-88	11.5	260.0		7.3								
05-SEP-88	11.5	270.0		7.6		169.0	0.0	196.0	208.0			
05-JUN-89	9.0	230.0		7.1		118.0	0.0	132.0	202.0			

TABLE 15
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES
STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
11-JUL-89	11.0	360.0		7.5		156.0	0.0	192.0	222.0			
22-AUG-89	6.0	350.0		7.5								
15-SEP-89	7.0	400.0		7.9		164.0	0.0	193.0	206.0			
04-JUN-90	6.0	340.0		7.4		145.0		166.0	226.0			
02-JUL-90	10.0	400.0		7.6		165.0		187.0	192.0			
30-AUG-90	12.0	370.0		7.4								
03-OCT-90	9.0	310.0		7.1		158.0		202.0	214.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
22-SEP-87	64.0	13.0	5.0	1.0	
14-JUN-88	47.0	9.0	2.0	1.0	
15-JUL-88	53.0	11.0	6.0	-1.0	
05-SEP-88	57.0	13.0	3.0	1.0	
05-JUN-89	38.0	9.0	3.0	-1.0	
11-JUL-89	57.0	12.0	4.0	2.0	
15-SEP-89	56.0	13.0	4.0	-1.0	
04-JUN-90	50.0	10.0	4.0	-1.0	
02-JUL-90	55.0	12.0	4.0	1.0	
03-OCT-90	61.0	12.0	4.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
11-SEP-80	58.4	5.8	6.6	9.6	
30-SEP-80	60.0	5.3	4.0	0.6	
22-OCT-80	59.2	11.5	10.8	8.5	
10-NOV-80	60.0	14.4	4.0	0.6	
30-DEC-80	56.0	26.4	1.5	8.2	
16-JUN-81	40.0	10.6	4.0	0.5	
31-JUL-81	53.6	12.0	4.9	0.4	
29-AUG-81	56.0	13.4	3.8	1.3	
24-SEP-81	63.5	13.0	3.6	0.3	
07-OCT-81	60.5	13.5	5.5	0.4	
29-JUN-83	40.0	9.0	4.0	1.0	
05-OCT-83	54.0	12.0	4.0	1.0	
21-JUN-84	51.0	9.0	4.0	1.0	
25-OCT-84	71.0	11.0	3.0	1.0	
13-JUN-85	52.0	8.0	4.0	0.8	
24-SEP-85	60.0	14.0	4.0	1.0	
11-JUN-86	49.0	7.0	3.6	0.7	
10-OCT-86	56.0	10.9	4.6	2.2	
22-SEP-87		12.0			
14-JUN-88		9.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
12-SEP-79							
11-SEP-80	193.			2.	12.	0.1	
30-SEP-80	151.			3.	46.		
22-OCT-80	220.			4.	40.		
10-NOV-80	222.			2.	30.		
30-DEC-80	217.			1.	76.		
06-JAN-81							
04-FEB-81							
25-MAR-81							
28-APR-81							
28-MAY-81							
16-JUN-81	154.			5.	16.		
31-JUL-81	193.			5.	26.		
29-AUG-81	193.			8.	30.		
24-SEP-81	227.			3.	27.		
07-OCT-81	227.			3.	25.		
24-NOV-81							
29-DEC-81							
24-MAR-83							
12-MAY-83							
29-JUN-83	139.			4.	12.		
05-OCT-83	181.	1.		4.	37.		
06-JAN-84							
30-MAR-84							
21-JUN-84	177.			4.	10.		
25-OCT-84	268.	1.		8.	10.		
11-DEC-84							
21-FEB-85							
13-JUN-85	146.			4.	11.		

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
24-SEP-85	211.	1.		5.	38.		
11-JUN-86	159.			3.	25.		
10-OCT-86	189.	1.		7.	30.		
22-MAY-87							
19-JUL-87							
12-AUG-87							
22-SEP-87	206.			3.	16.		0.20
14-JUN-88	167.			2.	12.		
15-JUL-88	195.			4.	19.		
19-AUG-88							
05-SEP-88	206.			4.	23.		
05-JUN-89	144.			4.	10.		
11-JUL-89	190.			3.	21.		
22-AUG-89							
15-SEP-89	200.			2.	21.		
04-JUN-90	177.			3.	14.		
02-JUL-90	201.			4.	25.		
30-AUG-90							
03-OCT-90	193.			3.	39.		
11-JUN-91							
15-JUL-91							
20-MAY-92							
15-JUL-92							
25-AUG-92							
21-SEP-92							
25-JUN-93							
26-JUL-93							
18-AUG-93							
28-SEP-93							

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
14-JUN-88	-1.0								

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
11-SEP-80	-1.0	50.0	-1.0			12.0	-0.2	-1.0	-1.0
05-OCT-83	-1.0	-100.0	44.0			-50.0	-0.2	-0.3	
25-OCT-84	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
24-SEP-85	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
10-OCT-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
22-SEP-87						-20.0			

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
11-SEP-80									
05-OCT-83									
25-OCT-84									
24-SEP-85									
10-OCT-86									

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: S182 S18-2 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
11-SEP-80			10.0	
30-SEP-80			55.0	
22-OCT-80			55.0	
10-NOV-80			20.0	
30-DEC-80			75.0	-1.0
16-JUN-81			10.0	-1.0
31-JUL-81			20.0	
29-AUG-81			40.0	
24-SEP-81			16.0	
07-OCT-81			28.0	
29-JUN-83			-50.0	-10.0
05-OCT-83			-50.0	
21-JUN-84			-50.0	-10.0
25-OCT-84			-50.0	-10.0
13-JUN-85			-50.0	-10.0
24-SEP-85			90.0	-10.0
11-JUN-86			140.0	-10.0
10-OCT-86			130.0	-10.0
22-SEP-87			80.0	-10.0
14-JUN-88			-20.0	
15-JUL-88			20.0	
05-SEP-88			30.0	
05-JUN-89			30.0	-10.0
11-JUL-89			-20.0	-10.0
15-SEP-89			-20.0	-10.0
04-JUN-90			30.0	-10.0
02-JUL-90			-20.0	-10.0
03-OCT-90			-20.0	-10.0

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: S182 S18-2 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: S182 S18-2 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
11-SEP-80	10.0	10.0	65.0	11.0
30-SEP-80			230.0	17.0
22-OCT-80			110.0	18.0
10-NOV-80			70.0	14.0
30-DEC-80			136.0	5.0
16-JUN-81			50.0	-1.0
31-JUL-81			51.0	-1.0
29-AUG-81			69.0	10.0
24-SEP-81			188.0	2.0
07-OCT-81			87.0	2.0
29-JUN-83			60.0	10.0
05-OCT-83	-20.0	7.0	-50.0	-10.0
21-JUN-84			-50.0	-10.0
25-OCT-84	-20.0	11.0	410.0	18.0
13-JUN-85			120.0	-10.0
24-SEP-85	-20.0	-5.0	530.0	80.0
11-JUN-86			140.0	-10.0
10-OCT-86	30.0	-5.0	700.0	20.0
22-SEP-87		-10.0	-20.0	-10.0
14-JUN-88			60.0	-10.0
15-JUL-88			-20.0	-10.0
05-SEP-88			30.0	-10.0
05-JUN-89			50.0	-10.0
11-JUL-89			30.0	-10.0
15-SEP-89			40.0	-10.0
04-JUN-90			130.0	-10.0
02-JUL-90			50.0	-10.0
03-OCT-90			50.0	-10.0

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: S182 S18-2 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
22-SEP-87	-50.0		-50.0	

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL

STATION: S182 S18-2 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
11-SEP-80		12.0		
05-OCT-83		130.0		-40.0
25-OCT-84		230.0		-40.0
24-SEP-85		150.0		-40.0
10-OCT-86		100.0		-40.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 8

229

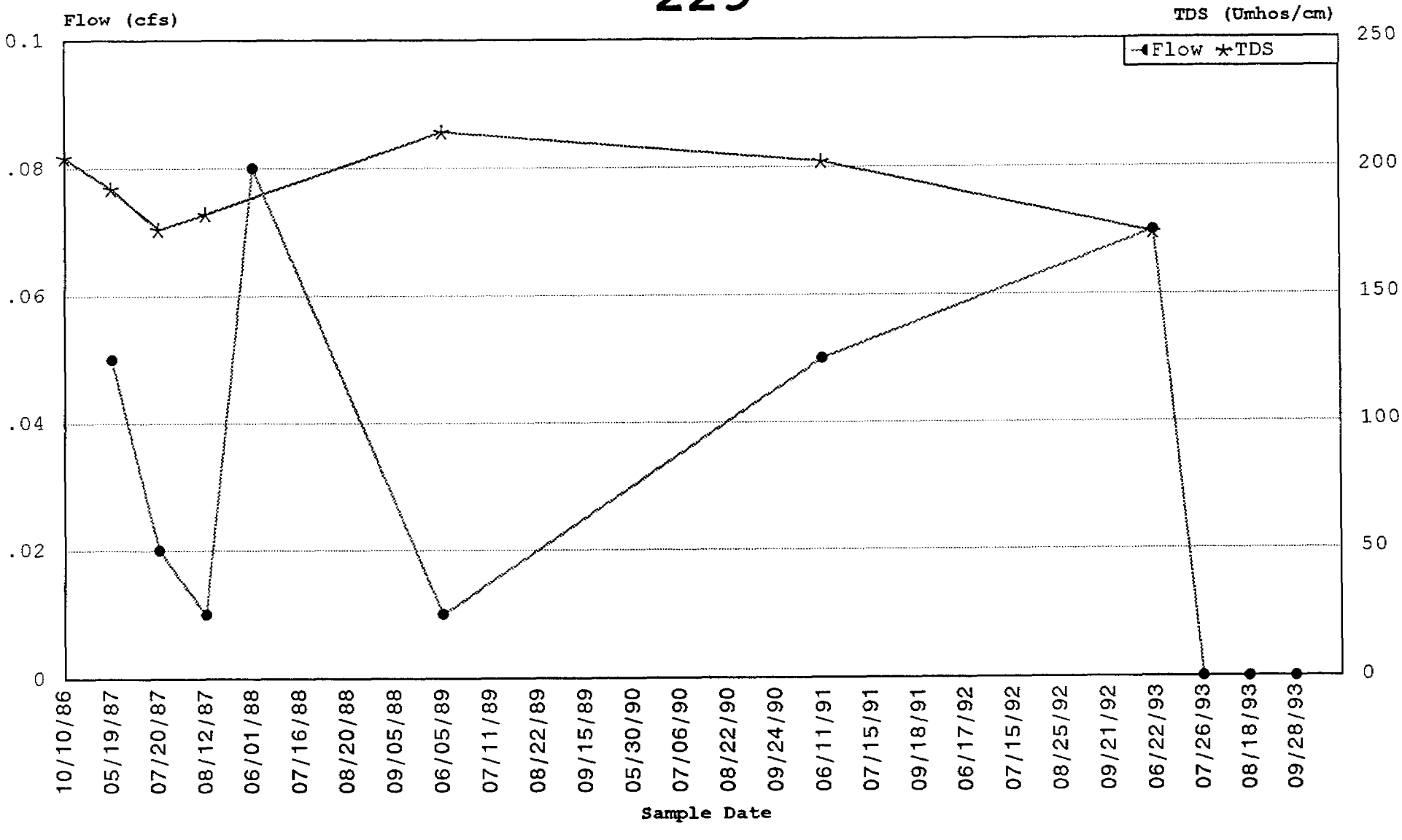

Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.1
.08
.06
.04
.02
0
250
200
150
100
50
0
10/10/86
05/19/87
07/20/87
08/12/87
06/01/88
07/16/88
08/20/88
09/05/88
06/05/89
07/11/89
08/22/89
09/15/89
05/30/90
07/06/90
08/22/90
09/24/90
06/11/91
07/15/91
09/18/91
06/17/92
07/15/92
08/25/92
09/21/92
06/22/93
07/26/93
08/18/93
09/28/93
Sample Date

TABLE 16

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 229 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	3.838	0.6	5.000	3.000	DEGREES C	8	10/86 - 06/93
CONDUCTIVITY	FIELD	335.000	107.7	580.000	208.000	UMHOS/CM	8	10/86 - 06/93
PH	FIELD	7.386	0.7	8.000	6.150	PH	7	05/87 - 06/93
ALKALINITY	TOTAL	169.750	16.4	182.000	130.000	MG/L	8	10/86 - 06/93
ACIDITY	AS CACO3	-0.500	0.7	0.000	-1.000	MG/L	2	10/86 - 06/89
HARDNESS	TOTAL	173.000	26.5	214.000	140.000	MG/L	5	07/87 - 06/93
SOLIDS	DISSOLVED	192.000	15.3	214.000	174.000	MG/L	7	10/86 - 06/93
	SUSPENDED	-0.500	0.0	-0.500	-0.500	MG/L	1	10/86 - 10/86
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.037	0.0	0.080	0.010	CFS	6	05/87 - 06/91
CATIONS								
CALCIUM	DISSOLVED	56.857	9.9	73.000	46.000	MG/L	7	05/87 - 06/93
	TOTAL	58.000	0.0	58.000	58.000	MG/L	1	10/86 - 10/86
MAGNESIUM	DISSOLVED	9.500	2.7	13.000	6.000	MG/L	6	05/87 - 06/93
	TOTAL	10.867	2.2	13.000	8.000	MG/L	6	10/86 - 06/93
SODIUM	DISSOLVED	1.143	0.4	2.000	1.000	MG/L	7	05/87 - 06/93
	TOTAL	1.500	0.0	1.500	1.500	MG/L	1	10/86 - 10/86
POTASSIUM	DISSOLVED	0.429	1.0	1.000	-1.000	MG/L	7	05/87 - 06/93
	TOTAL	1.200	0.0	1.200	1.200	MG/L	1	10/86 - 10/86

TABLE 16

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 229 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS									
	BICARBONATE	AS HCO3	206.000	19.6	222.000	159.000	MG/L	8	10/86 - 06/93
	CARBONATE	AS CO3	1.333	3.2	5.000	-1.000	MG/L	3	10/86 - 06/93
	CHLORIDE	N/A	0.925	1.3	2.400	-1.000	MG/L	8	10/86 - 06/93
	SULFATE	N/A	8.375	7.6	25.000	-2.000	MG/L	8	10/86 - 06/93
MINOR									
	FLUORIDE	N/A	0.225	0.3	0.500	-0.100	MG/L	4	05/87 - 06/88
GASES									
	SULPHIDE	TOTAL	-0.033	0.3	0.300	-0.200	MG/L	3	07/87 - 06/88
PRIMARY									
	ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	4	05/87 - 06/88
		TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	1	10/86 - 10/86
	BARIUM	DISSOLVED	85.000	17.3	110.000	70.000	UG/L	4	05/87 - 06/88
		TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	1	10/86 - 10/86
	CADMIUM	DISSOLVED	-2.250	5.5	6.000	-5.000	UG/L	4	05/87 - 06/88
		TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	1	10/86 - 10/86
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	1	06/88 - 06/88
	LEAD	TOTAL	-14.000	32.9	40.000	-50.000	UG/L	5	10/86 - 06/88
	MERCURY	DISSOLVED	-0.200	0.0	-0.200	-0.200	UG/L	1	06/88 - 06/88
		TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	4	10/86 - 08/87
	SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	06/88 - 06/88
		TOTAL	-1.500	2.5	1.000	-5.000	UG/L	4	10/86 - 08/87

TABLE 16

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 229 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	06/88 - 06/88
	TOTAL	0.000	20.0	30.000	-10.000	UG/L	4	10/86 - 08/87
ZINC	TOTAL	9.200	30.5	60.000	-10.000	UG/L	5	10/86 - 06/88
IRON	DISSOLVED	-23.750	10.6	-20.000	-50.000	UG/L	8	10/86 - 06/93
	TOTAL	26.250	50.7	130.000	-20.000	UG/L	8	10/86 - 06/93
MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	6	10/86 - 06/93
	TOTAL	-6.250	10.6	20.000	-10.000	UG/L	8	10/86 - 06/93
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	1	06/88 - 06/88
BORON	DISSOLVED	25.000	37.0	70.000	-20.000	UG/L	4	05/87 - 06/88
	TOTAL	90.000	0.0	90.000	90.000	UG/L	1	10/86 - 10/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	1	06/88 - 06/88
	TOTAL	-50.000	0.0	-50.000	-50.000	UG/L	3	05/87 - 08/87
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	06/88 - 06/88
	TOTAL	-12.500	29.9	30.000	-40.000	UG/L	4	10/86 - 08/87
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	-0.008	0.0	0.030	-0.020	MG/L	4	05/87 - 06/88
	AMMIA-FREE	-0.001	0.0	-0.001	-0.001	MG/L	1	06/88 - 06/88
	NITRATE	1.016	0.6	1.500	-0.010	MG/L	5	10/86 - 06/88
	NO3+NO2	1.270	0.2	1.490	1.080	MG/L	4	05/87 - 06/88

TABLE 16

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 229 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ORGANICS								
OIL&GREASE	N/A	-0.500	0.0	-0.500	-0.500	MG/L	1	10/86 - 10/86

TABLE 17
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 229 229 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
10-OCT-86		9650.00	0.00000	CFS	
19-MAY-87		9650.00	0.05000	CFS	
20-JUL-87		9650.00	0.02000	CFS	
12-AUG-87		9650.00	0.01000	CFS	
01-JUN-88		9650.00	0.08000	CFS	
16-JUL-88		9650.00	0.00000	CFS	NO FLOW
20-AUG-88		9650.00	0.00000	CFS	NO FLOW
05-SEP-88		9650.00	0.00000	CFS	NO FLOW

TABLE 17
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 229 229 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
05-JUN-89		9650.00	0.01000	CFS	
11-JUL-89		9650.00	0.00000	CFS	NO FLOW
22-AUG-89		9650.00	0.00000	CFS	NO FLOW
15-SEP-89		9650.00	0.00000	CFS	NO FLOW
30-MAY-90		9650.00	0.00000	CFS	NO FLOW
06-JUL-90		9650.00	0.00000	CFS	NO FLOW
22-AUG-90		9650.00	0.00000	CFS	NO FLOW
24-SEP-90		9650.00	0.00000	CFS	NO FLOW

TABLE 17

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 229 229 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
11-JUN-91		9650.00	0.05000	CFS	
15-JUL-91		9650.00	0.00000	CFS	
18-SEP-91		9650.00	0.00000	CFS	NO FLOW
17-JUN-92		9650.00			, , , , , ,
15-JUL-92		9650.00			, , , , , ,
25-AUG-92		9650.00			, , , , , ,
21-SEP-92		9650.00			, , , , , ,
22-JUN-93			0.07000		
26-JUL-93		9650.00	0.00000		NO FLOW
18-AUG-93		9650.00	0.00000		NO FLOW
28-SEP-93		9650.00	0.00000		NO FLOW

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 17
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 229 229 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
10-OCT-86	3.5	580.0	384.0		8.2	171.0	-1.0		204.0	-0.5		
19-MAY-87	3.6	320.0	381.0	7.8	7.8	176.0			192.0			
20-JUL-87	4.2	280.0	398.0	8.0	7.7	172.0		168.0	176.0			
12-AUG-87	5.0	300.0	458.0	8.0	7.4	173.0		214.0	182.0			
01-JUN-88	3.5	208.0		7.6		176.0						
05-JUN-89	4.0	340.0		7.0		130.0	0.0	140.0	214.0			
11-JUN-91	3.0	340.0		7.2		178.0		170.0	202.0			
22-JUN-93	3.9	312.0		6.2		182.0		173.0	174.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 17

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 229 229 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
19-MAY-87	56.0	10.0	1.0	1.0	
20-JUL-87	46.0	13.0	1.0	1.0	
12-AUG-87	66.0	12.0	1.0	1.0	
01-JUN-88	73.0		2.0	1.0	
05-JUN-89	46.0	6.0	1.0	-1.0	
11-JUN-91	55.0	8.0	1.0	1.0	
22-JUN-93	56.0	8.0	1.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 17

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 229 229 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
10-OCT-86	58.0	12.2	1.5	1.2	
19-MAY-87		8.0			
20-JUL-87		13.0			
12-AUG-87		13.0			
01-JUN-88		10.0			
22-JUN-93		9.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 17
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 229 229 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
10-OCT-86	209.	1.		2.	25.		
19-MAY-87	215.			1.	2.	0.5	
20-JUL-87	210.			1.	6.	0.3	0.20
12-AUG-87	211.			2.	10.	0.2	0.20
01-JUN-88	215.			1.	8.	0.1	0.30
16-JUL-88							
20-AUG-88							
05-SEP-88							
05-JUN-89	159.			1.	6.		
11-JUL-89							
22-AUG-89							
15-SEP-89							
30-MAY-90							
06-JUL-90							
22-AUG-90							
24-SEP-90							
11-JUN-91	207.	5.		2.	8.		
15-JUL-91							
18-SEP-91							
17-JUN-92							
15-JUL-92							
25-AUG-92							
21-SEP-92							
22-JUN-93	222.	0.		1.	6.		
26-JUL-93							
18-AUG-93							
28-SEP-93							

TABLE 17

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 229 229 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
19-MAY-87	-1.0	80.0	6.0						
20-JUL-87	-1.0	70.0	-5.0						
12-AUG-87	-1.0	80.0	-5.0						
01-JUN-88	-1.0	110.0	-5.0				-0.2	-1.0	

TABLE 17

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 229 229 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
10-OCT-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
19-MAY-87						40.0	-0.2	-1.0	
20-JUL-87						-20.0	-0.2	-1.0	
12-AUG-87						-20.0	-0.2	1.0	
01-JUN-88						-20.0			

TABLE 17

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 229 229 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
01-JUN-88									

TABLE 7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 229 229 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
10-OCT-86									
19-MAY-87									
20-JUL-87									
12-AUG-87									

TABLE 17

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 229 229 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
10-OCT-86			-50.0	-10.0
19-MAY-87			-20.0	-10.0
20-JUL-87			-20.0	-10.0
12-AUG-87			-20.0	-10.0
01-JUN-88	-10.0		-20.0	
05-JUN-89			-20.0	-10.0
11-JUN-91			-20.0	
22-JUN-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 17

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 229 229 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
10-OCT-86	30.0	16.0	130.0	20.0
19-MAY-87	-10.0	-10.0	-20.0	-10.0
20-JUL-87	-10.0	-10.0	40.0	-10.0
12-AUG-87	-10.0	-10.0	50.0	-10.0
01-JUN-88		60.0	-20.0	-10.0
05-JUN-89			30.0	-10.0
11-JUN-91			-20.0	-10.0
22-JUN-93			20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 17

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 229 229 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
19-MAY-87		30.0		
20-JUL-87		20.0		
12-AUG-87		-20.0		
01-JUN-88	-50.0	70.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 7
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL

STATION: 229 229 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
10-OCT-86		90.0		-40.0
19-MAY-87	-50.0		-50.0	-20.0
20-JUL-87	100.0		-50.0	30.0
12-AUG-87	100.0		-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 9

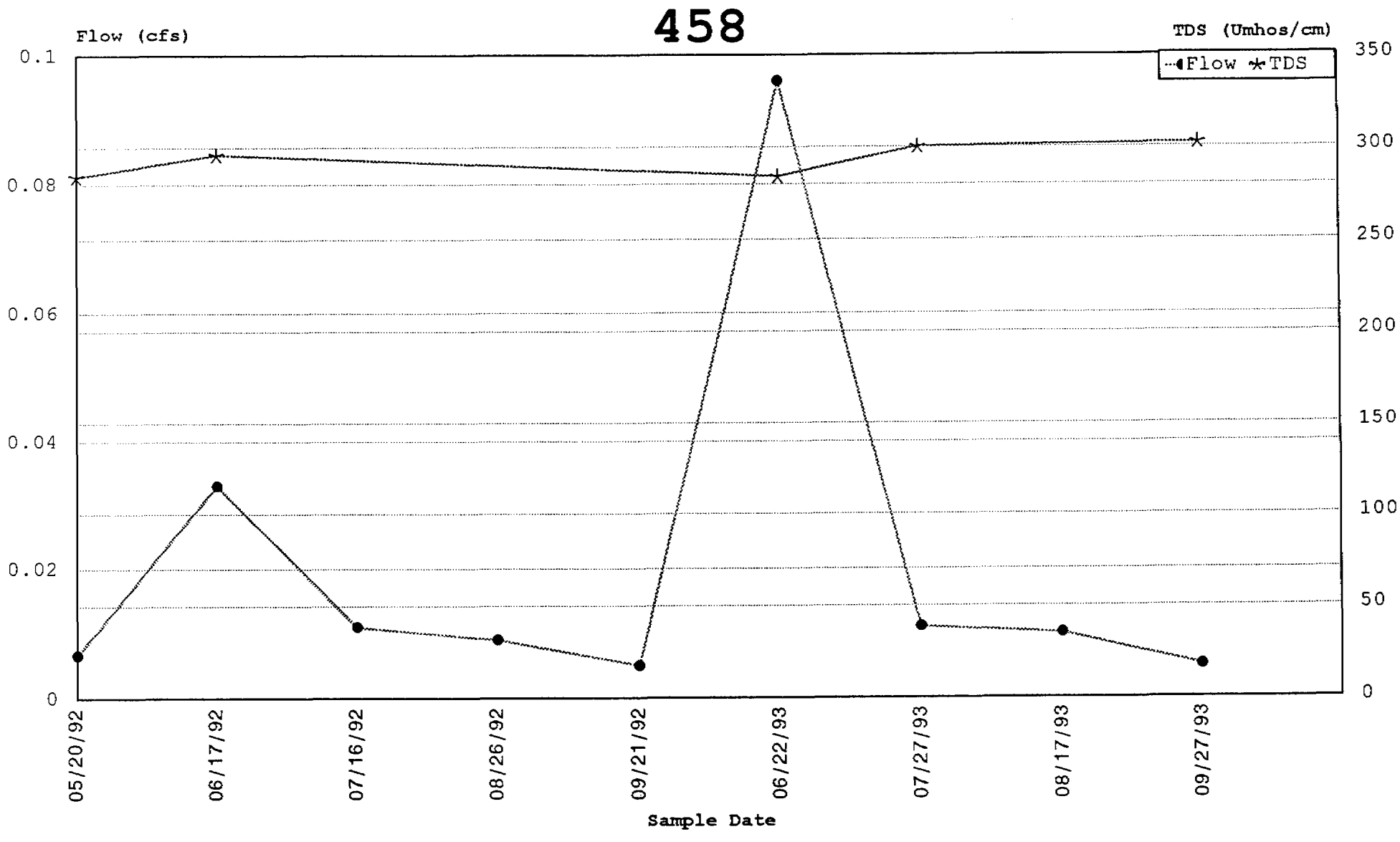

458
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.1
0.08
0.06
0.04
0.02
0
350
300
250
200
150
100
50
0
05/20/92
06/17/92
07/16/92
08/26/92
09/21/92
06/22/93
07/27/93
08/17/93
09/27/93
Sample Date

TABLE 18

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 458 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	6.456	0.4	7.000	5.800	DEGREES C	9	05/92 - 09/93
CONDUCTIVITY	FIELD	565.444	132.6	916.000	485.000	UMHOS/CM	9	05/92 - 09/93
PH	FIELD	6.734	0.6	7.590	6.150	PH	9	05/92 - 09/93
ALKALINITY	TOTAL	256.333	35.4	280.000	188.000	MG/L	6	05/92 - 09/93
HARDNESS	TOTAL	284.667	16.5	301.000	268.000	MG/L	3	06/93 - 09/93
SOLIDS	DISSOLVED	293.200	8.7	302.000	284.000	MG/L	5	05/92 - 09/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.013	0.0	0.033	0.005	CFS	5	05/92 - 09/92
CATIONS								
CALCIUM	DISSOLVED	82.667	3.7	86.000	76.000	MG/L	6	05/92 - 09/93
MAGNESIUM	DISSOLVED	20.000	1.3	21.000	18.000	MG/L	6	05/92 - 09/93
	TOTAL	20.000	0.0	20.000	20.000	MG/L	2	06/93 - 07/93
SODIUM	DISSOLVED	3.000	0.0	3.000	3.000	MG/L	6	05/92 - 09/93
POTASSIUM	DISSOLVED	1.000	0.0	1.000	1.000	MG/L	6	05/92 - 09/93
ANIONS								
BICARBONATE	AS HCO3	283.167	56.8	342.000	188.000	MG/L	6	05/92 - 09/93
CARBONATE	AS CO3	2.667	6.5	16.000	0.000	MG/L	6	05/92 - 09/93
CHLORIDE	N/A	2.000	0.0	2.000	2.000	MG/L	6	05/92 - 09/93
SULFATE	N/A	37.500	32.5	99.000	4.000	MG/L	6	05/92 - 09/93

TA 18

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 458 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.100	0.0	0.100	0.100	MG/L	2	06/92 - 09/92
GASES									
	SULPHIDE	TOTAL	-0.020	0.0	-0.020	-0.020	MG/L	1	09/93 - 09/93
PRIMARY									
	ARSENIC	DISSOLVED	0.000	0.0	0.001	-0.001	UG/L	2	06/92 - 09/92
	BARIUM	DISSOLVED	0.080	0.0	0.080	0.080	UG/L	2	06/92 - 09/92
	CADMIUM	DISSOLVED	-0.005	0.0	-0.005	-0.005	UG/L	2	06/92 - 09/92
	CHROMIUM	DISSOLVED	-0.010	0.0	-0.010	-0.010	UG/L	2	06/92 - 09/92
	LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	1	09/93 - 09/93
	MERCURY	DISSOLVED	0.000	0.0	0.000	0.000	UG/L	2	06/92 - 09/92
	SELENIUM	DISSOLVED	0.001	0.0	0.002	-0.001	UG/L	2	06/92 - 09/92
SECONDARY									
	COPPER	DISSOLVED	-0.010	0.0	-0.010	-0.010	UG/L	2	06/92 - 09/92
	ZINC	DISSOLVED	0.020	0.0	0.050	-0.010	UG/L	2	06/92 - 09/92
	IRON	DISSOLVED	-10.010	10.9	-0.020	-20.000	UG/L	6	05/92 - 09/93
		TOTAL	-6.667	23.1	20.000	-20.000	UG/L	3	06/93 - 09/93
	MANGANESE	DISSOLVED	-4.000	5.5	0.020	-10.000	UG/L	5	05/92 - 07/93
		TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	3	06/93 - 09/93

TABLE 18

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 458 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-0.050	0.0	-0.050	-0.050	UG/L	2	06/92 - 09/92
BORON	DISSOLVED	0.000	0.0	0.020	-0.020	UG/L	2	06/92 - 09/92
MOLYBDENUM	DISSOLVED	-0.050	0.0	-0.050	-0.050	UG/L	2	06/92 - 09/92
NICKEL	DISSOLVED	-0.020	0.0	-0.020	-0.020	UG/L	1	06/92 - 06/92
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	-0.050	0.0	-0.050	-0.050	MG/L	2	06/92 - 09/92
	AMMIA-FREE	0.000	0.0	0.000	0.000	MG/L	2	06/92 - 09/92
	NITRATE	0.865	0.1	0.940	0.790	MG/L	2	06/92 - 09/92

TABLE 19

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 458 SPRING 458 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
20-MAY-92			0.00670	CFS	, , , , , ,
17-JUN-92			0.03300	CFS	, , , , , ,
16-JUL-92			0.01100	CFS	
26-AUG-92			0.00900	CFS	, , , , , ,
21-SEP-92			0.00500	CFS	, , , , , ,
22-JUN-93			0.09600		
27-JUL-93			0.01100		
17-AUG-93			0.01000		
27-SEP-93			0.00500		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 19

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 458 SPRING 458 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
20-MAY-92	5.8	916.0		7.6		188.0		281.0	284.0			
17-JUN-92	6.2	538.0		7.4		270.0		299.0	296.0			
16-JUL-92	6.4	541.0		7.0								
26-AUG-92	6.9	530.0		7.4								
21-SEP-92	7.0	534.0		6.2		278.0		299.0				
22-JUN-93	6.0	485.0		6.4		280.0		285.0	284.0			
27-JUL-93	6.8	514.0		6.2		274.0		301.0	300.0			
17-AUG-93	6.4	518.0		6.3								
27-SEP-93	6.6	513.0		6.2		248.0		268.0	302.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 19

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 458 SPRING 458 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
20-MAY-92	83.0	18.0	3.0	1.0	
17-JUN-92	85.0	21.0	3.0	1.0	
21-SEP-92	85.0	21.0	3.0	1.0	
22-JUN-93	81.0	20.0	3.0	1.0	
27-JUL-93	86.0	21.0	3.0	1.0	
27-SEP-93	76.0	19.0	3.0	1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 9

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 458 SPRING 458 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
22-JUN-93		20.0			
27-JUL-93		20.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 19

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 458 SPRING 458 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
20-MAY-92	188.	0.		2.	99.		
17-JUN-92	270.	0.		2.	37.	0.1	
16-JUL-92							
26-AUG-92							
21-SEP-92	262.	16.		2.	21.	0.1	
22-JUN-93	342.	0.		2.	4.		
27-JUL-93	334.	0.		2.	37.		
17-AUG-93							
27-SEP-93	303.	0.		2.	27.		0.02

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 19

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 458 SPRING 458 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
17-JUN-92	0.0	0.1	-0.0			-0.0	0.0	-0.0	
21-SEP-92	-0.0	0.1	-0.0			-0.0	0.0	0.0	

TABLE 19
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: 458 SPRING 458 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
27-SEP-93						-20.0			

TABLE 19

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 458 SPRING 458 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
20-MAY-92			-0.0	-0.0
17-JUN-92	-0.0	0.1	-0.0	-0.0
21-SEP-92	-0.0	-0.0	-0.0	0.0
22-JUN-93			-20.0	-10.0
27-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 19

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 458 SPRING 458 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
22-JUN-93			20.0	-10.0
27-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 19

CYPRUS PLATEAU MINING COMPANY

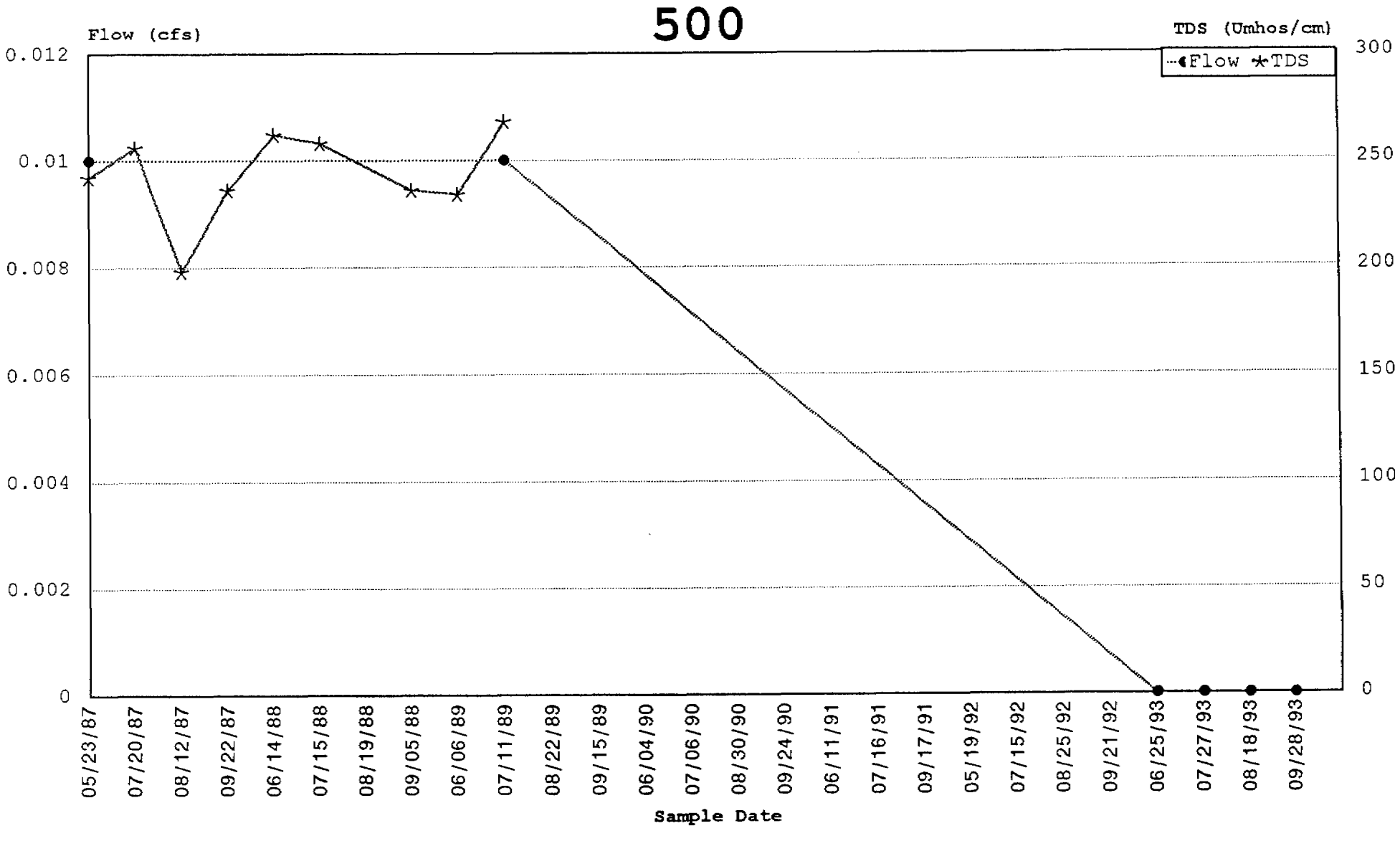
WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 458 SPRING 458 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
17-JUN-92	-0.1	0.0	-0.1	-0.0
21-SEP-92	-0.1	-0.0	-0.1	

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 10


500
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.012
0.01
0.008
0.006
0.004
0.002
0
300
250
200
150
100
50
0
05/23/87
07/20/87
08/12/87
09/22/87
06/14/88
07/15/88
08/19/88
09/05/88
06/06/89
07/11/89
08/22/89
09/15/89
06/04/90
07/06/90
08/30/90
09/24/90
06/11/91
07/16/91
09/17/91
05/19/92
07/15/92
08/25/92
09/21/92
06/25/93
07/27/93
08/18/93
09/28/93
Sample Date

TAB 20

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 500 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	7.182	1.6	9.500	5.400	DEGREES C	11	05/87 - 08/89
CONDUCTIVITY	FIELD	406.273	133.8	690.000	280.000	UMHOS/CM	11	05/87 - 08/89
PH	FIELD	7.796	0.5	8.400	6.560	PH	11	05/87 - 08/89
ALKALINITY	TOTAL	210.889	32.8	264.000	140.000	MG/L	9	05/87 - 07/89
ACIDITY	AS CACO3	0.000	0.0	0.000	0.000	MG/L	1	07/89 - 07/89
HARDNESS	TOTAL	239.286	22.0	273.000	218.000	MG/L	7	07/87 - 07/89
SOLIDS	DISSOLVED	243.333	21.2	268.000	198.000	MG/L	9	05/87 - 07/89
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.010	0.0	0.010	0.010	CFS	2	05/87 - 07/89
CATIONS								
CALCIUM	DISSOLVED	60.444	12.7	75.000	34.000	MG/L	9	05/87 - 07/89
MAGNESIUM	DISSOLVED	20.750	1.6	23.000	19.000	MG/L	8	05/87 - 07/89
	TOTAL	20.500	1.9	23.000	17.000	MG/L	8	05/87 - 06/89
SODIUM	DISSOLVED	2.333	0.5	3.000	2.000	MG/L	9	05/87 - 07/89
POTASSIUM	DISSOLVED	0.556	0.9	1.000	-1.000	MG/L	9	05/87 - 07/89
ANIONS								
BICARBONATE	AS HCO3	259.556	12.0	271.000	232.000	MG/L	9	05/87 - 07/89
CHLORIDE	N/A	2.556	0.5	3.000	2.000	MG/L	9	05/87 - 07/89
SULFATE	N/A	6.222	6.7	16.000	-2.000	MG/L	9	05/87 - 07/89

TABLE 20

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 500 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.186	0.2	0.500	-0.100	MG/L	7	05/87 - 06/89
GASES									
	SULPHIDE	TOTAL	0.087	0.2	0.300	-0.200	MG/L	6	07/87 - 09/88
PRIMARY									
	ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	7	05/87 - 06/89
	BARIUM	DISSOLVED	34.286	9.8	50.000	20.000	UG/L	7	05/87 - 06/89
	CADMIUM	DISSOLVED	-3.286	4.5	7.000	-5.000	UG/L	7	05/87 - 06/89
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	4	06/88 - 06/89
	LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	8	05/87 - 06/89
	MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	4	06/88 - 06/89
		TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	3	05/87 - 08/87
	SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	4	06/88 - 06/89
		TOTAL	-0.333	1.2	1.000	-1.000	UG/L	3	05/87 - 08/87
SECONDARY									
	COPPER	DISSOLVED	-5.000	10.0	10.000	-10.000	UG/L	4	06/88 - 06/89
		TOTAL	-3.333	11.5	10.000	-10.000	UG/L	3	05/87 - 08/87
	ZINC	TOTAL	-2.500	10.4	10.000	-10.000	UG/L	8	05/87 - 06/89
	IRON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	9	05/87 - 07/89
		TOTAL	223.333	467.1	1440.000	-20.000	UG/L	9	05/87 - 07/89
	MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	5	05/87 - 07/89
		TOTAL	0.000	23.5	60.000	-10.000	UG/L	9	05/87 - 07/89

TABLE 20

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 500 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	5	09/87 - 06/89
BORON	DISSOLVED	-5.714	25.1	40.000	-20.000	UG/L	7	05/87 - 06/89
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	5	09/87 - 06/89
	TOTAL	-50.000	0.0	-50.000	-50.000	UG/L	3	05/87 - 08/87
NICKEL	DISSOLVED	-10.000	20.0	20.000	-20.000	UG/L	4	06/88 - 06/89
	TOTAL	-6.667	23.1	20.000	-20.000	UG/L	3	05/87 - 08/87
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.009	0.0	0.080	-0.020	MG/L	7	05/87 - 06/89
	AMMIA-FREE	-0.001	0.0	0.001	-0.001	MG/L	4	06/88 - 06/89
	NITRATE	2.206	0.2	2.510	1.770	MG/L	8	05/87 - 06/89
	NO3+NO2	2.200	0.2	2.500	1.760	MG/L	8	05/87 - 06/89

TABLE 2.1
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 500 500 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
23-MAY-87		9400.00	0.01000	CFS	
20-JUL-87		9400.00	0.00000	CFS	
12-AUG-87		9400.00	0.00000	CFS	
22-SEP-87		9400.00	0.00000	CFS	
14-JUN-88		9400.00	0.00000	CFS	
15-JUL-88		9400.00	0.00000	CFS	
19-AUG-88		9400.00	0.00000	CFS	
05-SEP-88		9400.00	0.00000	CFS	

TABLE 21

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 500 500 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
06-JUN-89		9400.00	0.00000	CFS	
11-JUL-89		9400.00	0.01000	CFS	
22-AUG-89		9400.00	0.00000	CFS	
15-SEP-89		9400.00	0.00000	CFS	NO FLOW
04-JUN-90		9400.00	0.00000	CFS	NO FLOW
06-JUL-90		9400.00	0.00000	CFS	NO FLOW
30-AUG-90		9400.00	0.00000	CFS	NO FLOW
24-SEP-90		9400.00	0.00000	CFS	NO FLOW

TABLE 2.1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 500 500 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
11-JUN-91		9400.00	0.00000	CFS	NO FLOW
16-JUL-91		9400.00	0.00000	CFS	
17-SEP-91		9400.00	0.00000	CFS	NO FLOW
19-MAY-92		9400.00			, , , , , ,
15-JUL-92		9400.00			, , , , , ,
25-AUG-92		9400.00			, , , , , ,
21-SEP-92		9400.00			, , , , , ,
25-JUN-93		9400.00	0.00000		NO FLOW
27-JUL-93		9400.00	0.00000		NO FLOW
18-AUG-93		9400.00	0.00000		NO FLOW
28-SEP-93		9400.00	0.00000		NO FLOW

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 21

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 500 500 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
23-MAY-87	5.4	400.0	455.0	8.0	8.0	140.0			242.0			
20-JUL-87	5.6	380.0	468.0	8.0	8.0	220.0		228.0	256.0			
12-AUG-87	8.0	320.0	535.0	8.0	7.6	218.0		238.0	198.0			
22-SEP-87	5.5	500.0	422.0	6.6		222.0		266.0	236.0			
14-JUN-88	9.5	287.0		8.3		216.0			262.0			
15-JUL-88	9.5	292.0		8.1		215.0		218.0	258.0			
19-AUG-88	9.0	280.0		7.6								
05-SEP-88	7.5	290.0		8.4		213.0		234.0	236.0			
06-JUN-89	6.0	690.0		7.7		190.0		218.0	234.0			
11-JUL-89	7.0	540.0		7.6		264.0	0.0	273.0	268.0			
22-AUG-89	6.0	490.0		7.5								

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 21

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 500 500 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
23-MAY-87	34.0	23.0	3.0	-1.0	
20-JUL-87	55.0	22.0	2.0	1.0	
12-AUG-87	64.0	19.0	3.0	1.0	
22-SEP-87	72.0	21.0	2.0	1.0	
14-JUN-88	75.0		2.0	1.0	
15-JUL-88	56.0	19.0	3.0	-1.0	
05-SEP-88	59.0	21.0	2.0	1.0	
06-JUN-89	56.0	19.0	2.0	1.0	
11-JUL-89	73.0	22.0	2.0	1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 21

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 500 500 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
23-MAY-87		20.0			
20-JUL-87		22.0			
12-AUG-87		23.0			
22-SEP-87		21.0			
14-JUN-88		21.0			
15-JUL-88		19.0			
05-SEP-88		21.0			
06-JUN-89		17.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 2.1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 500 500 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
23-MAY-87	249.			2.	2.	0.5	
20-JUL-87	268.			3.	2.	0.3	0.20
12-AUG-87	266.			3.	2.	0.2	0.20
22-SEP-87	271.			3.	6.		0.30
14-JUN-88	264.			2.	12.	0.1	0.30
15-JUL-88	262.			3.	14.	0.1	0.30
19-AUG-88							
05-SEP-88	260.			2.	2.	0.1	0.02
06-JUN-89	232.			3.	8.	0.2	
11-JUL-89	264.			2.	16.		
22-AUG-89							
15-SEP-89							
04-JUN-90							
06-JUL-90							
30-AUG-90							
24-SEP-90							
11-JUN-91							
16-JUL-91							
17-SEP-91							
19-MAY-92							
15-JUL-92							
25-AUG-92							
21-SEP-92							
25-JUN-93							
27-JUL-93							
18-AUG-93							
28-SEP-93							

TABLE 21

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 500 500 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
23-MAY-87	-1.0	20.0	7.0						
20-JUL-87	-1.0	30.0	-5.0						
12-AUG-87	-1.0	40.0	-5.0						
14-JUN-88	-1.0	50.0	-5.0				-0.1	-1.0	
15-JUL-88	-1.0	40.0	-5.0				-0.1	-1.0	
05-SEP-88	-1.0	30.0	-5.0				-0.1	-1.0	
06-JUN-89	-1.0	30.0	-5.0				-0.1	-1.0	

TABLE 21

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 500 500 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
23-MAY-87						-20.0	-0.2	-1.0	
20-JUL-87						-20.0	-0.2	1.0	
12-AUG-87						-20.0	-0.2	-1.0	
22-SEP-87						-20.0			
14-JUN-88						-20.0			
15-JUL-88						-20.0			
05-SEP-88						-20.0			
06-JUN-89						-20.0			

TABLE 2.1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 500 500 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
14-JUN-88									
15-JUL-88									
05-SEP-88									
06-JUN-89									

TABLE 2

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 500 500 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
23-MAY-87									
20-JUL-87									
12-AUG-87									

TABLE 21

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 500 500 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
23-MAY-87			-20.0	-10.0
20-JUL-87			-20.0	-10.0
12-AUG-87			-20.0	-10.0
22-SEP-87			-20.0	-10.0
14-JUN-88	10.0		-20.0	
15-JUL-88	-10.0		-20.0	
05-SEP-88	-10.0		-20.0	
06-JUN-89	-10.0		-20.0	
11-JUL-89			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 21
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: 500 500 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
23-MAY-87	10.0	-10.0	30.0	-10.0
20-JUL-87	-10.0	-10.0	230.0	-10.0
12-AUG-87	-10.0	10.0	-20.0	-10.0
22-SEP-87		10.0	1440.0	60.0
14-JUN-88		-10.0	-20.0	-10.0
15-JUL-88		-10.0	20.0	-10.0
05-SEP-88		10.0	50.0	-10.0
06-JUN-89		-10.0	30.0	-10.0
11-JUL-89			250.0	10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 21

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 500 500 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
23-MAY-87		40.0		
20-JUL-87		20.0		
12-AUG-87		-20.0		
22-SEP-87	-50.0		-50.0	
14-JUN-88	-50.0	-20.0	-50.0	-20.0
15-JUL-88	-50.0	-20.0	-50.0	-20.0
05-SEP-88	-50.0	-20.0	-50.0	20.0
06-JUN-89	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 2*l*

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL

STATION: 500 500 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

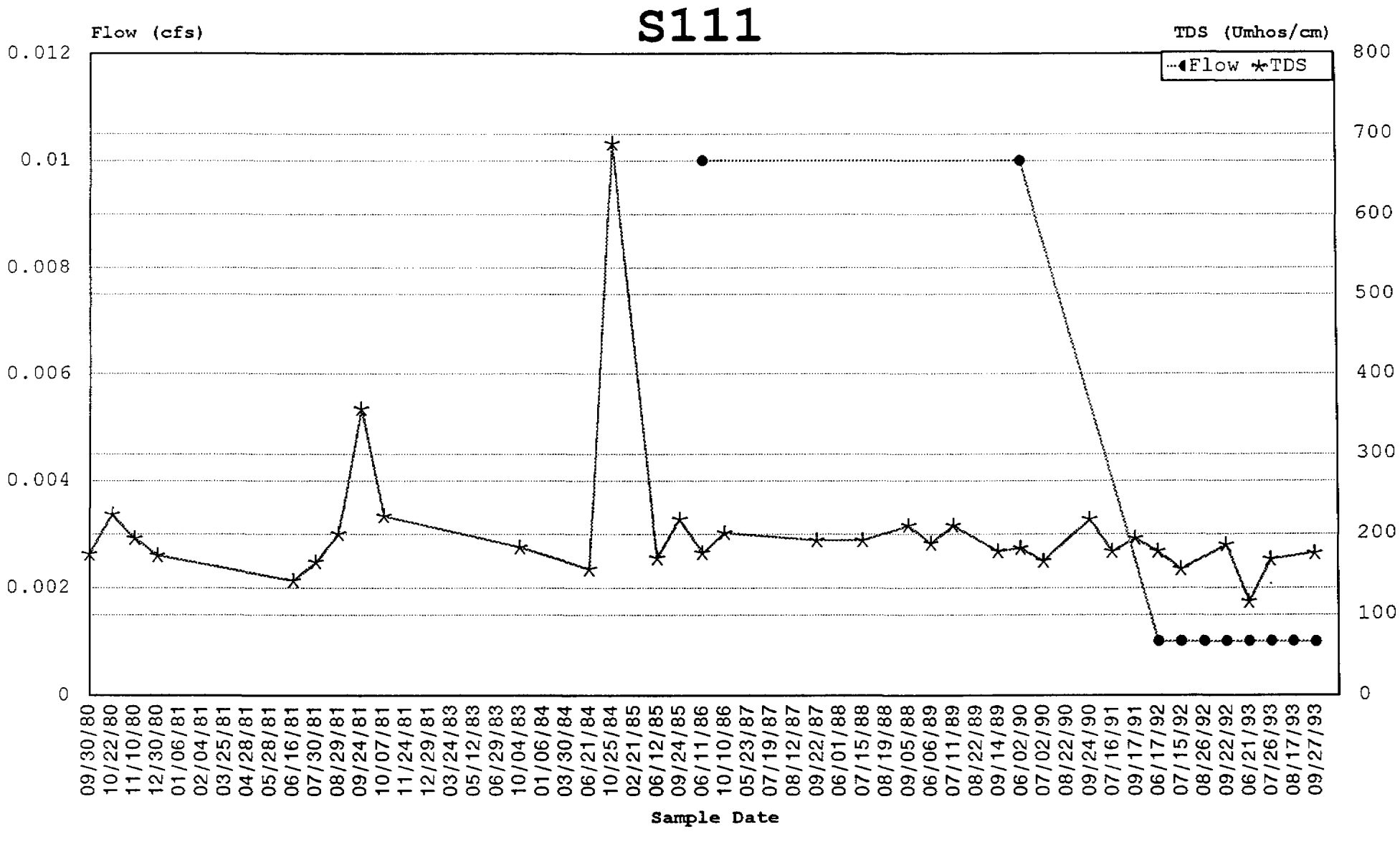
Date	Aluminum	Boron	Molybdenum	Nickel
23-MAY-87	-50.0		-50.0	-20.0
20-JUL-87	300.0		-50.0	20.0
12-AUG-87	-50.0		-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Appendix E

North Horn Formation Springs

Figure 11


S111
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.012
0.01
0.008
0.006
0.004
0.002
0
800
700
600
500
400
300
200
100
0
09/30/80
10/22/80
11/10/80
12/30/80
01/06/81
02/04/81
03/25/81
04/28/81
05/28/81
06/16/81
07/30/81
08/29/81
09/24/81
10/07/81
11/24/81
12/29/81
03/24/83
05/12/83
06/29/83
10/04/83
01/06/84
03/30/84
06/21/84
10/25/84
02/21/85
06/12/85
09/24/85
06/11/86
10/10/86
05/23/87
07/19/87
08/12/87
09/22/87
06/01/88
07/15/88
08/19/88
09/05/88
06/06/89
07/11/89
08/22/89
09/14/89
06/02/90
07/02/90
08/22/90
09/24/90
07/16/91
09/17/91
06/17/92
07/15/92
08/26/92
09/22/92
06/21/93
07/26/93
08/17/93
09/27/93
Sample Date

TA 22

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: S111 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	9.473	2.7	16.000	4.000	DEGREES C	37	09/80 - 09/93
CONDUCTIVITY	FIELD	319.926	110.1	680.000	4.000	UMHOS/CM	27	10/86 - 09/93
PH	FIELD	6.952	0.6	8.100	5.870	PH	27	06/86 - 09/93
ALKALINITY	TOTAL	167.339	26.5	260.000	106.000	MG/L	31	12/80 - 09/93
ACIDITY	AS CACO3	4.595	8.4	23.400	-1.000	MG/L	19	12/80 - 09/89
HARDNESS	TOTAL	177.667	21.4	218.000	139.000	MG/L	18	09/87 - 09/93
SOLIDS	DISSOLVED	203.970	94.8	688.000	116.000	MG/L	33	09/80 - 09/93
	SUSPENDED	4.400	5.6	18.000	-0.500	MG/L	10	09/80 - 10/86
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.004	0.0	0.010	0.001	CFS	6	06/86 - 09/92
CATIONS								
CALCIUM	DISSOLVED	45.833	5.7	56.000	36.000	MG/L	18	09/87 - 09/93
	TOTAL	48.406	17.1	100.000	13.200	MG/L	16	09/80 - 10/86
MAGNESIUM	DISSOLVED	15.389	1.9	19.000	12.000	MG/L	18	09/87 - 09/93
	TOTAL	18.375	12.8	72.000	11.520	MG/L	20	09/80 - 07/93
SODIUM	DISSOLVED	2.000	0.5	3.000	1.000	MG/L	18	09/87 - 09/93
	TOTAL	7.350	12.3	52.000	2.000	MG/L	16	09/80 - 10/86
POTASSIUM	DISSOLVED	0.278	1.1	2.000	-1.000	MG/L	18	09/87 - 09/93
	TOTAL	1.643	1.8	6.100	0.400	MG/L	16	09/80 - 10/86

TABLE 22

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: S111 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS								
BICARBONATE	AS HCO3	204.577	31.5	317.000	129.000	MG/L	34	09/80 - 09/93
CARBONATE	AS CO3	0.083	1.6	5.000	-1.000	MG/L	12	10/83 - 09/93
CHLORIDE	N/A	3.597	5.1	29.000	0.050	MG/L	34	09/80 - 09/93
SULFATE	N/A	20.868	49.0	270.000	-3.000	MG/L	34	09/80 - 09/93
MINOR								
FLUORIDE	N/A	-0.100	0.0	-0.100	-0.100	MG/L	1	09/91 - 09/91
GASES								
SULPHIDE	TOTAL	-0.110	0.1	-0.020	-0.200	MG/L	2	09/87 - 09/91
PRIMARY								
ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	09/91 - 09/91
	TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	4	10/83 - 10/86
BARIUM	DISSOLVED	40.000	0.0	40.000	40.000	UG/L	1	09/91 - 09/91
	TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	4	10/83 - 10/86
CADMIUM	DISSOLVED	-5.000	0.0	-5.000	-5.000	UG/L	1	09/91 - 09/91
	TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	4	10/83 - 10/86
CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	1	09/91 - 09/91
LEAD	TOTAL	-33.333	28.8	20.000	-50.000	UG/L	6	10/83 - 09/91
MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	1	09/91 - 09/91
	TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	4	10/83 - 10/86
SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	09/91 - 09/91
	TOTAL	-3.000	4.0	3.000	-5.000	UG/L	4	10/83 - 10/86

TABLE 22

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: S111 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	09/91 - 09/91
	TOTAL	-7.500	25.0	30.000	-20.000	UG/L	4	10/83 - 10/86
ZINC	TOTAL	-4.167	7.4	10.000	-10.000	UG/L	6	10/83 - 09/91
IRON	DISSOLVED	19.030	72.5	330.000	-50.000	UG/L	33	09/80 - 09/93
	TOTAL	95.294	104.0	350.000	-50.000	UG/L	34	09/80 - 09/93
MANGANESE	DISSOLVED	-9.182	2.6	-1.000	-10.000	UG/L	22	12/80 - 07/93
	TOTAL	-4.806	9.2	20.000	-10.000	UG/L	31	09/80 - 09/93
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	2	09/87 - 09/91
BORON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	09/91 - 09/91
	TOTAL	162.500	112.1	330.000	100.000	UG/L	4	10/83 - 10/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	2	09/87 - 09/91
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	09/91 - 09/91
	TOTAL	-40.000	0.0	-40.000	-40.000	UG/L	4	10/83 - 10/86
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.040	0.0	0.040	0.040	MG/L	1	09/91 - 09/91
	AMMIA-FREE	-0.001	0.0	-0.001	-0.001	MG/L	1	09/91 - 09/91
	NITRATE	1.233	1.1	2.800	-0.010	MG/L	6	10/83 - 09/91
	NO3+NO2	2.355	0.6	2.800	1.910	MG/L	2	09/87 - 09/91
ORGANICS								
OIL&GREASE	N/A	-0.060	1.0	1.700	-0.500	MG/L	5	10/83 - 10/86

TABLE 23
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: S111 S11-1 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
30-SEP-80		9680.00	0.00000	CFS	
22-OCT-80		9680.00	0.00000	CFS	
10-NOV-80		9680.00			
30-DEC-80		9680.00	0.00000	CFS	
06-JAN-81		9680.00			IN-ACCESSIBLE - SNOW
04-FEB-81		9680.00			IN-ACCESSIBLE - SNOW
25-MAR-81		9680.00			IN-ACCESSIBLE - SNOW
28-APR-81		9680.00			IN-ACCESSIBLE - SNOW

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: S111 S11-1 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
28-MAY-81		9680.00			IN-ACCESSIBLE - RAIN & MUD
16-JUN-81		9680.00	0.00000	CFS	
30-JUL-81		9680.00			
29-AUG-81		9680.00	0.00000	CFS	
24-SEP-81		9680.00			
07-OCT-81		9680.00	0.00000	CFS	
24-NOV-81		9680.00			IN-ACCESSIBLE
29-DEC-81		9680.00			IN-ACCESSIBLE

TABLE 23
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: S111 S11-1 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
24-MAR-83		9680.00			IN-ACCESSIBLE- SNOW
12-MAY-83		9680.00			IN-ACCESSIBLE- SNOW
29-JUN-83		9680.00			IN-ACCESSIBLE- SNOW & MUDSLIDE
04-OCT-83		9680.00	0.00000	CFS	
06-JAN-84		9680.00			COVERED W/SNOW NOT POSS TO SAMPLE
30-MAR-84		9680.00			COVERED W/SNOW NOT POSS TO SAMPLE
21-JUN-84		9680.00	0.00000	CFS	
25-OCT-84		9680.00			

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: S111 S11-1 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
21-FEB-85		9680.00			IN-ACCESSIBLE - SNOW
12-JUN-85		9680.00	0.00000	CFS	
24-SEP-85		9680.00	0.00000	CFS	
11-JUN-86		9680.00	0.01000	CFS	
10-OCT-86		9680.00	0.00000	CFS	
23-MAY-87		9680.00	0.00000	CFS	
19-JUL-87		9680.00	0.00000	CFS	
12-AUG-87		9680.00	0.00000	CFS	

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: S111 S11-1 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
22-SEP-87		9680.00	0.00000	CFS	
01-JUN-88		9680.00	0.00000	CFS	
15-JUL-88		9680.00	0.00000	CFS	
19-AUG-88		9680.00	0.00000	CFS	
05-SEP-88		9680.00	0.00000	CFS	
06-JUN-89		9680.00	0.00000	CFS	
11-JUL-89		9680.00	0.00000	CFS	
22-AUG-89		9680.00	0.00000	CFS	

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: S111 S11-1 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
14-SEP-89		9680.00	0.00000	CFS	
02-JUN-90		9680.00	0.01000	CFS	
02-JUL-90		9680.00	0.00000	CFS	
22-AUG-90		9680.00	0.00000	CFS	
24-SEP-90		9680.00	0.00000	CFS	
16-JUL-91		9680.00	0.00000	CFS	
17-SEP-91		9680.00	0.00000	CFS	
17-JUN-92		9680.00	0.00100	CFS	, , , , , ,
15-JUL-92		9680.00	0.00100	CFS	, , , , , ,
26-AUG-92		9680.00	0.00100	CFS	, , , , , ,

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: S111 S11-1 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
22-SEP-92		9680.00	0.00100	CFS	, , , , , ,
21-JUN-93			0.00100		
26-JUL-93			0.00100		
17-AUG-93		9680.00	0.00100		
27-SEP-93			0.00100		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 23
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
30-SEP-80	9.0		321.0		7.0				175.0	1.0		
22-OCT-80	8.0		330.0		6.9				224.0	18.0		
10-NOV-80			300.0		6.9				194.0			
30-DEC-80	4.0		203.0		6.8	190.0	22.0		173.0			
16-JUN-81	11.0		183.0		7.6	124.0	11.4		142.0			
30-JUL-81			340.0			162.0	17.1		165.0	4.0		
29-AUG-81	12.0					158.0	23.4		200.0			
24-SEP-81			550.0		7.5	184.9	12.4		356.0	8.0		
07-OCT-81	9.0		345.0		7.3	188.6	8.0		222.0	4.0		
04-OCT-83	13.0		370.0		7.0	173.0	-1.0		183.0	-0.5		
21-JUN-84	9.0		310.0		6.7	143.0	-1.0		156.0	-0.5		
25-OCT-84			1000.0		7.4	260.0	-1.0		688.0	2.0		
12-JUN-85			312.0		7.2	152.0	-1.0		170.0			
24-SEP-85	7.0		361.0		6.6	180.0	-1.0		218.0	7.0		
11-JUN-86	8.0		283.0	6.9	6.7	144.0	-1.0		176.0			
10-OCT-86	6.5	680.0	384.0		7.8	175.0	-1.0		201.0	1.0		
23-MAY-87	4.2	250.0		7.4								
19-JUL-87	10.0	320.0		8.1								
12-AUG-87	9.0	310.0		6.7								
22-SEP-87	7.9	270.0	364.0	6.7		173.0		201.0	192.0			
01-JUN-88	6.1	148.0		7.1		106.0	0.0	139.0				
15-JUL-88	9.8	236.0		6.4		165.0	0.0	169.0	192.0			
19-AUG-88	10.0	280.0		7.1								
05-SEP-88	11.7	260.0		7.4		183.0	0.0	218.0	210.0			
06-JUN-89	7.0	340.0		7.2		152.0	0.0	174.0	188.0			
11-JUL-89	16.0	390.0		7.5		200.0	0.0	195.0	210.0			
22-AUG-89	9.0	420.0		7.0								
14-SEP-89	10.0	380.0		7.1		180.0	0.0	192.0	178.0			

TABLE 23
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
02-JUN-90	6.0	350.0		7.4		143.0		157.0	182.0			
02-JUL-90	14.0	380.0		7.5		172.0		183.0	166.0			
22-AUG-90	14.0	300.0		7.4								
24-SEP-90	9.0	320.0		7.4		183.0		189.0	218.0			
16-JUL-91	15.0	360.0		7.2		162.0		201.0	178.0			
17-SEP-91	8.0	350.0		7.5	7.5	178.0		183.0	194.0			
17-JUN-92	9.0	343.0		7.0		160.0		167.0	178.0			
15-JUL-92	10.5	345.0		6.9		170.0		162.0	156.0			
26-AUG-92	9.7	350.0		6.9								
22-SEP-92	9.5	4.0		6.0		162.0		192.0	186.0			
21-JUN-93	10.2	238.0		5.9		138.0		139.0	116.0			
26-JUL-93	11.1	323.0		6.0		170.0		177.0	168.0			
17-AUG-93	9.0	338.0		6.0								
27-SEP-93	8.3	353.0		6.2		156.0		160.0	176.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
22-SEP-87	54.0	16.0	2.0	1.0	
01-JUN-88	36.0	12.0	2.0	1.0	
15-JUL-88	43.0	15.0	3.0	1.0	
05-SEP-88	56.0	19.0	2.0	1.0	
06-JUN-89	45.0	15.0	1.0	1.0	
11-JUL-89	50.0	17.0	2.0	2.0	
14-SEP-89	49.0	17.0	2.0	-1.0	
02-JUN-90	40.0	14.0	2.0	-1.0	
02-JUL-90	47.0	16.0	2.0	1.0	
24-SEP-90	51.0	15.0	1.0	-1.0	
16-JUL-91	51.0	18.0	3.0	1.0	
17-SEP-91	47.0	16.0	2.0	1.0	
17-JUN-92	42.0	15.0	2.0	1.0	
15-JUL-92	42.0	14.0	2.0	-1.0	
22-SEP-92	49.0	17.0	2.0	1.0	
21-JUN-93	36.0	12.0	2.0	-1.0	
26-JUL-93	46.0	15.0	2.0	-1.0	
27-SEP-93	41.0	14.0	2.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
30-SEP-80	48.8	11.5	2.1	0.6	
22-OCT-80	46.4	17.3	12.3	6.1	
10-NOV-80	55.2	14.9	2.0	0.6	
30-DEC-80	40.0	16.8	6.8	5.8	
16-JUN-81	32.8	13.4	4.0	0.4	
30-JUL-81	13.2	15.8	3.8	0.5	
29-AUG-81	45.6	18.2	3.4	1.5	
24-SEP-81	50.5	16.5	52.0	0.5	
07-OCT-81	50.0	17.0	8.0	1.8	
04-OCT-83	51.0	16.0	2.0	1.0	
21-JUN-84	42.0	15.0	2.0	1.0	
25-OCT-84	100.0	72.0	10.0	3.0	
12-JUN-85	52.0	15.0	2.0	0.7	
24-SEP-85	52.0	19.0	2.0	0.7	
11-JUN-86	45.0	13.0	2.2	1.0	
10-OCT-86	50.0	17.0	3.0	1.1	
22-SEP-87		16.0			
17-SEP-91		16.0			
21-JUN-93		12.0			
26-JUL-93		15.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
17-SEP-91	-1.0	40.0	-5.0				-0.1	-1.0	

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
04-OCT-83	-1.0	-100.0	-5.0			-50.0	-0.2	3.0	
25-OCT-84	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
24-SEP-85	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
10-OCT-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
22-SEP-87						-20.0			
17-SEP-91						20.0			

TABLE 23
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS
STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
17-SEP-91									

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
04-OCT-83									
25-OCT-84									
24-SEP-85									
10-OCT-86									

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
30-SEP-80	205.			3.	4.		
22-OCT-80	237.			3.	21.		
10-NOV-80	244.			0.	3.		
30-DEC-80	232.			0.	3.		
06-JAN-81							
04-FEB-81							
25-MAR-81							
28-APR-81							
28-MAY-81							
16-JUN-81	151.			3.	15.		
30-JUL-81	198.			3.	12.		
29-AUG-81	193.			7.	27.		
24-SEP-81	226.			2.	120.		
07-OCT-81	230.			3.	22.		
24-NOV-81							
29-DEC-81							
24-MAR-83							
12-MAY-83							
29-JUN-83							
04-OCT-83	211.	1.		3.	1.		
06-JAN-84							
30-MAR-84							
21-JUN-84	174.			4.	6.		
25-OCT-84	317.	1.		14.	270.		
21-FEB-85							
12-JUN-85	185.			3.	8.		
24-SEP-85	220.	1.		4.	30.		
11-JUN-86	176.			3.	25.		
10-OCT-86	214.	1.		5.	20.		

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
23-MAY-87							
19-JUL-87							
12-AUG-87							
22-SEP-87	211.			3.	2.		0.20
01-JUN-88	129.			2.	4.		
15-JUL-88	201.			2.	12.		
19-AUG-88							
05-SEP-88	223.			3.	31.		
06-JUN-89	185.			2.	2.		
11-JUL-89	198.			2.	4.		
22-AUG-89							
14-SEP-89	220.			1.	8.		
02-JUN-90	174.			3.	8.		
02-JUL-90	210.			2.	12.		
22-AUG-90							
24-SEP-90	223.			3.	2.		
16-JUL-91	198.	0.		29.	2.		
17-SEP-91	217.	0.		2.	2.	0.1	0.02
17-JUN-92	195.	0.		1.	29.		
15-JUL-92	207.	0.		1.	2.		
26-AUG-92							
22-SEP-92	188.	5.		1.	16.		
21-JUN-93	168.	0.		2.	4.		
26-JUL-93	207.	0.		2.	4.		
17-AUG-93							
27-SEP-93	190.	0.		2.	5.		

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L; Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 2 3

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: S111 S11-1 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-SEP-80			60.0	
22-OCT-80			81.0	
30-DEC-80			58.0	-1.0
16-JUN-81			40.0	-1.0
30-JUL-81			50.0	
29-AUG-81			44.0	
24-SEP-81			40.0	
07-OCT-81			35.0	
04-OCT-83			-50.0	-10.0
21-JUN-84			100.0	-10.0
25-OCT-84			-50.0	-10.0
12-JUN-85			-50.0	-10.0
24-SEP-85			-50.0	-10.0
11-JUN-86			120.0	-10.0
10-OCT-86			-50.0	-10.0
22-SEP-87			-20.0	-10.0
01-JUN-88			330.0	
15-JUL-88			-20.0	
05-SEP-88			-20.0	
06-JUN-89			20.0	-10.0
11-JUL-89			-20.0	-10.0
14-SEP-89			20.0	-10.0
02-JUN-90			70.0	-10.0
02-JUL-90			-20.0	-10.0
24-SEP-90			20.0	-10.0
16-JUL-91			30.0	
17-SEP-91	-10.0		-20.0	-10.0
17-JUN-92			-20.0	-10.0

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: S111 S11-1 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
15-JUL-92			-20.0	-10.0
22-SEP-92			-20.0	-10.0
21-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: S111 S11-1 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-SEP-80			112.0	10.0
22-OCT-80			110.0	20.0
10-NOV-80			100.0	20.0
30-DEC-80			120.0	5.0
16-JUN-81			260.0	-1.0
30-JUL-81			238.0	2.0
29-AUG-81			250.0	2.0
24-SEP-81			250.0	3.0
07-OCT-81			260.0	10.0
04-OCT-83	-20.0	-5.0	-50.0	-10.0
21-JUN-84			200.0	-10.0
25-OCT-84	-20.0	-5.0	200.0	-10.0
12-JUN-85			60.0	-10.0
24-SEP-85	-20.0	-5.0	-50.0	-10.0
11-JUN-86			140.0	-10.0
10-OCT-86	30.0	10.0	-50.0	-10.0
22-SEP-87		-10.0	20.0	-10.0
01-JUN-88			350.0	-10.0
15-JUL-88			-20.0	-10.0
05-SEP-88			30.0	-10.0
06-JUN-89			50.0	-10.0
11-JUL-89			60.0	-10.0
14-SEP-89			20.0	-10.0
02-JUN-90			170.0	-10.0
02-JUL-90			50.0	-10.0
24-SEP-90			40.0	-10.0
16-JUL-91			40.0	-10.0
17-SEP-91		-10.0	20.0	-10.0

TABLE 23
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: S111 S11-1 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
17-JUN-92			20.0	
15-JUL-92			30.0	
22-SEP-92			-20.0	
21-JUN-93			120.0	-10.0
26-JUL-93			30.0	-10.0
27-SEP-93			80.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 23

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
22-SEP-87	-50.0		-50.0	
17-SEP-91	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 2 3
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL
STATION: S111 S11-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
04-OCT-83		100.0		-40.0
25-OCT-84		330.0		-40.0
24-SEP-85		120.0		-40.0
10-OCT-86		100.0		-40.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 12

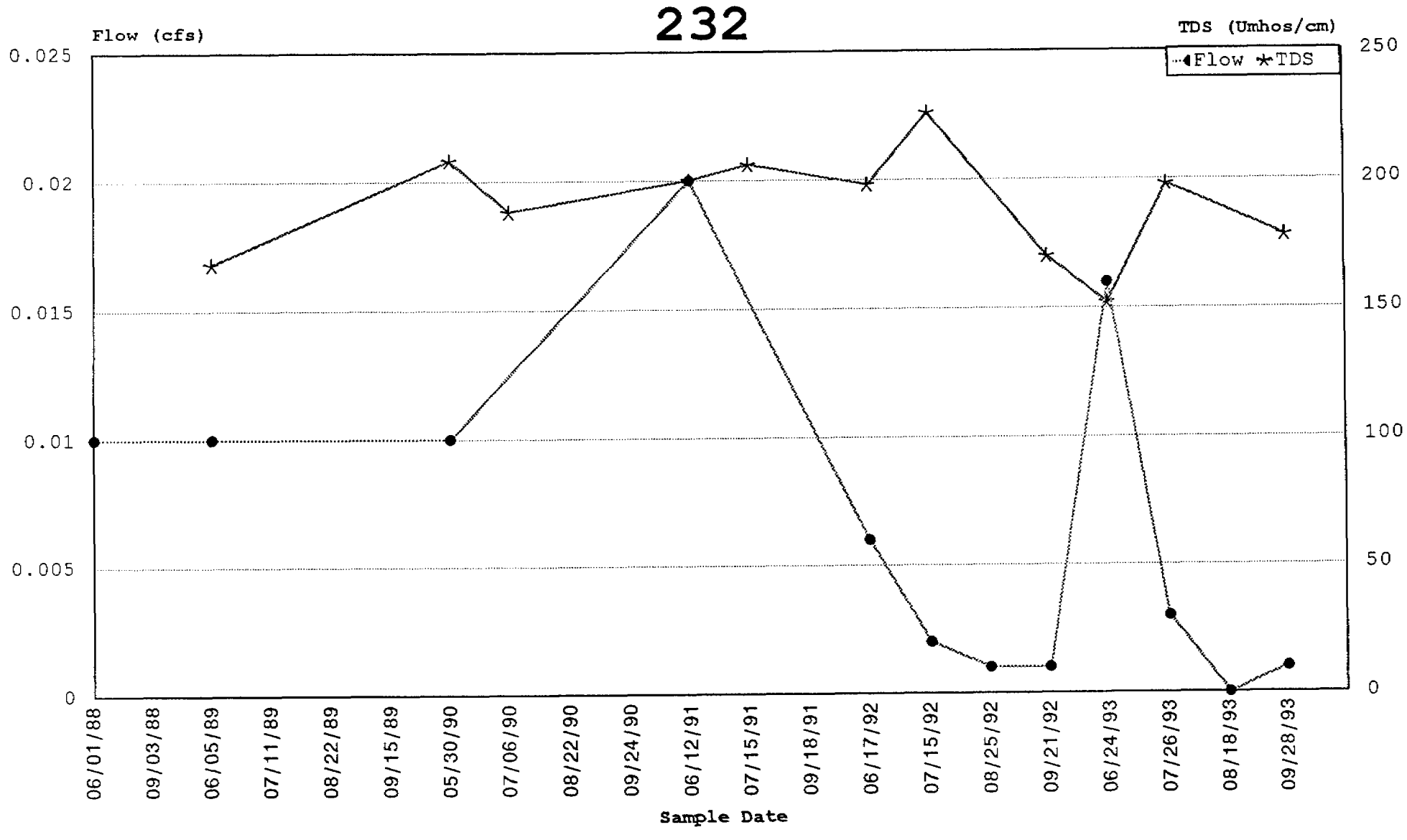

232
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.025
0.02
0.015
0.01
0.005
0
250
200
150
100
50
0
06/01/88
09/03/88
06/05/89
07/11/89
08/22/89
09/15/89
05/30/90
07/06/90
08/22/90
09/24/90
06/12/91
07/15/91
09/18/91
06/17/92
07/15/92
08/25/92
09/21/92
06/24/93
07/26/93
08/18/93
09/28/93
Sample Date

TABLE 24

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 232 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	7.129	2.9	14.000	4.000	DEGREES C	14	06/88 - 09/93
CONDUCTIVITY	FIELD	311.714	59.1	380.000	170.000	UMHOS/CM	14	06/88 - 09/93
PH	FIELD	6.913	0.6	7.890	6.020	PH	14	06/88 - 09/93
ALKALINITY	TOTAL	161.583	23.0	206.000	133.000	MG/L	12	06/88 - 09/93
HARDNESS	TOTAL	176.364	18.5	206.000	149.000	MG/L	11	06/89 - 09/93
SOLIDS	DISSOLVED	190.182	21.4	226.000	152.000	MG/L	11	06/89 - 09/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.008	0.0	0.020	0.001	CFS	8	06/88 - 09/92
CATIONS								
CALCIUM	DISSOLVED	57.583	7.5	74.000	47.000	MG/L	12	06/88 - 09/93
MAGNESIUM	DISSOLVED	7.818	1.1	9.000	5.000	MG/L	11	06/89 - 09/93
	TOTAL	7.833	0.8	9.000	7.000	MG/L	6	06/88 - 07/93
SODIUM	DISSOLVED	2.250	1.2	6.000	1.000	MG/L	12	06/88 - 09/93
POTASSIUM	DISSOLVED	0.833	0.9	2.000	-1.000	MG/L	12	06/88 - 09/93
ANIONS								
BICARBONATE	AS HCO3	195.417	29.8	251.000	154.000	MG/L	12	06/88 - 09/93
CARBONATE	AS CO3	1.250	2.3	5.000	0.000	MG/L	8	06/91 - 09/93
CHLORIDE	N/A	1.667	1.0	3.000	-1.000	MG/L	12	06/88 - 09/93
SULFATE	N/A	13.500	10.8	35.000	-2.000	MG/L	12	06/88 - 09/93

TABLE 24

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 232 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
MINOR								
FLUORIDE	N/A	0.075	0.1	0.200	-0.100	MG/L	4	06/88 - 07/90
GASES								
SULPHIDE	TOTAL	0.073	0.2	0.300	-0.010	MG/L	4	06/88 - 07/90
PRIMARY								
ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	4	06/88 - 07/90
BARIUM	DISSOLVED	65.000	10.0	80.000	60.000	UG/L	4	06/88 - 07/90
CADMIUM	DISSOLVED	-7.500	2.9	-5.000	-10.000	UG/L	4	06/88 - 07/90
CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	4	06/88 - 07/90
LEAD	TOTAL	-10.000	20.0	20.000	-20.000	UG/L	4	06/88 - 07/90
MERCURY	DISSOLVED	-0.125	0.1	-0.100	-0.200	UG/L	4	06/88 - 07/90
SELENIUM	DISSOLVED	0.000	1.2	1.000	-1.000	UG/L	4	06/88 - 07/90
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	4	06/88 - 07/90
ZINC	TOTAL	10.000	0.0	10.000	10.000	UG/L	4	06/88 - 07/90
IRON	DISSOLVED	18.333	49.5	130.000	-20.000	UG/L	12	06/88 - 09/93
	TOTAL	2453.333	5530.7	*********	20.000	UG/L	12	06/88 - 09/93
MANGANESE	DISSOLVED	-7.500	7.1	10.000	-10.000	UG/L	8	06/89 - 07/93
	TOTAL	23.333	45.0	130.000	-10.000	UG/L	9	06/88 - 09/93

TABLE 24

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 232 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	57.500	124.2	170.000	-50.000	UG/L	4	06/88 - 07/90
BORON	DISSOLVED	65.000	138.7	270.000	-20.000	UG/L	4	06/88 - 07/90
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	4	06/88 - 07/90
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	4	06/88 - 07/90
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.485	0.9	1.870	-0.050	MG/L	4	06/88 - 07/90
	AMMIA-FREE	0.002	0.0	0.011	-0.001	MG/L	4	06/88 - 07/90
	NITRATE	0.478	0.1	0.620	0.320	MG/L	4	06/88 - 07/90
	NO3+NO2	0.470	0.1	0.610	0.310	MG/L	4	06/88 - 07/90

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 232 232 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
01-JUN-88		9765.00	0.01000	CFS	
03-SEP-88		9765.00	0.00000	CFS	NO FLOW
05-JUN-89		9765.00	0.01000	CFS	
11-JUL-89		9765.00	0.00000	CFS	NO FLOW
22-AUG-89		9765.00	0.00000	CFS	NO FLOW
15-SEP-89		9765.00	0.00000	CFS	NO FLOW
30-MAY-90		9765.00	0.01000	CFS	
06-JUL-90		9765.00	0.00000	CFS	

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 232 232 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
22-AUG-90		9765.00	0.00000	CFS	
24-SEP-90		9765.00	0.00000	CFS	NO FLOW
12-JUN-91		9765.00	0.02000	CFS	
15-JUL-91		9765.00	0.00000	CFS	
18-SEP-91		9765.00	0.00000	CFS	NO FLOW
17-JUN-92		9765.00	0.00600	CFS	, , , , , ,
15-JUL-92		9765.00	0.00200	CFS	, , , , , ,
25-AUG-92		9765.00	0.00100	CFS	, , , , , ,
21-SEP-92		9765.00	0.00100	CFS	, , , , , ,
24-JUN-93			0.01600		
26-JUL-93			0.00300		
18-AUG-93		9765.00	0.00000		NO FLOW
28-SEP-93			0.00100		

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 232 232 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
01-JUN-88	4.8	170.0		7.4		133.0						
05-JUN-89	4.0	380.0		7.2		150.0		168.0	168.0			
30-MAY-90	6.0	280.0		7.6		192.0		178.0	208.0			
06-JUL-90	8.0	350.0		7.9		168.0		199.0	188.0			
22-AUG-90	14.0	310.0		7.8								
12-JUN-91	4.0	300.0		7.2		134.0		150.0	200.0			
15-JUL-91	10.0	370.0		6.7		206.0		206.0	206.0			
17-JUN-92	5.1	360.0		7.1		170.0		195.0	198.0			
15-JUL-92	7.8	327.0		7.0		164.0		178.0	226.0			
25-AUG-92	7.6	214.0		6.7								
21-SEP-92	10.2	333.0		6.0		146.0		165.0	170.0			
24-JUN-93	4.6	323.0		6.1		156.0		179.0	152.0			
26-JUL-93	5.6	352.0		6.1		180.0		173.0	198.0			
28-SEP-93	8.1	295.0		6.2		140.0		149.0	178.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 232 232 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
01-JUN-88	56.0		2.0	1.0	
05-JUN-89	54.0	8.0	1.0	1.0	
30-MAY-90	58.0	8.0	2.0	1.0	
06-JUL-90	65.0	9.0	2.0	1.0	
12-JUN-91	47.0	8.0	6.0	2.0	
15-JUL-91	74.0	5.0	2.0	-1.0	
17-JUN-92	65.0	8.0	2.0	1.0	
15-JUL-92	58.0	8.0	2.0	1.0	
21-SEP-92	53.0	8.0	2.0	1.0	
24-JUN-93	57.0	9.0	2.0	1.0	
26-JUL-93	56.0	8.0	2.0	2.0	
28-SEP-93	48.0	7.0	2.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 232 232 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
01-JUN-88		8.0			
05-JUN-89		8.0			
30-MAY-90		8.0			
06-JUL-90		7.0			
24-JUN-93		7.0			
26-JUL-93		9.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 232 232 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
01-JUN-88	162.			1.	4.	0.1	0.30
03-SEP-88							
05-JUN-89	183.			2.	10.	0.2	0.01
11-JUL-89							
22-AUG-89							
15-SEP-89							
30-MAY-90	234.			2.	2.	0.1	0.01
06-JUL-90	205.			2.	12.	0.1	0.01
22-AUG-90							
24-SEP-90							
12-JUN-91	154.	5.		2.	29.		
15-JUL-91	251.	0.		1.	2.		
18-SEP-91							
17-JUN-92	207.	0.		1.	35.		
15-JUL-92	200.	0.		2.	16.		
25-AUG-92							
21-SEP-92	168.	5.		2.	19.		
24-JUN-93	190.	0.		2.	19.		
26-JUL-93	220.	0.		2.	10.		
18-AUG-93							
28-SEP-93	171.	0.		3.	8.		

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 232 232 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
01-JUN-88	-1.0	60.0	-5.0				-0.2	-1.0	
05-JUN-89	-1.0	80.0	-5.0				-0.1	-1.0	
30-MAY-90	-1.0	60.0	-10.0				-0.1	1.0	
06-JUL-90	-1.0	60.0	-10.0				-0.1	1.0	

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 232 232 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
01-JUN-88						20.0			
05-JUN-89						-20.0			
30-MAY-90						-20.0			
06-JUL-90						-20.0			

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 232 232 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
01-JUN-88									
05-JUN-89									
30-MAY-90									
06-JUL-90									

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 232 232 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
01-JUN-88	-10.0		80.0	
05-JUN-89	-10.0		60.0	-10.0
30-MAY-90	-10.0		130.0	-10.0
06-JUL-90	-10.0		20.0	-10.0
12-JUN-91			30.0	
15-JUL-91			-20.0	
17-JUN-92			-20.0	-10.0
15-JUL-92			-20.0	-10.0
21-SEP-92			20.0	10.0
24-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
28-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 232 232 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
01-JUN-88		10.0	1040.0	30.0
05-JUN-89		10.0	1920.0	40.0
30-MAY-90		10.0	560.0	30.0
06-JUL-90		10.0	1030.0	20.0
12-JUN-91			230.0	-10.0
15-JUL-91			20.0	-10.0
17-JUN-92			220.0	
15-JUL-92			19800.0	
21-SEP-92			1540.0	
24-JUN-93			50.0	-10.0
26-JUL-93			200.0	-10.0
28-SEP-93			2830.0	130.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 25

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 232 232 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
01-JUN-88	-50.0	270.0	-50.0	-20.0
05-JUN-89	170.0	-20.0	-50.0	-20.0
30-MAY-90	160.0	30.0	-50.0	-20.0
06-JUL-90	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 13

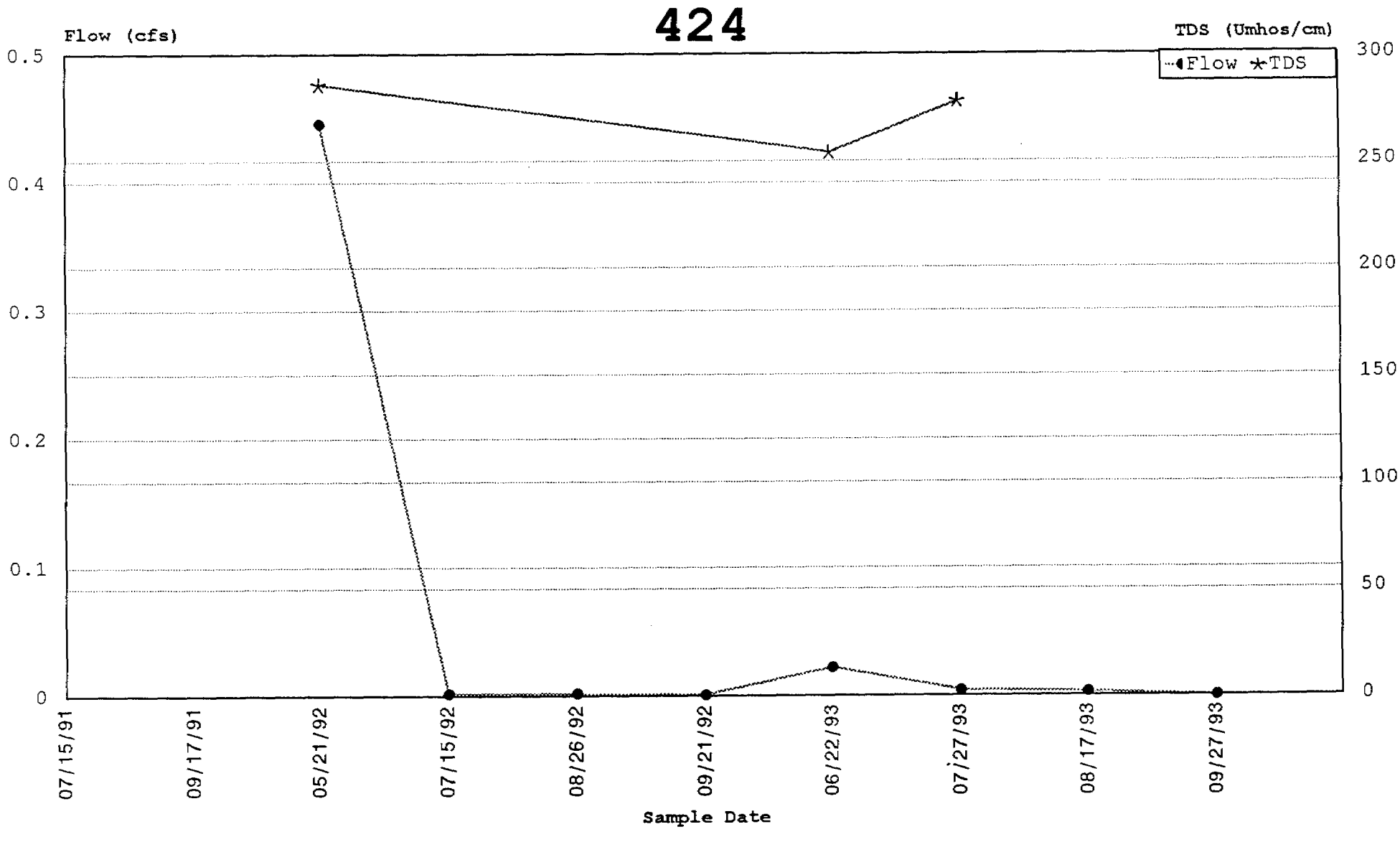

424
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.5
0.4
0.3
0.2
0.1
0
300
250
200
150
100
50
0
07/15/91
09/17/91
05/21/92
07/15/92
08/26/92
09/21/92
06/22/93
07/27/93
08/17/93
09/27/93
Sample Date

TABLE 20

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 424 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	15.500	19.7	60.000	4.500	DEGREES C	7	07/91 - 08/93
CONDUCTIVITY	FIELD	498.286	42.3	558.000	455.000	UMHOS/CM	7	07/91 - 08/93
PH	FIELD	6.963	0.6	7.730	6.310	PH	7	07/91 - 08/93
ALKALINITY	TOTAL	264.000	7.8	274.000	256.000	MG/L	4	05/92 - 07/93
HARDNESS	TOTAL	277.000	9.9	284.000	270.000	MG/L	2	06/93 - 07/93
SOLIDS	DISSOLVED	272.667	16.7	286.000	254.000	MG/L	3	05/92 - 07/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.113	0.2	0.446	0.001	CFS	4	05/92 - 09/92
CATIONS								
CALCIUM	DISSOLVED	83.750	3.3	88.000	80.000	MG/L	4	05/92 - 07/93
MAGNESIUM	DISSOLVED	18.000	1.4	20.000	17.000	MG/L	4	05/92 - 07/93
	TOTAL	18.000	1.4	19.000	17.000	MG/L	2	06/93 - 07/93
SODIUM	DISSOLVED	2.750	0.5	3.000	2.000	MG/L	4	05/92 - 07/93
POTASSIUM	DISSOLVED	0.500	1.0	1.000	-1.000	MG/L	4	05/92 - 07/93
ANIONS								
BICARBONATE	AS HCO3	286.250	33.3	317.000	250.000	MG/L	4	05/92 - 07/93
CARBONATE	AS CO3	6.000	12.0	24.000	0.000	MG/L	4	05/92 - 07/93
CHLORIDE	N/A	1.250	1.5	2.000	-1.000	MG/L	4	05/92 - 07/93
SULFATE	N/A	21.250	11.8	29.000	4.000	MG/L	4	05/92 - 07/93

TABLE 26

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 424 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.150	0.1	0.200	0.100	MG/L	2	05/92 - 09/92
PRIMARY									
	ARSENIC	DISSOLVED	-0.001	0.0	-0.001	-0.001	UG/L	2	05/92 - 09/92
	BARIUM	DISSOLVED	0.075	0.0	0.100	0.050	UG/L	2	05/92 - 09/92
	CADMIUM	DISSOLVED	-0.005	0.0	-0.005	-0.005	UG/L	2	05/92 - 09/92
	CHROMIUM	DISSOLVED	0.010	0.0	0.010	0.010	UG/L	2	05/92 - 09/92
	LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	1	07/93 - 07/93
	MERCURY	DISSOLVED	0.000	0.0	0.000	0.000	UG/L	2	05/92 - 09/92
	SELENIUM	DISSOLVED	-0.001	0.0	-0.001	-0.001	UG/L	1	09/92 - 09/92
SECONDARY									
	COPPER	DISSOLVED	-0.010	0.0	-0.010	-0.010	UG/L	2	05/92 - 09/92
	ZINC	DISSOLVED	-0.010	0.0	-0.010	-0.010	UG/L	2	05/92 - 09/92
		TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	1	07/93 - 07/93
	IRON	DISSOLVED	-10.010	11.5	-0.020	-20.000	UG/L	4	05/92 - 07/93
		TOTAL	255.000	388.9	530.000	-20.000	UG/L	2	06/93 - 07/93
	MANGANESE	DISSOLVED	-4.988	5.8	0.040	-10.000	UG/L	4	05/92 - 07/93
		TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	2	06/93 - 07/93

TABLE 26

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 424 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-0.050	0.0	-0.050	-0.050	UG/L	2	05/92 - 09/92
BORON	DISSOLVED	-0.020	0.0	-0.020	-0.020	UG/L	2	05/92 - 09/92
MOLYBDENUM	DISSOLVED	-0.050	0.0	-0.050	-0.050	UG/L	2	05/92 - 09/92
NICKEL	DISSOLVED	-0.020	0.0	-0.020	-0.020	UG/L	1	05/92 - 05/92
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.000	0.1	0.050	-0.050	MG/L	2	05/92 - 09/92
	AMMIA-FREE	0.000	0.0	0.000	0.000	MG/L	2	05/92 - 09/92
	NITRATE	0.795	0.1	0.860	0.730	MG/L	2	05/92 - 09/92

TABLE 27

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 424 SPRING 424 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
15-JUL-91			0.00000	CFS	
17-SEP-91			0.00000	CFS	NO FLOW
21-MAY-92			0.44600	CFS	, , , , , ,
15-JUL-92			0.00200	CFS	, , , , , ,
26-AUG-92			0.00200	CFS	, , , , , ,
21-SEP-92			0.00100	CFS	, , , , , ,
22-JUN-93			0.02200		
27-JUL-93			0.00420		
17-AUG-93			0.00300		
27-SEP-93			0.00000		COW HAD MUDDY - NO SAMPLE

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 27

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 424 SPRING 424 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
15-JUL-91	11.0	470.0		7.7								
21-MAY-92	4.5	466.0		7.4		266.0		277.0	286.0			
15-JUL-92	8.4	558.0		7.0								
26-AUG-92	8.1	525.0		7.5								
21-SEP-92	8.5	543.0		6.3		274.0		302.0				
22-JUN-93	60.0	455.0		6.3		260.0		270.0	254.0			
27-JUL-93						256.0		284.0	278.0			
17-AUG-93	8.0	471.0		6.4								

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 27

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 424 SPRING 424 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
21-MAY-92	83.0	17.0	2.0	1.0	
21-SEP-92	88.0	20.0	3.0	1.0	
22-JUN-93	80.0	17.0	3.0	-1.0	
27-JUL-93	84.0	18.0	3.0	1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 27

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 424 SPRING 424 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
22-JUN-93		17.0			
27-JUL-93		19.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 27

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 424 SPRING 424 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
15-JUL-91							
17-SEP-91							
21-MAY-92	266.	0.		1.	29.	0.2	
15-JUL-92							
26-AUG-92							
21-SEP-92	250.	24.		2.	29.	0.1	
22-JUN-93	317.	0.		2.	4.		
27-JUL-93	312.	0.		2.	23.		
17-AUG-93							
27-SEP-93							

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 27

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 424 SPRING 424 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
21-MAY-92	-0.0	0.1	-0.0			-0.0	0.0		
21-SEP-92	-0.0	0.1	-0.0			-0.0	0.0	-0.0	

TABLE 27
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: 424 SPRING 424 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
27-JUL-93						-20.0			

TABLE 27

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 424 SPRING 424 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
21-MAY-92	-0.0	-0.0	-0.0	0.0
21-SEP-92	-0.0	-0.0	-0.0	0.0
22-JUN-93			-20.0	-10.0
27-JUL-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 27

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 424 SPRING 424 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
22-JUN-93			530.0	-10.0
27-JUL-93		-10.0	-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 2.7

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 424 SPRING 424 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
21-MAY-92	-0.1	-0.0	-0.1	-0.0
21-SEP-92	-0.1	-0.0	-0.1	

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 14

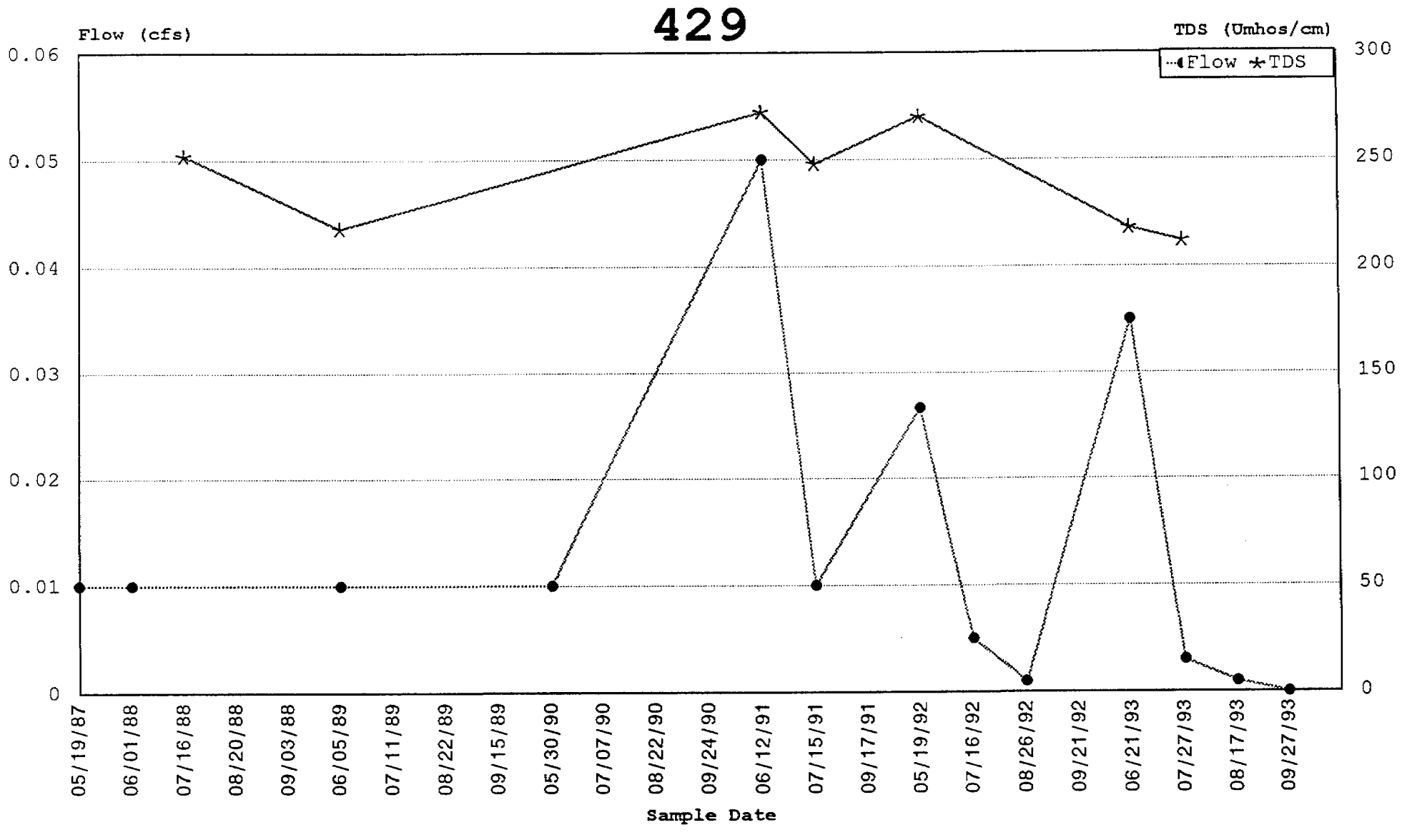

429
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.06
0.05
0.04
0.03
0.02
0.01
0
300
250
200
150
100
50
0
05/19/87
06/01/88
07/16/88
08/20/88
09/03/88
06/05/89
07/11/89
08/22/89
09/15/89
05/30/90
07/07/90
08/22/90
09/24/90
06/12/91
07/15/91
09/17/91
05/19/92
07/16/92
08/26/92
09/21/92
06/21/93
07/27/93
08/17/93
09/27/93
Sample Date

TABLE 28

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 429 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	8.121	3.8	15.000	3.500	DEGREES C	14	05/87 - 08/93
CONDUCTIVITY	FIELD	405.357	79.1	525.000	268.000	UMHOS/CM	14	06/88 - 08/93
PH	FIELD	7.767	0.6	8.800	6.780	PH	14	05/87 - 08/93
ALKALINITY	TOTAL	211.750	31.2	238.000	140.000	MG/L	8	06/88 - 07/93
HARDNESS	TOTAL	219.143	31.6	254.000	158.000	MG/L	7	07/88 - 07/93
SOLIDS	DISSOLVED	241.429	25.4	272.000	212.000	MG/L	7	07/88 - 07/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.015	0.0	0.050	0.001	CFS	9	05/87 - 08/92
CATIONS								
CALCIUM	DISSOLVED	66.875	11.5	84.000	45.000	MG/L	8	06/88 - 07/93
MAGNESIUM	DISSOLVED	14.143	2.4	18.000	11.000	MG/L	7	07/88 - 07/93
	TOTAL	14.500	2.1	17.000	12.000	MG/L	6	06/88 - 07/93
SODIUM	DISSOLVED	3.000	0.8	4.000	2.000	MG/L	8	06/88 - 07/93
POTASSIUM	DISSOLVED	-0.250	1.0	1.000	-1.000	MG/L	8	06/88 - 07/93
ANIONS								
BICARBONATE	AS HCO3	252.750	36.6	285.000	171.000	MG/L	8	06/88 - 07/93
CARBONATE	AS CO3	3.800	4.5	10.000	0.000	MG/L	5	06/91 - 07/93
CHLORIDE	N/A	1.500	1.3	3.000	-1.000	MG/L	8	06/88 - 07/93
SULFATE	N/A	14.125	13.3	41.000	4.000	MG/L	8	06/88 - 07/93

TABLE 28

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 429 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.175	0.1	0.200	0.100	MG/L	4	06/88 - 05/92
GASES									
	SULPHIDE	TOTAL	0.023	0.2	0.300	-0.200	MG/L	4	06/88 - 05/92
PRIMARY									
	ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	4	06/88 - 05/92
	BARIUM	DISSOLVED	47.500	5.0	50.000	40.000	UG/L	4	06/88 - 05/92
	CADMIUM	DISSOLVED	-2.500	5.0	5.000	-5.000	UG/L	4	06/88 - 05/92
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	4	06/88 - 05/92
	LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	4	06/88 - 05/92
	MERCURY	DISSOLVED	-0.125	0.1	-0.100	-0.200	UG/L	4	06/88 - 05/92
	SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	4	06/88 - 05/92
SECONDARY									
	COPPER	DISSOLVED	-2.500	15.0	20.000	-10.000	UG/L	4	06/88 - 05/92
	ZINC	TOTAL	-5.000	10.0	10.000	-10.000	UG/L	4	06/88 - 05/92
	IRON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	8	06/88 - 07/93
		TOTAL	236.250	514.6	1500.000	-20.000	UG/L	8	06/88 - 07/93
	MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	3	06/89 - 07/93
		TOTAL	10.000	49.0	130.000	-10.000	UG/L	8	06/88 - 07/93

TABLE 28
CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 429 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	4	06/88 - 05/92
BORON	DISSOLVED	35.000	85.4	160.000	-20.000	UG/L	4	06/88 - 05/92
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	4	06/88 - 05/92
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	4	06/88 - 05/92
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.015	0.1	0.100	-0.020	MG/L	4	06/88 - 05/92
	AMMIA-FREE	-0.000	0.0	0.001	-0.001	MG/L	3	06/88 - 06/89
	NITRATE	0.073	0.1	0.200	-0.020	MG/L	4	06/88 - 05/92
	NO3+NO2	0.068	0.1	0.200	-0.020	MG/L	4	06/88 - 05/92

TABLE 29
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 429 429 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
19-MAY-87		9875.00	0.01000	CFS	
01-JUN-88		9875.00	0.01000	CFS	
16-JUL-88		9875.00	0.00000	CFS	
20-AUG-88		9875.00	0.00000	CFS	
03-SEP-88		9875.00	0.00000	CFS	NO FLOW
05-JUN-89		9875.00	0.01000	CFS	
11-JUL-89		9875.00	0.00000	CFS	NO FLOW
22-AUG-89		9875.00	0.00000	CFS	NO FLOW

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 429 429 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
15-SEP-89		9875.00	0.00000	CFS	NO FLOW
30-MAY-90		9875.00	0.01000	CFS	
07-JUL-90		9875.00	0.00000	CFS	NO FLOW
22-AUG-90		9875.00	0.00000	CFS	NO FLOW
24-SEP-90		9875.00	0.00000	CFS	NO FLOW
12-JUN-91		9875.00	0.05000	CFS	
15-JUL-91		9875.00	0.01000	CFS	
17-SEP-91		9875.00	0.00000	CFS	NO FLOW

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 429 429 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
19-MAY-92		9875.00	0.02670	CFS	,
16-JUL-92			0.00500	CFS	
26-AUG-92		9875.00	0.00100	CFS	, , , , , ,
21-SEP-92		9875.00			, , , , , ,
21-JUN-93			0.03500		
27-JUL-93			0.00300		
17-AUG-93		9875.00	0.00100		
27-SEP-93		9875.00	0.00000		NO FLOW

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 429 429 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
19-MAY-87	3.5			8.8								
01-JUN-88	5.4	268.0		7.8		229.0						
16-JUL-88	14.5	318.0		7.5		219.0		226.0	252.0			
20-AUG-88	13.0	335.0		8.6								
05-JUN-89	5.0	420.0		8.1		140.0		158.0	218.0			
30-MAY-90	5.0	350.0		7.6								
12-JUN-91	5.0	420.0		7.2		210.0		204.0	272.0			
15-JUL-91	11.0	420.0		8.3		236.0		244.0	248.0			
19-MAY-92	5.8	447.0		7.6		238.0		254.0	270.0			
16-JUL-92	7.5	525.0		8.1								
26-AUG-92	7.6	520.0		8.0								
21-JUN-93	7.9	370.0		6.8		214.0		231.0	218.0			
27-JUL-93	7.5	384.0		7.2		208.0		217.0	212.0			
17-AUG-93	15.0	373.0		7.3								

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 429 429 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
01-JUN-88	84.0		3.0	1.0	
16-JUL-88	64.0	16.0	4.0	-1.0	
05-JUN-89	45.0	11.0	2.0	-1.0	
12-JUN-91	62.0	12.0	2.0	-1.0	
15-JUL-91	68.0	18.0	4.0	1.0	
19-MAY-92	77.0	15.0	3.0	1.0	
21-JUN-93	71.0	13.0	3.0	-1.0	
27-JUL-93	64.0	14.0	3.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 429 429 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
01-JUN-88		17.0			
16-JUL-88		16.0			
05-JUN-89		12.0			
19-MAY-92		15.0			
21-JUN-93		12.0			
27-JUL-93		15.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 429 429 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
19-MAY-87							
01-JUN-88	279.			1.	4.	0.2	0.20
16-JUL-88	267.			2.	14.	0.1	0.30
20-AUG-88							
03-SEP-88							
05-JUN-89	171.			2.	4.	0.2	0.01
11-JUL-89							
22-AUG-89							
15-SEP-89							
30-MAY-90							
07-JUL-90							
22-AUG-90							
24-SEP-90							
12-JUN-91	237.	10.		3.	8.		
15-JUL-91	273.	7.		3.	4.		
17-SEP-91							
19-MAY-92	285.	0.		1.	27.	0.2	0.00
16-JUL-92							
26-AUG-92							
21-SEP-92							
21-JUN-93	261.	0.		1.	41.		
27-JUL-93	249.	2.		1.	11.		
17-AUG-93							
27-SEP-93							

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 429 429 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
01-JUN-88	-1.0	40.0	-5.0				-0.2	-1.0	
16-JUL-88	-1.0	50.0	-5.0				-0.1	-1.0	
05-JUN-89	-1.0	50.0	5.0				-0.1	-1.0	
19-MAY-92	-1.0	50.0	-5.0				-0.1	-1.0	

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 429 429 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
01-JUN-88						-20.0			
16-JUL-88						-20.0			
05-JUN-89						-20.0			
19-MAY-92						-20.0			

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 429 429 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
01-JUN-88									
16-JUL-88									
05-JUN-89									
19-MAY-92									

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 429 429 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
01-JUN-88	-10.0		-20.0	
16-JUL-88	20.0		-20.0	
05-JUN-89	-10.0		-20.0	-10.0
12-JUN-91			-20.0	
15-JUL-91			-20.0	
19-MAY-92	-10.0		-20.0	
21-JUN-93			-20.0	-10.0
27-JUL-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 429 429 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
01-JUN-88		-10.0	80.0	-10.0
16-JUL-88		-10.0	100.0	10.0
05-JUN-89		-10.0	170.0	-10.0
12-JUN-91			60.0	-10.0
15-JUL-91			-20.0	-10.0
19-MAY-92		10.0	1500.0	130.0
21-JUN-93			20.0	-10.0
27-JUL-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 29

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 429 429 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
01-JUN-88	-50.0	160.0	-50.0	-20.0
16-JUL-88	-50.0	-20.0	-50.0	-20.0
05-JUN-89	-50.0	20.0	-50.0	-20.0
19-MAY-92	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 15

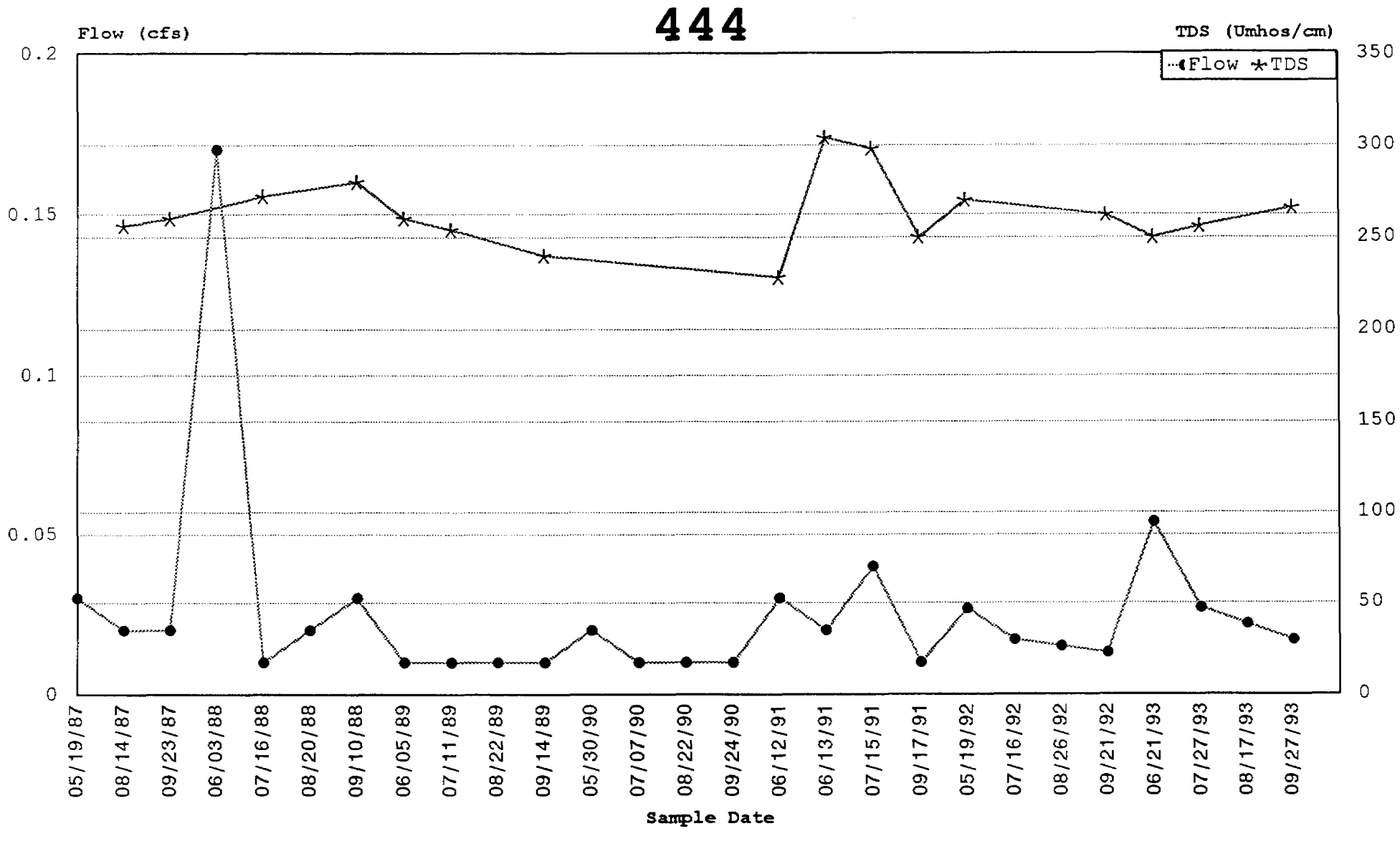

444
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.2
0.15
0.1
0.05
0
350
300
250
200
150
100
50
0
05/19/87
08/14/87
09/23/87
06/03/88
07/16/88
08/20/88
09/10/88
06/05/89
07/11/89
08/22/89
09/14/89
05/30/90
07/07/90
08/22/90
09/24/90
06/12/91
06/13/91
07/15/91
09/17/91
05/19/92
07/16/92
08/26/92
09/21/92
06/21/93
07/27/93
08/17/93
09/27/93
Sample Date

TABLE 30

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 444 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES									
	TEMPERATURE	FIELD	6.767	2.1	13.000	3.800	DEGREES C	27	05/87 - 09/93
	CONDUCTIVITY	FIELD	440.963	66.9	530.000	295.000	UMHOS/CM	27	05/87 - 09/93
	PH	FIELD	7.622	0.8	8.740	6.050	PH	27	05/87 - 09/93
	ALKALINITY	TOTAL	234.412	24.0	260.000	160.000	MG/L	17	08/87 - 09/93
	HARDNESS	TOTAL	249.000	23.0	281.000	188.000	MG/L	16	08/87 - 09/93
	SOLIDS	DISSOLVED	262.875	19.4	304.000	228.000	MG/L	16	08/87 - 09/93
		SUSPENDED	166.000	0.0	166.000	166.000	MG/L	1	06/91 - 06/91
MEASURED PROPERTIES									
	FLOW RATE	FIELD	0.024	0.0	0.170	0.010	CFS	23	05/87 - 09/92
CATIONS									
	CALCIUM	DISSOLVED	74.000	7.7	84.000	54.000	MG/L	17	08/87 - 09/93
	MAGNESIUM	DISSOLVED	15.750	1.1	18.000	13.000	MG/L	16	08/87 - 09/93
		TOTAL	16.214	1.5	19.000	14.000	MG/L	14	08/87 - 07/93
	SODIUM	DISSOLVED	3.471	0.9	5.000	2.000	MG/L	17	08/87 - 09/93
	POTASSIUM	DISSOLVED	0.647	1.0	2.000	-1.000	MG/L	17	08/87 - 09/93
ANIONS									
	BICARBONATE	AS HCO3	281.824	28.6	315.000	195.000	MG/L	17	08/87 - 09/93
	CARBONATE	AS CO3	3.444	5.5	14.000	0.000	MG/L	9	06/91 - 09/93
	CHLORIDE	N/A	1.882	1.2	4.000	-1.000	MG/L	17	08/87 - 09/93
	SULFATE	N/A	10.353	8.9	31.000	-2.000	MG/L	17	08/87 - 09/93

TABLE 30

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 444 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.109	0.1	0.200	-0.100	MG/L	11	08/87 - 05/92
GASES									
	SULPHIDE	TOTAL	-0.069	0.1	0.050	-0.200	MG/L	12	08/87 - 05/92
PRIMARY									
	ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	11	08/87 - 05/92
	BARIUM	DISSOLVED	98.182	54.6	240.000	20.000	UG/L	11	08/87 - 05/92
	CADMIUM	DISSOLVED	-3.909	3.6	7.000	-5.000	UG/L	11	08/87 - 05/92
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	10	06/88 - 05/92
	LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	12	08/87 - 05/92
	MERCURY	DISSOLVED	-0.110	0.0	-0.100	-0.200	UG/L	10	06/88 - 05/92
		TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	1	08/87 - 08/87
	SELENIUM	DISSOLVED	-0.700	0.9	2.000	-1.000	UG/L	10	06/88 - 05/92
		TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	1	08/87 - 08/87
SECONDARY									
	COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	10	06/88 - 05/92
		TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	1	08/87 - 08/87
	ZINC	TOTAL	15.833	27.1	90.000	-10.000	UG/L	12	08/87 - 05/92
	IRON	DISSOLVED	-17.647	9.7	20.000	-20.000	UG/L	17	08/87 - 09/93
		TOTAL	282.941	439.8	1750.000	-20.000	UG/L	17	08/87 - 09/93
	MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	9	08/87 - 07/93
		TOTAL	-2.500	18.8	60.000	-10.000	UG/L	16	08/87 - 09/93

TABLE 30

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 444 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-39.091	36.2	70.000	-50.000	UG/L	11	09/87 - 05/92
BORON	DISSOLVED	-9.091	18.7	20.000	-20.000	UG/L	11	08/87 - 05/92
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	11	09/87 - 05/92
	TOTAL	-50.000	0.0	-50.000	-50.000	UG/L	1	08/87 - 08/87
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	10	06/88 - 05/92
	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	1	08/87 - 08/87
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.044	0.1	0.180	-0.020	MG/L	11	08/87 - 05/92
	AMMIA-FREE	0.001	0.0	0.007	-0.001	MG/L	9	06/88 - 09/91
	NITRATE	1.400	0.3	1.730	0.710	MG/L	12	08/87 - 05/92
	NO3+NO2	1.395	0.3	1.720	0.700	MG/L	12	08/87 - 05/92

TABLE 31
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 444 444 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
19-MAY-87		9540.00	0.03000	CFS	
14-AUG-87		9540.00	0.02000	CFS	
23-SEP-87		9540.00	0.02000	CFS	
03-JUN-88		9540.00	0.17000	CFS	
16-JUL-88		9540.00	0.01000	CFS	
20-AUG-88		9540.00	0.02000	CFS	
10-SEP-88		9540.00	0.03000	CFS	
05-JUN-89		9540.00	0.01000	CFS	

TABLE 31
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 444 444 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
11-JUL-89		9540.00	0.01000	CFS	
22-AUG-89		9540.00	0.01000	CFS	
14-SEP-89		9540.00	0.01000	CFS	
30-MAY-90		9540.00	0.02000	CFS	
07-JUL-90		9540.00	0.01000	CFS	
22-AUG-90		9540.00	0.01000	CFS	
24-SEP-90		9540.00	0.01000	CFS	
12-JUN-91		9540.00	0.03000	CFS	

TABLE 3

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 444 444 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
13-JUN-91		9540.00	0.02000	CFS	
15-JUL-91		9540.00	0.04000	CFS	
17-SEP-91		9540.00	0.01000	CFS	
19-MAY-92		9540.00	0.02670	CFS	, , , , , ,
16-JUL-92			0.01700	CFS	
26-AUG-92		9540.00	0.01500	CFS	, , , , , ,
21-SEP-92		9540.00	0.01300	CFS	, , , , , ,
21-JUN-93			0.05400		
27-JUL-93			0.02700		
17-AUG-93		9540.00	0.02200		
27-SEP-93			0.01700		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 31

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 444 444 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
19-MAY-87	3.8	420.0		8.0								
14-AUG-87	7.2	395.0	418.0	8.4	8.1	211.0		221.0	256.0			
23-SEP-87	5.7	480.0	436.0	7.4		237.0		276.0	260.0			
03-JUN-88	10.0	308.0		8.2		229.0						
16-JUL-88	7.5	312.0		8.0		229.0		236.0	272.0			
20-AUG-88	8.0	295.0		8.6								
10-SEP-88	8.5	304.0		8.7		223.0		262.0	280.0			
05-JUN-89	5.0	530.0		7.7		160.0		188.0	260.0			
11-JUL-89	13.0	450.0		8.2		220.0		227.0	254.0			
22-AUG-89	6.0	520.0		7.4								
14-SEP-89	8.0	470.0		7.5		242.0		270.0	240.0			
30-MAY-90	6.0	420.0		8.2								
07-JUL-90	7.0	490.0		8.4								
22-AUG-90	6.0	420.0		8.4								
24-SEP-90	5.0	420.0		8.4								
12-JUN-91	4.0	510.0		7.2		222.0		244.0	228.0			
13-JUN-91	4.0	530.0		8.0		246.0		251.0	304.0	166.0		
15-JUL-91	11.0	470.0		7.8		248.0		281.0	298.0			
17-SEP-91	8.0	440.0		8.3	8.3	252.0		247.0	250.0			
19-MAY-92	5.1	473.0		7.6		250.0		256.0	270.0			
16-JUL-92	5.8	483.0		7.3								
26-AUG-92	7.2	475.0		7.0								
21-SEP-92	8.2	460.0		6.1		260.0		261.0	262.0			
21-JUN-93	5.4	468.0		6.2		258.0		249.0	250.0			
27-JUL-93	5.8	449.0		6.3		250.0		252.0	256.0			
17-AUG-93	5.7	453.0		6.3								
27-SEP-93	5.8	461.0		6.4		248.0		263.0	266.0			

TABLE 31

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 444 444 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
14-AUG-87	62.0	16.0	3.0	1.0	
23-SEP-87	84.0	16.0	5.0	1.0	
03-JUN-88	79.0		3.0	1.0	
16-JUL-88	68.0	16.0	4.0	-1.0	
10-SEP-88	77.0	17.0	5.0	1.0	
05-JUN-89	54.0	13.0	2.0	1.0	
11-JUL-89	66.0	15.0	5.0	1.0	
14-SEP-89	80.0	17.0	3.0	-1.0	
12-JUN-91	73.0	15.0	3.0	1.0	
13-JUN-91	74.0	16.0	3.0	2.0	
15-JUL-91	83.0	18.0	5.0	2.0	
17-SEP-91	74.0	15.0	3.0	-1.0	
19-MAY-92	76.0	16.0	3.0	1.0	
21-SEP-92	78.0	16.0	3.0	1.0	
21-JUN-93	75.0	15.0	3.0	1.0	
27-JUL-93	76.0	15.0	3.0	-1.0	
27-SEP-93	79.0	16.0	3.0	1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 31

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 444 444 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
14-AUG-87		16.0			
23-SEP-87		18.0			
03-JUN-88		18.0			
16-JUL-88		15.0			
10-SEP-88		17.0			
05-JUN-89		14.0			
11-JUL-89		15.0			
14-SEP-89		17.0			
13-JUN-91		17.0			
15-JUL-91		19.0			
17-SEP-91		15.0			
19-MAY-92		15.0			
21-JUN-93		16.0			
27-JUL-93		15.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 31

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 444 444 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
19-MAY-87							
14-AUG-87	257.			4.	2.	0.2	0.20
23-SEP-87	289.			2.	6.		0.20
03-JUN-88	279.			1.	6.	0.1	0.20
16-JUL-88	279.			1.	8.	0.1	0.20
20-AUG-88							
10-SEP-88	272.			2.	23.	0.1	0.05
05-JUN-89	195.			2.	6.	0.2	0.01
11-JUL-89	268.			2.	8.	0.1	0.01
22-AUG-89							
14-SEP-89	295.			1.	14.	0.1	0.01
30-MAY-90							
07-JUL-90							
22-AUG-90							
24-SEP-90							
12-JUN-91	251.	10.		3.	8.		
13-JUN-91	300.	0.		4.	19.	0.2	0.10
15-JUL-91	288.	7.		3.	23.	0.2	0.03
17-SEP-91	307.	0.		1.	2.	0.1	0.02
19-MAY-92	300.	0.		1.	31.	0.2	0.00
16-JUL-92							
26-AUG-92							
21-SEP-92	288.	14.		2.	4.		
21-JUN-93	315.	0.		2.	8.		
27-JUL-93	305.	0.		2.	10.		
17-AUG-93							
27-SEP-93	303.	0.		1.	6.		

TABLE 31

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 444 444 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
14-AUG-87	-1.0	70.0	7.0						
03-JUN-88	-1.0	90.0	-5.0				-0.2	-1.0	
16-JUL-88	-1.0	90.0	-5.0				-0.1	-1.0	
10-SEP-88	-1.0	90.0	-5.0				-0.1	-1.0	
05-JUN-89	-1.0	120.0	-5.0				-0.1	-1.0	
11-JUL-89	-1.0	60.0	-5.0				-0.1	-1.0	
14-SEP-89	-1.0	240.0	-5.0				-0.1	-1.0	
13-JUN-91	-1.0	20.0	-5.0				-0.1	2.0	
15-JUL-91	-1.0	120.0	-5.0				-0.1	-1.0	
17-SEP-91	-1.0	90.0	-5.0				-0.1	-1.0	
19-MAY-92	-1.0	90.0	-5.0				-0.1	-1.0	

TABLE 3 I

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 444 444 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
14-AUG-87						-20.0	-0.2	-1.0	
23-SEP-87						-20.0			
03-JUN-88						-20.0			
16-JUL-88						-20.0			
10-SEP-88						-20.0			
05-JUN-89						-20.0			
11-JUL-89						-20.0			
14-SEP-89						-20.0			
13-JUN-91						-20.0			
15-JUL-91						-20.0			
17-SEP-91						-20.0			
19-MAY-92						-20.0			

TABLE 31

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 444 444 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
03-JUN-88									
16-JUL-88									
10-SEP-88									
05-JUN-89									
11-JUL-89									
14-SEP-89									
13-JUN-91									
15-JUL-91									
17-SEP-91									
19-MAY-92									

TABLE 31

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 444 444 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
14-AUG-87									

TABLE 31

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 444 444 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
14-AUG-87			-20.0	-10.0
23-SEP-87			-20.0	-10.0
03-JUN-88	-10.0		-20.0	
16-JUL-88	-10.0		20.0	
10-SEP-88	-10.0		-20.0	
05-JUN-89	-10.0		-20.0	-10.0
11-JUL-89	-10.0		-20.0	-10.0
14-SEP-89	-10.0		-20.0	-10.0
12-JUN-91			-20.0	
13-JUN-91	-10.0		-20.0	
15-JUL-91	-10.0		-20.0	
17-SEP-91	-10.0		-20.0	-10.0
19-MAY-92	-10.0		-20.0	
21-SEP-92			-20.0	-10.0
21-JUN-93			-20.0	-10.0
27-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 3i

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 444 444 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
14-AUG-87	-10.0	-10.0	-20.0	-10.0
23-SEP-87		10.0	50.0	-10.0
03-JUN-88		-10.0	220.0	-10.0
16-JUL-88		-10.0	-20.0	-10.0
10-SEP-88		10.0	600.0	10.0
05-JUN-89		10.0	40.0	-10.0
11-JUL-89		20.0	210.0	-10.0
14-SEP-89		30.0	60.0	-10.0
12-JUN-91			40.0	-10.0
13-JUN-91		30.0	1750.0	60.0
15-JUL-91		90.0	410.0	-10.0
17-SEP-91		10.0	70.0	-10.0
19-MAY-92		10.0	730.0	-10.0
21-SEP-92			-20.0	
21-JUN-93			430.0	20.0
27-JUL-93			180.0	-10.0
27-SEP-93			80.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 31

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 444 444 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
14-AUG-87		-20.0		
23-SEP-87	-50.0		-50.0	
03-JUN-88	-50.0	-20.0	-50.0	-20.0
16-JUL-88	-50.0	-20.0	-50.0	-20.0
10-SEP-88	-50.0	20.0	-50.0	-20.0
05-JUN-89	-50.0	20.0	-50.0	-20.0
11-JUL-89	70.0	-20.0	-50.0	-20.0
14-SEP-89	-50.0	-20.0	-50.0	-20.0
13-JUN-91	-50.0	-20.0	-50.0	-20.0
15-JUL-91	-50.0	20.0	-50.0	-20.0
17-SEP-91	-50.0	-20.0	-50.0	-20.0
19-MAY-92	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL
STATION: 444 444 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
14-AUG-87	-50.0		-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 16

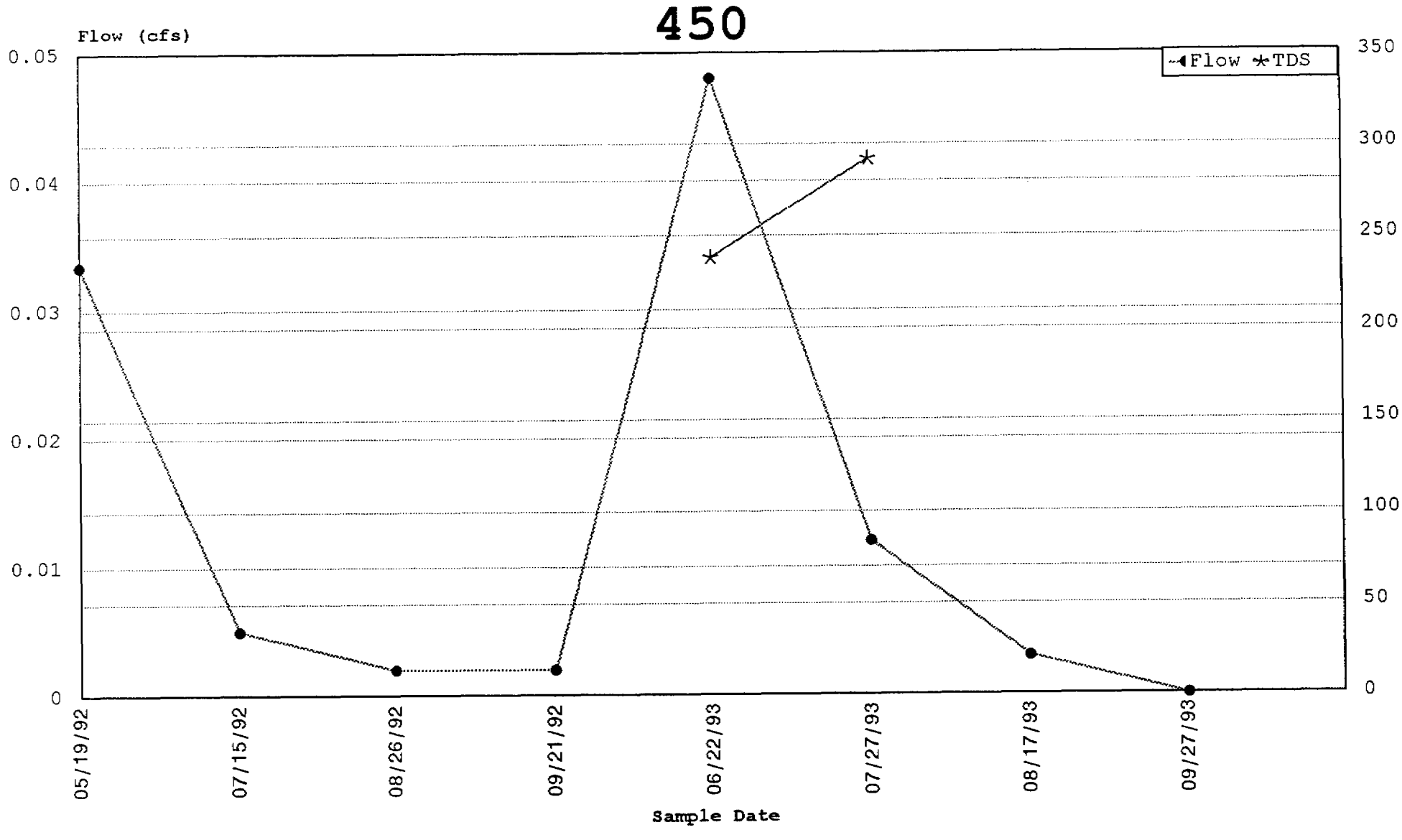

450
Flow (cfs)
0.05
0.04
0.03
0.02
0.01
0
350
300
250
200
150
100
50
0
Flow
TDS
05/19/92
07/15/92
08/26/92
09/21/92
06/22/93
07/27/93
08/17/93
09/27/93
Sample Date

TABLE 32

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 450 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	6.429	1.1	8.100	5.000	DEGREES C	7	05/92 - 08/93
CONDUCTIVITY	FIELD	503.143	21.4	532.000	480.000	UMHOS/CM	7	05/92 - 08/93
PH	FIELD	6.884	0.9	8.420	6.170	PH	7	05/92 - 08/93
ALKALINITY	TOTAL	269.333	3.1	272.000	266.000	MG/L	3	09/92 - 07/93
HARDNESS	TOTAL	265.500	24.7	283.000	248.000	MG/L	2	06/93 - 07/93
SOLIDS	DISSOLVED	265.000	38.2	292.000	238.000	MG/L	2	06/93 - 07/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.011	0.0	0.033	0.002	CFS	4	05/92 - 09/92
CATIONS								
CALCIUM	DISSOLVED	79.500	4.4	82.000	73.000	MG/L	4	05/92 - 07/93
MAGNESIUM	DISSOLVED	18.750	1.9	20.000	16.000	MG/L	4	05/92 - 07/93
	TOTAL	19.333	0.6	20.000	19.000	MG/L	3	05/92 - 07/93
SODIUM	DISSOLVED	2.500	0.6	3.000	2.000	MG/L	4	05/92 - 07/93
POTASSIUM	DISSOLVED	0.000	1.2	1.000	-1.000	MG/L	4	05/92 - 07/93
ANIONS								
BICARBONATE	AS HCO3	292.500	40.7	329.000	248.000	MG/L	4	05/92 - 07/93
CARBONATE	AS CO3	6.000	12.0	24.000	0.000	MG/L	4	05/92 - 07/93
CHLORIDE	N/A	2.000	0.8	3.000	1.000	MG/L	4	05/92 - 07/93
SULFATE	N/A	19.000	17.8	39.000	-2.000	MG/L	4	05/92 - 07/93

TABLE 32

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 450 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.150	0.1	0.200	0.100	MG/L	2	05/92 - 09/92
PRIMARY									
	ARSENIC	DISSOLVED	-0.001	0.0	-0.001	-0.001	UG/L	2	05/92 - 09/92
	BARIUM	DISSOLVED	0.065	0.0	0.080	0.050	UG/L	2	05/92 - 09/92
	CADMIUM	DISSOLVED	-0.005	0.0	-0.005	-0.005	UG/L	2	05/92 - 09/92
	CHROMIUM	DISSOLVED	-0.010	0.0	-0.010	-0.010	UG/L	2	05/92 - 09/92
	MERCURY	DISSOLVED	0.000	0.0	0.000	0.000	UG/L	2	05/92 - 09/92
	SELENIUM	DISSOLVED	0.002	0.0	0.002	0.002	UG/L	2	05/92 - 09/92
SECONDARY									
	COPPER	DISSOLVED	-0.010	0.0	-0.010	-0.010	UG/L	2	05/92 - 09/92
	ZINC	DISSOLVED	-0.010	0.0	-0.010	-0.010	UG/L	2	05/92 - 09/92
	IRON	DISSOLVED	-10.010	11.5	-0.020	-20.000	UG/L	4	05/92 - 07/93
		TOTAL	0.000	28.3	20.000	-20.000	UG/L	2	06/93 - 07/93
	MANGANESE	DISSOLVED	-5.005	5.8	-0.010	-10.000	UG/L	4	05/92 - 07/93
		TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	2	06/93 - 07/93
TRACE METALS									
	ALUMINUM	DISSOLVED	-0.050	0.0	-0.050	-0.050	UG/L	2	05/92 - 09/92
	BORON	DISSOLVED	-0.020	0.0	-0.020	-0.020	UG/L	2	05/92 - 09/92
	MOLYBDENUM	DISSOLVED	-0.050	0.0	-0.050	-0.050	UG/L	2	05/92 - 09/92
	NICKEL	DISSOLVED	-0.020	0.0	-0.020	-0.020	UG/L	1	05/92 - 05/92

TABLE 32

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 450 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	-0.050	0.0	-0.050	-0.050	MG/L	2	05/92 - 09/92
	AMMIA-FREE	0.000	0.0	0.000	0.000	MG/L	2	05/92 - 09/92
	NITRATE	0.915	0.1	1.020	0.810	MG/L	2	05/92 - 09/92

TABLE 83

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 450 SPRING 450 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
19-MAY-92			0.03340	CFS	, , , , , ,
15-JUL-92			0.00500	CFS	, , , , , ,
26-AUG-92			0.00200	CFS	, , , , , ,
21-SEP-92			0.00200	CFS	, , , , , ,
22-JUN-93			0.04800		
27-JUL-93			0.01200		
17-AUG-93			0.00300		
27-SEP-93			0.00000		COW HAD TO MUDDY TO SAMPLE

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 33

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 450 SPRING 450 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
19-MAY-92	6.2	532.0		7.6				285.0				
15-JUL-92	5.9	507.0		7.0								
26-AUG-92	8.1	519.0		8.4								
21-SEP-92	7.2	519.0		6.4		272.0		287.0				
22-JUN-93	5.0	481.0		6.2		270.0		248.0	238.0			
27-JUL-93	5.6	484.0		6.3		266.0		283.0	292.0			
17-AUG-93	7.0	480.0		6.3								

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 33

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 450 SPRING 450 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
19-MAY-92	81.0	20.0	3.0	1.0	
21-SEP-92	82.0	20.0	2.0	1.0	
22-JUN-93	73.0	16.0	2.0	-1.0	
27-JUL-93	82.0	19.0	3.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 33
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - CATIONS - TOTAL
STATION: 450 SPRING 450 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
19-MAY-92		19.0			
22-JUN-93		19.0			
27-JUL-93		20.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 33

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 450 SPRING 450 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
19-MAY-92	268.	0.		1.	39.	0.2	
15-JUL-92							
26-AUG-92							
21-SEP-92	248.	24.		3.	12.	0.1	
22-JUN-93	329.	0.		2.	2.		
27-JUL-93	325.	0.		2.	27.		
17-AUG-93							
27-SEP-93							

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 33

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 450 SPRING 450 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
19-MAY-92	-0.0	0.1	-0.0			-0.0	0.0	0.0	
21-SEP-92	-0.0	0.1	-0.0			-0.0	0.0	0.0	

TABLE 33

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 450 SPRING 450 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
19-MAY-92	-0.0	-0.0	-0.0	-0.0
21-SEP-92	-0.0	-0.0	-0.0	-0.0
22-JUN-93			-20.0	-10.0
27-JUL-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 33
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: 450 SPRING 450 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
22-JUN-93			20.0	-10.0
27-JUL-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 33

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 450 SPRING 450 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
19-MAY-92	-0.1	-0.0	-0.1	-0.0
21-SEP-92	-0.1	-0.0	-0.1	

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 17

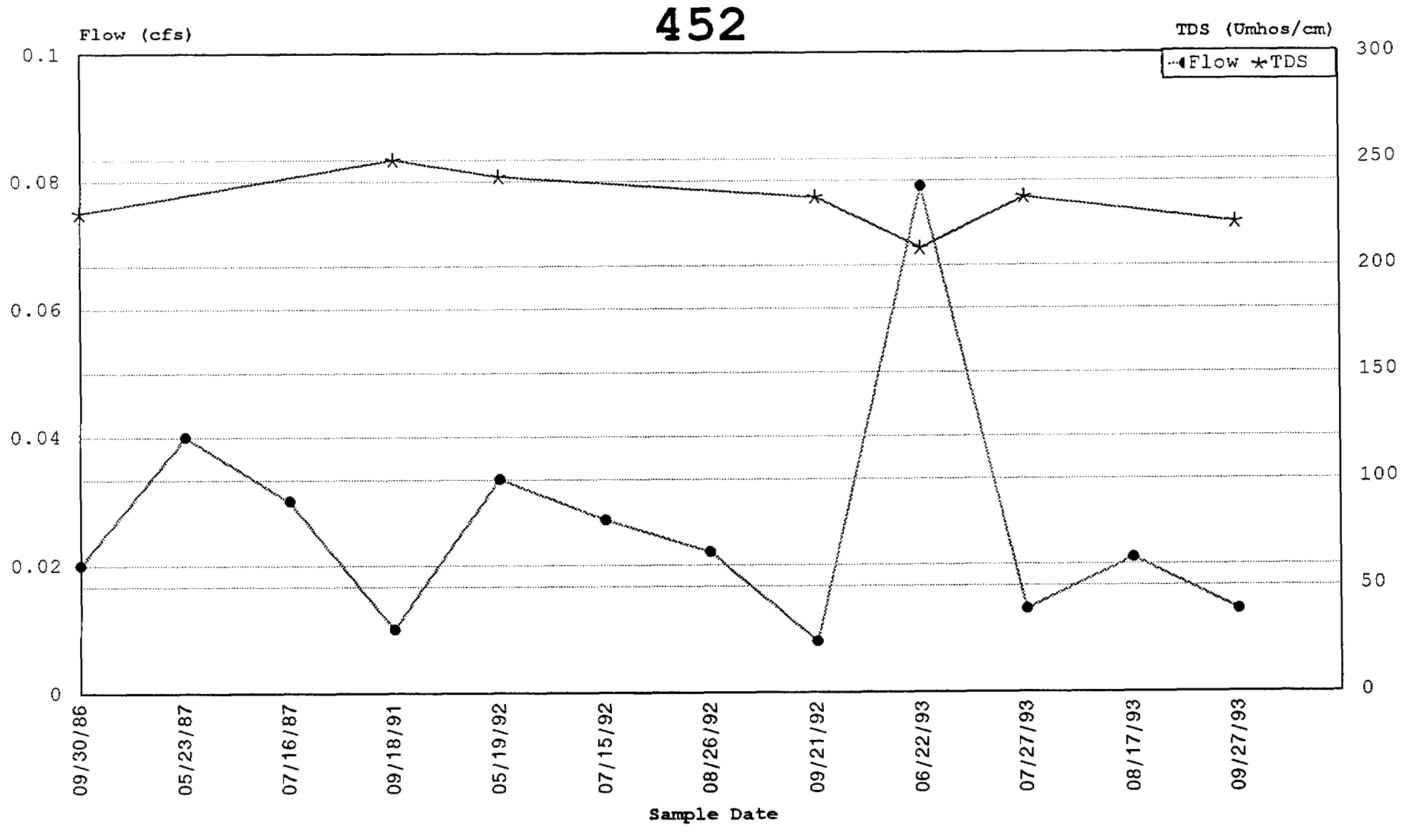

452
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.1
0.08
0.06
0.04
0.02
0
300
250
200
150
100
50
0
09/30/86
05/23/87
07/16/87
09/18/91
05/19/92
07/15/92
08/26/92
09/21/92
06/22/93
07/27/93
08/17/93
09/27/93
Sample Date

TABLE 34

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 452 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	4.692	0.3	5.200	4.000	DEGREES C	12	09/86 - 09/93
CONDUCTIVITY	FIELD	424.083	24.2	466.000	380.000	UMHOS/CM	12	09/86 - 09/93
PH	FIELD	7.343	0.9	8.470	6.280	PH	11	05/87 - 09/93
ALKALINITY	TOTAL	217.000	12.5	230.000	192.000	MG/L	7	09/86 - 09/93
ACIDITY	AS CACO3	-1.000	0.0	-1.000	-1.000	MG/L	1	09/86 - 09/86
HARDNESS	TOTAL	233.500	4.9	239.000	227.000	MG/L	6	09/91 - 09/93
SOLIDS	DISSOLVED	229.857	13.9	250.000	208.000	MG/L	7	09/86 - 09/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.024	0.0	0.040	0.008	CFS	8	09/86 - 09/92
CATIONS								
CALCIUM	DISSOLVED	60.500	1.4	62.000	58.000	MG/L	6	09/91 - 09/93
	TOTAL	56.000	0.0	56.000	56.000	MG/L	1	09/86 - 09/86
MAGNESIUM	DISSOLVED	20.000	0.6	21.000	19.000	MG/L	6	09/91 - 09/93
	TOTAL	20.140	0.3	20.700	20.000	MG/L	5	09/86 - 07/93
SODIUM	DISSOLVED	2.167	0.4	3.000	2.000	MG/L	6	09/91 - 09/93
	TOTAL	2.600	0.0	2.600	2.600	MG/L	1	09/86 - 09/86
POTASSIUM	DISSOLVED	-0.333	1.0	1.000	-1.000	MG/L	6	09/91 - 09/93
	TOTAL	0.900	0.0	0.900	0.900	MG/L	1	09/86 - 09/86

TABLE 34

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 452 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS								
BICARBONATE	AS HCO3	257.143	21.0	281.000	220.000	MG/L	7	09/86 - 09/93
CARBONATE	AS CO3	0.857	2.7	7.000	-1.000	MG/L	7	09/86 - 09/93
CHLORIDE	N/A	4.200	7.5	21.000	-1.000	MG/L	7	09/86 - 09/93
SULFATE	N/A	13.429	11.6	35.000	-2.000	MG/L	7	09/86 - 09/93
MINOR								
FLUORIDE	N/A	0.150	0.1	0.200	0.100	MG/L	2	09/91 - 09/92
GASES								
SULPHIDE	TOTAL	-0.007	0.0	0.020	-0.020	MG/L	3	09/91 - 09/93
PRIMARY								
ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	2	09/91 - 09/92
	TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	1	09/86 - 09/86
BARIUM	DISSOLVED	105.000	7.1	110.000	100.000	UG/L	2	09/91 - 09/92
	TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	1	09/86 - 09/86
CADMIUM	DISSOLVED	-5.000	0.0	-5.000	-5.000	UG/L	2	09/91 - 09/92
	TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	1	09/86 - 09/86
CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	2	09/91 - 09/92
LEAD	TOTAL	-15.000	28.9	20.000	-50.000	UG/L	4	09/86 - 09/93
MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	2	09/91 - 09/92
	TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	1	09/86 - 09/86
SELENIUM	DISSOLVED	0.000	1.4	1.000	-1.000	UG/L	2	09/91 - 09/92
	TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	1	09/86 - 09/86

TABLE 34

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 452 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	2	09/91 - 09/92
	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	1	09/86 - 09/86
ZINC	TOTAL	-1.667	10.4	10.000	-10.000	UG/L	3	09/86 - 09/92
IRON	DISSOLVED	-14.286	30.5	50.000	-50.000	UG/L	7	09/86 - 09/93
	TOTAL	15.714	63.5	130.000	-50.000	UG/L	7	09/86 - 09/93
MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	5	09/86 - 07/93
	TOTAL	-5.000	12.2	20.000	-10.000	UG/L	6	09/86 - 09/93
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	2	09/91 - 09/92
BORON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	2	09/91 - 09/92
	TOTAL	100.000	0.0	100.000	100.000	UG/L	1	09/86 - 09/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	2	09/91 - 09/92
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	2	09/91 - 09/92
	TOTAL	-40.000	0.0	-40.000	-40.000	UG/L	1	09/86 - 09/86
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.015	0.1	0.080	-0.050	MG/L	2	09/91 - 09/92
	AMMIA-FREE	-0.001	0.0	-0.001	-0.001	MG/L	2	09/91 - 09/92
	NITRATE	1.113	0.9	1.660	0.020	MG/L	3	09/86 - 09/92
	NO3+NO2	1.650	0.0	1.650	1.650	MG/L	2	09/91 - 09/92
ORGANICS								
OIL&GREASE	N/A	-0.500	0.0	-0.500	-0.500	MG/L	1	09/86 - 09/86

TABLE 35

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 452 452 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
30-SEP-86		9740.00	0.02000	CFS	
23-MAY-87		9740.00	0.04000	CFS	
16-JUL-87		9740.00	0.03000	CFS	
18-SEP-91		9740.00	0.01000	CFS	
19-MAY-92		9740.00	0.03340	CFS	, , , , , ,
15-JUL-92		9740.00	0.02700	CFS	, , , , , ,
26-AUG-92		9740.00	0.02200	CFS	, , , , , ,
21-SEP-92		9740.00	0.00800	CFS	, , , , , ,
22-JUN-93			0.07900		
27-JUL-93			0.01300		
17-AUG-93		9740.00	0.02100		
27-SEP-93			0.01300		

TABLE 35
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 452 452 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
30-SEP-86	4.0	415.0	444.0		8.2	211.0	-1.0		225.0			
23-MAY-87	4.4	390.0		8.5								
16-JUL-87	4.5	380.0		8.4								
18-SEP-91	5.0	450.0		8.0	8.0	218.0		228.0	250.0			
19-MAY-92	4.8	466.0		8.0		224.0		237.0	242.0			
15-JUL-92	4.7	448.0		8.2								
26-AUG-92	5.1	433.0		7.9								
21-SEP-92	5.2	429.0		6.5		192.0		235.0	232.0			
22-JUN-93	4.4	421.0		6.3		230.0		235.0	208.0			
27-JUL-93	4.6	415.0		6.4		220.0		239.0	232.0			
17-AUG-93	4.8	425.0		6.4								
27-SEP-93	4.8	417.0		6.3		224.0		227.0	220.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 35

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 452 452 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
18-SEP-91	60.0	19.0	2.0	-1.0	
19-MAY-92	62.0	20.0	2.0	1.0	
21-SEP-92	61.0	20.0	2.0	1.0	
22-JUN-93	61.0	20.0	2.0	-1.0	
27-JUL-93	61.0	21.0	3.0	-1.0	
27-SEP-93	58.0	20.0	2.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 35

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 452 452 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
30-SEP-86	56.0	20.7	2.6	0.9	
18-SEP-91		20.0			
21-SEP-92		20.0			
22-JUN-93		20.0			
27-JUL-93		20.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 35
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 452 452 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
30-SEP-86	257.	1.		3.	15.		
23-MAY-87							
16-JUL-87							
18-SEP-91	266.	0.		1.	35.	0.2	0.02
19-MAY-92	264.	0.		1.	6.		
15-JUL-92							
26-AUG-92							
21-SEP-92	220.	7.		21.	16.	0.1	0.02
22-JUN-93	281.	0.		1.	2.		
27-JUL-93	239.	0.		2.	16.		
17-AUG-93							
27-SEP-93	273.	0.		2.	8.		0.02

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L
Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 35

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 452 452 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
18-SEP-91	-1.0	100.0	-5.0				-0.1	-1.0	
21-SEP-92	-1.0	110.0	-5.0				-0.1	1.0	

TABLE 35
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: 452 452 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
30-SEP-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
18-SEP-91						20.0			
21-SEP-92						-10.0			
27-SEP-93						-20.0			

TABLE 35

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 452 452 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
18-SEP-91									
21-SEP-92									

TABLE 35

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 452 452 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
30-SEP-86									

TABLE 35

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 452 452 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-SEP-86			-50.0	-10.0
18-SEP-91	-10.0		50.0	-10.0
19-MAY-92			-20.0	-10.0
21-SEP-92	-10.0		-20.0	
22-JUN-93			-20.0	-10.0
27-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 35
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: 452 452 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-SEP-86	-20.0	-5.0	-50.0	-10.0
18-SEP-91		10.0	70.0	20.0
19-MAY-92			-20.0	
21-SEP-92		-10.0	130.0	-10.0
22-JUN-93			20.0	-10.0
27-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 35

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 452 452 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
18-SEP-91	-50.0	-20.0	-50.0	-20.0
21-SEP-92	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 35
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL
STATION: 452 452 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
30-SEP-86		100.0		-40.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 18

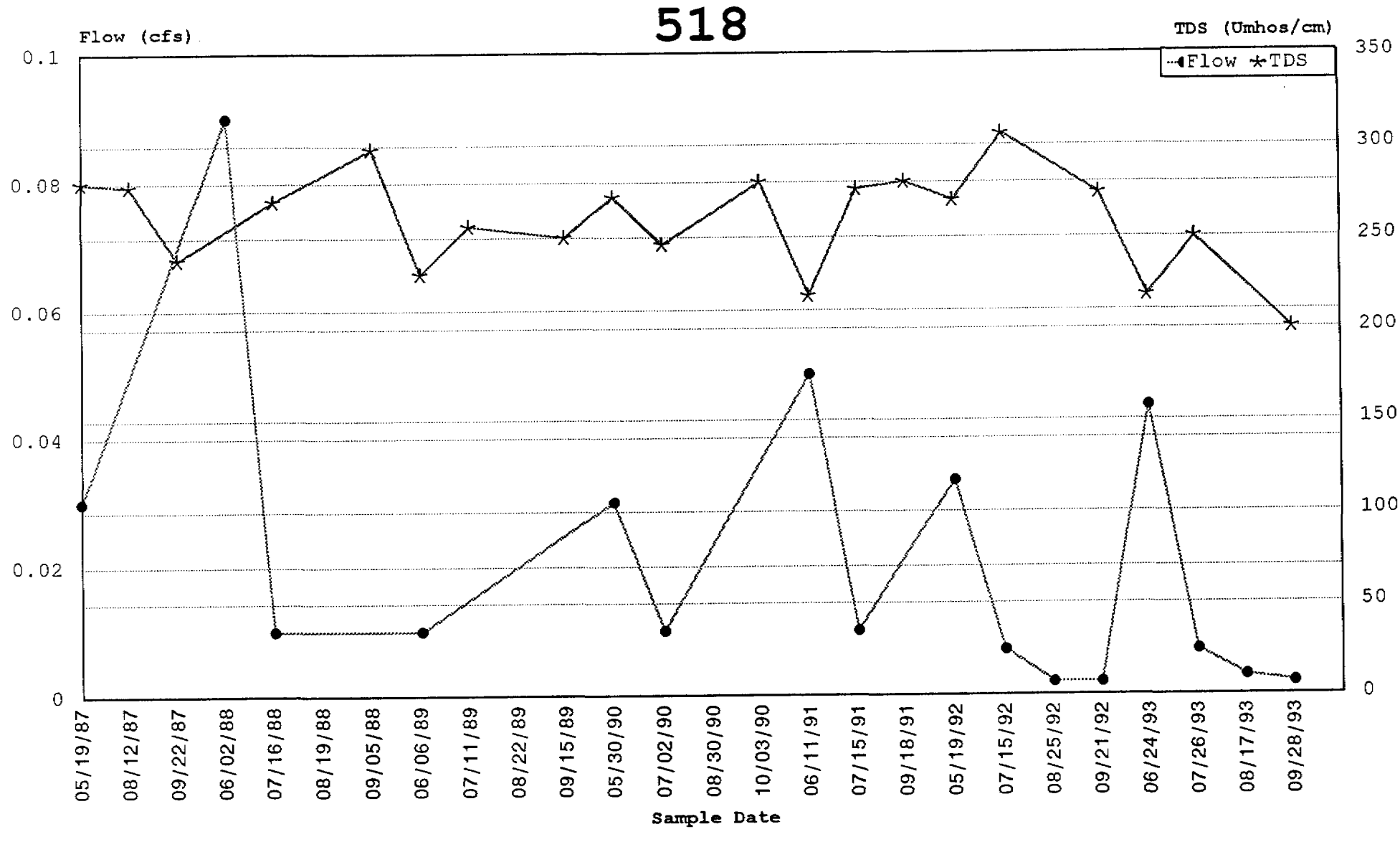

518
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.1
0.08
0.06
0.04
0.02
0
350
300
250
200
150
100
50
0
05/19/87
08/12/87
09/22/87
06/02/88
07/16/88
08/19/88
09/05/88
06/06/89
07/11/89
08/22/89
09/15/89
05/30/90
07/02/90
08/30/90
10/03/90
06/11/91
07/15/91
09/18/91
05/19/92
07/15/92
08/25/92
09/21/92
06/24/93
07/26/93
08/17/93
09/28/93
Sample Date

TABLE 36

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 518 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	7.262	2.2	12.500	4.000	DEGREES C	26	05/87 - 09/93
CONDUCTIVITY	FIELD	441.846	69.5	550.000	280.000	UMHOS/CM	26	05/87 - 09/93
PH	FIELD	7.336	0.6	8.370	6.130	PH	26	05/87 - 09/93
ALKALINITY	TOTAL	246.000	24.7	328.000	212.000	MG/L	21	05/87 - 09/93
ACIDITY	AS CACO3	0.000	0.0	0.000	0.000	MG/L	3	07/89 - 05/90
HARDNESS	TOTAL	260.211	29.4	327.000	216.000	MG/L	19	08/87 - 09/93
SOLIDS	DISSOLVED	259.500	27.9	306.000	200.000	MG/L	20	05/87 - 09/93
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.024	0.0	0.090	0.002	CFS	12	05/87 - 09/92
CATIONS								
CALCIUM	DISSOLVED	77.857	9.5	98.000	60.000	MG/L	21	05/87 - 09/93
MAGNESIUM	DISSOLVED	15.900	2.4	20.000	11.000	MG/L	20	05/87 - 09/93
	TOTAL	17.000	2.5	21.000	14.000	MG/L	11	05/87 - 07/93
SODIUM	DISSOLVED	2.429	2.5	13.000	1.000	MG/L	21	05/87 - 09/93
POTASSIUM	DISSOLVED	-0.238	1.0	1.000	-1.000	MG/L	21	05/87 - 09/93
ANIONS								
BICARBONATE	AS HCO3	298.286	30.8	400.000	259.000	MG/L	21	05/87 - 09/93
CARBONATE	AS CO3	2.222	3.6	10.000	0.000	MG/L	9	06/91 - 09/93
CHLORIDE	N/A	0.952	1.1	2.000	-1.000	MG/L	21	05/87 - 09/93
SULFATE	N/A	7.381	11.0	41.000	-2.000	MG/L	21	05/87 - 09/93

TABLE 36

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 518 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
MINOR									
	FLUORIDE	N/A	0.163	0.2	0.600	-0.100	MG/L	8	05/87 - 05/92
GASES									
	SULPHIDE	TOTAL	0.018	0.2	0.380	-0.200	MG/L	8	08/87 - 05/92
PRIMARY									
	ARSENIC	DISSOLVED	-0.625	1.1	2.000	-1.000	UG/L	8	05/87 - 05/92
	BARIUM	DISSOLVED	68.750	32.3	90.000	-10.000	UG/L	8	05/87 - 05/92
	CADMIUM	DISSOLVED	-5.000	0.0	-5.000	-5.000	UG/L	8	05/87 - 05/92
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	6	06/88 - 05/92
	LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	9	05/87 - 05/92
	MERCURY	DISSOLVED	-0.083	0.1	0.100	-0.200	UG/L	6	06/88 - 05/92
		TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	2	05/87 - 08/87
	SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	6	06/88 - 05/92
		TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	2	05/87 - 08/87
SECONDARY									
	COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	6	06/88 - 05/92
		TOTAL	10.000	0.0	10.000	10.000	UG/L	2	05/87 - 08/87
	ZINC	TOTAL	2.222	17.2	40.000	-10.000	UG/L	9	05/87 - 05/92
	IRON	DISSOLVED	38.571	161.9	710.000	-20.000	UG/L	21	05/87 - 09/93
		TOTAL	747.143	1373.4	5500.000	-20.000	UG/L	21	05/87 - 09/93
	MANGANESE	DISSOLVED	-6.429	13.4	40.000	-10.000	UG/L	14	05/87 - 07/93
		TOTAL	7.895	31.5	120.000	-10.000	UG/L	19	05/87 - 09/93

TABLE 36

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 518 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	81.429	225.6	560.000	-50.000	UG/L	7	09/87 - 05/92
BORON	DISSOLVED	-6.250	25.6	40.000	-20.000	UG/L	8	05/87 - 05/92
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	7	09/87 - 05/92
	TOTAL	-50.000	0.0	-50.000	-50.000	UG/L	2	05/87 - 08/87
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	6	06/88 - 05/92
	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	2	05/87 - 08/87
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.020	0.0	0.070	-0.020	MG/L	8	05/87 - 05/92
	AMMIA-FREE	-0.001	0.0	-0.001	-0.001	MG/L	5	06/88 - 09/91
	NITRATE	1.898	0.6	2.970	0.900	MG/L	9	05/87 - 05/92
	NO3+NO2	1.896	0.6	3.000	0.900	MG/L	9	05/87 - 05/92

TABLE 37
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 518 518 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
19-MAY-87		9685.00	0.03000	CFS	
12-AUG-87		9685.00	0.00000	CFS	
22-SEP-87		9685.00	0.00000	CFS	
02-JUN-88		9685.00	0.09000	CFS	
16-JUL-88		9685.00	0.01000	CFS	
19-AUG-88		9685.00	0.00000	CFS	
05-SEP-88		9685.00	0.00000	CFS	
06-JUN-89		9685.00	0.01000	CFS	

TABLE 37
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 518 518 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
11-JUL-89		9685.00	0.00000	CFS	
22-AUG-89		9685.00	0.00000	CFS	
15-SEP-89		9685.00	0.00000	CFS	
30-MAY-90		9685.00	0.03000	CFS	
02-JUL-90		9685.00	0.01000	CFS	
30-AUG-90		9685.00	0.00000	CFS	
03-OCT-90		9685.00	0.00000	CFS	
11-JUN-91		9685.00	0.05000	CFS	

TABLE 37
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 518 518 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
15-JUL-91		9685.00	0.01000	CFS	
18-SEP-91		9685.00	0.00000	CFS	
19-MAY-92		9685.00	0.03340	CFS	, , , , , ,
15-JUL-92		9685.00	0.00700	CFS	, , , , , ,
25-AUG-92		9685.00	0.00200	CFS	, , , , , ,
21-SEP-92		9685.00	0.00200	CFS	, , , , , ,
24-JUN-93			0.04500		
26-JUL-93			0.00700		
17-AUG-93		9685.00	0.00300		
28-SEP-93			0.00200		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0
NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 37
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 518 518 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
19-MAY-87	5.1	440.0	531.0	8.4	8.0	258.0			280.0			
12-AUG-87	7.0	330.0	608.0	8.0	7.5	276.0		293.0	278.0			
22-SEP-87	7.3	515.0	397.0	7.0		228.0		268.0	238.0			
02-JUN-88	4.2	280.0		8.2		241.0						
16-JUL-88	12.5	332.0		8.0		233.0		247.0	270.0			
19-AUG-88	8.2	310.0		7.5								
05-SEP-88	9.5	340.0		7.7		235.0		305.0	298.0			
06-JUN-89	6.0	460.0		7.7		222.0		244.0	230.0			
11-JUL-89	9.0	480.0		7.6		224.0	0.0	254.0	256.0			
22-AUG-89	5.0	550.0		7.3								
15-SEP-89	7.0	490.0		7.3		232.0	0.0	242.0	250.0			
30-MAY-90	4.0	430.0		7.0		237.0	0.0	257.0	272.0			
02-JUL-90	7.0	510.0		7.9		248.0		259.0	246.0			
30-AUG-90	8.0	460.0		7.7								
03-OCT-90	5.0	450.0		7.1		268.0		302.0	280.0			
11-JUN-91	5.0	430.0		7.2		232.0		230.0	218.0			
15-JUL-91	12.0	460.0		7.1		268.0		272.0	276.0			
18-SEP-91	8.0	490.0		7.8	7.8	328.0		327.0	280.0			
19-MAY-92	5.1	483.0		7.7		252.0		268.0	270.0			
15-JUL-92	6.8	477.0		7.5		246.0		243.0	306.0			
25-AUG-92	8.5	481.0		6.8								
21-SEP-92	8.8	473.0		6.3		246.0		220.0	274.0			
24-JUN-93	5.5	525.0		7.4		244.0		257.0	218.0			
26-JUL-93	7.4	439.0		6.3		236.0		240.0	250.0			
17-AUG-93	8.0	418.0		6.1								
28-SEP-93	8.9	435.0		6.3		212.0		216.0	200.0			

TABLE 37

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 518 518 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
19-MAY-87	64.0	20.0	2.0	1.0	
12-AUG-87	86.0	19.0	2.0	1.0	
22-SEP-87	81.0	16.0	2.0	1.0	
02-JUN-88	83.0		2.0	1.0	
16-JUL-88	74.0	15.0	3.0	-1.0	
05-SEP-88	89.0	20.0	1.0	1.0	
06-JUN-89	73.0	15.0	1.0	1.0	
11-JUL-89	77.0	15.0	2.0	1.0	
15-SEP-89	69.0	17.0	2.0	-1.0	
30-MAY-90	80.0	14.0	2.0	-1.0	
02-JUL-90	79.0	15.0	2.0	-1.0	
03-OCT-90	93.0	17.0	2.0	-1.0	
11-JUN-91	69.0	14.0	2.0	-1.0	
15-JUL-91	84.0	15.0	2.0	-1.0	
18-SEP-91	98.0	20.0	2.0	-1.0	
19-MAY-92	81.0	16.0	2.0	1.0	
15-JUL-92	79.0	11.0	1.0	-1.0	
21-SEP-92	60.0	17.0	13.0	-1.0	
24-JUN-93	78.0	15.0	2.0	-1.0	
26-JUL-93	73.0	14.0	2.0	-1.0	
28-SEP-93	65.0	13.0	2.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 37

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 518 518 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
19-MAY-87		18.0			
12-AUG-87		21.0			
22-SEP-87		17.0			
02-JUN-88		17.0			
16-JUL-88		16.0			
05-SEP-88		20.0			
06-JUN-89		14.0			
18-SEP-91		20.0			
19-MAY-92		15.0			
24-JUN-93		14.0			
26-JUL-93		15.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 37

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 518 518 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
19-MAY-87	315.			1.	2.	0.6	
12-AUG-87	337.			1.	2.	0.2	0.20
22-SEP-87	278.			1.	2.		0.20
02-JUN-88	294.			2.	4.	0.1	0.30
16-JUL-88	284.			1.	8.	0.1	0.20
19-AUG-88							
05-SEP-88	287.			1.	41.	0.1	0.38
06-JUN-89	271.			1.	2.	0.2	0.03
11-JUL-89	273.			1.	8.		
22-AUG-89							
15-SEP-89	283.			1.	6.		
30-MAY-90	289.			2.	2.		
02-JUL-90	303.			1.	25.		
30-AUG-90							
03-OCT-90	327.			2.	14.		
11-JUN-91	264.	10.		2.	4.		
15-JUL-91	317.	5.		2.	2.		
18-SEP-91	400.	0.		1.	4.	0.1	0.03
19-MAY-92	307.	0.		1.	27.	0.1	0.00
15-JUL-92	300.	0.		1.	4.		
25-AUG-92							
21-SEP-92	300.	0.		1.	4.		
24-JUN-93	298.	0.		2.	2.		
26-JUL-93	278.	5.		1.	2.		
17-AUG-93							
28-SEP-93	259.	0.		2.	6.		

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 37

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 518 518 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
19-MAY-87	-1.0	80.0	-5.0						
12-AUG-87	-1.0	80.0	-5.0						
02-JUN-88	-1.0	80.0	-5.0				-0.2	-1.0	
16-JUL-88	-1.0	80.0	-5.0				-0.1	-1.0	
05-SEP-88	-1.0	70.0	-5.0				-0.1	-1.0	
06-JUN-89	-1.0	80.0	-5.0				-0.1	-1.0	
18-SEP-91	2.0	90.0	-5.0				-0.1	-1.0	
19-MAY-92	-1.0	-10.0	-5.0				0.1	-1.0	

TABLE 37
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: 518 518 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
19-MAY-87						-20.0	-0.2	-1.0	
12-AUG-87						-20.0	-0.2	-1.0	
22-SEP-87						-20.0			
02-JUN-88						-20.0			
16-JUL-88						-20.0			
05-SEP-88						-20.0			
06-JUN-89						-20.0			
18-SEP-91						-20.0			
19-MAY-92						-20.0			

TABLE 37

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 518 518 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
02-JUN-88									
16-JUL-88									
05-SEP-88									
06-JUN-89									
18-SEP-91									
19-MAY-92									

TABLE 37

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 518 518 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
19-MAY-87									
12-AUG-87									

TABLE 37

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 518 518 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
19-MAY-87			20.0	-10.0
12-AUG-87			-20.0	-10.0
22-SEP-87			190.0	-10.0
02-JUN-88	-10.0		-20.0	
16-JUL-88	-10.0		30.0	
05-SEP-88	-10.0		80.0	
06-JUN-89	-10.0		40.0	-10.0
11-JUL-89			20.0	-10.0
15-SEP-89			-20.0	-10.0
30-MAY-90			-20.0	-10.0
02-JUL-90			-20.0	-10.0
03-OCT-90			-20.0	-10.0
11-JUN-91			-20.0	
15-JUL-91			-20.0	
18-SEP-91	-10.0		710.0	40.0
19-MAY-92	-10.0		-20.0	
15-JUL-92			-20.0	-10.0
21-SEP-92			-20.0	-10.0
24-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
28-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 37

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 518 518 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
19-MAY-87	10.0	-10.0	250.0	10.0
12-AUG-87	10.0	-10.0	310.0	20.0
22-SEP-87		-10.0	1060.0	20.0
02-JUN-88		10.0	-20.0	-10.0
16-JUL-88		-10.0	590.0	10.0
05-SEP-88		40.0	5500.0	120.0
06-JUN-89		-10.0	480.0	-10.0
11-JUL-89			250.0	10.0
15-SEP-89			1100.0	30.0
30-MAY-90			80.0	-10.0
02-JUL-90			140.0	-10.0
03-OCT-90			100.0	-10.0
11-JUN-91			-20.0	-10.0
15-JUL-91			460.0	-10.0
18-SEP-91		10.0	1010.0	40.0
19-MAY-92		10.0	40.0	-10.0
15-JUL-92			440.0	
21-SEP-92			3820.0	
24-JUN-93			-20.0	-10.0
26-JUL-93			40.0	-10.0
28-SEP-93			80.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 37

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 518 518 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
19-MAY-87		40.0		
12-AUG-87		-20.0		
22-SEP-87	-50.0		-50.0	
02-JUN-88	160.0	-20.0	-50.0	-20.0
16-JUL-88	-50.0	-20.0	-50.0	-20.0
05-SEP-88	50.0	-20.0	-50.0	-20.0
06-JUN-89	-50.0	-20.0	-50.0	-20.0
18-SEP-91	560.0	30.0	-50.0	-20.0
19-MAY-92	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 37
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL
STATION: 518 518 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
19-MAY-87	150.0		-50.0	-20.0
12-AUG-87	310.0		-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 19

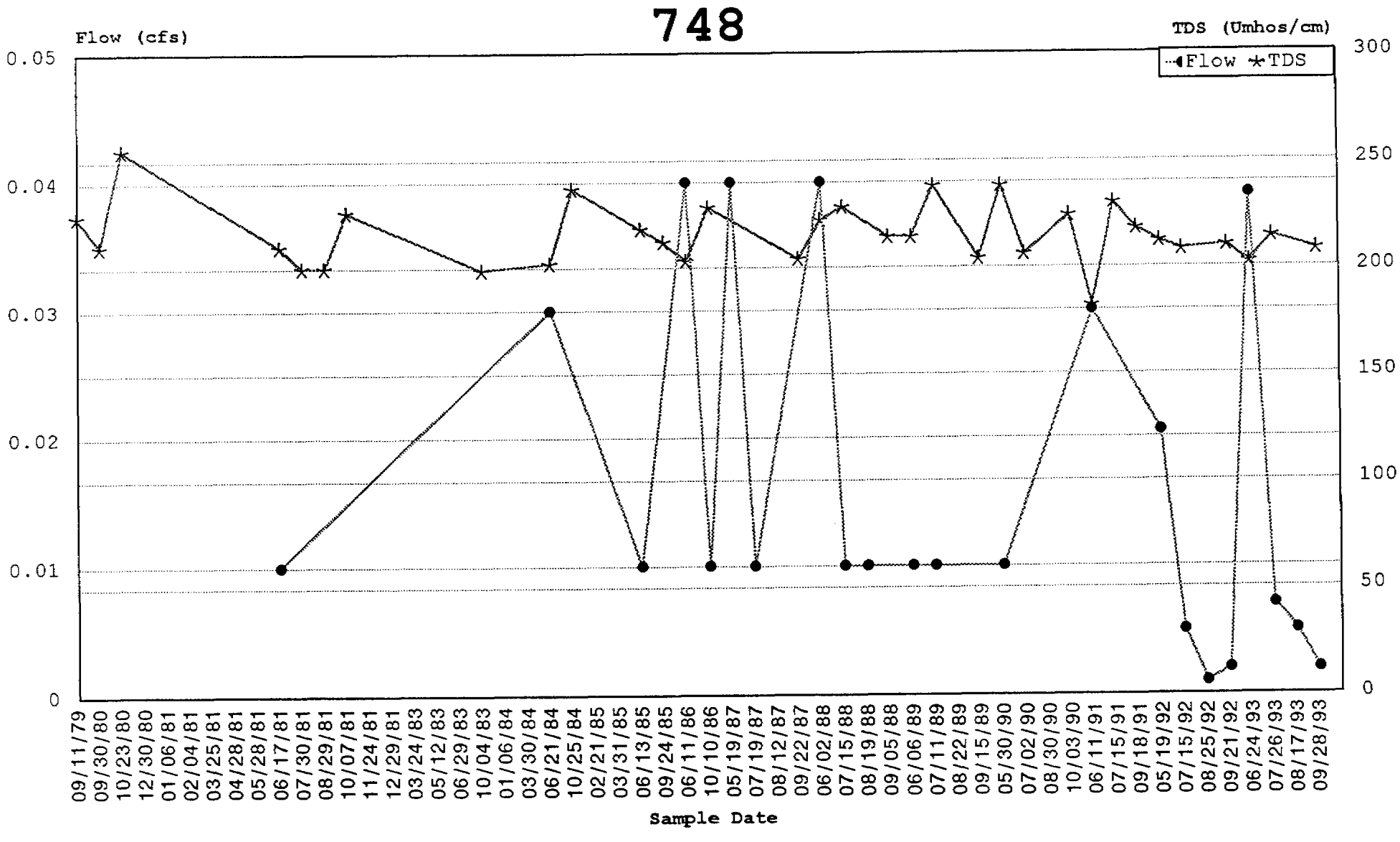

748
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.05
0.04
0.03
0.02
0.01
0
300
250
200
150
100
50
0
09/11/79
09/30/80
10/23/80
12/30/80
01/06/81
02/04/81
03/25/81
04/28/81
05/28/81
06/17/81
07/30/81
08/29/81
10/07/81
11/24/81
12/29/81
03/24/83
05/12/83
06/29/83
10/04/83
01/06/84
03/30/84
06/21/84
10/25/84
02/21/85
03/31/85
06/13/85
09/24/85
06/11/86
10/10/86
05/19/87
07/19/87
08/12/87
09/22/87
06/02/88
07/15/88
08/19/88
09/05/88
06/06/89
07/11/89
08/22/89
09/15/89
05/30/90
07/02/90
08/30/90
10/03/90
06/11/91
07/15/91
09/18/91
05/19/92
07/15/92
08/25/92
09/21/92
06/24/93
07/26/93
08/17/93
09/28/93
Sample Date

TABLE 38

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 748 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	6.505	2.5	13.000	2.000	DEGREES C	38	09/79 - 09/93
CONDUCTIVITY	FIELD	399.893	80.6	708.000	248.000	UMHOS/CM	28	10/86 - 09/93
PH	FIELD	7.526	0.6	8.530	6.290	PH	28	06/86 - 09/93
ALKALINITY	TOTAL	209.914	9.4	226.000	188.000	MG/L	29	06/81 - 09/93
ACIDITY	AS CACO3	0.594	2.5	6.000	-1.000	MG/L	17	06/81 - 05/90
HARDNESS	TOTAL	226.053	13.3	256.000	201.000	MG/L	19	09/87 - 09/93
SOLIDS	DISSOLVED	215.879	15.1	255.000	182.000	MG/L	33	09/79 - 09/93
	SUSPENDED	6.395	14.8	48.000	-0.500	MG/L	10	09/80 - 06/88
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.017	0.0	0.040	0.001	CFS	18	06/81 - 09/92
CATIONS								
CALCIUM	DISSOLVED	52.211	3.7	58.000	46.000	MG/L	19	09/87 - 09/93
	TOTAL	50.129	9.8	74.400	28.000	MG/L	14	09/79 - 10/86
MAGNESIUM	DISSOLVED	23.263	1.8	27.000	20.000	MG/L	19	09/87 - 09/93
	TOTAL	22.301	4.5	33.120	7.680	MG/L	18	09/79 - 07/93
SODIUM	DISSOLVED	1.158	0.4	2.000	1.000	MG/L	19	09/87 - 09/93
	TOTAL	2.701	3.1	12.400	1.000	MG/L	14	09/79 - 10/86
POTASSIUM	DISSOLVED	-0.368	1.0	1.000	-1.000	MG/L	19	09/87 - 09/93
	TOTAL	1.157	1.4	4.600	0.370	MG/L	14	09/79 - 10/86

TABLE 38

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 748 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS								
BICARBONATE	AS HCO3	251.796	18.7	276.000	178.120	MG/L	33	09/79 - 09/93
CARBONATE	AS CO3	1.154	3.4	10.000	-1.000	MG/L	13	10/83 - 09/93
HYDROXIDE	AS OH	0.000	0.0	0.000	0.000	MG/L	1	05/92 - 05/92
CHLORIDE	N/A	1.457	1.9	8.000	-1.000	MG/L	33	09/79 - 09/93
SULFATE	N/A	10.182	11.9	52.000	-2.000	MG/L	33	09/79 - 09/93
MINOR								
FLUORIDE	N/A	0.200	0.0	0.200	0.200	MG/L	1	09/91 - 09/91
GASES								
SULPHIDE	TOTAL	-0.110	0.1	-0.020	-0.200	MG/L	2	09/87 - 09/91

TABLE 38
CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 748 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PRIMARY								
ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	09/91 - 09/91
	TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	4	10/83 - 10/86
BARIUM	DISSOLVED	30.000	0.0	30.000	30.000	UG/L	1	09/91 - 09/91
	TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	4	10/83 - 10/86
CADMIUM	DISSOLVED	-5.000	0.0	-5.000	-5.000	UG/L	1	09/91 - 09/91
	TOTAL	598.750	1207.5	2410.000	-5.000	UG/L	4	10/83 - 10/86
CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	1	09/91 - 09/91
LEAD	TOTAL	-31.667	32.5	30.000	-50.000	UG/L	6	10/83 - 09/91
MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	1	09/91 - 09/91
	TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	4	10/83 - 10/86
SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	09/91 - 09/91
	TOTAL	-3.825	2.4	-0.300	-5.000	UG/L	4	10/83 - 10/86
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	09/91 - 09/91
	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	4	10/83 - 10/86
ZINC	TOTAL	1.167	12.3	22.000	-10.000	UG/L	6	10/83 - 09/91
IRON	DISSOLVED	-14.375	32.9	100.000	-50.000	UG/L	32	09/80 - 09/93
	TOTAL	64.938	110.0	420.000	-50.000	UG/L	32	09/80 - 09/93
MANGANESE	DISSOLVED	-6.714	9.1	20.000	-10.000	UG/L	21	06/81 - 07/93
	TOTAL	0.690	34.0	130.000	-100.000	UG/L	29	09/80 - 09/93

TABLE 38

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 748 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	2	09/87 - 09/91
BORON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	09/91 - 09/91
	TOTAL	140.000	87.6	260.000	70.000	UG/L	4	10/83 - 10/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	2	09/87 - 09/91
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	09/91 - 09/91
	TOTAL	-40.000	0.0	-40.000	-40.000	UG/L	4	10/83 - 10/86
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.090	0.0	0.090	0.090	MG/L	1	09/91 - 09/91
	AMMIA-FREE	-0.001	0.0	-0.001	-0.001	MG/L	1	09/91 - 09/91
	NITRATE	1.078	0.8	1.970	0.060	MG/L	5	10/84 - 09/91
	NO3+NO2	1.760	0.3	1.970	1.550	MG/L	2	09/87 - 09/91
ORGANICS								
OIL&GREASE	N/A	0.630	1.6	3.300	-0.500	MG/L	5	10/83 - 10/86

TABLE 39
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 748 748 GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
11-SEP-79		9780.00	0.00000	CFS	
30-SEP-80		9780.00	0.00000	CFS	
23-OCT-80		9780.00	0.00000	CFS	
30-DEC-80		9780.00			
06-JAN-81		9780.00			IN-ACCESSIBLE
04-FEB-81		9780.00			IN-ACCESSIBLE - SNOW
25-MAR-81		9780.00			IN-ACCESSIBLE - SNOW
28-APR-81		9780.00			IN-ACCESSIBLE - SNOW

TABLE 39
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 748 748 GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
28-MAY-81		9780.00			IN-ACCESSIBLE - RAIN AND MUD
17-JUN-81		9780.00	0.01000	CFS	
30-JUL-81		9780.00			
29-AUG-81		9780.00	0.00000	CFS	
07-OCT-81		9780.00	0.00000	CFS	
24-NOV-81		9780.00			IN-ACCESSIBLE
29-DEC-81		9780.00			IN-ACCESSIBLE
24-MAR-83		9780.00			IN-ACCESSIBLE - SNOW

TABLE 39
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 748 748 GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
12-MAY-83		9780.00			IN-ACCESSIBLE - SNOW
29-JUN-83		9780.00			IN-ACCESSIBLE SNOW DRIFTS & MUD SLIDE
04-OCT-83		9780.00	0.00000	CFS	
06-JAN-84		9780.00			COVERED W/SNOW - NOT POSSIBLE TO SAMPLE
30-MAR-84		9780.00			COVERED W/SNOW - NOT POSSIBLE TO SAMPLE
21-JUN-84		9780.00	0.03000	CFS	
25-OCT-84		9780.00			
21-FEB-85		9780.00			INACCESSIBLE - DEEP SNOW

TABLE 39
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 748 748 GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
31-MAR-85		9780.00			INACCESSIBLE - DEEP SNOW
13-JUN-85		9780.00	0.01000	CFS	
24-SEP-85		9780.00	0.00000	CFS	
11-JUN-86		9780.00	0.04000	CFS	
10-OCT-86		9780.00	0.01000	CFS	
19-MAY-87		9780.00	0.04000	CFS	
19-JUL-87		9780.00	0.01000	CFS	
12-AUG-87		9780.00	0.00000	CFS	

TABLE 39
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 748 748 GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
22-SEP-87		9780.00	0.00000	CFS	
02-JUN-88		9780.00	0.04000	CFS	
15-JUL-88		9780.00	0.01000	CFS	
19-AUG-88		9780.00	0.01000	CFS	
05-SEP-88		9780.00	0.00000	CFS	
06-JUN-89		9780.00	0.01000	CFS	
11-JUL-89		9780.00	0.01000	CFS	
22-AUG-89		9780.00	0.00000	CFS	

TABLE 39
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 748 748 GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
15-SEP-89		9780.00	0.00000	CFS	
30-MAY-90		9780.00	0.01000	CFS	
02-JUL-90		9780.00	0.00000	CFS	
30-AUG-90		9780.00	0.00000	CFS	
03-OCT-90		9780.00	0.00000	CFS	
11-JUN-91		9780.00	0.03000	CFS	
15-JUL-91		9780.00	0.00000	CFS	
18-SEP-91		9780.00	0.00000	CFS	

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 748 748 GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
19-MAY-92		9780.00	0.02050	CFS	, , , , , ,
15-JUL-92		9780.00	0.00500	CFS	, , , , , ,
25-AUG-92		9780.00	0.00100	CFS	, , , , , ,
21-SEP-92		9780.00	0.00200	CFS	, , , , , ,
24-JUN-93			0.03900		
26-JUL-93			0.00700		
17-AUG-93		9780.00	0.00500		
28-SEP-93			0.00200		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 39
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES
STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
11-SEP-79	7.0		390.0		7.6				224.0			
30-SEP-80			330.0						210.0	1.0		
23-OCT-80	3.0		390.0		7.6				255.0	4.0		
17-JUN-81	5.0		225.0		7.8	194.0	5.7		210.0			
30-JUL-81			380.0						200.0	1.0		
29-AUG-81	6.0					188.0	5.4		200.0			
07-OCT-81	9.0		340.0		7.7	215.5	6.0		226.0	48.0		
04-OCT-83	8.0		390.0		7.6	203.0	-1.0		199.0	-0.5		
21-JUN-84	13.0		405.0		7.4	205.0	-1.0		202.0	-0.5		
25-OCT-84			400.0		7.1	200.0	-1.0		237.0	-0.1		
13-JUN-85	9.0		388.0		7.4	202.0	-1.0		218.0			
24-SEP-85	2.0		381.0		7.2	204.0	-1.0		236.0	6.0		
11-JUN-86	6.0		373.0	7.9	7.4	204.0	-1.0		203.0			
10-OCT-86	2.0	708.0	426.0		8.2	217.0	-1.0		228.0	3.0		
19-MAY-87	6.0	370.0		8.5								
19-JUL-87	7.0	360.0		7.6								
12-AUG-87	7.0	380.0		7.6								
22-SEP-87	4.4	460.0	383.0	7.6		208.0		232.0	204.0			
02-JUN-88	5.1	248.0		7.9		212.0	0.0	242.0	222.0	2.0	-0.2	
15-JUL-88	12.3	304.0		7.6		210.0	0.0	209.0	228.0			
19-AUG-88	8.0	275.0		7.8								
05-SEP-88	10.5	285.0		7.9		219.0	0.0	256.0	214.0			
06-JUN-89	5.0	420.0		7.8		202.0	0.0	212.0	214.0			
11-JUL-89	9.0	410.0		7.9		202.0	0.0	242.0	238.0			
22-AUG-89	7.0	440.0		7.8								
15-SEP-89	3.0	410.0		7.9		210.0	0.0	228.0	204.0			
30-MAY-90	4.0	400.0		7.8		218.0	0.0	232.0	238.0			
02-JUL-90	9.0	450.0		7.8		220.0		227.0	206.0			

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
30-AUG-90	9.0	410.0		8.4								
03-OCT-90	6.0	380.0		8.3		220.0		226.0	224.0			
11-JUN-91	4.0	380.0		7.2		210.0		201.0	182.0			
15-JUL-91	5.0	430.0		7.1		216.0		222.0	230.0			
18-SEP-91	8.0	440.0		7.7	7.7	216.0		222.0	218.0			
19-MAY-92	4.2	388.0		7.7		216.0		230.0	212.0			
15-JUL-92	5.2	415.0		7.7		216.0		220.0	208.0			
25-AUG-92	7.7	417.0		7.1								
21-SEP-92	6.8	454.0		6.3		194.0		226.0	210.0			
24-JUN-93	6.9	366.0		6.6		226.0		238.0	202.0			
26-JUL-93	4.9	392.0		6.4		220.0		222.0	214.0			
17-AUG-93	5.4	400.0		6.3								
28-SEP-93	6.8	405.0		6.4		220.0		208.0	208.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
22-SEP-87	55.0	23.0	1.0	1.0	
02-JUN-88	54.0	26.0	1.0	1.0	
15-JUL-88	46.0	23.0	2.0	-1.0	
05-SEP-88	58.0	27.0	1.0	-1.0	
06-JUN-89	47.0	23.0	1.0	1.0	
11-JUL-89	54.0	26.0	1.0	1.0	
15-SEP-89	50.0	25.0	1.0	-1.0	
30-MAY-90	55.0	23.0	1.0	-1.0	
02-JUL-90	53.0	23.0	1.0	-1.0	
03-OCT-90	56.0	21.0	2.0	-1.0	
11-JUN-91	46.0	21.0	1.0	-1.0	
15-JUL-91	51.0	23.0	2.0	-1.0	
18-SEP-91	51.0	23.0	1.0	-1.0	
19-MAY-92	56.0	22.0	1.0	1.0	
15-JUL-92	55.0	20.0	1.0	-1.0	
21-SEP-92	51.0	24.0	1.0	1.0	
24-JUN-93	56.0	24.0	1.0	-1.0	
26-JUL-93	51.0	23.0	1.0	-1.0	
28-SEP-93	47.0	22.0	1.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
11-SEP-79	74.4	7.7	1.3	4.3	
30-SEP-80	46.4	21.1	1.1	0.4	
23-OCT-80	52.0	21.6	12.4	4.6	
17-JUN-81	43.2	24.5	4.0	0.5	
30-JUL-81	48.8	21.1	4.2	0.4	
29-AUG-81	28.0	33.1	2.2	0.7	
07-OCT-81	50.0	23.0	4.9	0.5	
04-OCT-83	49.0	22.0	1.0	0.5	
21-JUN-84	50.0	22.0	1.0	1.0	
25-OCT-84	49.0	22.0	1.0	0.5	
13-JUN-85	60.0	23.0	1.0	0.8	
24-SEP-85	48.0	24.0	1.0	0.4	
11-JUN-86	51.0	23.0	1.3	0.6	
10-OCT-86	52.0	24.3	1.4	1.1	
22-SEP-87		23.0			
18-SEP-91		23.0			
24-JUN-93		21.0			
26-JUL-93		22.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
11-SEP-79	249.			2.	12.		
30-SEP-80	178.			2.	52.		
23-OCT-80	271.			1.	24.		
30-DEC-80							
06-JAN-81							
04-FEB-81							
25-MAR-81							
28-APR-81							
28-MAY-81							
17-JUN-81	237.			2.	14.		
30-JUL-81	237.			2.	20.		
29-AUG-81	229.			7.	11.		
07-OCT-81	268.			2.	10.		
24-NOV-81							
29-DEC-81							
24-MAR-83							
12-MAY-83							
29-JUN-83							
04-OCT-83	248.	1.		2.	1.		
06-JAN-84							
30-MAR-84							
21-JUN-84	250.			2.	3.		
25-OCT-84	244.	1.		8.	6.		
21-FEB-85							
31-MAR-85							
13-JUN-85	246.			2.	3.		
24-SEP-85	245.	1.		2.	10.		
11-JUN-86	249.			2.	16.		
10-OCT-86	265.	1.		3.	15.		

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
19-MAY-87							
19-JUL-87							
12-AUG-87							
22-SEP-87	254.			1.	2.		0.20
02-JUN-88	259.			1.	4.		
15-JUL-88	256.			1.	8.		
19-AUG-88							
05-SEP-88	267.			1.	27.		
06-JUN-89	246.			1.	2.		
11-JUL-89	246.			1.	2.		
22-AUG-89							
15-SEP-89	256.			1.	2.		
30-MAY-90	266.			1.	2.		
02-JUL-90	268.			1.	8.		
30-AUG-90							
03-OCT-90	268.			1.	6.		
11-JUN-91	242.	7.		2.	2.		
15-JUL-91	264.	0.		2.	2.		
18-SEP-91	264.	0.		1.	4.	0.2	0.02
19-MAY-92	249.	0.	0.	1.	31.		
15-JUL-92	264.	0.		1.	6.		
25-AUG-92							
21-SEP-92	217.	10.		1.	29.		
24-JUN-93	276.	0.		1.	2.		
26-JUL-93	264.	2.		1.	16.		
17-AUG-93							
28-SEP-93	268.	0.		1.	4.		

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: TYPE: JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
18-SEP-91	-1.0	30.0	-5.0				-0.1	-1.0	

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
04-OCT-83	-1.0	-100.0	2410.0			-50.0	-0.2	-0.3	
25-OCT-84	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
24-SEP-85	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
10-OCT-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
22-SEP-87						-20.0			
18-SEP-91						30.0			

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
18-SEP-91									

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
04-OCT-83									
25-OCT-84									
24-SEP-85									
10-OCT-86									

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 748 748 GENTRY SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-SEP-80			100.0	
23-OCT-80			40.0	
17-JUN-81			-1.0	-1.0
30-JUL-81			15.0	
29-AUG-81			26.0	
07-OCT-81			20.0	
04-OCT-83			-50.0	-10.0
21-JUN-84			-50.0	-10.0
25-OCT-84			-50.0	-10.0
13-JUN-85			-50.0	-10.0
24-SEP-85			-50.0	-10.0
11-JUN-86			-50.0	-10.0
10-OCT-86			-50.0	20.0
22-SEP-87			-20.0	-10.0
02-JUN-88			-20.0	
15-JUL-88			-20.0	
05-SEP-88			-20.0	
06-JUN-89			-20.0	-10.0
11-JUL-89			-20.0	-10.0
15-SEP-89			-20.0	-10.0
30-MAY-90			-20.0	-10.0
02-JUL-90			-20.0	-10.0
03-OCT-90			-20.0	-10.0
11-JUN-91			-20.0	
15-JUL-91			-20.0	
18-SEP-91	-10.0		50.0	20.0
19-MAY-92			-20.0	-10.0
15-JUL-92			-20.0	-10.0

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 748 748 GENTRY SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
21-SEP-92			-20.0	-10.0
24-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
28-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 748 748 GENTRY SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-SEP-80			123.0	13.0
23-OCT-80			95.0	13.0
17-JUN-81			90.0	-1.0
30-JUL-81			110.0	2.0
29-AUG-81			90.0	12.0
07-OCT-81			120.0	11.0
04-OCT-83	-20.0	22.0	-50.0	-10.0
21-JUN-84			90.0	-10.0
25-OCT-84	-20.0	-5.0	-50.0	-10.0
13-JUN-85			60.0	-10.0
24-SEP-85	-20.0	-5.0	80.0	50.0
11-JUN-86			-50.0	10.0
10-OCT-86	-20.0	-5.0	250.0	130.0
22-SEP-87		-10.0	-20.0	-10.0
02-JUN-88			-20.0	-10.0
15-JUL-88			-20.0	-10.0
05-SEP-88			-20.0	-10.0
06-JUN-89			-20.0	-10.0
11-JUL-89			90.0	10.0
15-SEP-89			20.0	-10.0
30-MAY-90			60.0	-10.0
02-JUL-90			70.0	-10.0
03-OCT-90			50.0	-10.0
11-JUN-91			-20.0	-10.0
15-JUL-91			-20.0	-100.0
18-SEP-91		10.0	50.0	20.0
19-MAY-92			-20.0	
15-JUL-92			360.0	

TABLE 39

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 748 748 GENTRY SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
21-SEP-92			420.0	
24-JUN-93			30.0	10.0
26-JUL-93			-20.0	-10.0
28-SEP-93			150.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 39
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED
STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
22-SEP-87	-50.0		-50.0	
18-SEP-91	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 39
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL
STATION: 748 748 GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
04-OCT-83		70.0		-40.0
25-OCT-84		260.0		-40.0
24-SEP-85		150.0		-40.0
10-OCT-86		80.0		-40.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 20

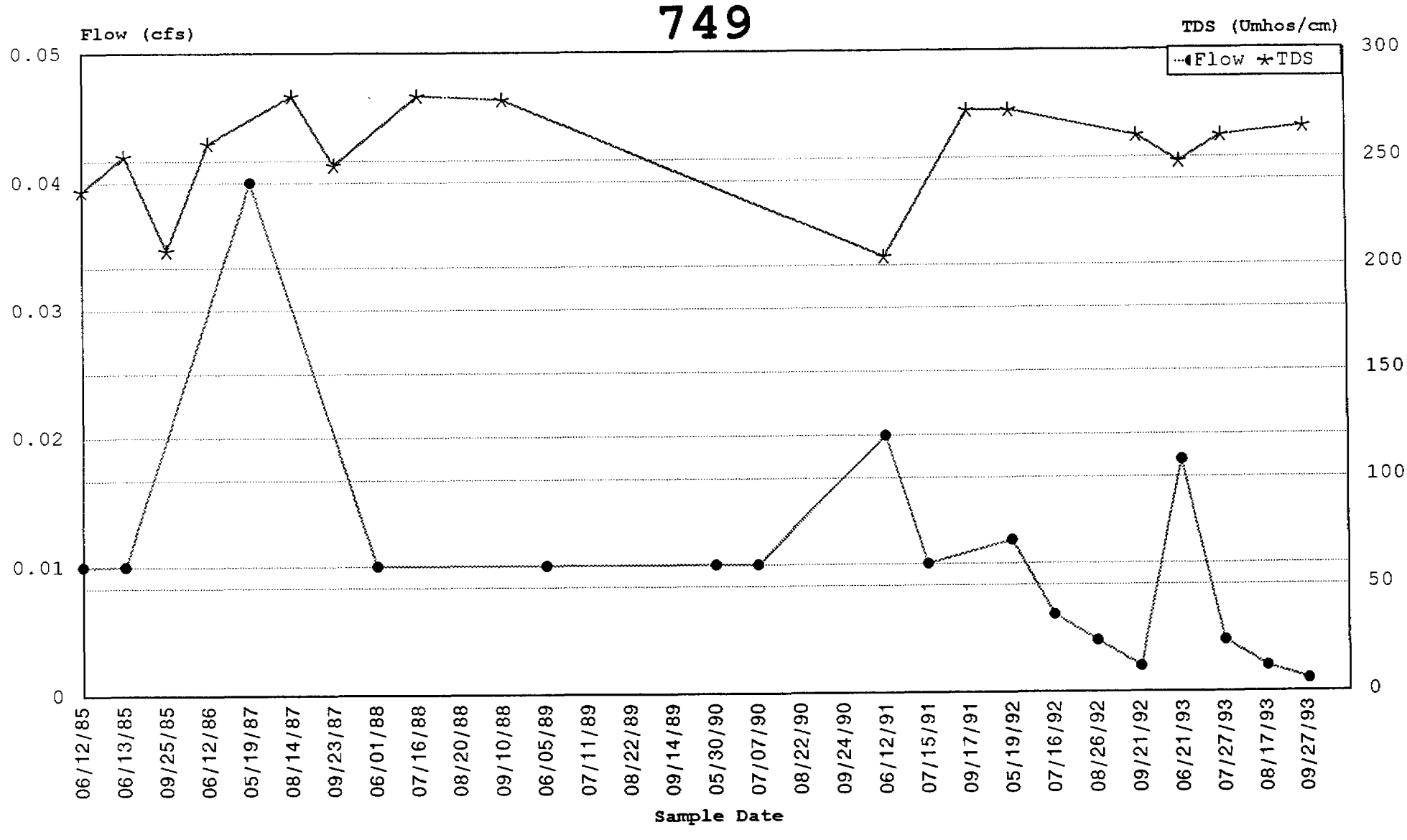

749
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.05
0.04
0.03
0.02
0.01
0
300
250
200
150
100
50
0
06/12/85
06/13/85
09/25/85
06/12/86
05/19/87
08/14/87
09/23/87
06/01/88
07/16/88
08/20/88
09/10/88
06/05/89
07/11/89
08/22/89
09/14/89
05/30/90
07/07/90
08/22/90
09/24/90
06/12/91
07/15/91
09/17/91
05/19/92
07/16/92
08/26/92
09/21/92
06/21/93
07/27/93
08/17/93
09/27/93
Sample Date

TABLE 40
CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 749 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	6.350	1.9	10.500	3.600	DEGREES C	28	06/85 - 09/93
CONDUCTIVITY	FIELD	444.192	66.1	540.000	288.000	UMHOS/CM	26	05/87 - 09/93
PH	FIELD	7.364	0.6	8.300	6.150	PH	27	06/86 - 09/93
ALKALINITY	TOTAL	247.375	17.6	268.000	198.000	MG/L	16	06/85 - 09/93
ACIDITY	AS CACO3	-1.000	0.0	-1.000	-1.000	MG/L	4	06/85 - 06/86
HARDNESS	TOTAL	254.091	21.0	288.000	220.000	MG/L	11	08/87 - 09/93
SOLIDS	DISSOLVED	254.667	23.6	280.000	204.000	MG/L	15	06/85 - 09/93
	SUSPENDED	5.000	0.0	5.000	5.000	MG/L	1	09/85 - 09/85
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.012	0.0	0.040	0.002	CFS	13	06/85 - 09/92
CATIONS								
CALCIUM	DISSOLVED	73.917	8.4	91.000	60.000	MG/L	12	08/87 - 09/93
	TOTAL	78.000	10.2	92.000	68.000	MG/L	4	06/85 - 06/86
MAGNESIUM	DISSOLVED	17.818	1.8	21.000	16.000	MG/L	11	08/87 - 09/93
	TOTAL	17.917	2.7	21.000	10.000	MG/L	12	06/85 - 07/93
SODIUM	DISSOLVED	3.917	2.0	10.000	3.000	MG/L	12	08/87 - 09/93
	TOTAL	3.225	0.9	4.000	2.000	MG/L	4	06/85 - 06/86
POTASSIUM	DISSOLVED	0.833	0.6	1.000	-1.000	MG/L	12	08/87 - 09/93
	TOTAL	0.850	0.3	1.100	0.400	MG/L	4	06/85 - 06/86

TABLE 40
CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 749 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS								
BICARBONATE	AS HCO3	300.188	23.4	327.000	242.000	MG/L	16	06/85 - 09/93
CARBONATE	AS CO3	1.125	3.6	10.000	-1.000	MG/L	8	09/85 - 09/93
CHLORIDE	N/A	1.881	1.1	3.000	-1.000	MG/L	16	06/85 - 09/93
SULFATE	N/A	8.500	10.5	39.000	-2.000	MG/L	16	06/85 - 09/93
MINOR								
FLUORIDE	N/A	0.080	0.1	0.200	-0.100	MG/L	5	08/87 - 09/91
GASES								
SULPHIDE	TOTAL	-0.026	0.2	0.300	-0.200	MG/L	5	08/87 - 09/91
PRIMARY								
ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	5	08/87 - 09/91
	TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	1	09/85 - 09/85
BARIUM	DISSOLVED	64.000	11.4	80.000	50.000	UG/L	5	08/87 - 09/91
	TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	1	09/85 - 09/85
CADMIUM	DISSOLVED	-5.000	0.0	-5.000	-5.000	UG/L	5	08/87 - 09/91
	TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	1	09/85 - 09/85
CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	4	06/88 - 09/91
LEAD	TOTAL	-18.571	20.4	20.000	-50.000	UG/L	7	09/85 - 09/91
MERCURY	DISSOLVED	-0.125	0.1	-0.100	-0.200	UG/L	4	06/88 - 09/91
	TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	2	09/85 - 08/87
SELENIUM	DISSOLVED	0.000	1.2	1.000	-1.000	UG/L	4	06/88 - 09/91
	TOTAL	-2.000	4.2	1.000	-5.000	UG/L	2	09/85 - 08/87

TABLE 40

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 749 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	DISSOLVED	-5.000	10.0	10.000	-10.000	UG/L	4	06/88 - 09/91
	TOTAL	-15.000	7.1	-10.000	-20.000	UG/L	2	09/85 - 08/87
ZINC	TOTAL	-3.571	9.4	10.000	-10.000	UG/L	7	09/85 - 09/91
IRON	DISSOLVED	-24.375	19.7	30.000	-50.000	UG/L	16	06/85 - 09/93
	TOTAL	2.500	69.2	200.000	-50.000	UG/L	16	06/85 - 09/93
MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	11	06/85 - 07/93
	TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	14	06/85 - 09/93
TRACE METALS								
ALUMINUM	DISSOLVED	-22.000	62.6	90.000	-50.000	UG/L	5	09/87 - 09/91
BORON	DISSOLVED	-6.000	31.3	50.000	-20.000	UG/L	5	08/87 - 09/91
	TOTAL	60.000	0.0	60.000	60.000	UG/L	1	09/85 - 09/85
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	5	09/87 - 09/91
	TOTAL	-50.000	0.0	-50.000	-50.000	UG/L	1	08/87 - 08/87
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	4	06/88 - 09/91
	TOTAL	-30.000	14.1	-20.000	-40.000	UG/L	2	09/85 - 08/87
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	-0.002	0.0	0.070	-0.020	MG/L	5	08/87 - 09/91
	AMMIA-FREE	0.000	0.0	0.003	-0.001	MG/L	4	06/88 - 09/91
	NITRATE	0.571	0.1	0.650	0.280	MG/L	7	09/85 - 09/91
	NO3+NO2	0.618	0.0	0.650	0.560	MG/L	6	08/87 - 09/91

TABLE 40

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 749 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ORGANICS								
OIL&GREASE	N/A	0.150	0.9	0.800	-0.500	MG/L	2	09/85 - 06/86

TABLE 4

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 749 749 WEST GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
12-JUN-85		9700.00	0.01000	CFS	
13-JUN-85		9700.00	0.01000	CFS	
25-SEP-85		9700.00	0.00000	CFS	
12-JUN-86		9700.00	0.00000	CFS	
19-MAY-87		9700.00	0.04000	CFS	
14-AUG-87		9700.00	0.00000	CFS	
23-SEP-87		9700.00	0.00000	CFS	
01-JUN-88		9700.00	0.01000	CFS	

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 749 749 WEST GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
16-JUL-88		9700.00	0.00000	CFS	
20-AUG-88		9700.00	0.00000	CFS	
10-SEP-88		9700.00	0.00000	CFS	
05-JUN-89		9700.00	0.01000	CFS	
11-JUL-89		9700.00	0.00000	CFS	
22-AUG-89		9700.00	0.00000	CFS	
14-SEP-89		9700.00	0.00000	CFS	
30-MAY-90		9700.00	0.01000	CFS	

TABLE 4

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 749 749 WEST GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
07-JUL-90		9700.00	0.01000	CFS	
22-AUG-90		9700.00	0.00000	CFS	
24-SEP-90		9700.00	0.00000	CFS	
12-JUN-91		9700.00	0.02000	CFS	
15-JUL-91		9700.00	0.01000	CFS	
17-SEP-91		9700.00	0.00000	CFS	
19-MAY-92		9700.00	0.01180	CFS	, , , , , ,
16-JUL-92			0.00600	CFS	
26-AUG-92		9700.00	0.00400	CFS	, , , , , ,
21-SEP-92		9700.00	0.00200	CFS	, , , , , ,
21-JUN-93			0.01800		
27-JUL-93			0.00400		

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 749 749 WEST GENTRY SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
17-AUG-93		9700.00	0.00200		
27-SEP-93			0.00100		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 91
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES
STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
12-JUN-85			460.0		7.7	250.0	-1.0		236.0			
13-JUN-85	9.0		410.0		7.3	198.0	-1.0		252.0			
25-SEP-85			472.0		7.2	249.0	-1.0		208.0	5.0		
12-JUN-86	4.0		495.0	7.9	7.2	248.0	-1.0		258.0			
19-MAY-87	3.6	470.0		7.9								
14-AUG-87	8.2	400.0	468.0	7.5	8.1	268.0		286.0	280.0			
23-SEP-87	5.5	420.0	435.0	7.5		251.0		288.0	248.0			
01-JUN-88	4.0	288.0		7.7		237.0						
16-JUL-88	5.8	302.0		7.0		254.0		259.0	280.0			
20-AUG-88	7.0	318.0		7.6								
10-SEP-88	10.5	345.0		8.1		263.0		254.0	278.0			
05-JUN-89	4.0	450.0		7.5								
11-JUL-89	6.0	500.0		7.5								
22-AUG-89	9.0	500.0		7.2								
14-SEP-89	7.0	460.0		7.8								
30-MAY-90	4.0	440.0		7.5								
07-JUL-90	6.0	510.0		7.5								
22-AUG-90	5.0	450.0		7.7								
24-SEP-90	6.0	420.0		8.3								
12-JUN-91	5.0	540.0		7.2		224.0		236.0	204.0			
15-JUL-91	6.0	460.0		7.9								
17-SEP-91	10.0	470.0		8.3	8.3	260.0		255.0	272.0			
19-MAY-92	4.2	485.0		7.5		256.0		262.0	272.0			
16-JUL-92	5.4	492.0		7.5								
26-AUG-92	6.3	505.0		7.2								
21-SEP-92	7.9	508.0		6.2		230.0		220.0	260.0			
21-JUN-93	5.0	420.0		6.2		258.0		241.0	248.0			
27-JUL-93	8.1	449.0		6.2		252.0		261.0	260.0			

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
17-AUG-93	6.7	466.0		6.2								
27-SEP-93	8.6	481.0		6.4		260.0		233.0	264.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
14-AUG-87	80.0	21.0	3.0	1.0	
23-SEP-87	84.0	19.0	5.0	1.0	
01-JUN-88	91.0		3.0	1.0	
16-JUL-88	74.0	18.0	4.0	1.0	
10-SEP-88	67.0	21.0	4.0	1.0	
12-JUN-91	68.0	16.0	3.0	1.0	
17-SEP-91	74.0	17.0	3.0	1.0	
19-MAY-92	77.0	17.0	3.0	1.0	
21-SEP-92	60.0	17.0	10.0	1.0	
21-JUN-93	70.0	16.0	3.0	-1.0	
27-JUL-93	75.0	18.0	3.0	1.0	
27-SEP-93	67.0	16.0	3.0	1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
12-JUN-85	92.0	18.0	4.0	0.9	
13-JUN-85	68.0	10.0	2.0	0.4	
25-SEP-85	74.0	18.0	3.0	1.0	
12-JUN-86	78.0	18.0	3.9	1.1	
14-AUG-87		21.0			
23-SEP-87		20.0			
01-JUN-88		19.0			
16-JUL-88		18.0			
10-SEP-88		19.0			
17-SEP-91		18.0			
21-JUN-93		17.0			
27-JUL-93		19.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 749 — 749 WEST GENTRY SPRING — TYPE: SPRING — JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
12-JUN-85	305.			3.	6.		
13-JUN-85	242.			3.	4.		
25-SEP-85	303.	1.		3.	10.		
12-JUN-86	302.			2.	23.		
19-MAY-87							
14-AUG-87	327.			3.	2.	0.2	0.20
23-SEP-87	306.			2.	2.		0.20
01-JUN-88	289.			2.	4.	0.1	0.30
16-JUL-88	310.			1.	6.	0.1	
20-AUG-88							
10-SEP-88	321.			1.	8.	0.1	0.01
05-JUN-89							
11-JUL-89							
22-AUG-89							
14-SEP-89							
30-MAY-90							
07-JUL-90							
22-AUG-90							
24-SEP-90							
12-JUN-91	254.	10.		3.	2.		
15-JUL-91							
17-SEP-91	317.	0.		1.	16.	0.1	0.02
19-MAY-92	307.	0.		1.	39.		
16-JUL-92							
26-AUG-92							
21-SEP-92	281.	0.		2.	10.		
21-JUN-93	315.	0.		2.	5.		
27-JUL-93	307.	0.		2.	9.		
17-AUG-93							

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
27-SEP-93	317.	0.		1.	2.		

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
14-AUG-87	-1.0	50.0	-5.0						
01-JUN-88	-1.0	80.0	-5.0				-0.2	-1.0	
16-JUL-88	-1.0	60.0	-5.0				-0.1	1.0	
10-SEP-88	-1.0	70.0	-5.0				-0.1	1.0	
17-SEP-91	-1.0	60.0	-5.0				-0.1	-1.0	

TABLE 41
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
25-SEP-85	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
14-AUG-87						-20.0	-0.2	1.0	
23-SEP-87						-20.0			
01-JUN-88						-20.0			
16-JUL-88						-20.0			
10-SEP-88						-20.0			
17-SEP-91						20.0			

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
01-JUN-88									
16-JUL-88									
10-SEP-88									
17-SEP-91									

TABLE 4|

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
25-SEP-85									
14-AUG-87									

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 749 749 WEST GENTRY SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
12-JUN-85			-50.0	-10.0
13-JUN-85			-50.0	-10.0
25-SEP-85			-50.0	-10.0
12-JUN-86			-50.0	-10.0
14-AUG-87			-20.0	-10.0
23-SEP-87			-20.0	-10.0
01-JUN-88	10.0		-20.0	
16-JUL-88	-10.0		30.0	
10-SEP-88	-10.0		-20.0	
12-JUN-91			-20.0	
17-SEP-91	-10.0		-20.0	-10.0
19-MAY-92			-20.0	-10.0
21-SEP-92			-20.0	-10.0
21-JUN-93			-20.0	-10.0
27-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 749 749 WEST GENTRY SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
12-JUN-85			-50.0	-10.0
13-JUN-85			130.0	-10.0
25-SEP-85	-20.0	-5.0	-50.0	-10.0
12-JUN-86			-50.0	-10.0
14-AUG-87	-10.0	10.0	-20.0	-10.0
23-SEP-87		-10.0	-20.0	-10.0
01-JUN-88		-10.0	200.0	-10.0
16-JUL-88		-10.0	60.0	-10.0
10-SEP-88		-10.0	-20.0	-10.0
12-JUN-91			-20.0	-10.0
17-SEP-91		10.0	-20.0	-10.0
19-MAY-92			-20.0	
21-SEP-92			-20.0	
21-JUN-93			-20.0	-10.0
27-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
14-AUG-87		-20.0		
23-SEP-87	-50.0		-50.0	
01-JUN-88	90.0	50.0	-50.0	-20.0
16-JUL-88	-50.0	-20.0	-50.0	-20.0
10-SEP-88	-50.0	-20.0	-50.0	-20.0
17-SEP-91	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 41

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL

STATION: 749 749 WEST GENTRY SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
25-SEP-85		60.0		-40.0
14-AUG-87	-50.0		-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 21

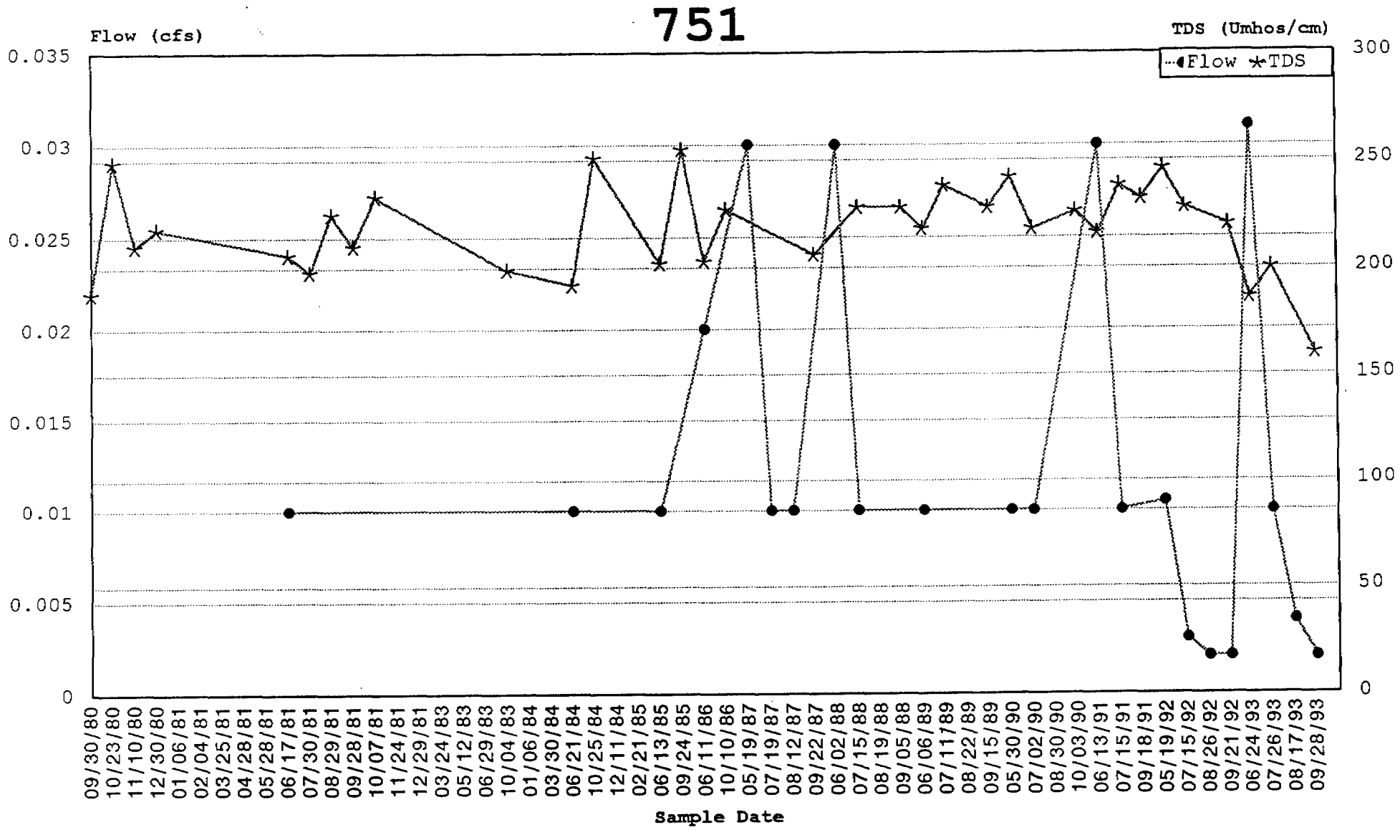

751
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
300
250
200
150
100
50
0
09/30/80
10/23/80
11/10/80
12/30/80
01/06/81
02/04/81
03/25/81
04/28/81
05/28/81
06/17/81
07/30/81
08/29/81
09/28/81
10/07/81
11/24/81
12/29/81
03/24/83
05/12/83
06/29/83
10/04/83
01/06/84
03/30/84
06/21/84
10/25/84
12/11/84
02/21/85
06/13/85
09/24/85
06/11/86
10/10/86
05/19/87
07/19/87
08/12/87
09/22/87
06/02/88
07/15/88
08/19/88
09/05/88
06/06/89
07/11789
08/22/89
09/15/89
05/30/90
07/02/90
08/30/90
10/03/90
06/13/91
07/15/91
09/18/91
05/19/92
07/15/92
08/26/92
09/21/92
06/24/93
07/26/93
08/17/93
09/28/93
Sample Date

TABLE 42

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 751 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	6.674	2.4	12.800	2.000	DEGREES C	39	09/80 - 09/93
CONDUCTIVITY	FIELD	411.643	91.5	660.000	228.000	UMHOS/CM	28	10/86 - 09/93
PH	FIELD	7.270	0.6	8.000	6.200	PH	28	06/86 - 09/93
ALKALINITY	TOTAL	202.744	16.9	234.000	156.000	MG/L	32	12/80 - 09/93
ACIDITY	AS CACO3	1.320	3.0	8.000	-1.000	MG/L	20	12/80 - 05/90
HARDNESS	TOTAL	214.211	23.0	251.000	158.000	MG/L	19	09/87 - 09/93
SOLIDS	DISSOLVED	218.229	20.7	255.000	160.000	MG/L	35	09/80 - 09/93
	SUSPENDED	2.986	4.7	12.000	-2.000	MG/L	11	09/80 - 06/88
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.013	0.0	0.030	0.002	CFS	18	06/81 - 09/92
CATIONS								
CALCIUM	DISSOLVED	62.526	7.1	74.000	45.000	MG/L	19	09/87 - 09/93
	TOTAL	58.925	4.5	68.000	52.000	MG/L	16	09/80 - 10/86
MAGNESIUM	DISSOLVED	14.105	1.7	18.000	11.000	MG/L	19	09/87 - 09/93
	TOTAL	14.520	1.1	16.800	12.000	MG/L	20	09/80 - 07/93
SODIUM	DISSOLVED	1.526	0.8	3.000	-1.000	MG/L	19	09/87 - 09/93
	TOTAL	3.504	3.5	14.000	1.300	MG/L	16	09/80 - 10/86
POTASSIUM	DISSOLVED	-0.263	1.0	1.000	-1.000	MG/L	19	09/87 - 09/93
	TOTAL	1.196	1.6	6.800	0.420	MG/L	16	09/80 - 10/86

TABLE 42

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 751 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS								
BICARBONATE	AS HCO3	245.078	21.0	285.480	190.000	MG/L	35	09/80 - 09/93
CARBONATE	AS CO3	1.538	4.3	12.000	-1.000	MG/L	13	10/83 - 09/93
CHLORIDE	N/A	1.514	1.7	7.000	-1.000	MG/L	35	09/80 - 09/93
SULFATE	N/A	8.657	9.8	41.000	-2.000	MG/L	35	09/80 - 09/93
MINOR								
FLUORIDE	N/A	-0.100	0.0	-0.100	-0.100	MG/L	1	09/91 - 09/91
GASES								
SULPHIDE	TOTAL	-0.110	0.1	-0.020	-0.200	MG/L	2	09/87 - 09/91
PRIMARY								
ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	09/91 - 09/91
	TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	4	10/83 - 10/86
BARIUM	DISSOLVED	70.000	0.0	70.000	70.000	UG/L	1	09/91 - 09/91
	TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	4	10/83 - 10/86
CADMIUM	DISSOLVED	-5.000	0.0	-5.000	-5.000	UG/L	1	09/91 - 09/91
	TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	4	10/83 - 10/86
CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	1	09/91 - 09/91
LEAD	TOTAL	-40.000	15.5	-20.000	-50.000	UG/L	6	10/83 - 09/91
MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	1	09/91 - 09/91
	TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	4	10/83 - 10/86
SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	09/91 - 09/91
	TOTAL	-3.825	2.4	-0.300	-5.000	UG/L	4	10/83 - 10/86

TABLE 42

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 751 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	09/91 - 09/91
	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	4	10/83 - 10/86
ZINC	TOTAL	-6.667	2.6	-5.000	-10.000	UG/L	6	10/83 - 09/91
IRON	DISSOLVED	-5.114	39.9	120.000	-50.000	UG/L	35	09/80 - 09/93
	TOTAL	51.714	81.0	200.000	-50.000	UG/L	35	09/80 - 09/93
MANGANESE	DISSOLVED	-1.000	23.7	80.000	-10.000	UG/L	22	12/80 - 07/93
	TOTAL	7.125	26.5	90.000	-10.000	UG/L	32	09/80 - 09/93
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	2	09/87 - 09/91
BORON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	09/91 - 09/91
	TOTAL	190.000	194.9	480.000	60.000	UG/L	4	10/83 - 10/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	2	09/87 - 09/91
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	09/91 - 09/91
	TOTAL	-40.000	0.0	-40.000	-40.000	UG/L	4	10/83 - 10/86
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	-0.020	0.0	-0.020	-0.020	MG/L	1	09/91 - 09/91
	AMMIA-FREE	-0.001	0.0	-0.001	-0.001	MG/L	1	09/91 - 09/91
	NITRATE	1.063	0.7	1.850	-0.010	MG/L	6	10/83 - 09/91
	NO3+NO2	1.745	0.1	1.850	1.640	MG/L	2	09/87 - 09/91
ORGANICS								
OIL&GREASE	N/A	-0.410	0.2	-0.050	-0.500	MG/L	5	10/83 - 10/86

TABLE 43
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 751 751 GENTRY PASTURE SPRING TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
30-SEP-80		9870.00	0.00000	CFS	
23-OCT-80		9870.00	0.00000	CFS	
10-NOV-80		9870.00	0.00000	CFS	
30-DEC-80		9870.00	0.00000	CFS	
06-JAN-81		9870.00			IN-ACCESSIBLE - SNOW
04-FEB-81		9870.00			IN-ACCESSIBLE - SNOW
25-MAR-81		9870.00			IN-ACCESSIBLE - SNOW
28-APR-81		9870.00			IN-ACCESSIBLE - SNOW

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 751 751 GENTRY PASTURE SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
28-MAY-81		9870.00			IN-ACCESSIBLE - SNOW
17-JUN-81		9870.00	0.01000	CFS	
30-JUL-81		9870.00			
29-AUG-81		9870.00	0.00000	CFS	
28-SEP-81		9870.00			
07-OCT-81		9870.00	0.00000	CFS	
24-NOV-81		9870.00			
29-DEC-81		9870.00			IN-ACCESSIBLE

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 751 751 GENTRY PASTURE SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
24-MAR-83		9870.00			IN-ACCESSIBLE
12-MAY-83		9870.00			IN-ACCESSIBLE - SNOW
29-JUN-83		9870.00			IN-ACCESSIBLE - SNOW
04-OCT-83		9870.00	0.00000	CFS	
06-JAN-84		9870.00			COVERED BY SNOW - NOW POSS TO SAMPLE
30-MAR-84		9870.00			COVERED BY SNOW - NOW POSS TO SAMPLE
21-JUN-84		9870.00	0.01000	CFS	
25-OCT-84		9870.00	0.00000	CFS	

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 751 751 GENTRY PASTURE SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
11-DEC-84		9870.00			IN-ACCESSIBLE - SNOW
21-FEB-85		9870.00			IN-ACCESSIBLE - SNOW
13-JUN-85		9870.00	0.01000	CFS	
24-SEP-85		9870.00	0.00000	CFS	
11-JUN-86		9870.00	0.02000	CFS	
10-OCT-86		9870.00	0.00000	CFS	
19-MAY-87		9870.00	0.03000	CFS	
19-JUL-87		9870.00	0.01000	CFS	

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 751 751 GENTRY PASTURE SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
12-AUG-87		9870.00	0.01000	CFS	
22-SEP-87		9870.00	0.00000	CFS	
02-JUN-88		9870.00	0.03000	CFS	
15-JUL-88		9870.00	0.01000	CFS	
19-AUG-88		9870.00	0.00000	CFS	
05-SEP-88		9870.00	0.00000	CFS	
06-JUN-89		9870.00	0.01000	CFS	
11-JUL-89		9870.00	0.00000	CFS	

TABLE 43
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 751 751 GENTRY PASTURE SPRING TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
22-AUG-89		9870.00	0.00000	CFS	
15-SEP-89		9870.00	0.00000	CFS	
30-MAY-90		9870.00	0.01000	CFS	
02-JUL-90		9870.00	0.01000	CFS	
30-AUG-90		9870.00	0.00000	CFS	
03-OCT-90		9870.00	0.00000	CFS	
13-JUN-91		9870.00	0.03000	CFS	
15-JUL-91		9870.00	0.01000	CFS	

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 751 751 GENTRY PASTURE SPRING TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
18-SEP-91		9870.00	0.00000	CFS	
19-MAY-92		9870.00	0.01050	CFS	, , , , , ,
15-JUL-92		9870.00	0.00300	CFS	, , , , , ,
26-AUG-92		9870.00	0.00200	CFS	, , , , , ,
21-SEP-92		9870.00	0.00200	CFS	, , , , , ,
24-JUN-93			0.03100		
26-JUL-93			0.01000		
17-AUG-93		9870.00	0.00400		
28-SEP-93			0.00200		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
30-SEP-80	8.0		290.0		7.3				188.0	1.0		
23-OCT-80	6.0		380.0		7.5				249.0	5.0		
10-NOV-80			320.0		7.3				210.0			
30-DEC-80	2.0		215.0		7.0	234.0	6.0		218.0			
17-JUN-81	6.0		210.0		7.5	190.0	5.7		206.0			
30-JUL-81			370.0			186.0	5.7		198.0	-0.1		
29-AUG-81	9.0					182.0	5.4		225.0			
28-SEP-81			320.0		7.5	209.1	2.6		210.0	10.0		
07-OCT-81	7.0		350.0		7.7	208.7	8.0		233.0	12.0		
04-OCT-83	8.0		410.0		7.6	196.0	-1.0		199.0	-0.1		
21-JUN-84	4.0		380.0		6.9	182.0	-1.0		192.0	-0.5		
25-OCT-84	7.0		420.0		7.0	204.0	-1.0		251.0	-0.5		
13-JUN-85			370.0		7.4	196.0	-1.0		202.0			
24-SEP-85	4.0		402.0		6.9	211.0	-1.0		255.0	6.0		
11-JUN-86	4.0		335.0	6.4	6.9	182.0	-1.0		203.0			
10-OCT-86	5.0	660.0	436.0		8.0	209.0	-1.0		227.0	2.0		
19-MAY-87	3.1	365.0		7.2								
19-JUL-87	10.0	340.0		8.0								
12-AUG-87	6.0	360.0		8.0								
22-SEP-87	12.8	485.0	398.0	7.5		208.0		227.0	206.0			
02-JUN-88	4.0	228.0		7.6		200.0	0.0	222.0	214.0	-2.0	-0.2	
15-JUL-88	5.2	248.0		6.9		208.0	0.0	205.0	228.0			
19-AUG-88	7.0	260.0		7.6								
05-SEP-88	10.5	275.0		7.6		217.0	0.0	231.0	228.0			
06-JUN-89	5.0	420.0		7.6		206.0	0.0	202.0	218.0			
11-JUL-89	9.0	480.0		7.6		206.0	0.0	251.0	238.0			
22-AUG-89	7.0	460.0		7.4								
15-SEP-89	7.0	500.0		7.6		211.0	0.0	217.0	228.0			

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
30-MAY-90	4.0	530.0		7.2		215.0	0.0	230.0	242.0			
02-JUL-90	8.0	430.0		8.0		217.0		229.0	218.0			
30-AUG-90	9.0	470.0		7.6								
03-OCT-90	6.0	370.0		7.9		220.0		238.0	226.0			
13-JUN-91	4.0	430.0		7.6		206.0		194.0	216.0			
15-JUL-91	10.0	470.0		7.6		214.0		221.0	238.0			
18-SEP-91	8.0	460.0		7.7	7.7	206.0		212.0	232.0			
19-MAY-92	4.0	456.0		7.4		222.0		236.0	246.0			
15-JUL-92	5.9	425.0		7.0		218.0		202.0	228.0			
26-AUG-92	5.8	420.0		6.9								
21-SEP-92	10.4	415.0		6.3		196.0		217.0	220.0			
24-JUN-93	5.7	359.0		6.5		160.0		168.0	186.0			
26-JUL-93	6.1	381.0		6.2		212.0		210.0	200.0			
17-AUG-93	7.7	401.0		6.3								
28-SEP-93	9.1	428.0		6.5		156.0		158.0	160.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
22-SEP-87	66.0	15.0	2.0	1.0	
02-JUN-88	66.0	14.0	2.0	1.0	
15-JUL-88	59.0	14.0	3.0	-1.0	
05-SEP-88	66.0	16.0	1.0	1.0	
06-JUN-89	58.0	14.0	1.0	1.0	
11-JUL-89	71.0	18.0	2.0	1.0	
15-SEP-89	62.0	15.0	2.0	-1.0	
30-MAY-90	69.0	14.0	2.0	-1.0	
02-JUL-90	67.0	15.0	2.0	-1.0	
03-OCT-90	74.0	13.0	-1.0	-1.0	
13-JUN-91	58.0	12.0	1.0	1.0	
15-JUL-91	67.0	13.0	2.0	-1.0	
18-SEP-91	62.0	14.0	1.0	-1.0	
19-MAY-92	68.0	16.0	2.0	1.0	
15-JUL-92	58.0	14.0	1.0	-1.0	
21-SEP-92	62.0	15.0	1.0	-1.0	
24-JUN-93	49.0	11.0	1.0	-1.0	
26-JUL-93	61.0	14.0	2.0	-1.0	
28-SEP-93	45.0	11.0	2.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
30-SEP-80	52.0	13.4	1.6	0.5	
23-OCT-80	64.0	13.0	9.5	6.8	
10-NOV-80	59.2	15.8	1.3	0.4	
30-DEC-80	52.0	16.8	14.0	0.8	
17-JUN-81	56.8	14.4	2.5	0.5	
30-JUL-81	56.0	14.9	2.1	0.5	
29-AUG-81	56.8	15.5	2.1	1.0	
28-SEP-81	58.0	15.0	2.5	1.2	
07-OCT-81	59.0	15.0	6.2	0.8	
04-OCT-83	62.0	15.0	2.0	0.5	
21-JUN-84	58.0	14.0	2.0	2.0	
25-OCT-84	64.0	14.0	2.0	0.5	
13-JUN-85	54.0	14.0	2.0	0.5	
24-SEP-85	68.0	16.0	2.0	0.5	
11-JUN-86	59.0	12.0	1.8	0.6	
10-OCT-86	64.0	14.6	2.5	2.0	
22-SEP-87		15.0			
18-SEP-91		15.0			
24-JUN-93		13.0			
26-JUL-93		14.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
30-SEP-80	217.			2.	6.		
23-OCT-80	256.			2.	26.		
10-NOV-80	254.			0.	6.		
30-DEC-80	285.			0.	3.		
06-JAN-81							
04-FEB-81							
25-MAR-81							
28-APR-81							
28-MAY-81							
17-JUN-81	232.			2.	11.		
30-JUL-81	227.			2.	14.		
29-AUG-81	222.			6.	20.		
28-SEP-81	248.			2.	6.		
07-OCT-81	255.			2.	15.		
24-NOV-81							
29-DEC-81							
24-MAR-83							
12-MAY-83							
29-JUN-83							
04-OCT-83	239.	1.		2.	1.		
06-JAN-84							
30-MAR-84							
21-JUN-84	222.			2.	4.		
25-OCT-84	249.	1.		7.	6.		
11-DEC-84							
21-FEB-85							
13-JUN-85	239.			2.	3.		
24-SEP-85	257.	1.		2.	25.		
11-JUN-86	222.			2.	14.		

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
10-OCT-86	255.	1.		3.	15.		
19-MAY-87							
19-JUL-87							
12-AUG-87							
22-SEP-87	254.			1.	2.		0.20
02-JUN-88	244.			1.	2.		
15-JUL-88	254.			1.	8.		
19-AUG-88							
05-SEP-88	265.			1.	8.		
06-JUN-89	251.			2.	6.		
11-JUL-89	244.			1.	2.		
22-AUG-89							
15-SEP-89	257.			1.	2.		
30-MAY-90	262.			1.	2.		
02-JUL-90	265.			2.	21.		
30-AUG-90							
03-OCT-90	268.			2.	7.		
13-JUN-91	227.	12.		1.	2.		
15-JUL-91	256.	2.		2.	2.		
18-SEP-91	251.	0.		1.	23.	0.1	0.02
19-MAY-92	271.	0.		1.	41.		
15-JUL-92	266.	0.		1.	6.		
26-AUG-92							
21-SEP-92	220.	10.		1.	8.		
24-JUN-93	195.	0.		2.	4.		
26-JUL-93	259.	0.		1.	2.		
17-AUG-93							
28-SEP-93	190.	0.		2.	4.		

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: TYPE: JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
18-SEP-91	-1.0	70.0	-5.0				-0.1	-1.0	

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
04-OCT-83	-1.0	-100.0	-5.0			-50.0	-0.2	-0.3	
25-OCT-84	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
24-SEP-85	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
10-OCT-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
22-SEP-87						-20.0			
18-SEP-91						-20.0			

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
18-SEP-91									

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
04-OCT-83									
25-OCT-84									
24-SEP-85									
10-OCT-86									

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 751 751 GENTRY PASTURE SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-SEP-80			44.0	
23-OCT-80			85.0	
10-NOV-80			10.0	
30-DEC-80			48.0	-1.0
17-JUN-81			10.0	-1.0
30-JUL-81			30.0	
29-AUG-81			38.0	
28-SEP-81			27.0	
07-OCT-81			29.0	
04-OCT-83			-50.0	-10.0
21-JUN-84			-50.0	-10.0
25-OCT-84			-50.0	-10.0
13-JUN-85			-50.0	-10.0
24-SEP-85			-50.0	-10.0
11-JUN-86			-50.0	-10.0
10-OCT-86			-50.0	10.0
22-SEP-87			-20.0	-10.0
02-JUN-88			-20.0	
15-JUL-88			20.0	
05-SEP-88			-20.0	
06-JUN-89			-20.0	-10.0
11-JUL-89			-20.0	-10.0
15-SEP-89			-20.0	-10.0
30-MAY-90			-20.0	-10.0
02-JUL-90			-20.0	-10.0
03-OCT-90			30.0	80.0
13-JUN-91			-20.0	
15-JUL-91			-20.0	

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 751 751 GENTRY PASTURE SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
18-SEP-91	-10.0		120.0	60.0
19-MAY-92			-20.0	-10.0
15-JUL-92			-20.0	-10.0
21-SEP-92			-20.0	-10.0
24-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
28-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 751 751 GENTRY PASTURE SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-SEP-80			130.0	14.0
23-OCT-80			165.0	14.0
10-NOV-80			60.0	10.0
30-DEC-80			125.0	10.0
17-JUN-81			90.0	10.0
30-JUL-81			95.0	11.0
29-AUG-81			110.0	15.0
28-SEP-81			120.0	14.0
07-OCT-81			135.0	10.0
04-OCT-83	-20.0	-5.0	-50.0	20.0
21-JUN-84			-50.0	-10.0
25-OCT-84	-20.0	-5.0	-50.0	-10.0
13-JUN-85			50.0	-10.0
24-SEP-85	-20.0	-5.0	-50.0	-10.0
11-JUN-86			-50.0	-10.0
10-OCT-86	-20.0	-5.0	200.0	80.0
22-SEP-87		-10.0	-20.0	-10.0
02-JUN-88			-20.0	-10.0
15-JUL-88			-20.0	-10.0
05-SEP-88			-20.0	-10.0
06-JUN-89			-20.0	-10.0
11-JUL-89			20.0	-10.0
15-SEP-89			170.0	10.0
30-MAY-90			70.0	20.0
02-JUL-90			30.0	-10.0
03-OCT-90			170.0	90.0
13-JUN-91			180.0	-10.0
15-JUL-91			-20.0	-10.0

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 751 751 GENTRY PASTURE SPRING TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
18-SEP-91		-10.0	150.0	70.0
19-MAY-92			-20.0	
15-JUL-92			30.0	
21-SEP-92			110.0	
24-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
28-SEP-93			30.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 43

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
22-SEP-87	-50.0		-50.0	
18-SEP-91	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 43
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL
STATION: 751 751 GENTRY PASTURE SPRING TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
04-OCT-83		100.0		-40.0
25-OCT-84		480.0		-40.0
24-SEP-85		120.0		-40.0
10-OCT-86		60.0		-40.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 22

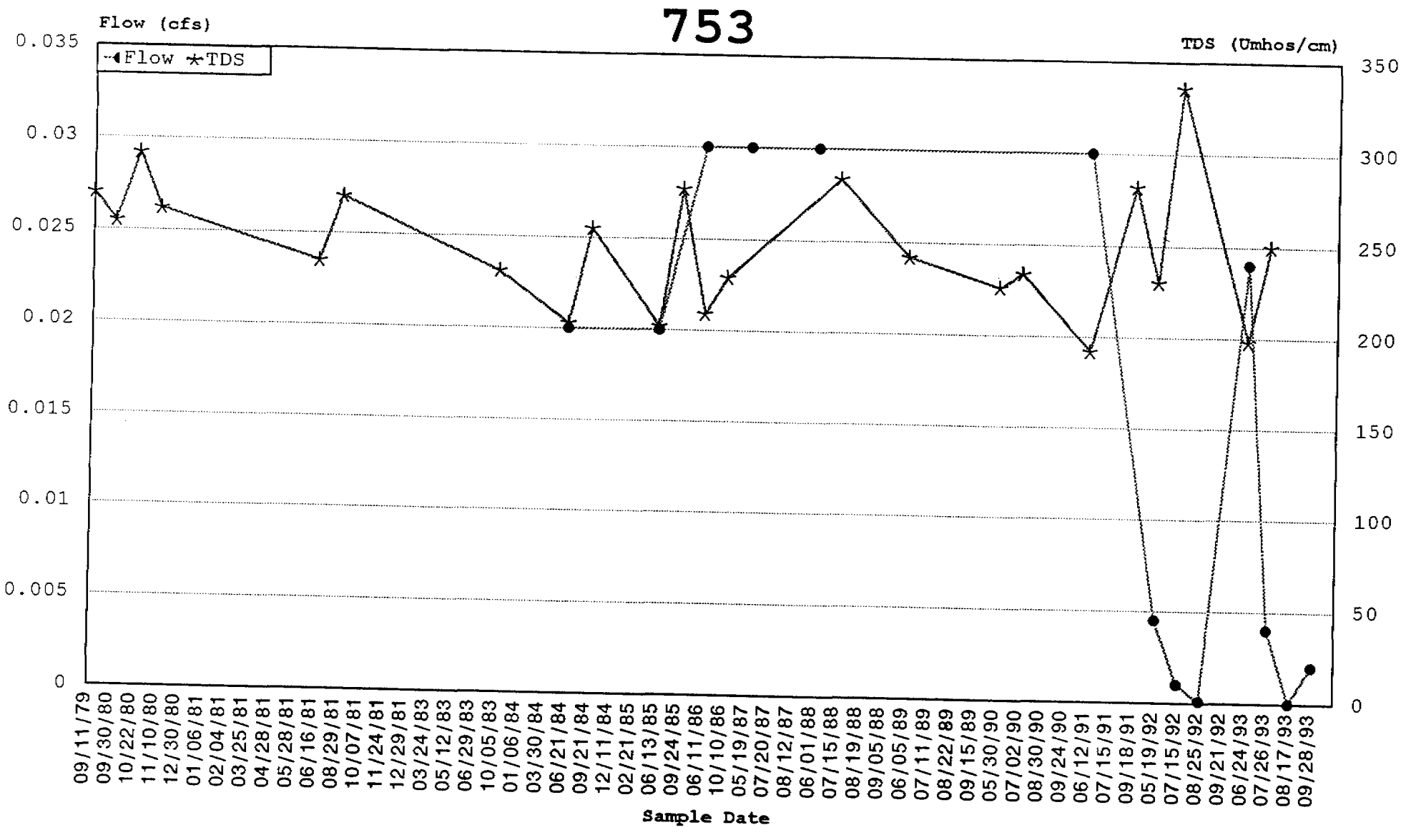

753
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
350
300
250
200
150
100
50
0
09/11/79
09/30/80
10/22/80
11/10/80
12/30/80
01/06/81
02/04/81
03/25/81
04/28/81
05/28/81
06/16/81
08/29/81
10/07/81
11/24/81
12/29/81
03/24/83
05/12/83
06/29/83
10/05/83
01/06/84
03/30/84
06/21/84
09/21/84
12/11/84
02/21/85
06/13/85
09/24/85
06/11/86
10/10/86
05/19/87
07/20/87
08/12/87
06/01/88
07/15/88
08/19/88
09/05/88
06/05/89
07/11/89
08/22/89
09/15/89
05/30/90
07/02/90
08/30/90
09/24/90
06/12/91
07/15/91
09/18/91
05/19/92
07/15/92
08/25/92
09/21/92
06/24/93
07/26/93
08/17/93
09/28/93
Sample Date

TABLE 44

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 753 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	6.312	3.6	18.000	1.000	DEGREES C	26	09/79 - 07/93
CONDUCTIVITY	FIELD	411.563	106.0	720.000	204.000	UMHOS/CM	16	10/86 - 07/93
PH	FIELD	7.557	0.5	8.220	6.410	PH	16	06/86 - 07/93
ALKALINITY	TOTAL	217.250	26.7	256.000	166.000	MG/L	20	06/81 - 07/93
ACIDITY	AS CACO3	0.883	3.5	9.000	-1.000	MG/L	12	06/81 - 05/90
HARDNESS	TOTAL	229.182	27.3	262.000	178.000	MG/L	11	06/88 - 07/93
SOLIDS	DISSOLVED	246.261	35.2	336.000	192.000	MG/L	23	09/79 - 07/93
	SUSPENDED	6.429	9.9	26.000	-0.500	MG/L	7	09/80 - 10/86
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.018	0.0	0.030	0.000	CFS	9	06/84 - 08/92
CATIONS								
CALCIUM	DISSOLVED	75.091	9.5	90.000	58.000	MG/L	11	06/88 - 07/93
	TOTAL	75.415	7.5	85.600	66.000	MG/L	13	09/79 - 10/86
MAGNESIUM	DISSOLVED	10.091	1.3	12.000	8.000	MG/L	11	06/88 - 07/93
	TOTAL	10.584	2.9	18.720	5.280	MG/L	16	09/79 - 07/93
SODIUM	DISSOLVED	1.636	0.7	3.000	1.000	MG/L	11	06/88 - 07/93
	TOTAL	4.631	3.8	12.000	1.900	MG/L	13	09/79 - 10/86
POTASSIUM	DISSOLVED	0.727	1.2	2.000	-1.000	MG/L	11	06/88 - 07/93
	TOTAL	2.047	2.0	7.900	0.600	MG/L	13	09/79 - 10/86

TABLE 44

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 753 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS								
BICARBONATE	AS HCO3	268.563	36.0	326.960	203.000	MG/L	24	09/79 - 07/93
CARBONATE	AS CO3	1.300	3.9	10.000	-1.000	MG/L	10	10/83 - 07/93
CHLORIDE	N/A	2.324	2.1	8.400	-1.000	MG/L	24	09/79 - 07/93
SULFATE	N/A	11.521	13.6	46.000	-3.000	MG/L	24	09/79 - 07/93
MINOR								
FLUORIDE	N/A	-0.100	0.0	-0.100	-0.100	MG/L	1	09/91 - 09/91
GASES								
SULPHIDE	TOTAL	-0.020	0.0	-0.020	-0.020	MG/L	1	09/91 - 09/91
PRIMARY								
ARSENIC	DISSOLVED	1.000	0.0	1.000	1.000	UG/L	1	09/91 - 09/91
	TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	4	10/83 - 10/86
BARIUM	DISSOLVED	80.000	0.0	80.000	80.000	UG/L	1	09/91 - 09/91
	TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	4	10/83 - 10/86
CADMIUM	DISSOLVED	-5.000	0.0	-5.000	-5.000	UG/L	1	09/91 - 09/91
	TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	4	10/83 - 10/86
CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	1	09/91 - 09/91
LEAD	TOTAL	-44.000	13.4	-20.000	-50.000	UG/L	5	10/83 - 09/91
MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	1	09/91 - 09/91
	TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	4	10/83 - 10/86
SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	09/91 - 09/91
	TOTAL	-2.650	2.7	-0.300	-5.000	UG/L	4	10/83 - 10/86

TABLE 44

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 753 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	09/91 - 09/91
	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	4	10/83 - 10/86
ZINC	TOTAL	8.200	12.8	21.000	-5.000	UG/L	5	10/83 - 09/91
IRON	DISSOLVED	55.696	189.3	840.000	-50.000	UG/L	23	09/80 - 07/93
	TOTAL	312.957	590.4	2300.000	-50.000	UG/L	23	09/80 - 07/93
MANGANESE	DISSOLVED	15.563	53.9	180.000	-10.000	UG/L	16	06/81 - 07/93
	TOTAL	54.143	129.8	560.000	-10.000	UG/L	21	09/80 - 07/93
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	1	09/91 - 09/91
BORON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	09/91 - 09/91
	TOTAL	105.000	26.5	130.000	70.000	UG/L	4	10/83 - 10/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	1	09/91 - 09/91
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	09/91 - 09/91
	TOTAL	-40.000	0.0	-40.000	-40.000	UG/L	4	10/83 - 10/86
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.070	0.0	0.070	0.070	MG/L	1	09/91 - 09/91
	AMMIA-FREE	-0.001	0.0	-0.001	-0.001	MG/L	1	09/91 - 09/91
	NITRATE	0.132	0.1	0.270	0.020	MG/L	5	10/83 - 09/91
	NO3+NO2	0.040	0.0	0.040	0.040	MG/L	1	09/91 - 09/91
ORGANICS								
OIL&GREASE	N/A	-0.500	0.0	-0.500	-0.500	MG/L	5	10/83 - 10/86

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 753 753 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
11-SEP-79		10045.00	0.00000	CFS	
30-SEP-80		10045.00	0.00000	CFS	
22-OCT-80		10045.00	0.00000	CFS	
10-NOV-80		10045.00	0.00000	CFS	
30-DEC-80		10045.00	0.00000	CFS	SNOW
06-JAN-81		10045.00			IN-ACCESSIBLE - SNOW
04-FEB-81		10045.00			IN-ACCESSIBLE - SNOW
25-MAR-81		10045.00			IN-ACCESSIBLE - SNOW

TABLE 4-5
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 753 753 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
28-APR-81		10045.00			IN-ACCESSIBLE - SNOW
28-MAY-81		10045.00			IN-ACCESSIBLE - SNOW
16-JUN-81		10045.00	0.00000	CFS	
29-AUG-81		10045.00	0.00000	CFS	
07-OCT-81		10045.00			DRY
24-NOV-81		10045.00			IN-ACCESSIBLE
29-DEC-81		10045.00			IN-ACCESSIBLE
24-MAR-83		10045.00			IN-ACCESSIBLE

TABLE 45
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 753 753 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
12-MAY-83		10045.00			IN-ACCESSIBLE - SNOW
29-JUN-83		10045.00			IN-ACCESSIBLE - SNOW & MUD-SLIDE
05-OCT-83		10045.00	0.00000	CFS	
06-JAN-84		10045.00			COVERED BY SNOW NOT POSS TO SAMPLE
30-MAR-84		10045.00			COVERED BY SNOW NOT POSS TO SAMPLE
21-JUN-84		10045.00	0.02000	CFS	
21-SEP-84		10045.00	0.00000	CFS	
11-DEC-84		10045.00			IN-ACCESSIBLE - SNOW

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 753 753 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
21-FEB-85		10045.00			IN-ACCESSIBLE - SNOW
13-JUN-85		10045.00	0.02000	CFS	
24-SEP-85		10045.00	0.00000	CFS	
11-JUN-86		10045.00	0.03000	CFS	
10-OCT-86		10045.00	0.00000	CFS	
19-MAY-87		10045.00	0.03000	CFS	
20-JUL-87		10045.00	0.00000	CFS	
12-AUG-87		10045.00	0.00000	CFS	

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 753 753 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
01-JUN-88		10045.00	0.03000	CFS	
15-JUL-88		10045.00	0.00000	CFS	
19-AUG-88		10045.00	0.00000	CFS	NO FLOW
05-SEP-88		10045.00	0.00000	CFS	NO FLOW
05-JUN-89		10045.00	0.00000	CFS	
11-JUL-89		10045.00	0.00000	CFS	NO FLOW
22-AUG-89		10045.00			SEEP WET AREA
15-SEP-89		10045.00	0.00000	CFS	NO FLOW

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 753 753 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
30-MAY-90		10045.00	0.00000	CFS	
02-JUL-90		10045.00	0.00000	CFS	
30-AUG-90		10045.00	0.00000	CFS	NO FLOW
24-SEP-90		10045.00	0.00000	CFS	NO FLOW
12-JUN-91		10045.00	0.03000	CFS	
15-JUL-91		10045.00	0.00000	CFS	
18-SEP-91		10045.00	0.00000	CFS	
19-MAY-92		10045.00	0.00450	CFS	, , , , , ,
15-JUL-92		10045.00	0.00100	CFS	, , , , , ,
25-AUG-92		10045.00	0.00010	CFS	, , , , , ,

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 753 753 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
21-SEP-92		10045.00			, , , , , ,
24-JUN-93			0.02400		
26-JUL-93			0.00400		
17-AUG-93		10045.00	0.00000		WORK ON SPRING HAD QUALITY IMPACT
28-SEP-93		10045.00	0.00200		COWS HAD TOO MUDDY TO SAMPLE

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
11-SEP-79	7.0		420.0		7.5				270.0			
30-SEP-80	6.0		390.0		7.3				255.0	1.0		
22-OCT-80	3.0		440.0		7.3				292.0	26.0		
10-NOV-80			400.0						262.0			
16-JUN-81	5.0		245.0		7.8	214.0	7.6		235.0			
29-AUG-81	18.0					224.0	9.0		270.0			
05-OCT-83	7.0		480.0		7.8	239.0	-1.0		231.0	-0.5		
21-JUN-84			390.0		7.3	195.0	-1.0		203.0	5.0		
21-SEP-84	7.0		500.0		7.7	241.0			255.0	-0.5		
13-JUN-85	8.0		363.0		7.5	191.0	-1.0		202.0			
24-SEP-85	1.0		443.0		7.1	249.0	-1.0		277.0	13.0		
11-JUN-86	7.0		350.0	7.4	7.5	192.0	-1.0		209.0			
10-OCT-86	3.0	720.0	362.0		8.0	206.0	-1.0		229.0	1.0		
19-MAY-87	1.6	340.0		7.2								
20-JUL-87	5.8	360.0		7.7								
12-AUG-87	11.0	440.0		7.7								
01-JUN-88	2.8	204.0		8.1		182.0	0.0	226.0				
15-JUL-88	12.2	365.0		7.5		256.0	0.0	262.0	284.0			
05-JUN-89	6.0	370.0		7.6		166.0	0.0	192.0	242.0			
22-AUG-89	6.0	420.0		8.2								
30-MAY-90	2.0	370.0		7.9		202.0	0.0	214.0	226.0			
02-JUL-90	8.0	440.0		8.0		238.0		248.0	234.0			
12-JUN-91	4.0	390.0		7.2		186.0		178.0	192.0			
18-SEP-91	6.0	500.0		7.9	7.9	254.0		254.0	282.0			
19-MAY-92	7.1	425.0		7.7		220.0		229.0	230.0			
15-JUL-92	7.6	458.0		8.0		236.0		262.0	336.0			
24-JUN-93	4.7	347.0		6.4		210.0		221.0	198.0			
26-JUL-93	7.3	436.0		6.5		244.0		235.0	250.0			

TABLE 45
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED
STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
01-JUN-88	74.0	10.0	2.0	2.0	
15-JUL-88	85.0	12.0	3.0	1.0	
05-JUN-89	62.0	9.0	1.0	1.0	
30-MAY-90	71.0	9.0	2.0	2.0	
02-JUL-90	81.0	11.0	1.0	1.0	
12-JUN-91	58.0	8.0	1.0	2.0	
18-SEP-91	82.0	12.0	2.0	1.0	
19-MAY-92	75.0	10.0	1.0	1.0	
15-JUL-92	90.0	9.0	1.0	-1.0	
24-JUN-93	72.0	10.0	2.0	-1.0	
26-JUL-93	76.0	11.0	2.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 46

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
11-SEP-79	84.0	9.1	6.5	1.0	
30-SEP-80	67.2	18.7	1.9	0.9	
22-OCT-80	85.6	12.0	8.9	4.1	
10-NOV-80	85.6	5.3	11.5	1.5	
16-JUN-81	72.0	8.6	5.0	1.2	
29-AUG-81	76.0	10.1	12.0	1.5	
05-OCT-83	83.0	12.0	2.0	2.0	
21-JUN-84	66.0	11.0	2.0	1.0	
21-SEP-84	76.0	11.0	2.0	1.7	
13-JUN-85	70.0	9.0	2.0	0.6	
24-SEP-85	80.0	13.0	2.0	2.0	
11-JUN-86	67.0	9.0	2.0	1.3	
10-OCT-86	68.0	8.5	2.4	7.9	
18-SEP-91		12.0			
24-JUN-93		9.0			
26-JUL-93		11.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
11-SEP-79	303.			4.	10.		
30-SEP-80	237.			2.	46.		
22-OCT-80	315.			5.	18.		
10-NOV-80	327.			0.	3.		
30-DEC-80							
06-JAN-81							
04-FEB-81							
25-MAR-81							
28-APR-81							
28-MAY-81							
16-JUN-81	261.			3.	11.		
29-AUG-81	273.			6.	25.		
07-OCT-81							
24-NOV-81							
29-DEC-81							
24-MAR-83							
12-MAY-83							
29-JUN-83							
05-OCT-83	292.	1.		3.	4.		
06-JAN-84							
30-MAR-84							
21-JUN-84	238.			2.	4.		
21-SEP-84	302.	1.		4.	4.		
11-DEC-84							
21-FEB-85							
13-JUN-85	233.			2.	9.		
24-SEP-85	304.	1.		3.	5.		
11-JUN-86	234.			2.	15.		
10-OCT-86	251.	1.		8.	10.		

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
19-MAY-87							
20-JUL-87							
12-AUG-87							
01-JUN-88	222.			1.	2.		
15-JUL-88	312.			1.	12.		
19-AUG-88							
05-SEP-88							
05-JUN-89	203.			1.	2.		
11-JUL-89							
22-AUG-89							
15-SEP-89							
30-MAY-90	246.			2.	2.		
02-JUL-90	290.			1.	33.		
30-AUG-90							
24-SEP-90							
12-JUN-91	207.	10.		3.	10.		
15-JUL-91							
18-SEP-91	310.	0.		2.	2.	0.1	0.02
19-MAY-92	264.	0.		1.	37.		
15-JUL-92	283.	0.		1.	31.		
25-AUG-92							
21-SEP-92							
24-JUN-93	256.	0.		2.	2.		
26-JUL-93	283.	7.		1.	2.		
17-AUG-93							
28-SEP-93							

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 754 754 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
22-JUN-84	244.			2.	6.		
12-JUN-86	309.			2.	21.		

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
18-SEP-91	1.0	80.0	-5.0				-0.1	-1.0	

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
05-OCT-83	-1.0	-100.0	-5.0			-50.0	-0.2	-0.3	
21-SEP-84	-1.0	-100.0	-5.0			-50.0	-0.2	-0.3	
24-SEP-85	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
10-OCT-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
18-SEP-91						-20.0			

TABLE 15

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
18-SEP-91									

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
05-OCT-83									
21-SEP-84									
24-SEP-85									
10-OCT-86									

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 753 753 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-SEP-80			33.0	
22-OCT-80			88.0	
10-NOV-80			840.0	
16-JUN-81			10.0	-1.0
29-AUG-81			50.0	
05-OCT-83			70.0	-10.0
21-JUN-84			-50.0	-10.0
21-SEP-84			50.0	-10.0
13-JUN-85			-50.0	-10.0
24-SEP-85			170.0	100.0
11-JUN-86			-50.0	-10.0
10-OCT-86			-50.0	-10.0
01-JUN-88			-20.0	
15-JUL-88			50.0	
05-JUN-89			-20.0	-10.0
30-MAY-90			-20.0	-10.0
02-JUL-90			-20.0	-10.0
12-JUN-91			-20.0	
18-SEP-91	-10.0		300.0	180.0
19-MAY-92			-20.0	-10.0
15-JUL-92			-20.0	60.0
24-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	20.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 753 753 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-SEP-80			145.0	21.0
22-OCT-80			168.0	14.0
10-NOV-80			2300.0	13.0
16-JUN-81			90.0	-1.0
29-AUG-81			185.0	20.0
05-OCT-83	-20.0	21.0	170.0	70.0
21-JUN-84			100.0	10.0
21-SEP-84	-20.0	20.0	120.0	-10.0
13-JUN-85			-50.0	-10.0
24-SEP-85	-20.0	-5.0	1400.0	560.0
11-JUN-86			-50.0	-10.0
10-OCT-86	-20.0	-5.0	250.0	30.0
01-JUN-88			190.0	20.0
15-JUL-88			90.0	200.0
05-JUN-89			160.0	20.0
30-MAY-90			90.0	10.0
02-JUL-90			50.0	-10.0
12-JUN-91			-20.0	-10.0
18-SEP-91		10.0	310.0	190.0
19-MAY-92			-20.0	
15-JUL-92			1510.0	
24-JUN-93			-20.0	-10.0
26-JUL-93			30.0	20.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 45

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
18-SEP-91	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 45
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL
STATION: 753 753 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
05-OCT-83		130.0		-40.0
21-SEP-84		100.0		-40.0
24-SEP-85		120.0		-40.0
10-OCT-86		70.0		-40.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 23

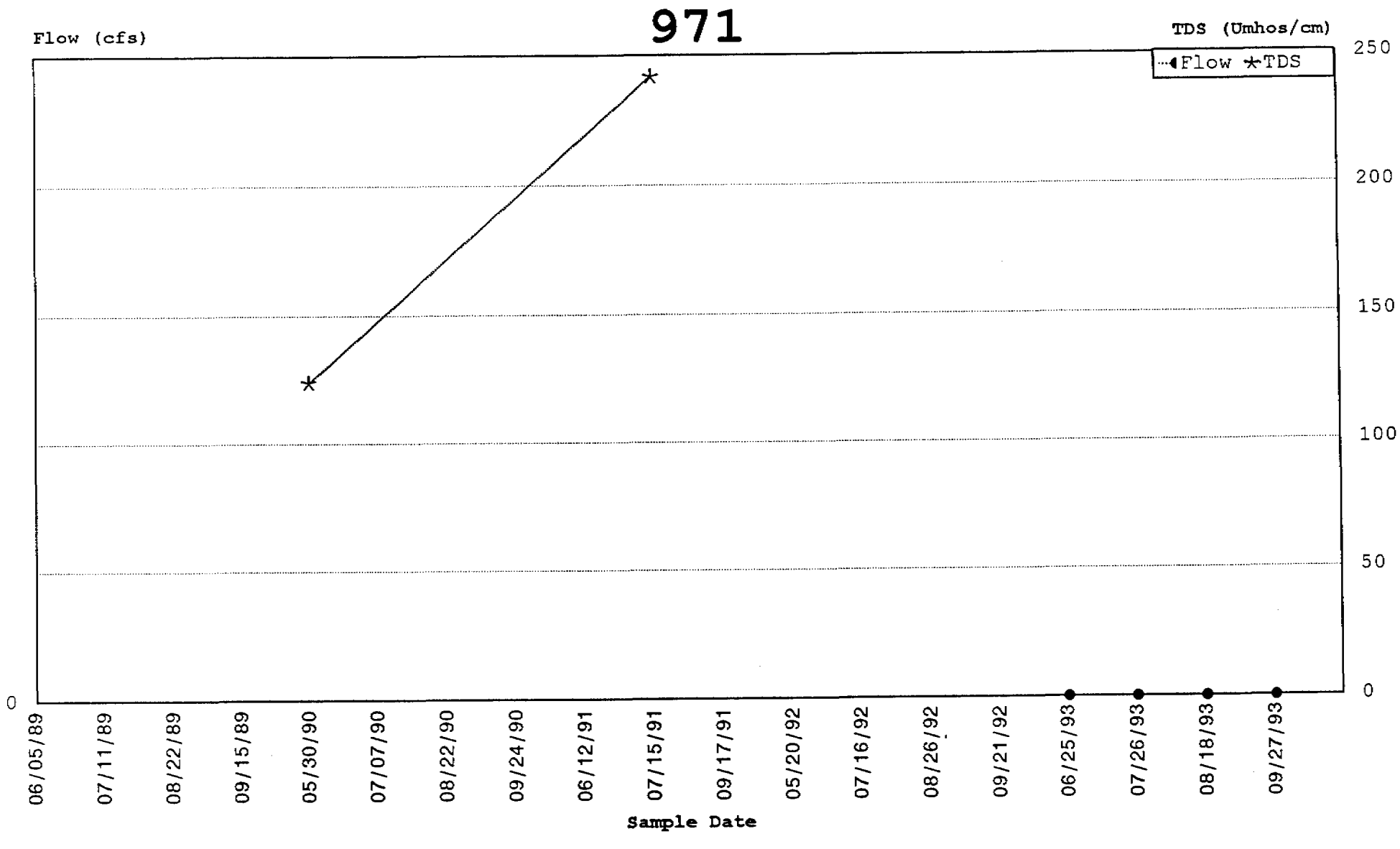

971
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
250
200
150
100
50
0
0
06/05/89
07/11/89
08/22/89
09/15/89
05/30/90
07/07/90
08/22/90
09/24/90
06/12/91
07/15/91
09/17/91
05/20/92
07/16/92
08/26/92
09/21/92
06/25/93
07/26/93
08/18/93
09/27/93
Sample Date

TABLE 46

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 971 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	6.500	3.5	9.000	4.000	DEGREES C	2	05/90 - 07/91
CONDUCTIVITY	FIELD	295.000	176.8	420.000	170.000	UMHOS/CM	2	05/90 - 07/91
PH	FIELD	7.110	0.2	7.220	7.000	PH	2	05/90 - 07/91
ALKALINITY	TOTAL	172.000	87.7	234.000	110.000	MG/L	2	05/90 - 07/91
HARDNESS	TOTAL	168.000	93.3	234.000	102.000	MG/L	2	05/90 - 07/91
SOLIDS	DISSOLVED	183.000	83.4	242.000	124.000	MG/L	2	05/90 - 07/91
CATIONS								
CALCIUM	DISSOLVED	59.000	32.5	82.000	36.000	MG/L	2	05/90 - 07/91
MAGNESIUM	DISSOLVED	5.000	2.8	7.000	3.000	MG/L	2	05/90 - 07/91
	TOTAL	3.000	0.0	3.000	3.000	MG/L	1	05/90 - 05/90
SODIUM	DISSOLVED	2.000	0.0	2.000	2.000	MG/L	2	05/90 - 07/91
POTASSIUM	DISSOLVED	1.500	0.7	2.000	1.000	MG/L	2	05/90 - 07/91
ANIONS								
BICARBONATE	AS HCO3	209.500	106.8	285.000	134.000	MG/L	2	05/90 - 07/91
CARBONATE	AS CO3	0.000	0.0	0.000	0.000	MG/L	1	07/91 - 07/91
CHLORIDE	N/A	1.500	0.7	2.000	1.000	MG/L	2	05/90 - 07/91
SULFATE	N/A	-2.000	0.0	-2.000	-2.000	MG/L	2	05/90 - 07/91
MINOR								
FLUORIDE	N/A	0.100	0.0	0.100	0.100	MG/L	1	05/90 - 05/90

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 971 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
GASES								
SULPHIDE	TOTAL	-0.010	0.0	-0.010	-0.010	MG/L	1	05/90 - 05/90
PRIMARY								
ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	05/90 - 05/90
BARIUM	DISSOLVED	90.000	0.0	90.000	90.000	UG/L	1	05/90 - 05/90
CADMIUM	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	05/90 - 05/90
CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	1	05/90 - 05/90
LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	1	05/90 - 05/90
MERCURY	DISSOLVED	-0.100	0.0	-0.100	-0.100	UG/L	1	05/90 - 05/90
SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	1	05/90 - 05/90
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	05/90 - 05/90
ZINC	TOTAL	30.000	0.0	30.000	30.000	UG/L	1	05/90 - 05/90
IRON	DISSOLVED	60.000	0.0	60.000	60.000	UG/L	2	05/90 - 07/91
	TOTAL	100.000	14.1	110.000	90.000	UG/L	2	05/90 - 07/91
MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	1	05/90 - 05/90
	TOTAL	5.000	21.2	20.000	-10.000	UG/L	2	05/90 - 07/91
TRACE METALS								
ALUMINUM	DISSOLVED	90.000	0.0	90.000	90.000	UG/L	1	05/90 - 05/90
BORON	DISSOLVED	20.000	0.0	20.000	20.000	UG/L	1	05/90 - 05/90
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	1	05/90 - 05/90
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	1	05/90 - 05/90

TABLE 46

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 971 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.200	0.0	0.200	0.200	MG/L	1	05/90 - 05/90
	AMMIA-FREE	-0.001	0.0	-0.001	-0.001	MG/L	1	05/90 - 05/90
	NITRATE	1.170	0.0	1.170	1.170	MG/L	1	05/90 - 05/90
	NO3+NO2	1.160	0.0	1.160	1.160	MG/L	1	05/90 - 05/90

TABLE 47

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 971 971 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
05-JUN-89		9855.00	0.00000	CFS	NO FLOW
11-JUL-89		9855.00	0.00000	CFS	NO FLOW
22-AUG-89		9855.00	0.00000	CFS	NO FLOW
15-SEP-89		9855.00	0.00000	CFS	NO FLOW
30-MAY-90		9855.00	0.00000	CFS	
07-JUL-90		9855.00	0.00000	CFS	NO FLOW
22-AUG-90		9855.00	0.00000	CFS	NO FLOW
24-SEP-90		9855.00	0.00000	CFS	NO FLOW

TABLE 4-7
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES
STATION NUMBER: 971 971 TYPE: SPRING DATUM ELEV: 7280 FT
JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
12-JUN-91		9855.00	0.00000	CFS	NO FLOW
15-JUL-91		9855.00	0.00000	CFS	
17-SEP-91		9855.00	0.00000	CFS	NO FLOW
20-MAY-92		9855.00			, , , , , ,
16-JUL-92		9855.00			, , , , , ,
26-AUG-92		9855.00			, , , , , ,
21-SEP-92		9855.00			, , , , , ,
25-JUN-93		9855.00	0.00000		NO FLOW
26-JUL-93		9855.00	0.00000		NO FLOW
18-AUG-93		9855.00	0.00000		NO FLOW
27-SEP-93		9855.00	0.00000		NO FLOW

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0
NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE 47

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 971 971 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
30-MAY-90	4.0	170.0		7.2		110.0		102.0	124.0			
15-JUL-91	9.0	420.0		7.0		234.0		234.0	242.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 47

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 971 971 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
30-MAY-90	36.0	3.0	2.0	1.0	
15-JUL-91	82.0	7.0	2.0	2.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 47

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 971 971 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
30-MAY-90		3.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 47

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 971 971 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
05-JUN-89							
11-JUL-89							
22-AUG-89							
15-SEP-89							
30-MAY-90	134.			1.	2.	0.1	0.01
07-JUL-90							
22-AUG-90							
24-SEP-90							
12-JUN-91							
15-JUL-91	285.	0.		2.	2.		
17-SEP-91							
20-MAY-92							
16-JUL-92							
26-AUG-92							
21-SEP-92							
25-JUN-93							
26-JUL-93							
18-AUG-93							
27-SEP-93							

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE 47

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 971 971 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
30-MAY-90	-1.0	90.0	-10.0				-0.1	-1.0	

TABLE 47
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL
STATION: 971 971 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
30-MAY-90						-20.0			

TABLE 47

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 971 971 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
30-MAY-90									

TABLE 47

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 971 971 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-MAY-90	-10.0		60.0	-10.0
15-JUL-91			60.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 47
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 971 971 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
30-MAY-90		30.0	110.0	-10.0
15-JUL-91			90.0	20.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 47

CYPRUS PLATEAU MINING COMPANY

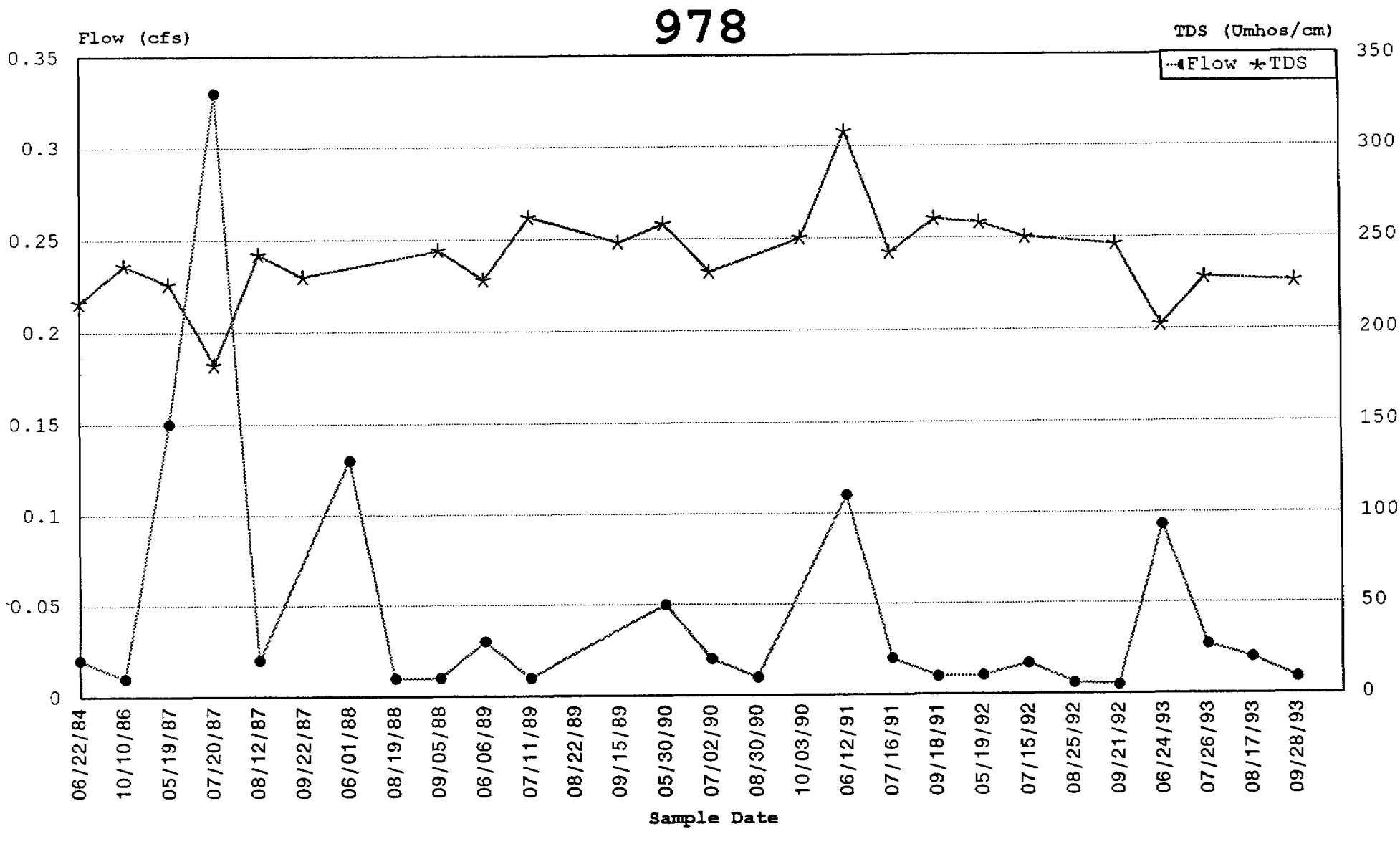
WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 971 971 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
30-MAY-90	90.0	20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 24


978
Flow (cfs)
TDS (Umhos/cm)
Flow
TDS
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
350
300
250
200
150
100
50
0
06/22/84
10/10/86
05/19/87
07/20/87
08/12/87
09/22/87
06/01/88
08/19/88
09/05/88
06/06/89
07/11/89
08/22/89
09/15/89
05/30/90
07/02/90
08/30/90
10/03/90
06/12/91
07/16/91
09/18/91
05/19/92
07/15/92
08/25/92
09/21/92
06/24/93
07/26/93
08/17/93
09/28/93
Sample Date

TAB 48

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 978 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	6.544	3.0	18.000	3.000	DEGREES C	27	10/86 - 09/93
CONDUCTIVITY	FIELD	411.111	94.9	670.000	215.000	UMHOS/CM	27	10/86 - 09/93
PH	FIELD	7.168	0.7	8.600	5.380	PH	26	05/87 - 09/93
ALKALINITY	TOTAL	213.957	17.7	240.000	164.000	MG/L	23	06/84 - 09/93
ACIDITY	AS CACO3	-0.286	0.5	0.000	-1.000	MG/L	7	06/84 - 05/90
HARDNESS	TOTAL	227.737	27.7	268.000	160.000	MG/L	19	07/87 - 09/93
SOLIDS	DISSOLVED	239.727	24.6	308.000	182.000	MG/L	22	06/84 - 09/93
	SUSPENDED	-0.500	0.0	-0.500	-0.500	MG/L	2	06/84 - 10/86
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.049	0.1	0.330	0.005	CFS	20	06/84 - 09/92
CATIONS								
CALCIUM	DISSOLVED	70.238	10.5	86.000	46.000	MG/L	21	05/87 - 09/93
	TOTAL	69.500	3.5	72.000	67.000	MG/L	2	06/84 - 10/86
MAGNESIUM	DISSOLVED	12.700	1.6	16.000	10.000	MG/L	20	05/87 - 09/93
	TOTAL	12.220	1.1	14.000	10.000	MG/L	10	06/84 - 07/93
SODIUM	DISSOLVED	2.810	1.7	9.000	2.000	MG/L	21	05/87 - 09/93
	TOTAL	2.750	0.4	3.000	2.500	MG/L	2	06/84 - 10/86
POTASSIUM	DISSOLVED	0.095	1.7	6.000	-1.000	MG/L	21	05/87 - 09/93
	TOTAL	1.050	0.1	1.100	1.000	MG/L	2	06/84 - 10/86

TABLE 48
CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 978 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS									
	BICARBONATE	AS HCO3	259.870	22.2	293.000	200.000	MG/L	23	06/84 - 09/93
	CARBONATE	AS CO3	0.900	3.2	10.000	-1.000	MG/L	10	10/86 - 09/93
	CHLORIDE	N/A	1.283	1.4	4.000	-1.000	MG/L	23	06/84 - 09/93
	SULFATE	N/A	11.174	8.9	41.000	-2.000	MG/L	23	06/84 - 09/93
MINOR									
	FLUORIDE	N/A	0.140	0.3	0.500	-0.100	MG/L	5	05/87 - 09/91
GASES									
	SULPHIDE	TOTAL	-0.064	0.2	0.300	-0.200	MG/L	5	07/87 - 09/91
PRIMARY									
	ARSENIC	DISSOLVED	-0.600	0.9	1.000	-1.000	UG/L	5	05/87 - 09/91
		TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	1	10/86 - 10/86
	BARIUM	DISSOLVED	54.000	16.7	70.000	30.000	UG/L	5	05/87 - 09/91
		TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	1	10/86 - 10/86
	CADMIUM	DISSOLVED	-0.400	6.3	7.000	-5.000	UG/L	5	05/87 - 09/91
		TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	1	10/86 - 10/86
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	2	06/88 - 09/91
	LEAD	TOTAL	-15.714	27.0	40.000	-50.000	UG/L	7	10/86 - 09/91
	MERCURY	DISSOLVED	-0.150	0.1	-0.100	-0.200	UG/L	2	06/88 - 09/91
		TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	4	10/86 - 08/87
	SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	2	06/88 - 09/91
		TOTAL	-2.000	2.0	-1.000	-5.000	UG/L	4	10/86 - 08/87

TABLE 18

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 978 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	2	06/88 - 09/91
	TOTAL	-2.500	15.0	10.000	-20.000	UG/L	4	10/86 - 08/87
ZINC	TOTAL	-0.714	16.4	30.000	-10.000	UG/L	7	10/86 - 09/91
IRON	DISSOLVED	14.348	104.4	460.000	-50.000	UG/L	23	06/84 - 09/93
	TOTAL	544.348	1493.4	6200.000	-50.000	UG/L	23	06/84 - 09/93
MANGANESE	DISSOLVED	-8.889	4.7	10.000	-10.000	UG/L	18	06/84 - 07/93
	TOTAL	9.500	56.1	240.000	-10.000	UG/L	20	06/84 - 09/93
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	3	09/87 - 09/91
BORON	DISSOLVED	22.000	25.9	50.000	-20.000	UG/L	5	05/87 - 09/91
	TOTAL	100.000	0.0	100.000	100.000	UG/L	1	10/86 - 10/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	3	09/87 - 09/91
	TOTAL	-50.000	0.0	-50.000	-50.000	UG/L	3	05/87 - 08/87
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	2	06/88 - 09/91
	TOTAL	-15.000	25.2	20.000	-40.000	UG/L	4	10/86 - 08/87
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.172	0.4	0.940	-0.020	MG/L	5	05/87 - 09/91
	AMMIA-FREE	-0.001	0.0	-0.001	-0.001	MG/L	2	06/88 - 09/91
	NITRATE	0.570	0.7	2.110	-0.010	MG/L	7	10/86 - 09/91
	NO3+NO2	0.665	0.7	2.120	0.020	MG/L	6	05/87 - 09/91

TABLE 18

CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 978 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
ORGANICS								
OIL&GREASE	N/A	-0.500	0.0	-0.500	-0.500	MG/L	1	10/86 - 10/86

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 978 HUMBLE POND SPRING - 978 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
22-JUN-84		9945.00	0.02000	CFS	
10-OCT-86		9945.00	0.01000	CFS	
19-MAY-87		9945.00	0.15000	CFS	
20-JUL-87		9945.00	0.33000	CFS	
12-AUG-87		9945.00	0.02000	CFS	
22-SEP-87		9945.00	0.00000	CFS	
01-JUN-88		9945.00	0.13000	CFS	
19-AUG-88		9945.00	0.01000	CFS	

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 978 HUMBLE POND SPRING - 978 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
05-SEP-88		9945.00	0.01000	CFS	
06-JUN-89		9945.00	0.03000	CFS	
11-JUL-89		9945.00	0.01000	CFS	
22-AUG-89		9945.00	0.00000	CFS	
15-SEP-89		9945.00	0.00000	CFS	
30-MAY-90		9945.00	0.05000	CFS	
02-JUL-90		9945.00	0.02000	CFS	
30-AUG-90		9945.00	0.01000	CFS	

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 978 HUMBLE POND SPRING - 978 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
03-OCT-90		9945.00	0.00000	CFS	
12-JUN-91		9945.00	0.11000	CFS	
16-JUL-91		9945.00	0.02000	CFS	
18-SEP-91		9945.00	0.01000	CFS	
19-MAY-92		9945.00	0.01050	CFS	, , , , , ,
15-JUL-92		9945.00	0.01700	CFS	, , , , , ,
25-AUG-92		9945.00	0.00600	CFS	, , , , , ,
21-SEP-92		9945.00	0.00500	CFS	, , , , , ,
24-JUN-93			0.09300		
26-JUL-93			0.02700		
17-AUG-93		9945.00	0.02000		
28-SEP-93			0.00900		

TABLE 49
CYPRUS PLATEAU MINING COMPANY
WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 978 HUMBLE POND SPRING - 978 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
22-JUN-84			410.0		7.0	206.0	-1.0		216.0	-0.5		
10-OCT-86	5.0	670.0	438.0		8.1	218.0	-1.0		236.0	-0.5		
19-MAY-87	3.7	360.0	433.0	5.4	7.9	206.0			226.0			
20-JUL-87	8.4	260.0	342.0	8.6	7.8	164.0		160.0	182.0			
12-AUG-87	18.0	320.0	433.0	8.6	8.1	205.0		206.0	242.0			
22-SEP-87	5.9	490.0	397.0	7.1		220.0		261.0	230.0			
01-JUN-88	4.0	248.0		7.7		194.0						
19-AUG-88	7.0	260.0		7.2								
05-SEP-88	7.0	215.0		7.6		240.0	0.0	259.0	244.0			
06-JUN-89	5.0	430.0		7.4		216.0	0.0	222.0	228.0			
11-JUL-89	7.0	450.0		7.4		216.0	0.0	259.0	262.0			
22-AUG-89	7.0	430.0		7.2								
15-SEP-89	7.0	480.0		7.3		230.0	0.0	247.0	248.0			
30-MAY-90	5.0	430.0		7.9		224.0	0.0	248.0	258.0			
02-JUL-90	6.0	460.0		7.8		225.0		238.0	232.0			
30-AUG-90	6.0	480.0		7.5								
03-OCT-90	4.0	380.0		7.1		233.0		268.0	250.0			
12-JUN-91	3.0	510.0		7.2		208.0		223.0	308.0			
16-JUL-91	6.0	440.0		7.1		224.0		234.0	242.0			
18-SEP-91	8.0	460.0		7.8	7.8	222.0		222.0	260.0			
19-MAY-92	4.7	478.0		7.3		230.0		238.0	258.0			
15-JUL-92	5.9	444.0		7.0		228.0		203.0	250.0			
25-AUG-92	13.3	357.0		7.1								
21-SEP-92	6.8	443.0		6.2		182.0		190.0	246.0			
24-JUN-93	5.5	377.0		6.2		216.0		232.0	202.0			
26-JUL-93	5.4	415.0		6.2		222.0		217.0	228.0			
17-AUG-93	5.7	400.0		6.3								
28-SEP-93	6.4	413.0		6.3		192.0		200.0	226.0			

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 978 HUMBLE POND SPRING - 978 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
19-MAY-87	56.0	13.0	3.0	-1.0	
20-JUL-87	46.0	11.0	2.0	-1.0	
12-AUG-87	56.0	16.0	9.0	6.0	
22-SEP-87	83.0	13.0	2.0	1.0	
01-JUN-88	84.0		2.0	1.0	
05-SEP-88	79.0	15.0	2.0	1.0	
06-JUN-89	69.0	12.0	2.0	1.0	
11-JUL-89	79.0	15.0	3.0	1.0	
15-SEP-89	74.0	15.0	2.0	-1.0	
30-MAY-90	78.0	13.0	2.0	-1.0	
02-JUL-90	74.0	13.0	2.0	1.0	
03-OCT-90	86.0	13.0	3.0	-1.0	
12-JUN-91	68.0	13.0	6.0	-1.0	
16-JUL-91	77.0	10.0	3.0	-1.0	
18-SEP-91	69.0	12.0	4.0	-1.0	
19-MAY-92	74.0	13.0	2.0	1.0	
15-JUL-92	63.0	11.0	2.0	-1.0	
21-SEP-92	58.0	11.0	2.0	1.0	
24-JUN-93	73.0	12.0	2.0	-1.0	
26-JUL-93	67.0	12.0	2.0	-1.0	
28-SEP-93	62.0	11.0	2.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 978 HUMBLE POND SPRING - 978 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
22-JUN-84	67.0	12.0	3.0	1.0	
10-OCT-86	72.0	12.2	2.5	1.1	
19-MAY-87		12.0			
20-JUL-87		13.0			
12-AUG-87		14.0			
22-SEP-87		13.0			
01-JUN-88		12.0			
18-SEP-91		13.0			
24-JUN-93		11.0			
26-JUL-93		10.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 978 HUMBLE POND SPRING - 978 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
22-JUN-84	251.			2.	7.		
10-OCT-86	266.	1.		3.	15.		
19-MAY-87	251.			1.	6.	0.5	
20-JUL-87	200.			1.	2.	0.3	0.20
12-AUG-87	250.			4.	12.	0.1	0.30
22-SEP-87	268.			2.	12.		0.20
01-JUN-88	237.			1.	6.	0.1	0.20
19-AUG-88							
05-SEP-88	293.			2.	12.		
06-JUN-89	264.			2.	6.		
11-JUL-89	261.			1.	8.		
22-AUG-89							
15-SEP-89	281.			1.	10.		
30-MAY-90	273.			2.	6.		
02-JUL-90	275.			2.	25.		
30-AUG-90							
03-OCT-90	284.			1.	16.		
12-JUN-91	234.	10.		3.	21.		
16-JUL-91	273.	0.		2.	6.		
18-SEP-91	271.	0.		1.	16.	0.1	0.02
19-MAY-92	276.	0.		1.	41.		
15-JUL-92	278.	0.		1.	2.		
25-AUG-92							
21-SEP-92	222.	0.		2.	10.		
24-JUN-93	264.	0.		2.	10.		
26-JUL-93	271.	0.		1.	4.		
17-AUG-93							
28-SEP-93	234.	0.		2.	8.		

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 978 HUMBLE POND SPRING - 978 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
19-MAY-87	-1.0	50.0	7.0						
20-JUL-87	-1.0	30.0	6.0						
12-AUG-87	1.0	70.0	-5.0						
01-JUN-88	-1.0	70.0	-5.0				-0.2	-1.0	
18-SEP-91	-1.0	50.0	-5.0				-0.1	-1.0	

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 978 HUMBLE POND SPRING - 978 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
10-OCT-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
19-MAY-87						40.0	-0.2	-1.0	
20-JUL-87						-20.0	-0.2	-1.0	
12-AUG-87						-20.0	-0.2	-1.0	
22-SEP-87						-20.0			
01-JUN-88						-20.0			
18-SEP-91						-20.0			

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 978 HUMBLE POND SPRING - 978 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
01-JUN-88									
18-SEP-91									

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 978 HUMBLE POND SPRING - 978 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
10-OCT-86									
19-MAY-87									
20-JUL-87									
12-AUG-87									

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 978 HUMBLE POND SPRING - 978 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
22-JUN-84			-50.0	-10.0
10-OCT-86			-50.0	-10.0
19-MAY-87			-20.0	-10.0
20-JUL-87			130.0	10.0
12-AUG-87			460.0	-10.0
22-SEP-87			-20.0	-10.0
01-JUN-88	-10.0		-20.0	
05-SEP-88			30.0	
06-JUN-89			-20.0	-10.0
11-JUL-89			-20.0	-10.0
15-SEP-89			50.0	-10.0
30-MAY-90			-20.0	-10.0
02-JUL-90			-20.0	-10.0
03-OCT-90			-20.0	-10.0
12-JUN-91			-20.0	
16-JUL-91			-20.0	
18-SEP-91	-10.0		30.0	-10.0
19-MAY-92			-20.0	-10.0
15-JUL-92			-20.0	-10.0
21-SEP-92			30.0	-10.0
24-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
28-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 978 HUMBLE POND SPRING - 978 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
22-JUN-84			-50.0	-10.0
10-OCT-86	-20.0	15.0	110.0	30.0
19-MAY-87	-10.0	-10.0	50.0	-10.0
20-JUL-87	10.0	-10.0	570.0	30.0
12-AUG-87	10.0	30.0	6200.0	240.0
22-SEP-87		-10.0	80.0	-10.0
01-JUN-88		-10.0	-20.0	-10.0
05-SEP-88			730.0	20.0
06-JUN-89			-20.0	-10.0
11-JUL-89			-20.0	-10.0
15-SEP-89			840.0	20.0
30-MAY-90			70.0	-10.0
02-JUL-90			60.0	-10.0
03-OCT-90			-20.0	-10.0
12-JUN-91			-20.0	-10.0
16-JUL-91			-20.0	-10.0
18-SEP-91		-10.0	50.0	-10.0
19-MAY-92			-20.0	
15-JUL-92			-20.0	
21-SEP-92			3980.0	
24-JUN-93			-20.0	-10.0
26-JUL-93			-20.0	-10.0
28-SEP-93			30.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 978 HUMBLE POND SPRING - 978 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
19-MAY-87		30.0		
20-JUL-87		20.0		
12-AUG-87		-20.0		
22-SEP-87	-50.0		-50.0	
01-JUN-88	-50.0	50.0	-50.0	-20.0
18-SEP-91	-50.0	30.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 49

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL

STATION: 978 HUMBLE POND SPRING - 978 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
10-OCT-86		100.0		-40.0
19-MAY-87	70.0		-50.0	-20.0
20-JUL-87	400.0		-50.0	20.0
12-AUG-87	4310.0		-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure 25
85-26-1

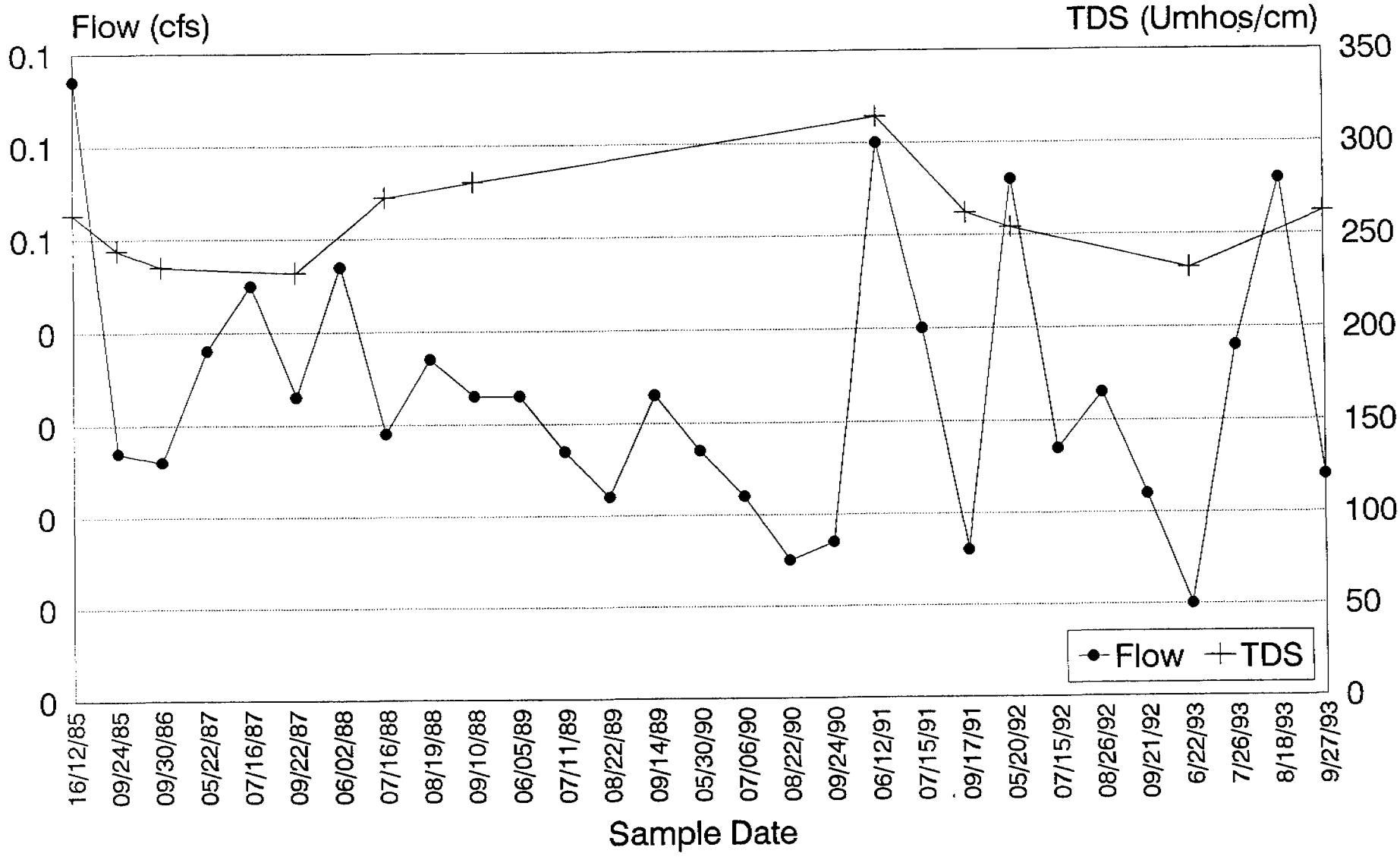


TABLE 50

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 85261 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	5.693	0.8	7.300	4.000	DEGREES C	28	09/85 - 09/93
CONDUCTIVITY	FIELD	428.731	78.8	580.000	290.000	UMHOS/CM	26	09/86 - 09/93
PH	FIELD	7.365	0.7	8.320	6.220	PH	26	05/87 - 09/93
ALKALINITY	TOTAL	243.833	15.1	277.000	222.000	MG/L	12	06/85 - 09/93
ACIDITY	AS CACO3	-1.000	0.0	-1.000	-1.000	MG/L	3	06/85 - 09/86
HARDNESS	TOTAL	254.750	18.1	286.000	232.000	MG/L	8	09/87 - 09/93
SOLIDS	DISSOLVED	259.091	24.4	314.000	232.000	MG/L	11	06/85 - 09/93
	SUSPENDED	5.000	0.0	5.000	5.000	MG/L	1	09/85 - 09/85
MEASURED PROPERTIES								
FLOW RATE	FIELD	0.034	0.0	0.070	0.020	CFS	25	06/85 - 09/92
CATIONS								
CALCIUM	DISSOLVED	59.667	5.5	70.000	53.000	MG/L	9	09/87 - 09/93
	TOTAL	60.667	9.0	70.000	52.000	MG/L	3	06/85 - 09/86
MAGNESIUM	DISSOLVED	26.125	2.0	29.000	23.000	MG/L	8	09/87 - 09/93
	TOTAL	27.500	1.3	29.000	25.500	MG/L	9	06/85 - 06/93
SODIUM	DISSOLVED	2.667	0.5	3.000	2.000	MG/L	9	09/87 - 09/93
	TOTAL	2.867	0.2	3.000	2.600	MG/L	3	06/85 - 09/86
POTASSIUM	DISSOLVED	0.111	1.1	1.000	-1.000	MG/L	9	09/87 - 09/93
	TOTAL	0.800	0.3	1.200	0.600	MG/L	3	06/85 - 09/86

TABLE 5.0

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 85261 ---

			Average	Std	Maximum	Minimum	Units	Count	Period
ANIONS									
	BICARBONATE	AS HCO3	295.417	21.3	338.000	259.000	MG/L	12	06/85 - 09/93
	CARBONATE	AS CO3	1.429	4.7	12.000	-1.000	MG/L	7	09/85 - 09/93
	CHLORIDE	N/A	2.642	1.0	4.000	1.000	MG/L	12	06/85 - 09/93
	SULFATE	N/A	14.417	12.7	45.000	-2.000	MG/L	12	06/85 - 09/93
MINOR									
	FLUORIDE	N/A	0.075	0.1	0.200	-0.100	MG/L	4	06/88 - 09/91
GASES									
	SULPHIDE	TOTAL	-0.016	0.2	0.300	-0.200	MG/L	5	09/87 - 09/91
PRIMARY									
	ARSENIC	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	4	06/88 - 09/91
		TOTAL	-1.000	0.0	-1.000	-1.000	UG/L	2	09/85 - 09/86
	BARIUM	DISSOLVED	135.000	12.9	150.000	120.000	UG/L	4	06/88 - 09/91
		TOTAL	-100.000	0.0	-100.000	-100.000	UG/L	2	09/85 - 09/86
	CADMIUM	DISSOLVED	-5.000	0.0	-5.000	-5.000	UG/L	4	06/88 - 09/91
		TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	2	09/85 - 09/86
	CHROMIUM	TOTAL-DISS	-10.000	0.0	-10.000	-10.000	UG/L	4	06/88 - 09/91
	LEAD	TOTAL	-22.857	23.6	20.000	-50.000	UG/L	7	09/85 - 09/91
	MERCURY	DISSOLVED	-0.125	0.1	-0.100	-0.200	UG/L	4	06/88 - 09/91
		TOTAL	-0.200	0.0	-0.200	-0.200	UG/L	2	09/85 - 09/86
	SELENIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	UG/L	4	06/88 - 09/91
		TOTAL	-5.000	0.0	-5.000	-5.000	UG/L	2	09/85 - 09/86

TABLE 50
CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 85261 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
SECONDARY								
COPPER	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	4	06/88 - 09/91
	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	2	09/85 - 09/86
ZINC	TOTAL	-4.286	11.0	20.000	-10.000	UG/L	7	09/85 - 09/91
IRON	DISSOLVED	-16.667	31.7	50.000	-50.000	UG/L	12	06/85 - 09/93
	TOTAL	165.833	292.7	870.000	-50.000	UG/L	12	06/85 - 09/93
MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	7	06/85 - 06/93
	TOTAL	-3.636	11.2	20.000	-10.000	UG/L	11	06/85 - 09/93
TRACE METALS								
ALUMINUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	5	09/87 - 09/91
BORON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	4	06/88 - 09/91
	TOTAL	120.000	84.9	180.000	60.000	UG/L	2	09/85 - 09/86
MOLYBDENUM	DISSOLVED	-50.000	0.0	-50.000	-50.000	UG/L	5	09/87 - 09/91
NICKEL	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	4	06/88 - 09/91
	TOTAL	-40.000	0.0	-40.000	-40.000	UG/L	2	09/85 - 09/86
NUTRIENTS								
NITROGEN	AMMIUM-TOTAL	0.015	0.0	0.070	-0.020	MG/L	4	06/88 - 09/91
	AMMIA-FREE	-0.001	0.0	0.001	-0.001	MG/L	4	06/88 - 09/91
	NITRATE	1.057	0.5	1.480	0.020	MG/L	7	09/85 - 09/91
	NO3+NO2	1.322	0.1	1.470	1.250	MG/L	5	09/87 - 09/91
ORGANICS								
OIL&GREASE	N/A	0.350	1.2	1.200	-0.500	MG/L	2	09/85 - 09/86

TABLE 5D

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 85261 85-26-1 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
12-JUN-85		9450.00	0.07000	CFS	
24-SEP-85		9450.00	0.03000	CFS	
30-SEP-86		9450.00	0.03000	CFS	
22-MAY-87		9450.00	0.04000	CFS	
16-JUL-87		9450.00	0.05000	CFS	
22-SEP-87		9450.00	0.03000	CFS	
02-JUN-88		9450.00	0.05000	CFS	
16-JUL-88		9450.00	0.03000	CFS	

TABLE 60

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 85261 85-26-1 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
19-AUG-88		9450.00	0.04000	CFS	
10-SEP-88		9450.00	0.03000	CFS	
05-JUN-89		9450.00	0.03000	CFS	
11-JUL-89		9450.00	0.03000	CFS	
22-AUG-89		9450.00	0.02000	CFS	
14-SEP-89		9450.00	0.03000	CFS	
30-MAY-90		9450.00	0.03000	CFS	
06-JUL-90		9450.00	0.02000	CFS	

TABLE 5D

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 85261 85-26-1 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
22-AUG-90		9450.00	0.02000	CFS	
24-SEP-90		9450.00	0.02000	CFS	
12-JUN-91		9450.00	0.06000	CFS	
15-JUL-91		9450.00	0.04000	CFS	
17-SEP-91		9450.00	0.02000	CFS	
20-MAY-92		9450.00	0.05570	CFS	, , , , , ,
15-JUL-92		9450.00	0.02700	CFS	, , , , , ,
26-AUG-92		9450.00	0.03300	CFS	, , , , , ,
21-SEP-92		9450.00	0.02230	CFS	, , , , , ,
22-JUN-93			0.01000		
26-JUL-93		9450.00	0.03800		
18-AUG-93		9450.00	0.05600		
27-SEP-93			0.02400		

TABLE 5D

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
12-JUN-85			463.0		7.8	277.0	-1.0		263.0			
24-SEP-85	6.0		464.0		7.5	243.0	-1.0		244.0	5.0		
30-SEP-86	6.0	425.0	472.0		8.1	223.0	-1.0		235.0			
22-MAY-87	4.8	420.0		8.0								
16-JUL-87	5.0	400.0		8.3								
22-SEP-87	5.3		407.0	7.2		222.0		286.0	232.0			
02-JUN-88	6.0	292.0		7.3		255.0						
16-JUL-88	5.3	290.0		7.1		248.0		261.0	272.0			
19-AUG-88	5.0	302.0		7.5								
10-SEP-88	6.5	300.0		7.9		250.0		251.0	280.0			
05-JUN-89	5.0	330.0		7.4								
11-JUL-89	5.0	490.0		7.4								
22-AUG-89	6.0	510.0		7.4								
14-SEP-89	5.0	580.0		7.5								
30-MAY-90	7.0	430.0		7.5								
06-JUL-90	7.0	440.0		7.5								
22-AUG-90	5.0	430.0		8.3								
24-SEP-90	5.0	420.0		8.3								
12-JUN-91	4.0	510.0		7.2		232.0		243.0	314.0			
15-JUL-91	7.0	500.0		7.9								
17-SEP-91	6.0	320.0		8.2	8.2	238.0		259.0	262.0			
20-MAY-92	5.6	502.0		7.2		238.0		270.0	254.0			
15-JUL-92	5.5	486.0		7.7								
26-AUG-92	6.0	469.0		7.5								
21-SEP-92	6.1	486.0		6.3								
22-JUN-93	5.5	475.0		6.2		254.0		232.0	232.0			
26-JUL-93	5.7	456.0		6.3								
18-AUG-93	5.8	456.0		6.3								

TABLE 5D

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
27-SEP-93	7.3	428.0		6.4		246.0		236.0	262.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE 50

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
22-SEP-87	70.0	27.0	3.0	1.0	
02-JUN-88	65.0		3.0	1.0	
16-JUL-88	60.0	27.0	3.0	-1.0	
10-SEP-88	53.0	29.0	3.0	1.0	
12-JUN-91	56.0	25.0	2.0	1.0	
17-SEP-91	61.0	26.0	2.0	-1.0	
20-MAY-92	62.0	28.0	3.0	1.0	
22-JUN-93	55.0	23.0	2.0	-1.0	
27-SEP-93	55.0	24.0	3.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 5D

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
12-JUN-85	70.0	26.0	3.0	0.6	
24-SEP-85	60.0	29.0	3.0	0.6	
30-SEP-86	52.0	25.5	2.6	1.2	
22-SEP-87		27.0			
02-JUN-88		29.0			
16-JUL-88		27.0			
10-SEP-88		29.0			
17-SEP-91		27.0			
22-JUN-93		28.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE 50

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
12-JUN-85	338.			4.	7.		
24-SEP-85	296.	1.		3.	27.		
30-SEP-86	272.	1.		4.	15.		
22-MAY-87							
16-JUL-87							
22-SEP-87	271.			4.	4.		0.20
02-JUN-88	311.			2.	8.	0.2	0.20
16-JUL-88	303.			3.	10.	0.1	0.30
19-AUG-88							
10-SEP-88	305.			2.	19.	0.1	0.04
05-JUN-89							
11-JUL-89							
22-AUG-89							
14-SEP-89							
30-MAY-90							
06-JUL-90							
22-AUG-90							
24-SEP-90							
12-JUN-91	259.	12.		3.	21.		
15-JUL-91							
17-SEP-91	290.	0.		2.	4.	0.1	0.02
20-MAY-92	290.	0.		1.	45.		
15-JUL-92							
26-AUG-92							
21-SEP-92							
22-JUN-93	310.	0.		2.	2.		
26-JUL-93							
18-AUG-93							
27-SEP-93	300.	0.		2.	15.		

TABLE 5D

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
02-JUN-88	-1.0	150.0	-5.0				-0.2	-1.0	
16-JUL-88	-1.0	130.0	-5.0				-0.1	-1.0	
10-SEP-88	-1.0	140.0	-5.0				-0.1	-1.0	
17-SEP-91	-1.0	120.0	-5.0				-0.1	-1.0	

TABLE 50

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
24-SEP-85	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
30-SEP-86	-1.0	-100.0	-5.0			-50.0	-0.2	-5.0	
22-SEP-87						-20.0			
02-JUN-88						-20.0			
16-JUL-88						-20.0			
10-SEP-88						-20.0			
17-SEP-91						20.0			

TABLE 50

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-DISS

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
02-JUN-88									
16-JUL-88									
10-SEP-88									
17-SEP-91									

TABLE 50

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL-TOTAL

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
24-SEP-85									
30-SEP-86									

TABLE 5D

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 85261 85-26-1 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
12-JUN-85			-50.0	-10.0
24-SEP-85			-50.0	-10.0
30-SEP-86			-50.0	-10.0
22-SEP-87			40.0	-10.0
02-JUN-88	-10.0		-20.0	
16-JUL-88	-10.0		-20.0	
10-SEP-88	-10.0		-20.0	
12-JUN-91			-20.0	
17-SEP-91	-10.0		50.0	-10.0
20-MAY-92			-20.0	-10.0
22-JUN-93			-20.0	-10.0
27-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 5D

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 85261 85-26-1 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
12-JUN-85			-50.0	-10.0
24-SEP-85	-20.0	-5.0	-50.0	10.0
30-SEP-86	-20.0	-5.0	60.0	-10.0
22-SEP-87		-10.0	870.0	20.0
02-JUN-88		20.0	-20.0	-10.0
16-JUL-88		-10.0	20.0	-10.0
10-SEP-88		-10.0	230.0	10.0
12-JUN-91			50.0	-10.0
17-SEP-91		-10.0	50.0	-10.0
20-MAY-92			650.0	
22-JUN-93			20.0	-10.0
27-SEP-93			160.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE 5D

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - DISSOLVED

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
22-SEP-87	-50.0		-50.0	
02-JUN-88	-50.0	-20.0	-50.0	-20.0
16-JUL-88	-50.0	-20.0	-50.0	-20.0
10-SEP-88	-50.0	-20.0	-50.0	-20.0
17-SEP-91	-50.0	-20.0	-50.0	-20.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

TABLE 5D

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - TRACE METALS - TOTAL

STATION: 85261 85-26-1 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Aluminum	Boron	Molybdenum	Nickel
24-SEP-85		180.0		-40.0
30-SEP-86		60.0		-40.0

Note: Aluminum in UG/L, Boron in UG/L, Molybdenum in UG/L, Nickel in UG/L

Figure E-1
438

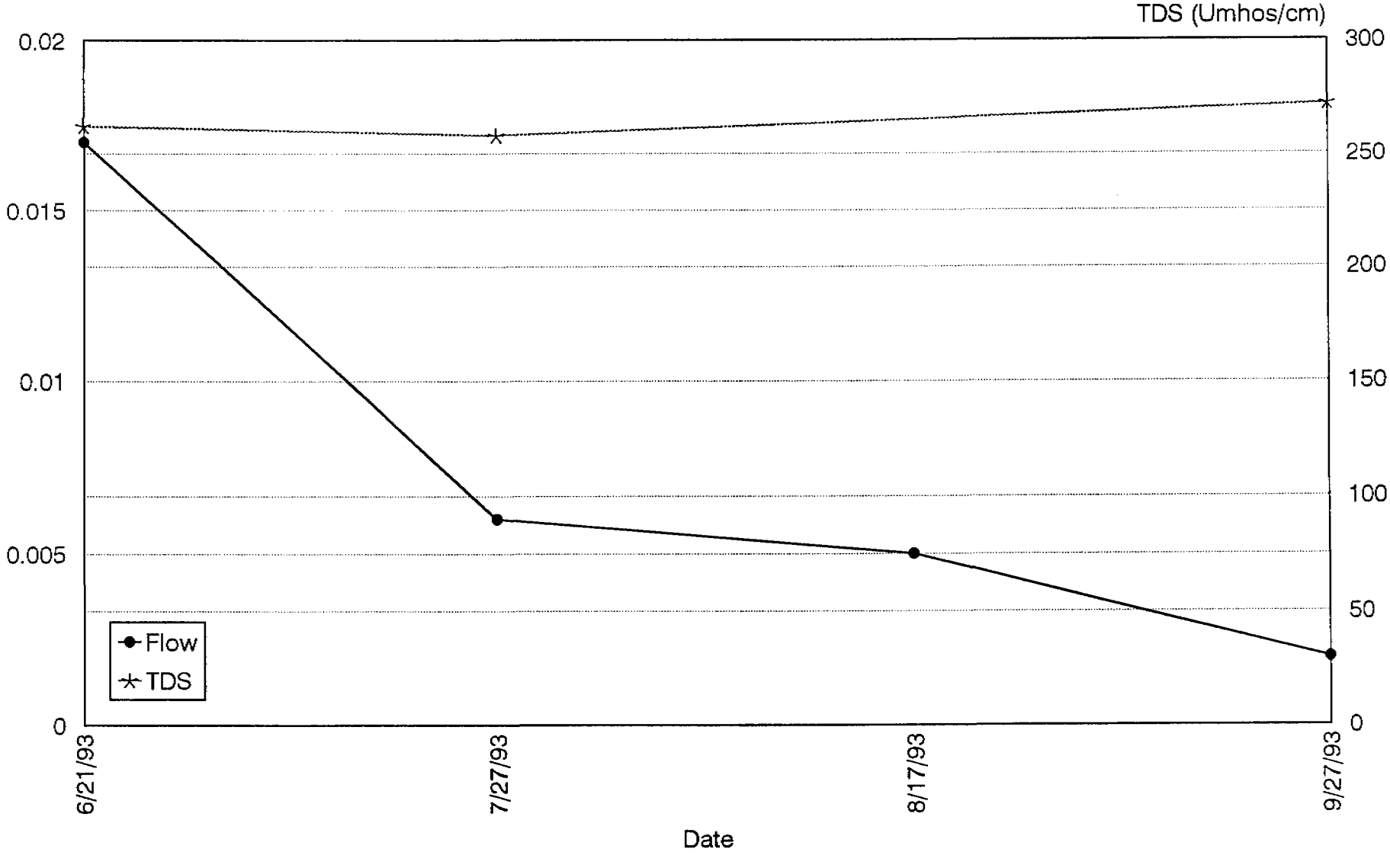


TABLE E-1

CYPRUS PLATEAU MINING COMPANY

SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 438 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PHYSICAL PROPERTIES								
TEMPERATURE	FIELD	9.500	2.5	13.200	7.800	DEGREES C	4	06/93 - 09/93
CONDUCTIVITY	FIELD	449.000	65.1	499.000	355.000	UMHOS/CM	4	06/93 - 09/93
PH	FIELD	6.760	0.7	7.800	6.310	PH	4	06/93 - 09/93
ALKALINITY	TOTAL	257.333	13.3	266.000	242.000	MG/L	3	06/93 - 09/93
HARDNESS	TOTAL	267.000	9.0	276.000	258.000	MG/L	3	06/93 - 09/93
SOLIDS	DISSOLVED	264.000	7.2	272.000	258.000	MG/L	3	06/93 - 09/93
CATIONS								
CALCIUM	DISSOLVED	80.000	3.6	84.000	77.000	MG/L	3	06/93 - 09/93
MAGNESIUM	DISSOLVED	16.333	0.6	17.000	16.000	MG/L	3	06/93 - 09/93
	TOTAL	17.000	1.4	18.000	16.000	MG/L	2	06/93 - 07/93
SODIUM	DISSOLVED	2.000	0.0	2.000	2.000	MG/L	3	06/93 - 09/93
POTASSIUM	DISSOLVED	-1.000	0.0	-1.000	-1.000	MG/L	3	06/93 - 09/93
ANIONS								
BICARBONATE	AS HCO3	314.000	16.5	325.000	295.000	MG/L	3	06/93 - 09/93
CARBONATE	AS CO3	0.000	0.0	0.000	0.000	MG/L	3	06/93 - 09/93
CHLORIDE	N/A	2.000	1.0	3.000	1.000	MG/L	3	06/93 - 09/93
SULFATE	N/A	4.333	5.7	9.000	-2.000	MG/L	3	06/93 - 09/93
GASES								
SULPHIDE	TOTAL	-0.020	0.0	-0.020	-0.020	MG/L	1	09/93 - 09/93

TABLE E-1
CYPRUS PLATEAU MINING COMPANY
SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 438 ---

		Average	Std	Maximum	Minimum	Units	Count	Period
PRIMARY								
LEAD	TOTAL	-20.000	0.0	-20.000	-20.000	UG/L	3	06/93 - 09/93
SECONDARY								
ZINC	TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	2	06/93 - 07/93
IRON	DISSOLVED	-20.000	0.0	-20.000	-20.000	UG/L	3	06/93 - 09/93
	TOTAL	46.667	61.1	100.000	-20.000	UG/L	3	06/93 - 09/93
MANGANESE	DISSOLVED	-10.000	0.0	-10.000	-10.000	UG/L	2	06/93 - 07/93
	TOTAL	-10.000	0.0	-10.000	-10.000	UG/L	3	06/93 - 09/93

TABLE E-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - WATER LEVELS AND FLOW RATES

STATION NUMBER: 438 438 TYPE: SPRING DATUM ELEV: 7280 FT

JANUARY 1970 to DECEMBER 1993

Date	Water Depth Feet	Water Elevation Feet	Flow Rate	Units	Comments
21-JUN-93			0.01700		
27-JUL-93			0.00600		
17-AUG-93			0.00500		
27-SEP-93			0.00200		

WATER LEVEL OF 0.001 = 0, FLOW_RATE OF 0.0001 = 0

NEGATIVE WATER LEVEL IN A WELL IS ABOVE GROUND SURFACE

TABLE E-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PHYSICAL PROPERTIES

STATION: 438 438 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Temp	Cond F	Cond L	ph F	ph L	Alkal	Acidity	Hardness	Solids D	Solids Susp	Solids Sett	Oil&Grease Vis
21-JUN-93	7.9	457.0		6.3		264.0		276.0	262.0			
27-JUL-93	7.8	355.0		7.8		266.0		267.0	258.0			
17-AUG-93	13.2	485.0		6.5								
27-SEP-93	9.1	499.0		6.4		242.0		258.0	272.0			

Note: Temp in DEGREES C,Cond F/L in UG/L,Alkal in MG/L,Acid in MG/L,Hard in MG/L,Solids Dis/Sus in MG/L,Solids Set in ML/L,Oil&Gr in UND

TABLE E-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - DISSOLVED

STATION: 438 438 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
21-JUN-93	84.0	16.0	2.0	-1.0	
27-JUL-93	79.0	17.0	2.0	-1.0	
27-SEP-93	77.0	16.0	2.0	-1.0	

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE E-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - CATIONS - TOTAL

STATION: 438 438 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Calcium	Magnesium	Sodium	Potassium	SAR
21-JUN-93		16.0			
27-JUL-93		18.0			

Note: Calcium in MG/L, Magnesium in MG/L, Sodium in MG/L,Potassium in MG/L

TABLE E-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - ANIONS, FLUORIDE, SULPHIDE

STATION: 438 438 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Bicarbonate	Carbonate	Hydroxide	Chloride	Sulfate	Fluoride	Sulphide
21-JUN-93	322.	0.		1.	2.		
27-JUL-93	325.	0.		2.	9.		
17-AUG-93							
27-SEP-93	295.	0.		3.	6.		0.02

Note: Bicarbonate in MG/L, Carbonate in MG/L, Hydroxide in MG/L, Chloride in MG/L, Sulfate in MG/L, Fluoride in MG/L, Sulphide in MG/L

Note: Bicarbonate as HCO3; Carbonate as CO3; Hydroxide as OH-

TABLE E-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 438 438 TYPE: SPRING JANUARY 1970 to DECEMBER 1993

Date	Arsenic	Barium	Cadmium	Chromium-Tot	Chromium-Hex	Lead	Mercury	Selenium	Silver
21-JUN-93						-20.0			
27-JUL-93						-20.0			
27-SEP-93						-20.0			

TABLE E-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - DISSOLVED

STATION: 438 438 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
21-JUN-93			-20.0	-10.0
27-JUL-93			-20.0	-10.0
27-SEP-93			-20.0	

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L

TABLE E-1

CYPRUS PLATEAU MINING COMPANY

WATER QUALITY MONITORING DATA - PRIMARY METALS - TOTAL

STATION: 438 438 TYPE:SPRING JANUARY 1970 to DECEMBER 1993

Date	Copper	Zinc	Iron	Manganese
21-JUN-93		-10.0	60.0	-10.0
27-JUL-93		-10.0	100.0	-10.0
27-SEP-93			-20.0	-10.0

Note: Copper in UG/L, Zinc in UG/L, Iron in UG/L, Manganese in UG/L