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MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
REPORT ON 2007 ANNUAL INSPECTION
(REF. NO. VA101-01/20-1)

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EXECUTIVE SUMMARY

The Mount Polley copper and gold mine is owned by Mount Polley Mining Corporation (MPMC). It is located 56 kilometres northeast of Williams Lake, in central British Columbia. Mr. Les Galbraith, P. Eng., of Knight Piésold completed an annual inspection of the Tailings Storage Inspection and associated works on September 19, 2007 in the company of Mr. Matthew Silbernagel.

The Tailings Storage Facility (TSF) consists of the Main, Perimeter, and South Embankments. The TSF consists of earthfill embankments with a low permeability core zone constructed with locally borrowed fine grained glacial till materials. The Stage 5 construction program, which involved raising the Tailings Storage Facility (TSF) embankments to the currently permitted elevation of 951 m, was in process at the time of the inspection. The Main Embankment is the highest of the three embankments at approximately 38 m high.

The TSF embankments were in good condition with no geotechnical issues outstanding. No major unexpected or uncontrolled seepage was observed from the embankments.

The Tailings Storage Facility has a "LOW" hazard classification (or consequence category).

The tailings were being discharged from the Perimeter Embankment into sand cells at the time of the inspection. The prolonged discharge of tailings into the sand cells on one of the embankments can result in the migration of the tailings pond across the facility. MPMC has added an additional section to the tailings pipeline that enables them to move the tailings discharge point around the facility without having to relocate large sections of the tailings pipeline. This has been effective in establishing tailings beaches around the facility. However, the tailings pond was up against a part of the Main Embankment at the time of the inspection which has resulted in increased flows in the Main Embankment upstream toe drain and the foundation drains at the corner of the Main and South Embankments.

The TSF is required to have sufficient live storage capacity for containment of runoff from the 72-hour PMP at all times, plus 0.7 meters of freeboard for wave run-up. MPMC has operated the tailings pond within these tolerances over the past year. The site water balance is updated regularly by MPMC with periodic reviews by Knight Piésold. The water balance is kept current on a monthly basis.

The tailings pipeline ruptured on October 23, 2007, resulting in the release of approximately 1 tonne of tailings material. The tailings discharge point was being transferred from the South Embankment to the Perimeter Embankment and the pipeline to the Perimeter Embankment was partially obstructed by tailings sediment resulting in a pressure build-up and rupture in the pipeline. The spill and the clean-up procedures were reported by MPMC to the Ministry of Environment. Additionally, corrective actions were also implemented to further minimize this type of incident from occurring. There have been no reported problems with the tailings pipeline under normal operating conditions and the rupture of the pipeline was considered to be an isolated incident, however, the entire tailings pipeline should be checked for obvious signs of damage or distress.

The TSF instrumentation currently consists of four slope inclinometers installed at the Main Embankment and 63 operating vibrating wire piezometers installed in the Main, Perimeter and South Embankments. There have been no significant deviations in the inclinometers and no unexpected or anomalous pore pressures reading in the vibrating wire piezometers.

The Southeast Sediment Pond, Millsite Sump, and South Bootjack Dam were observed to be in good condition with no geotechnical issues outstanding.

The Operations, Maintenance and Surveillance Manual (OMS Manual) and the Emergency Preparedness and Response Plan (EPP document) for the TSF is currently being updated and scheduled for distribution on December 31st, 2007.

A Dam Safety Review (DSR) was performed by AMEC in November 2006. The next Dam Safety Review should be carried out by 2011, or during detailed closure design, whichever is earlier.

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SECTION 1.0 - INTRODUCTION

1.1 PROJECT DESCRIPTION

The Mount Polley Copper and gold mine is owned by Mount Polley Mining Corporation (MPMC). It is located 56 kilometres northeast of Williams Lake, in central British Columbia. The project site is accessible by paved road from Williams Lake to Morehead Lake and then by gravel road for the final 12 km. Mount Polley Mine started production in 1997 and had milled approximately 27.5 million tonnes of ore prior to temporarily suspending operations from October 2001 to March 2005. MPMC is currently mining the Bell and Wight Pits with the tailings material deposited as slurry into the Tailings Storage Facility (TSF). Process water is collected and recycled back to the mill for recycle in the milling process. The mine throughput is approximately 20,000 tpd. Aerial photographs of the Mount Polley Mine obtained in October 2005 are shown on Figures 1.1 and 1.2. The overall site plan showing the Stage 5 footprint of the Tailings Storage Facility is shown on Drawing 101-1/12-100. The Stage 5 TSF General Arrangement is shown on Drawing 101-1/12-102.

1.2 SCOPE OF REPORT

Mount Polley Mining Corporation requested that Knight Piésold complete an annual inspection of the Tailings Storage Facility and prepare an Annual Inspection Report that meets the guidelines outlined by the Ministry of Energy, Mines and Petroleum Resources (MEMPR). Mr. Les Galbraith, P. Eng., conducted the 2007 annual inspection on September 19, 2007 in the company of Mr. Matthew Silbernagel of MPMC. This report presents the results of the annual inspection. The inspection involved making visual observations of the Tailings Storage Facility and includes a review of the TSF instrumentation records. This report also includes a review of the ancillary works, which includes the tailings and reclaim pipelines, the millsite sump, and the Southeast Sediment Pond.

The Stage 5 construction program, which involved raising the TSF embankments to the currently permitted elevation of 951 m, was in process at the time of the inspection. Knight Piésold has provided the design, technical specifications, and QA/QC for all of the Stages of the TSF, including the current Stage 5 construction program.

Regular on-going inspections of the Tailings Storage Facility (TSF) and Ancillary Works have been completed by Knight Piésold to ensure the safety and security of the system. Previous annual inspections of the TSF by Knight Piésold were completed in 2001 (KP Ref. 11162/14-2),

2002 (KP Ref. VA101-00001/3-1), 2004 (KP Ref. VA101-00001/7-1), and 2005 (KP Ref. VA101-00001/11-1).

A Dam Safety Review (DSR) for the Tailings Storage Facility was completed by AMEC in October 2006. The results of the DSR were issued in a report to Imperial Metals Corporation in December 2006. The DSR review concluded that the Mount Polley TSF is adhering to an excellent dam safety program. The DSR confirmed that the TSF is performing as designed and meets or exceeds the guidelines set forth by the appropriate guidelines for dam safety. The DSR also provided recommendations concerning the hazard classification, design storm, pond and beach management, instrumentation, and the foundation stability at the Main Embankment. The Dam Safety Review recommendations and the Knight Piésold comments are included in Appendix C.

Selected photographs taken during the site inspection are included in Appendix D.

SECTION 2.0 - TAILINGS STORAGE FACILITY

2.1 GENERAL

The principal objectives of the TSF are to provide secure containment for tailings solids and to ensure that the regional groundwater and surface water flows are not adversely affected during or after mining operations. The design and operation of the TSF is integrated with the overall water management objectives for the entire mine development, in that surface runoff from disturbed catchment areas is controlled, collected and contained on site. An additional requirement for the TSF is to allow for effective reclamation of the tailings impoundment and associated disturbed areas at closure.

The TSF at Mount Polley includes the Perimeter, Main, and South Embankments. The Stage 5 construction program, which was in progress at the time of the inspection, involved raising the TSF embankments to an elevation of 951 m. The heights of the TSF embankments corresponding to a crest elevation of 951 m will be approximately 20 m, 38 m, and 10 m for the Perimeter Embankment, Main Embankment and the South Embankment respectively. The TSF Stage 5 plan and section drawings for the Main, Perimeter, and South Embankments are shown on the following drawings:

- VA101-1/12-210 Rev 1 Stage 5 Main Embankment Plan;
- VA101-1/12-215 Rev 1 Stage 5 Main Embankment – Section;
- VA101-1/12-216 Rev 1 Stage 5 Main Embankment – Detail;
- VA101-1/12-220 Rev 2 Stage 5 Perimeter Embankment – Plan;
- VA101-1/12-225 Rev 1 Stage 5 Perimeter Embankment – Section;
- VA101-1/12-226 Rev 1 Stage 5 Perimeter Embankment – Detail;
- VA101-1/12-230 Rev 1 Stage 5 South Embankment – Plan; and
- VA101-1/12-235 Rev 1 Stage 5 South Embankment – Sections

2.2 TAILINGS STORAGE FACILITY HAZARD CLASSIFICATION

The classification of the TSF, which was previously rated as "HIGH", was reviewed as part of the Dam Safety Review in 2006. The Dam Safety Review concluded that the hazard classification be reviewed assuming that the owner's costs are not included in the rating selection. This was discussed with MPMC and it was agreed that the owner's costs should not be included in the classification of the TSF embankments. The hazard classification for the TSF embankments has therefore been reduced to "LOW" based on the Canadian Dam Association and the British Columbia Dam Safety Regulation guidelines.

2.3 TAILINGS STORAGE FACILITY COMPONENTS

The main components of the TSF are as follows:

- The TSF embankments incorporate the following zones and materials:

- Zone S - Core zone - fine grained glacial till.
- Zone U – Upstream shell zone – parameters vary depending on material availability.
- Zone CS - Upstream shell - cycloned or spigotted tailings sand.
- Zone B - Embankment shell zones - fine grained glacial till.
- Zone F - Filter, drainage zones, and chimney drain - processed sand and gravel.
- Zone T - Transition filter zone - select well-graded fine-grained rockfill.
- Zone C - Downstream shell zone – rockfill.

- A low permeability basin liner (natural and constructed) covers the base of the entire facility, at a nominal depth of at least 2 m. The low permeability basin liner has proven to be effective in minimizing seepage from the TSF as there have been no indications of adverse water quality reporting to the groundwater monitoring wells.
- A foundation drain and pressure relief well system located downstream of the Stage 1B Main Embankment. The foundation drain and pressure relief well system prevent the build-up of excess pore pressure in the foundation and transfer groundwater and/or seepage to the collection ponds.
- Embankment drainage provisions which include foundation drains, Chimney, Longitudinal and Outlet Drains, and upstream toe drains.
- Seepage collection ponds located downstream of the Main and Perimeter Embankments and a seepage collection sump located downstream of the South Embankment. The ponds and sump were excavated in low permeability soils and collect water from the embankment drains and from local runoff.
- Instrumentation in the tailings, earthfill embankments and embankment foundations. This includes vibrating wire piezometers and slope inclinometers.
- A system of groundwater quality monitoring wells installed around the TSF.

The tailings embankments have been designed for staged expansion using the modified centreline construction method.

2.4 TAILINGS AND RECLAIM PIPELINES

The tailings pipeline comprises 7 km of HDPE pipe of varying diameters and pressure ratings extending from the mill down to the crest of the tailings embankment. The tailings pipeline has a design flow of 20,000 tpd at 35% solids by dry weight. The reclaim pipeline system returns water from the TSF to the mill site for re-use in the process. The system comprises a pump barge, a reclaim pipeline and a reclaim booster pump station.

2.5 TSF CONSTRUCTION ACTIVITIES DURING PAST YEAR

The construction activities at the TSF during the past year were related to the Stage 5 expansion that involved raising the crest elevation to 951 m, an increase of three meters from the Stage 4 crest elevation. The diversion ditch located on the west side of the TSF, which routes clean runoff from the undisturbed catchment area above the TSF, was also relocated to higher ground. The Stage 5 program was in progress at the time of the inspection. Details of the Stage 5

construction programs will be issued in the construction report following the Stage 5 construction program.

2.6 ANCILLARY WORKS

Ancillary works that are key to the operation of the TSF include the following:

- Mill Site Sump. Runoff from the Mill Site is routed and stored in the Mill Site Sump. Excess water from the sump is routed into the tailings pipeline near the mill for storage in the TSF.
- Southeast Sediment Pond. Runoff from the Southeast Rock Disposal Site and the dewatering from the Northeast Zone and associated waste dumps is directed to the Southeast Sediment Pond. Water from the Southeast Sediment Pond is routed to the reclaim pipeline at the reclaim booster pump station.

SECTION 3.0 - 2007 ANNUAL INSPECTION

3.1 WATER MANAGEMENT

3.1.1 General

MPMC mine personnel complete on-going surface water monitoring and water management activities to ensure compliance with the current mine permits. The Annual Inspection evaluated the physical aspects of the water management program at the TSF. Knight Piésold has not reviewed the geochemical characteristics of the water management operations. This report instead focuses on the aspects of the water management plan that are significant from a dam safety perspective.

3.1.2 Water Balance Review

MPMC mine personnel complete on-going surface water monitoring and water management activities to ensure compliance with the current mine permits. The water balance for the TSF is updated regularly by MPMC with periodic reviews by Knight Piésold.

The TSF is currently operating with a water surplus, as total inflows from precipitation and surface runoff exceed losses from evaporation, void retention and seepage removal. MPMC is currently exploring ways to discharge water from the site to reduce the ongoing storage requirements in the TSF, as all of the site surplus water is currently being stored in the TSF.

The Mount Polley Mine has undergone considerable development in the last couple of years. The water balance is reviewed and updated by MPMC on a monthly basis to ensure that it is current with the on-going development of the mine site.

3.1.3 Surface Water Control

Surface water control at the mine site comprises the interception of runoff from disturbed (and some undisturbed) catchment areas for diversion into the TSF. Surface water control structures include the following:

- The Bell and Cariboo Pits, and the Mill Site Area - Surface water from the Bell and Cariboo Pits and Mill Site Area are routed into the Mill Site Sump where it is transferred to the TSF via the tailings pipeline.
- Southeast Rock Disposal Site - Surface water is intercepted by runoff collection ditches and transferred to the Southeast Sediment Pond for transfer to the mill via the reclaim water pipeline.
- North East Zone Pit and Waste Dumps – Surface and groundwater from the North East Zone and Waste Dumps are directed to the Southeast Sediment Pond via a series of pipelines and diversion ditches.
- Tailings Storage Facility Area - Clean surface water runoff from the undisturbed catchment area above the impoundment is currently routed around the TSF to

reduce the accumulation of water within the impoundment. The diversion ditch on the west side of the TSF was relocated to higher ground in 2007. The diversion ditch was unobstructed at the time of the inspection and the water flowing in the ditch was clear.

3.1.4 Impoundment Freeboard Requirements

The design basis has been updated to include storm water freeboard for the 72-hour PMP event. The volume of water associated with the 72-hour PMP event is approximately 1,070,000 m^3, which would result in an increase in the TSF pond elevation of approximately 0.6 m. The freeboard requirement for wave run-up has been reduced to 0.7 m, for total updated freeboard requirement of 1.3 m, which is consistent with the previous freeboard requirement. However, MPMC has elected to maintain the previous freeboard requirement of at least 1.4 m for the remaining mine life. The supernatant pond was at elevation 947.2 m at the time of Mr. Galbraith's inspection on September 19, 2007. The freeboard requirement of 1.4 m has been maintained during the previous year by MPMC.

3.1.5 Drain Flow Data

The upstream toe drain and foundation drains at the Main Embankment flow into the sump at the Main Embankment Seepage Collection Pond where the flows are measured. The flow rates have been measured since July 2000; however the flow rates from the drains were not monitored during the Care and Maintenance Period as the drain outlets were submerged within the sump. This condition was anticipated as flow monitoring is only possible during operations when the seepage pond level has been pumped down. The seepage pond was pumped down in December 2005 and flow measurements resumed.

The upstream toe drain at the Perimeter Embankment drains into the Perimeter Embankment Seepage Collection Pond via a ditch. The flow rates are currently measured at the end of the pipe which exits the concrete encasement. The water from the upstream toe drains and foundation drains is currently pumped back into the TSF. The flow rates for the Main and Perimeter Embankment upstream toe drains are presented in Table 3.1 and shown on Figure 3.1. The flow rates for the foundation drains are presented in Table 3.2 and shown on Figure 3.2.

The flow rate from the upstream toe drains has increased in the last year as the tailings pond has increased in volume and is considerably closer to the embankments and the upstream toe drains than in previous years. The majority of the flow from the upstream toe drains is currently from the Main Embankment upstream toe drain; as the Perimeter Embankment upstream toe drain was installed in October 2006 and the first flows were not observed until July 2007. The total flow from the Main Embankment upstream toe drain was approximately 11 l/s at the time of the inspection with the flow from the

Perimeter upstream toe drain being approximately 4 l/s. The water flowing from the upstream toe drains was clear.

The total flows from the foundation drains have increased slightly in the last year, especially in foundation drain FD-5 and the ME Corner foundation drain, which are both located at the corner of the Main and South Embankments. The increased flows were most likely due to the lack of tailings beach development in this area, as the tailings embankment has only recently expanded to cover the gap between the Main and South Embankments and there was limited beach development in this area. The flow rates in these foundation drains appear to be declining as the tailings beach is developed in this area and the pond relocates away from the embankment. The flows from the foundation drains were clear.

Samples from the Foundation Drains and the Upstream Toe Drains are collected by MPMC for water quality testing. The results are available from MPMC and are reported in the Annual Environmental Reports.

The concrete conduit for the South Embankment upstream toe drain was being installed at the time of the inspection. The conduit will connect to an upstream toe drain that will be installed along the South Embankment during the Stage 6 construction program scheduled for 2008. A Photo of the concrete encasement preparation is included in Appendix D.

3.1.6 Seepage Collection Ponds

The Main and Perimeter Embankment seepage collection ponds are located immediately downstream of their respective embankments. These ponds were excavated in low permeability glacial till materials in 1997 and collect water from the embankment drain systems and from local runoff. The seepage collection ponds were observed to be in good condition with no observed erosion activity.

Water from the seepage collection ponds is of good quality and MPMC were permitted to discharge water during the Care and Maintenance Period. MPMC are actively monitoring water quality and regularly report this information to the relevant regulatory authorities.

The South Embankment sump was excavated in 2006. The water flowing into the sump at the South Embankment is currently limited to runoff from the downstream slope of the embankment. The water was being released to a vegetated area downgradient of the access road at the time of the inspection.

Photos of the Seepage Collection Ponds and the South Embankment sump are included in Appendix D.

3.1.7 External Water

MPMC staff carries out water quality monitoring of external water regularly. The water being monitored includes surface water from ditches, streams, creeks and lakes, as well as groundwater from monitoring wells. The results of the site water quality monitoring are reported by Mount Polley in the Annual Environmental and Reclamation Report. This report is submitted to the appropriate Agencies (Ministry of Environment and the Ministry of Energy, Mines and Petroleum Resources).

3.2 TAILINGS STORAGE FACILITY

Pertinent observations regarding the condition of the TSF were as follows:

- Tailings sand is currently being used as an upstream Zone U construction material. Zone U forms the upstream shell zone immediately adjacent to Zone S (low permeability core zone) and is required to provide upstream support of the Zone S material during modified centerline construction. The sand cell construction method involves discharging tailings into constructed cells along the upstream side of the embankment. The sand cell construction was taking place at the Perimeter Embankment at the time of the inspection. Prolonged discharge of tailings from the Perimeter Embankment has previously resulted in the tailings pond migrating over to the Main Embankment, which has resulted in increased flows reporting to the Main Embankment upstream toe drain. MPMC purchased additional HDPE pipe in 2007 to facilitate the deposition of tailings around the entire facility without having to relocate the tailings pipeline. This allows MPMC to quickly develop tailings beaches in response to the pond encroaching on the embankments.

  Knight Piésold has previously recommended the following with regarding tailings beach development:

  - A beach width of at least 20 m is to be maintained along the abutments of the embankments (where the embankment contacts natural ground) and at least a 10 m width elsewhere to keep the pond away from the embankments.
  - MPMC should develop a plan and schedule to enable the minimum target beach widths to be re-established within a 2 week period should they be infringed upon.
  - MPMC shall increase the frequency of measurements for embankment instrumentation systems (piezometers and foundation drains - flow rate and turbidity) to at least once per week during any periods that ponded water encroaches within the minimum target beach widths.

  The recommended minimum tailings beach widths are generally being achieved by MPMC. However, it was noted during the inspection that the minimum beach requirements needed to be reinstated along a section of the Main Embankment, approximately 200 m in length.

- No signs of instability were observed in the embankment fill slopes.

- No major unexpected or uncontrolled seepage was observed from the embankments, including fill slope and foundations.

The TSF was observed to be in good condition with no geotechnical issues outstanding. Selected photographs of the TSF are presented in Appendix D. The Operations, Maintenance and Surveillance Manual (OMS Manual) and the Emergency Preparedness and Response Plan (EPP document) for the TSF were revised on December 22, 2004.

3.3 ANCILLARY WORKS

3.3.1 Tailings and Reclaim Pipelines

The tailings pipeline was in operation at the time of the inspection with tailings being discharged at the Perimeter Embankment for construction of the sand cells. There have been no reported problems with the tailings pipeline under normal operating conditions. However, there was a rupture in the tailings pipeline on October 23, 2007 which resulted in the discharge of approximately 1 tonne of material into the surrounding environment. The tailings discharge point was being transferred from the South Embankment to the Perimeter Embankment and the tailings pipeline to the Perimeter Embankment was not clear at the time of the transfer. This resulted in a pressure build-up in the tailings pipeline and it ruptured in two locations. Details of the rupture of the tailings pipeline, including the extent of the spill and the clean-up procedures undertaken by MPMC were presented to the Ministry of Environment by MPMC.

The condition of the entire tailings pipeline should be reviewed to ensure that the pressure build-up in the pipeline that resulted in the pipeline rupture did not reduce the integrity of the pipeline at other locations. The current condition of the tailings pipeline should also be reviewed to ensure that the pressure rating of the tailings pipeline is sufficient for the transport and discharge of tailings around the entire TSF to optimize the development of tailings beaches.

The reclaim pipeline was recycling supernatant water back to the mill for use in the process at the time of the inspection. There have been no reported problems with the reclaim pipeline and the pipeline was observed to be in sound condition.

3.3.2 Mill Site Sump

Surface water from the Bell and Cariboo Pits and Mill Site Area is routed into the Mill Site Sump where it is transferred to the TSF via the tailings pipeline. The embankments at the Mill Site Sump were observed to be in good condition, and no cracks, seepage or slumping was noted. The emergency overflow culvert was clear of obstructions.

Photos of the Mill Site Sump and the Mill Site Sump spillway are included in Appendix D.

3.3.3 Southeast Sediment Pond

The Southeast Sediment Pond collects runoff from the Southeast Rock Disposal Site via the Southeast Rock Disposal Site runoff ditch. The Southeast Sediment Pond also collects water from the dewatering of the Wight Pit and associated waste dumps. Water from the pond is routed to the reclaim water pipeline for transfer back to the mill process.

Observations made at the Southeast Sediment Pond and Southeast Rock Disposal Site runoff ditch include:

- Water flowing in the ditch was clear.
- The overflow culvert for the pond was clear of obstructions.
- The embankment fill slopes (inside and outside) were in good shape, with no signs of instability. No cracks were observed on the crest. No seepage or slumping of the slopes was observed.
- Grassy re-vegetation has become well established on the downstream embankment slopes.

MPMC staff conducts monthly inspections of the Southeast Sediment Pond, with the frequency of inspections increasing to weekly during the spring freshet or after heavy rainfall.

Photos of the Southeast Sediment Pond are included in Appendix D.

3.3.4 South Bootjack Dam

The South Bootjack Dam was observed to be in good condition at the time of the inspection. Observations include the following:

- The water level was low.
- Both upstream and downstream fill slopes were in good condition, with no evidence of seepage or slumping.
- No cracks were observed on the dam crest.
- The spillway contained some minor vegetation, but was generally unobstructed.

A photo of the South Bootjack Dam is included in Appendix D.

SECTION 4.0 - INSTRUMENTATION

4.1 PIEZOMETER DATA

4.1.1 General

Vibrating wire piezometers have been installed at the TSF along nine planes, designated as monitoring planes A to I. Monitoring planes A, B, C and E are located on the Main Embankment, monitoring planes D, G, and H are located on the Perimeter Embankment, and monitoring planes F and I are located on the South Embankment. The location of the TSF monitoring planes are shown on Drawing 245. The Monitoring Planes are shown in section on Drawings 246, 247, 248 and 249. The piezometers are grouped into tailings, foundation, fill and drain piezometers. The results from each group are discussed below. The timeline plots for the piezometers are included in Appendix A.

There are currently two gaps in the piezometer data. The first gap, which was from July 30, 2003 to September 2, 2004, was during the Care and Maintenance Period. This data was collected by MPMC but was accidently misplaced. The second gap occurred from Sept 22, 2005 to April 30, 2006 and was due to a malfunctioning readout box connecter cable and the accidental destruction or burying of piezometer cables during the Stage 4 construction program.

A total of 22 piezometers were accidentally destroyed during the Stage 4 construction program. MPMC and Knight Piésold attempted to locate and splice the damaged piezometers and successfully repaired five of them. The piezometer readings were resumed for the piezometers that were damaged once the cables were repaired and the timeline plots updated. The piezometers that were not damaged during the construction program were read on a weekly basis.

A further review of the piezometer data will be included in the Stage 5 Construction Report.

Several actions have been taken to prevent further damage to the piezometers. Steel protective covers have been set-up to shield the piezometer readout boxes. The new piezometers that have not been extended to the read-out boxes yet are coiled and placed in five gallon buckets. The locations are also marked with large poles with fluorescent markings. These measures have proved to be effective thus far, as no piezometers were damaged during the Stage 5 construction program.

4.1.2 Tailings Piezometers

A total of 16 piezometers have been installed in the tailings mass at the Main Embankment, 11 of which remain in operation. Timeline plots of the tailings piezometer data are included in Appendix A1.

The pore pressures in three tailings piezometers located below the elevation of the Main Embankment upstream toe drain show a slight increasing trend as the pond and tailings elevation increases; however the pore pressures are below the pond level in the TSF.

4.1.3 Embankment Foundation Piezometers

A total of 21 piezometers have been installed in the embankment foundations, 12 of which remain in operation. Artesian conditions are present in 3 of the 10 foundation piezometers installed under the Main Embankment. This is consistent with baseline data, and no changes have occurred. The piezometers installed in this area are used to monitor the pore pressures and to confirm that they remain below the threshold level of 6 metres above ground level (KP Ref. No. 1162/7-2). No unexpected high pore pressure increases were noted during the reporting period with the artesian pressures ranging from 1.74 to 3.01 m above ground. The artesian head values (above ground surface level) measured in September 2007 are summarized in Table 4.1.

Timeline plots of the embankment foundation piezometers are included in Appendix A2. There are no concerns indicated by the embankment foundation piezometers.

4.1.4 Embankment Fill Piezometers

A total of 32 piezometers have been installed in the embankment fill materials, 27 of which remain in operation. Timeline plots of the embankment fill piezometer data are included in Appendix A3.

There have been no significant changes in the trends for most of the embankment fill piezometers. Piezometer A2-PE2-O3, which is located at the Main Embankment, showed a slight increase in pore pressures corresponding to the placement of fill during the Stage 5 construction program. This trend has been observed in the past with this piezometer and it is anticipated that the slightly elevated pore pressures will dissipate following the construction programs as they have previously.

4.1.5 Drain Piezometers

A total of 18 piezometers have been installed in the embankment drains, including foundation drains, chimney drain and outlet drains. Thirteen of the drain piezometers were functioning at the time of inspection. Timeline plots for the drain piezometers are shown in Appendix A4.

The majority of the drain piezometers showed near-zero pore pressures, indicating that the drains are functioning as intended. Piezometer A1-PE1-04 showed an increase in pore pressures starting in approximately June 2006. This piezometer is located in the upstream toe drain at the Main Embankment and the increased pressures are a result of the tailings pond being up against the embankment at this location. The positive trend of the pore pressures coincides with the increased flow rates measured from the Main

SECTION 5.0 - SUMMARY AND RECOMMENDATIONS

Mr. Les Galbraith, P. Eng., of Knight Piésold completed an annual inspection of the Tailings Storage Inspection and associated works on September 19, 2007 in the company of Mr. Matthew Silbernagel. The TSF at Mount Polley includes the Perimeter, Main, and South Embankments. The hazard classification for the TSF embankments is "LOW", based on the Canadian Dam Association and the British Columbia Dam Safety Regulation guidelines. The Stage 5 construction program, which involved raising the TSF embankments to the currently permitted elevation of 951 m, was in process at the time of the inspection.

The TSF embankments were observed to be in good condition. No seepage or slumping was observed and no signs of instability were observed in the embankment fill slopes. No major unexpected or uncontrolled seepage was observed from the embankments.

There was a rupture in the tailings pipeline on October 23, 2007 which was caused by a pressure increase in the pipeline resulting from a partially blocked tailings pipeline on the Perimeter Embankment. This was an isolated incident and there have been no reported problems with the tailings pipeline under normal operating conditions. The entire tailings pipeline should be checked for signs of distress and a supplier of HDPE pipe should be contacted to determine the most practical, non-destructive method to estimate the abrasive wear in the wall of the HDPE pipeline. If suitable non-destructive methods are not available it is recommended that the pipe be broken at appropriate flanges and/or cut to establish wear patterns in the pipeline. This would be carried out during a planned shut-down when appropriate welding equipment in available. The pressure rating of the various sections of the tailings pipeline should also be reviewed to ensure that it has the required pressure rating to transport and discharge tailings around the entire TSF.

The recommended minimum tailings beach widths were generally being achieved by MPMC. However, the tailings pond was up against a section of the Main Embankment at the time of the inspection which has resulted in increased flows in the Main Embankment upstream toe drain. The first flows reporting to the Perimeter Embankment upstream toe drain that was installed in 2006 were observed in July 2007.

There are four operating inclinometers installed through the lacustrine unit at the Main Embankment. The inclinometer readings indicate that there have not been any significant deviations measured in the inclinometers since their installation. There have been no unexpected or anomalous pore pressures reading in the vibrating wire piezometers installed in the TSF Embankments.

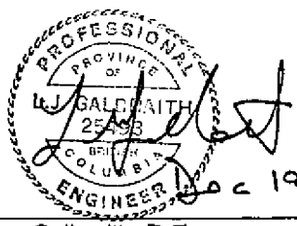
The Southeast Sediment Pond, Millsite Sump, and South Bootjack Dam were observed to be in good condition with no geotechnical issues outstanding.

Recommendations for on-going operations of the TSF are summarized below:

- Ensure that the instrumentation is being monitored at the required frequency, as reported in the Operations, Maintenance and Surveillance Manual, (KP Ref. No. 101-1/9-1). This includes readings of the piezometers and inclinometers.

SECTION 6.0 - CERTIFICATION

This report was prepared and approved by the undersigned.



Prepared by: Dec 19/2007

Les Galbraith, P.Eng.
Senior Engineer

Approved by:

Ken J. Brouwer, P.Eng.
Managing Director

Knight Piésold
CONSULTING

TABLE 3.1

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY PROJECT
TAILINGS STORAGE FACILITY

SUMMARY OF FOUNDATION DRAIN FLOW DATA

M:\1\01\00001\20\A\Report\Tables\[Table 3.1 and 3.2.xls]3.1

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Rev'd: 12/19/07

DATE	Pond El (m)	FD-1			FD-2			FD-3			FD-4			FD-5			ME Corner				
		Flow Rate			Flow Rate			Flow Rate			Flow Rate			Flow Rate			Flow Rate			Flow Rate	
		l/min	l/sec		l/min	l/sec		l/min	l/sec		l/min	l/sec		l/min	l/sec		l/min	l/sec		l/min	l/sec
07-Jul-98	930.50	3.71	0.06	Clear	0.72	0.01	Clear	16.03	0.27	Clear	2.22	0.04	Clear	9.86	0.16	Clear				32.34	0.54
24-Jul-98	930.58	3.53	0.06	Clear	0.72	0.01	Clear	15.75	0.26	Clear	1.96	0.03	Clear	8.70	0.15	Clear				30.68	0.51
12-Aug-98	930.61	3.46	0.06	Clear	0.62	0.01	Clear	15.96	0.27	Clear	1.90	0.03	Clear	7.30	0.12	Clear				29.24	0.49
19-Aug-98	930.64	3.17	0.05	Clear	0.58	0.01	Clear	15.83	0.26	Clear	2.26	0.04	Clear	8.08	0.13	Clear				29.90	0.50
10-Sep-98	930.70	3.60	0.06	Clear	0.57	0.01	Clear	16.35	0.27	Clear	2.03	0.03	Clear	8.02	0.13	Clear				30.57	0.51
17-Sep-98	930.73	3.53	0.06	Clear	0.63	0.01	Clear	16.42	0.27	Clear	2.20	0.04	Clear	8.52	0.14	Clear				31.30	0.52
24-Sep-98	930.77	3.62	0.06	Clear	0.64	0.01	Clear	15.64	0.26	Clear	2.06	0.03	Clear	7.77	0.13	Clear				29.73	0.50
07-Oct-98	930.81	3.72	0.06	Clear	1.05	0.02	Clear	14.22	0.24	Clear	2.36	0.04	Clear	13.39	0.22	Clear				34.74	0.58
15-Oct-98	930.87	3.82	0.06	Clear	1.10	0.02	Clear	14.53	0.24	Clear	2.56	0.04	Clear	15.83	0.26	Clear				37.84	0.63
21-Oct-98	930.95	3.94	0.07	Clear	1.12	0.02	Clear	15.35	0.26	Clear	2.95	0.05	Clear	18.46	0.31	Clear				41.82	0.70
27-Nov-98	931.35	4.21	0.07	Clear	1.01	0.02	Clear	14.28	0.24	Clear	2.35	0.04	Clear	11.78	0.20	Clear				33.62	0.56
02-Dec-98	931.97	4.35	0.07	Clear	0.92	0.02	Clear	14.16	0.24	Clear	2.37	0.04	Clear	11.46	0.19	Clear				33.26	0.55
09-Dec-98	931.97	4.34	0.07	Clear	0.79	0.01	Clear	16.56	0.28	Clear	2.01	0.03	Clear	9.78	0.16	Clear				33.49	0.56
16-Dec-98	931.97	4.33	0.07	Clear	0.97	0.02	Clear	13.92	0.23	Clear	2.83	0.05	Clear	19.32	0.32	Clear				41.37	0.69
18-Jul-00	938.08	3.80	0.06	Clear	0.60	0.01	Clear	16.80	0.28	Clear	1.20	0.02	Clear	24.00	0.40	Cloudy				46.20	0.77
25-Jul-00	938.10	4.20	0.07	Clear	1.44	0.02	Clear	16.80	0.28	Clear	1.50	0.03	Clear	39.00	0.65	Clear				62.94	1.05
24-Oct-00	938.25	21.00	0.35	Clear	67.20	1.12	Clear	17.40	0.29	Clear	2.40	0.04	Clear	75.60	1.26	Clear				183.60	3.06
21-Dec-05	942.84	14.22	0.24	Clear	9.90	0.17	Clear	10.20	0.17	Clear	0.48	0.01	Clear	55.20	0.92	Clear				90.00	1.50
20-Jul-06	943.95	5.40	0.09	Clear	8.28	0.14	Clear	9.66	0.16	Clear	1.50	0.03	Clear	41.58	0.69	Clear				66.42	1.11
21-Aug-06	944.09	5.85	0.10	Clear	7.75	0.13	Clear	10.60	0.18	Clear	18.97	0.32	Clear	30.17	0.50	Clear	9.00	0.15	Clear	82.33	1.37
11-Oct-06	944.50	7.13	0.12	Clear	9.72	0.16	Clear	10.78	0.18	Clear	2.00	0.03	Clear	26.75	0.45	Clear	28.60	0.48	Clear	84.98	1.42
18-Oct-06	944.52	7.38	0.12	Clear	8.91	0.15	Clear	11.92	0.20	Clear	1.54	0.03	Clear	28.13	0.47	Clear	40.50	0.68	Clear	98.38	1.64
25-Oct-06	944.60	7.17	0.12	Clear	7.03	0.12	Clear	10.91	0.18	Clear	1.39	0.02	Clear	24.53	0.41	Clear	22.80	0.38	Clear	73.83	1.23
1-Nov-06	944.65	9.18	0.15	Clear	13.36	0.22	Clear	12.83	0.21	Clear	1.74	0.03	Clear	40.09	0.67	Clear	24.00	0.40	Clear	101.18	1.69
8-Nov-06	944.75	10.18	0.17	Clear	18.89	0.31	Clear	10.33	0.17	Clear	2.08	0.03	Clear	65.92	1.10	Clear				107.40	1.79
17-Nov-06	944.83	10.50	0.18	Clear	11.40	0.19	Clear	11.17	0.19	Clear	1.54	0.03	Clear	34.46	0.57	Clear				69.07	1.15
22-Nov-06	944.86	10.87	0.18	Clear	12.55	0.21	Clear	10.17	0.17	Clear	1.71	0.03	Clear	39.77	0.66	Clear				75.07	1.25
7-Dec-06	944.91	10.85	0.18	Clear	9.42	0.16	Clear	11.73	0.20	Clear	1.79	0.03	Clear	30.34	0.51	Clear				64.13	1.07
24-Jan-07	945.20	9.66	0.16	Clear	6.11	0.10	Clear	12.39	0.21	Clear	1.21	0.02	Clear	27.65	0.46	Clear	Weir not Functioning			57.04	0.95
1-Feb-07	945.31	10.63	0.18	Clear	8.05	0.13	Clear	11.04	0.18	Clear	1.21	0.02	Clear	26.67	0.44	Clear				57.58	0.96
14-Feb-07	945.42	9.42	0.16	Clear	10.22	0.17	Clear	10.43	0.17	Clear	1.13	0.02	Clear	23.17	0.39	Clear				54.36	0.91
28-Feb-07	945.47	10.31	0.17	Clear	15.06	0.25	Clear	11.94	0.20	Clear	1.19	0.02	Clear	28.66	0.48	Clear				67.16	1.12
15-Mar-07	945.60	12.82	0.21	Clear	51.62	0.86	Clear	10.54	0.18	Clear	1.95	0.03	Clear	99.05	1.65	Clear				175.98	2.93
19-Apr-07	946.20	14.43	0.24	Clear	25.25	0.42	Clear	11.89	0.20	Clear	2.24	0.04	Clear	97.68	1.63	Clear				151.49	2.52
10-May-07	946.44	12.00	0.20	Clear	19.20	0.32	Clear	10.80	0.18	Clear	2.16	0.04	Clear	70.80	1.18	Clear	46.20	0.77	Clear	161.16	2.69
15-Jun-07	946.75	11.90	0.20	Clear	25.39	0.42	Clear	11.48	0.19	Clear	2.30	0.04	Clear	66.98	1.12	Clear	107.40	1.79	Clear	225.45	3.76
21-Jun-07	946.80	11.40	0.19	Clear	26.40	0.44	Clear	11.40	0.19	Clear	2.78	0.05	Clear	78.60	1.31	Clear	107.40	1.79	Clear	237.98	3.97
28-Jun-07	946.90	10.80	0.18	Clear	21.00	0.35	Clear	12.00	0.20	Clear	2.40	0.04	Clear	58.80	0.98	Clear	90.50	1.79	Clear	195.50	3.26
29-Jul-07	947.10	10.79	0.18	Clear	20.16	0.34	Clear	11.31	0.19	Clear	2.61	0.04	Clear	51.52	0.86	Clear	52.17	0.87	Clear	148.66	2.48

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TABLE 3.2

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

SUMMARY OF UPSTREAM TOE DRAIN FLOW DATA

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Date	Pond El.	MAIN EMBANKMENT					PERIMETER EMBANKMENT		TOTAL FLOW RATE	
		EAST OUTLET		WEST OUTLET		TOTAL	Upstream Toe Drain			
		Flow Rate		Flow Rate		Flow Rate	Flow Rate			
	(m)	(l/min)	(l/sec)	(l/min)	(l/sec)	l/sec	(l/min)	(l/sec)	Tot(l/min)	(l/sec)
20-Jul-00	938.08	98.40	1.64	44.40	0.74	2.38			142.80	2.38
25-Jul-00	938.10	85.20	1.42	42.60	0.71	2.13			127.80	2.88
24-Oct-00	938.25	64.20	1.07	56.40	0.94	2.01			120.60	2.01
16-Nov-00	938.52	65.40	1.09	61.80	1.03	2.12			127.20	2.12
21-Dec-05	942.64	123.00	2.05	27.80	0.46	2.51			150.80	2.51
20-Jul-06	943.95	295.56	4.93	200.46	3.34	8.27			496.02	8.27
21-Aug-06	944.09	320.75	5.35	224.40	3.74	9.09			545.15	9.09
12-Oct-06	944.48	450.50	7.51	118.61	1.98	9.49			569.11	9.49
18-Oct-06	944.50	454.00	7.57	149.12	2.49	10.05			603.12	10.05
25-Oct-06	944.55	368.11	6.14	169.54	2.83	8.96			537.65	8.96
1-Nov-06	944.65	320.47	5.34	282.38	4.71	10.05			602.85	10.05
9-Nov-06	944.75	389.89	6.50	264.64	4.41	10.91			654.53	10.91
17-Nov-06	944.83	389.14	6.49	283.16	4.72	11.21			672.30	11.21
22-Nov-06	944.86	408.60	6.81	281.79	4.70	11.51			690.39	11.51
7-Dec-06	944.91	434.22	7.24	295.44	4.92	12.16			729.66	12.16
24-Jan-07	945.20	447.54	7.46	306.53	5.11	12.57			754.07	12.57
1-Feb-07	945.31	460.14	7.67	328.19	5.47	13.14			788.33	13.14
14-Feb-07	945.42	425.18	7.09	293.32	4.89	11.98	0.00	0.00	718.51	11.98
28-Feb-07	945.47	438.88	7.31	289.99	4.83	12.15	0.00	0.00	728.88	12.15
15-Mar-07	945.60	398.63	6.64	282.96	4.72	11.36	0.00	0.00	681.59	11.36
19-Apr-07	946.20	422.54	7.04	318.47	5.31	12.35	0.00	0.00	741.02	12.35
10-May-07	946.44	352.80	5.88	252.60	4.21	10.09	0.00	0.00	605.40	10.09
15-Jun-07	946.75	410.24	6.84	288.56	4.81	11.65	3.51	0.06	702.31	11.71
21-Jun-07	946.80	355.20	5.92	248.40	4.14	10.06	6.24	0.10	609.84	10.16
28-Jun-07	946.90	319.80	5.33	229.20	3.82	9.15	10.80	0.18	559.80	9.33
29-Jul-07	947.10	417.79	6.96	230.59	3.84	10.81	35.16	0.59	683.54	11.39

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TABLE 4.1

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY - 2007 ANNUAL INSPECTION
MAXIMUM ARTESIAN HEAD VALUES FOR EMBANKMENT FOUNDATION PIEZOMETERS

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Piezometer	Piezometer Elevation (m)	Surface Elevation (m)	Sept 2007 Pressure Elevation (m)	Sept 2007 Artesian Pressure (m)
A2-PE2-01	903.68	912.67	No Longer Functioning	-
A2-PE2-02	909.77	912.67	No Longer Functioning	-
A2-PE2-06	898.01	912.91	No Longer Functioning	-
A2-PE2-07	902.81	912.91	915.38	2.47
A2-PE2-08	907.56	913.36	912.22	-1.14
B2-PE1-03	914.05	915.55	915.46	-0.09
B2-PE2-01	901.98	916.98	No Longer Functioning	-
B2-PE2-02	909.51	916.98	919.99	3.01
B2-PE2-06	914.59	916.89	No Longer Functioning	-
C2-PE1-03	912.59	-	-	-
C2-PE2-02	910.53	915.71	916.45	0.74
C2-PE2-06	906.84	915.99	914.57	-1.42
C2-PE2-07	912.29	915.99	No Longer Functioning	-
C2-PE2-08	914.03	915.99	914.7	-1.29
D2-PE2-02	927.32	930.92	930.21	-0.71
E2-PE2-01	914.21	918.81	917.27	-1.54
E2-PE2-02	909.66	918.81	916.59	-2.22

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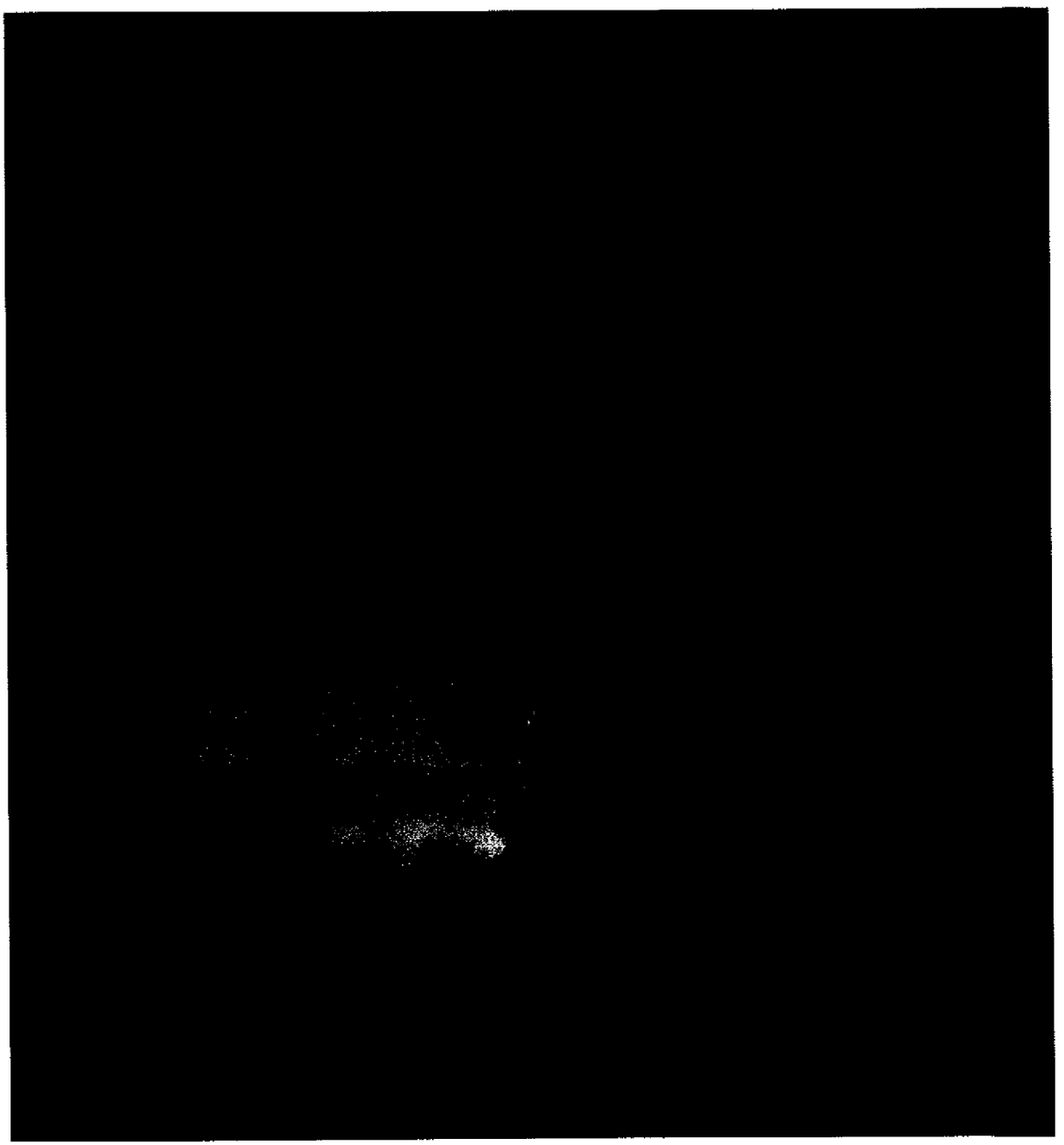

Notes:
1) Photograph taken in October 2005

MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
AERIAL PHOTOGRAPH OF MOUNT POLLEY MINE LOOKING NORTHWEST		
Knight Piésold CONSULTING	PROJECT / ASSIGNMENT NO. VA 101-1/20	REF NO. 1
	FIGURE 1.1	REV. 0

Notes:
1) Photograph taken in October 2005

MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
AERIAL PHOTOGRAPH OF MOUNT POLLEY MINE LOOKING SOUTH		
Knight Piésold CONSULTING	PROJECT / ASSIGNMENT NO. VA 101-1/20	REF NO. 1
	FIGURE 1.2	REV. 0

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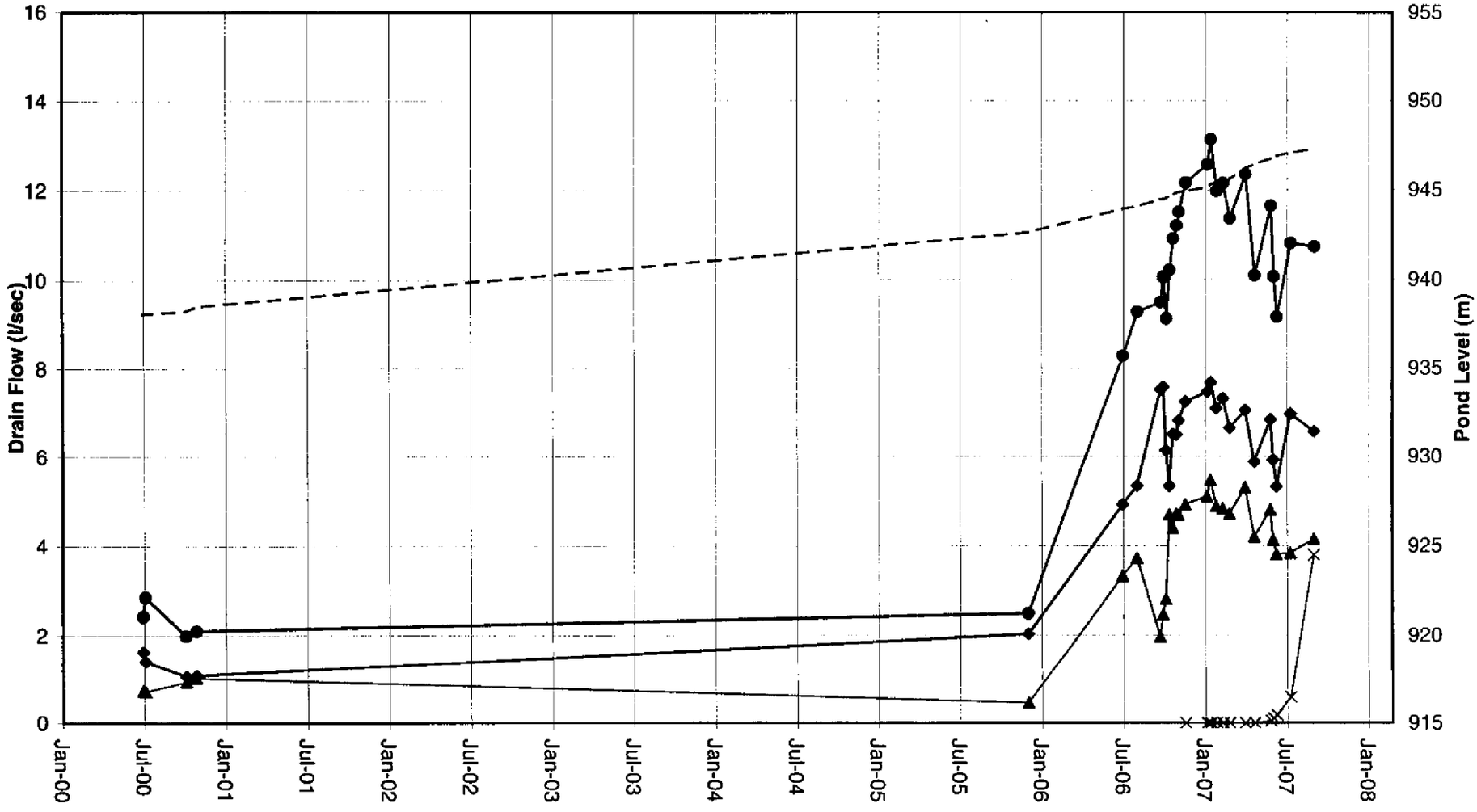

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
UPSTREAM TOE DRAIN FLOWS

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO. VA 101-1/20

REF NO. 1

FIGURE 3.1

REV. 0

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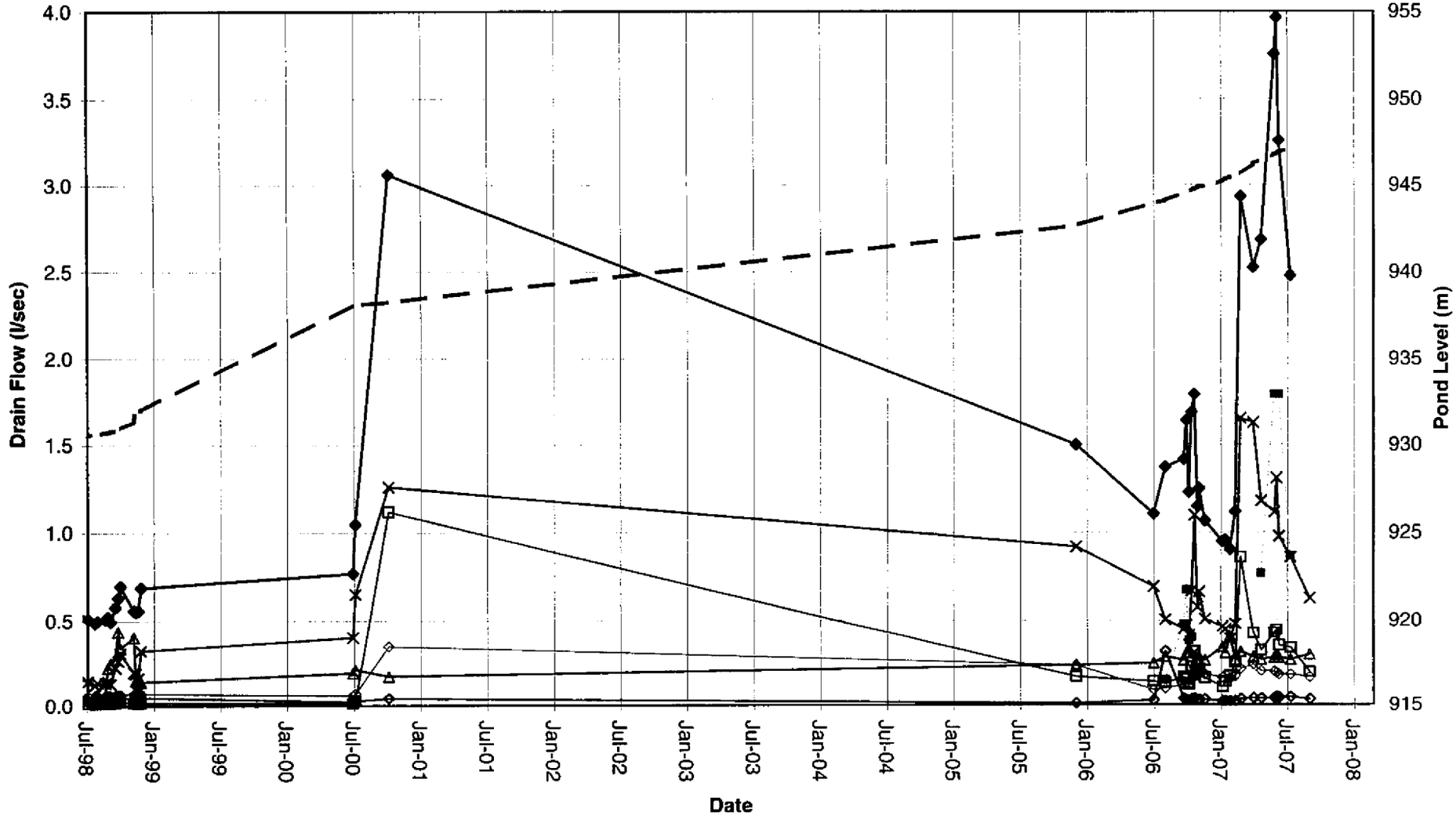

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
MAIN EMBANKMENT FOUNDATION DRAIN FLOWS

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PROJECT / ASSIGNMENT NO. VA 101-1/20 | REF NO. 1

FIGURE 3.2 | REV. 0

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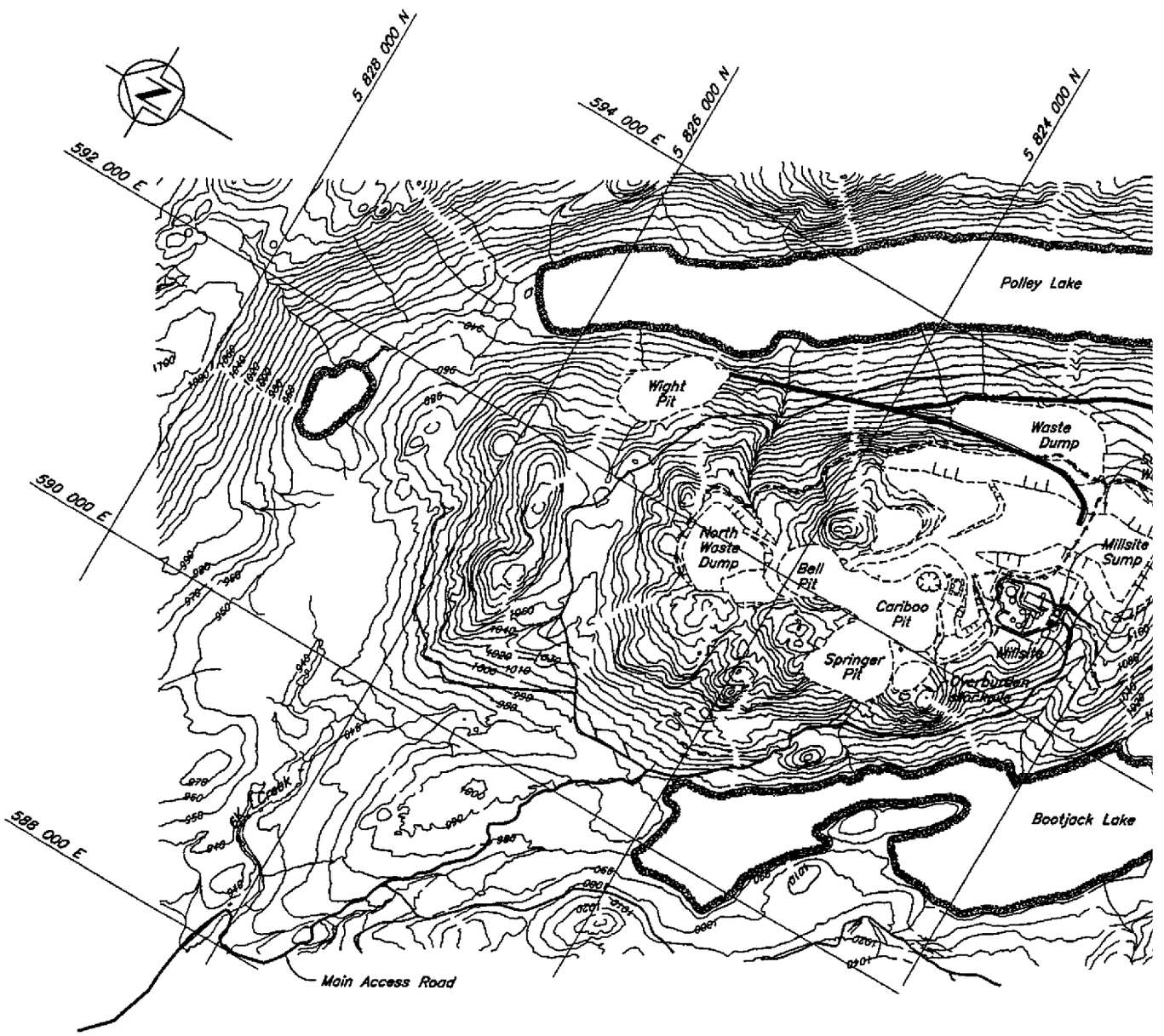

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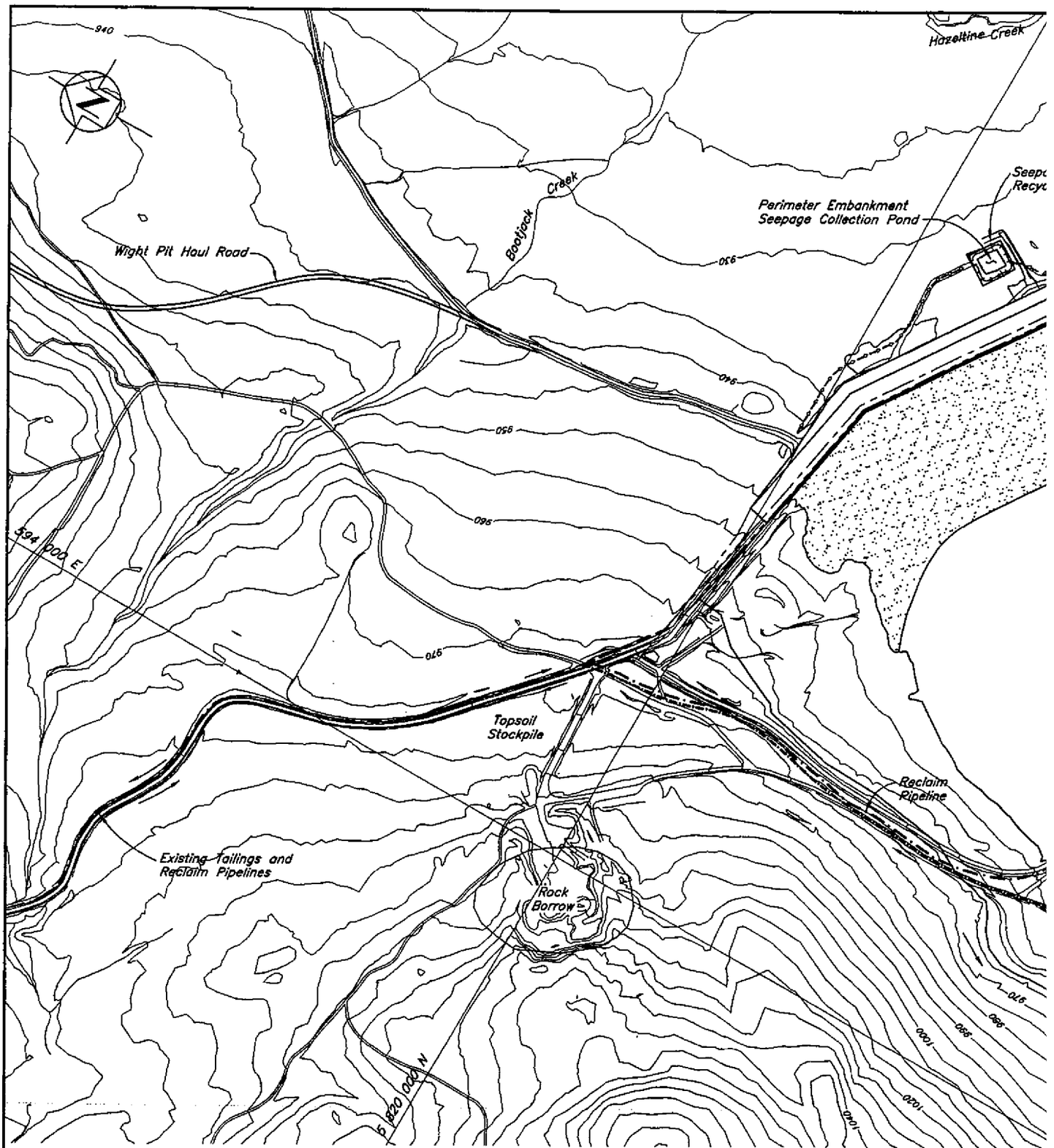

NOTES

1. Topography from 2004 Flyover
2. All dimensions in millimetres and elevations in metres, unless noted otherwise.

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DRG. NO.	DESCRIPTION
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REFERENCE DRAWINGS

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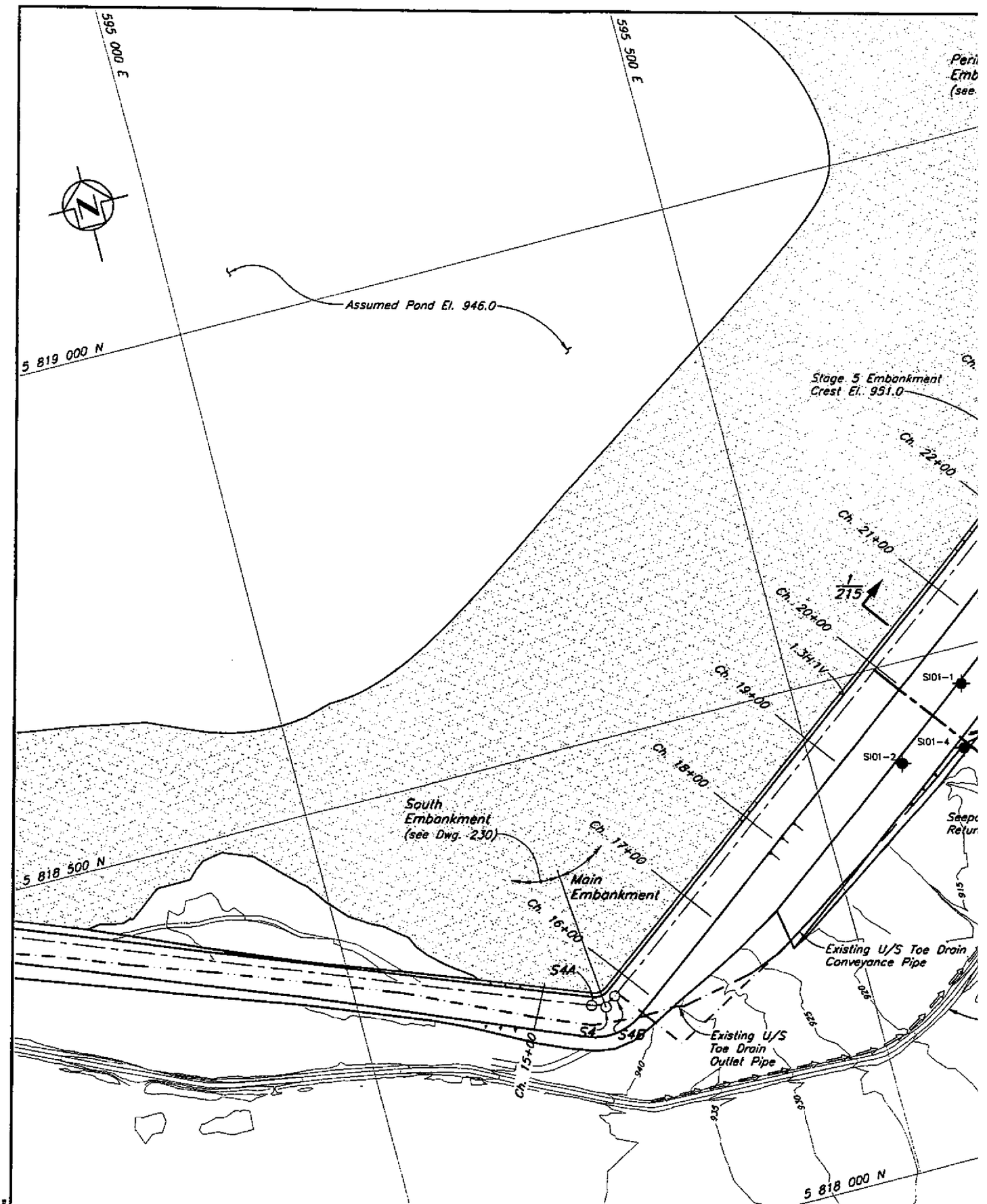

ORG. NO.	DESCRIPTION
230	STAGE 5 SOUTH EMBANKMENT – PLAN
220	STAGE 5 PERIMETER EMBANKMENT – PLAN
215	STAGE 5 MAIN EMBANKMENT – SECTIONS AND DETAILS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D

REVISIONS

XREF FILE : Topo2004, Features

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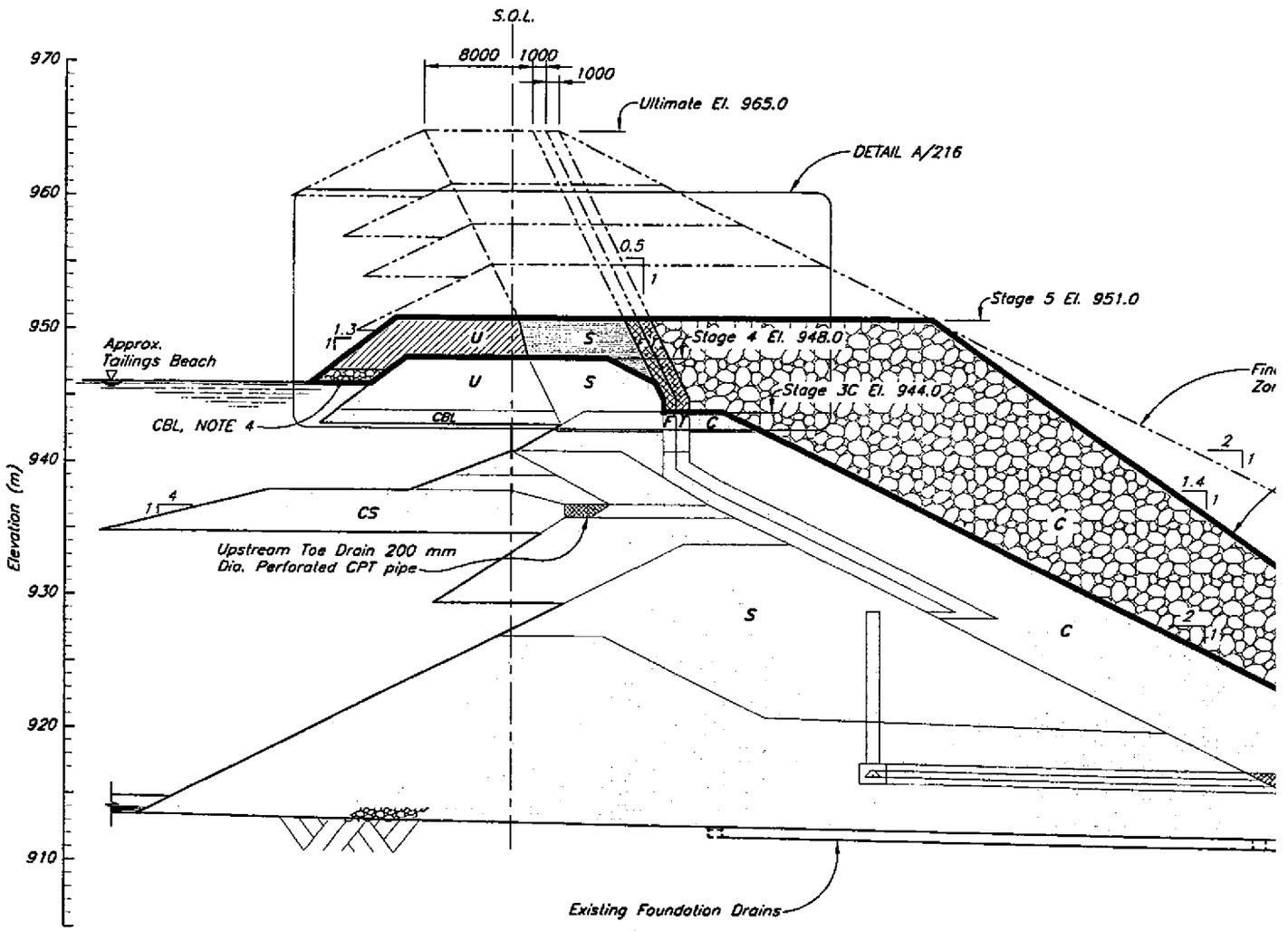
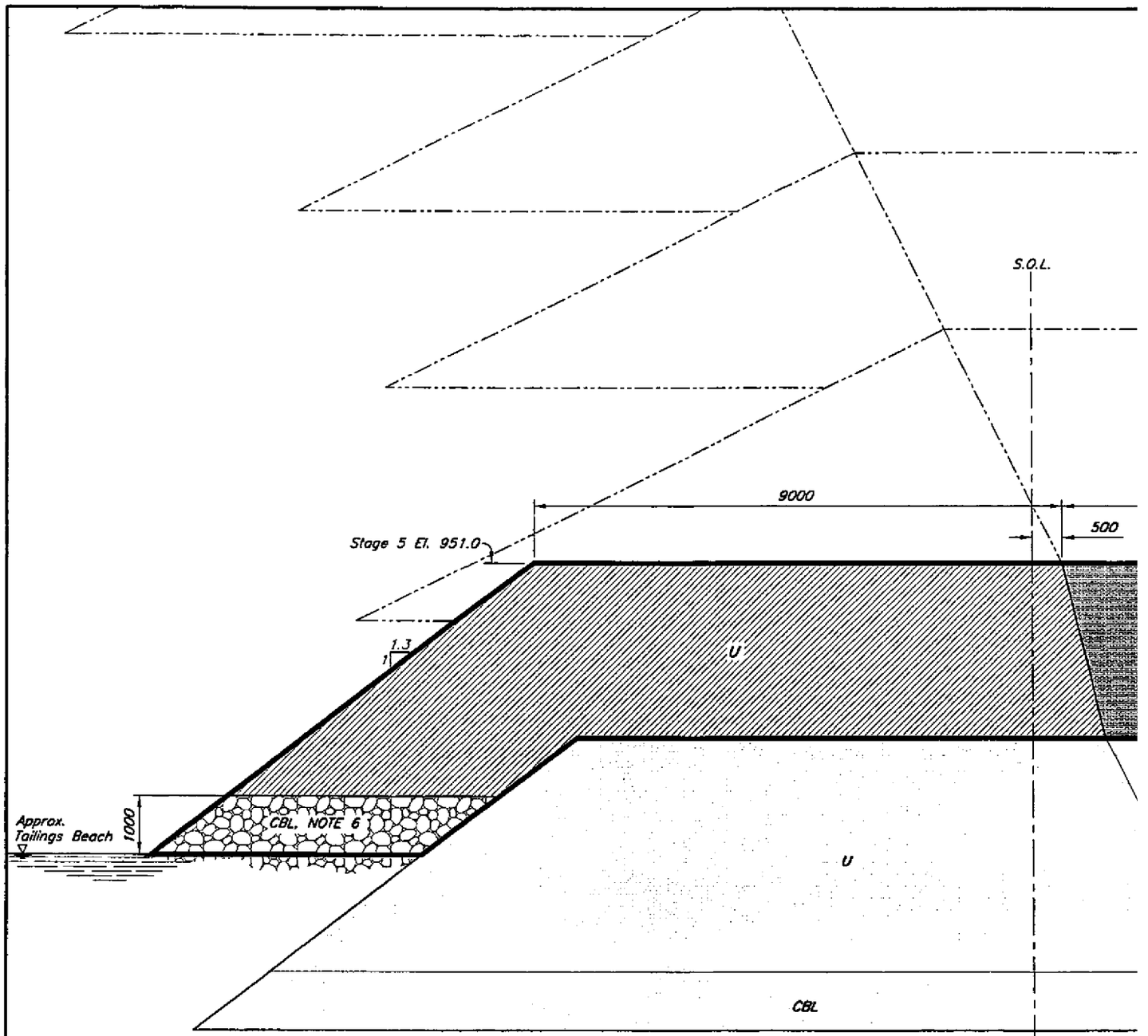


210	STAGE 5 MAIN EMBANKMENT – PLAN
104	MATERIAL SPECIFICATIONS
DRG. NO.	DESCRIPTION

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D

REVISIONS



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DRG. NO.	DESCRIPTION
215	STAGE 5 - MAIN EMBANKMENT - SECTION
210	STAGE 5 - MAIN EMBANKMENT - PLAN
104	Stage 5 - MATERIAL SPECIFICATIONS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D

REVISIONS

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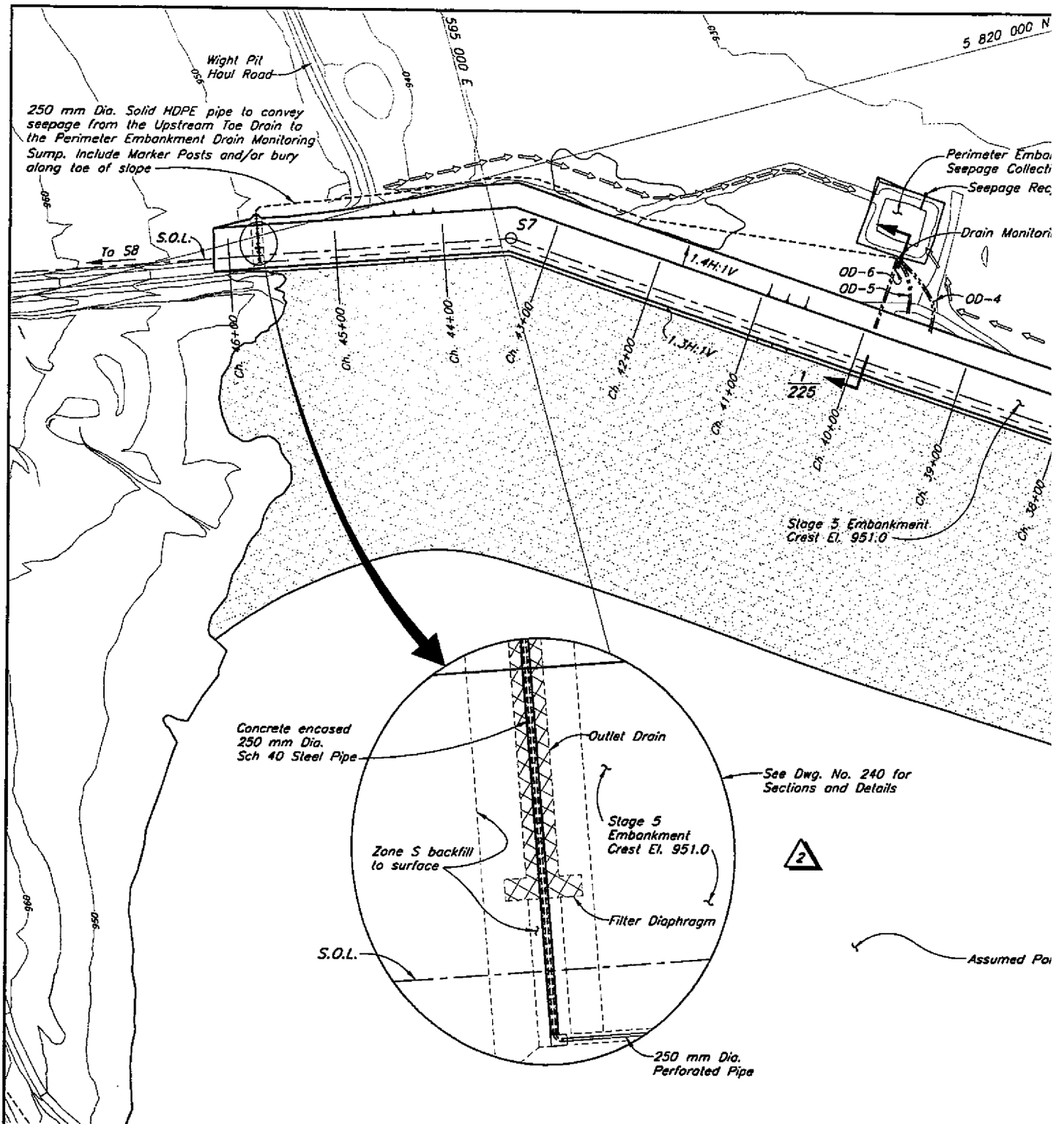


EMBANKMENT SETTING OUT POINTS			
Point	Northing	Easting	Chainage
S1	5 818 626.163	594 249.555	5+00.00
S4A	5 818 243.621	595 227.361	15+49.97
S4B	5 818 246.923	595 251.497	15+77.87
S4	5 818 238.539	595 240.350	15+63.92
S5A	5 818 951.971	596 188.906	27+50.83
S5B	5 818 986.958	596 193.873	28+00.78
S5	5 818 966.983	596 208.866	27+75.80
S6	5 819 304.035	595 955.881	31+97.23
S7	5 819 939.748	595 010.249	43+36.69
S8	5 820 053.034	594 396.471	49+60.83

NOTES:

1. Topography from 2004 flyover.
2. All dimensions in millimetres and elevations in metres, unless noted otherwise.
3. Stage 5 construction dimensions and volumes assume a Stage 4 crest elevation of El. 948 m.
4. Concrete encasement to have sloped sides to allow for superior compaction of earthfill materials against it.

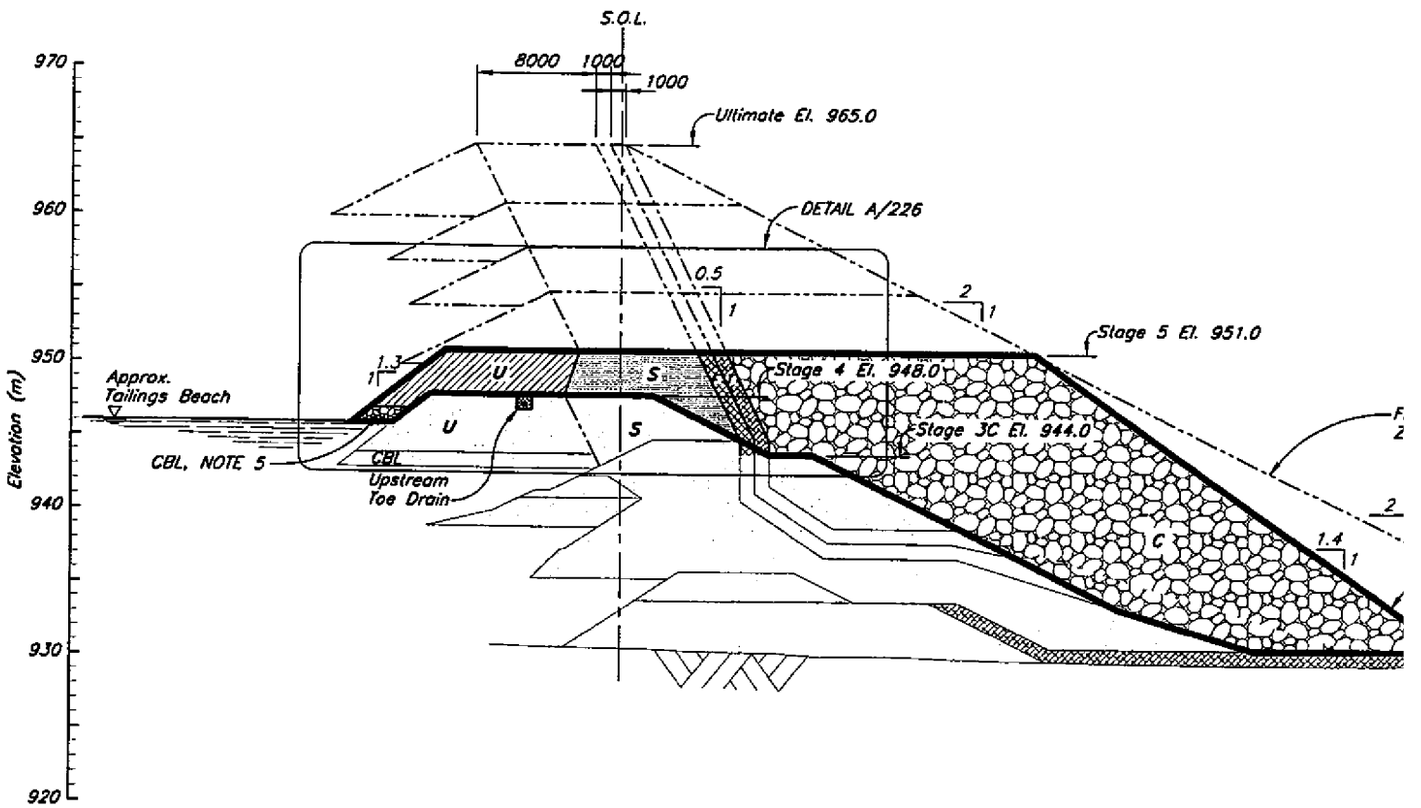
DRG. NO.	DESCRIPTION
240	STAGE 5 PERIMETER EMBANKMENT – UPSTREAM TOE DRAIN
230	STAGE 5 SOUTH EMBANKMENT – PLAN
225	STAGE 5 PERIMETER EMBANKMENT – SECTIONS
210	STAGE 5 MAIN EMBANKMENT – PLAN

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D

REVISIONS

XREF File : Topo2004



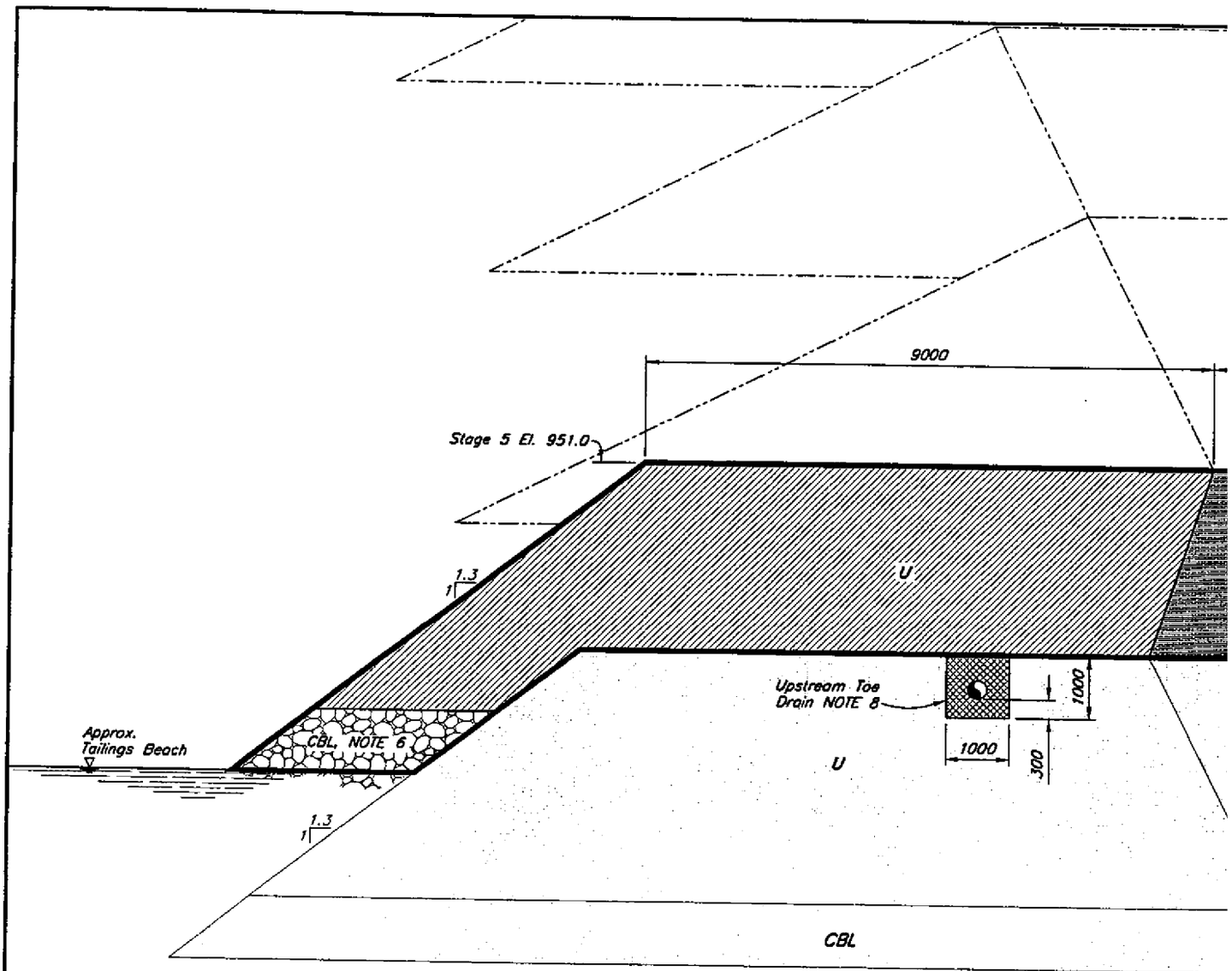
DRG. NO.	DESCRIPTION
226	STAGE 5 – PERIMETER EMBANKMENT – DETAIL
220	STAGE 5 – PERIMETER EMBANKMENT – PLAN
104	STAGE 5 – MATERIAL SPECIFICATIONS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D

REVISIONS

XREF FILE : -



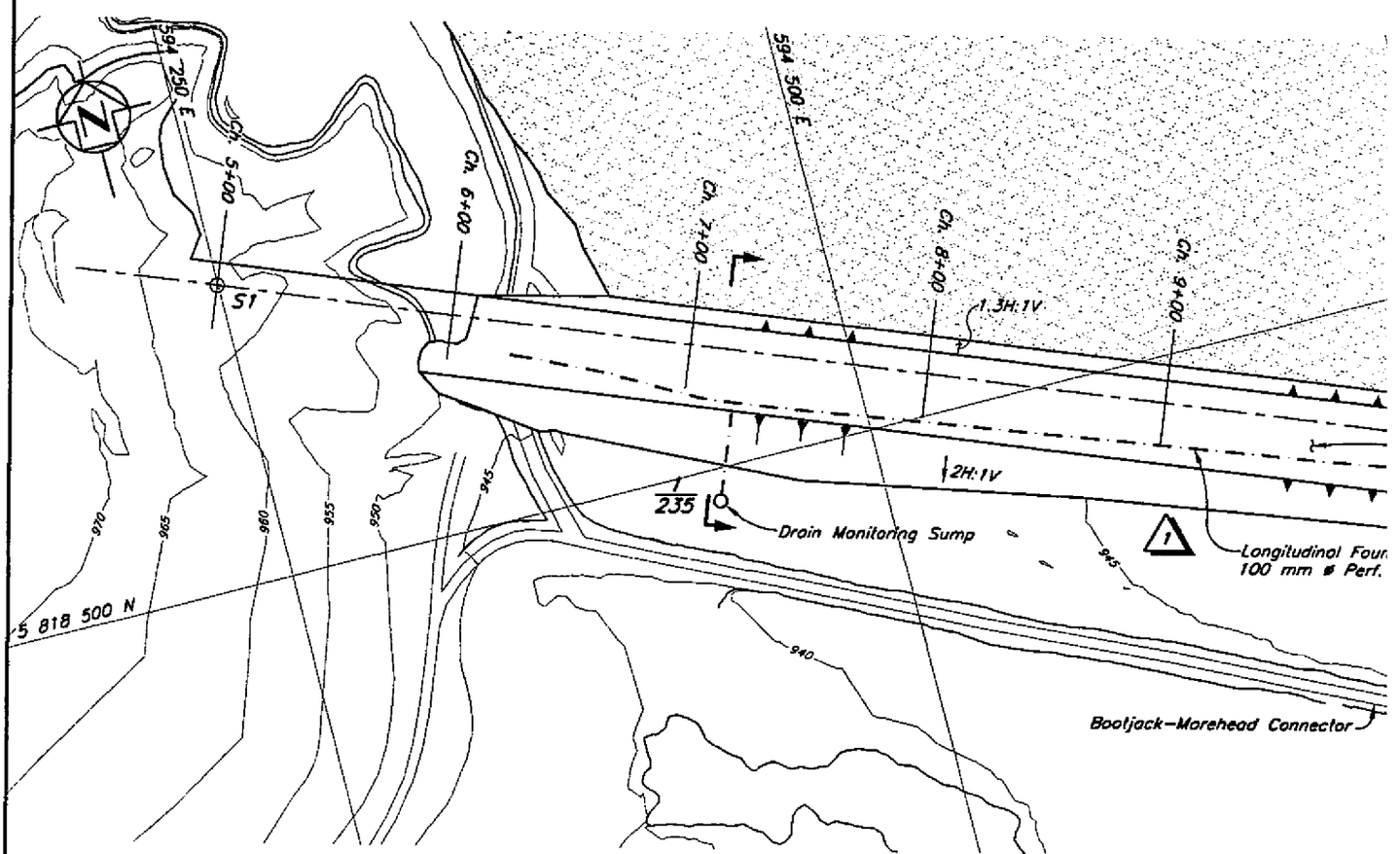
ORG. NO.	DESCRIPTION
225	STAGE 5 - PERIMETER EMBANKMENT - SECTION
220	STAGE 5 - PERIMETER EMBANKMENT - PLAN
104	STAGE 5 - MATERIAL SPECIFICATIONS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
1 0						

REVISIONS

XREF FILE : -



NOTES

1. Topog
2. All di
unless
3. Stage
a Sta

DRG. NO.	DESCRIPTION
235	STAGE 5 SOUTH EMBANKMENT – SECTIONS
220	STAGE 5 PERIMETER EMBANKMENT – PLAN
210	STAGE 5 MAIN EMBANKMENT – PLAN
104	STAGE 5 TAILINGS EMBANKMENT – MATERIAL SPECIFICATIONS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D	REV
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							0

REVISIONS

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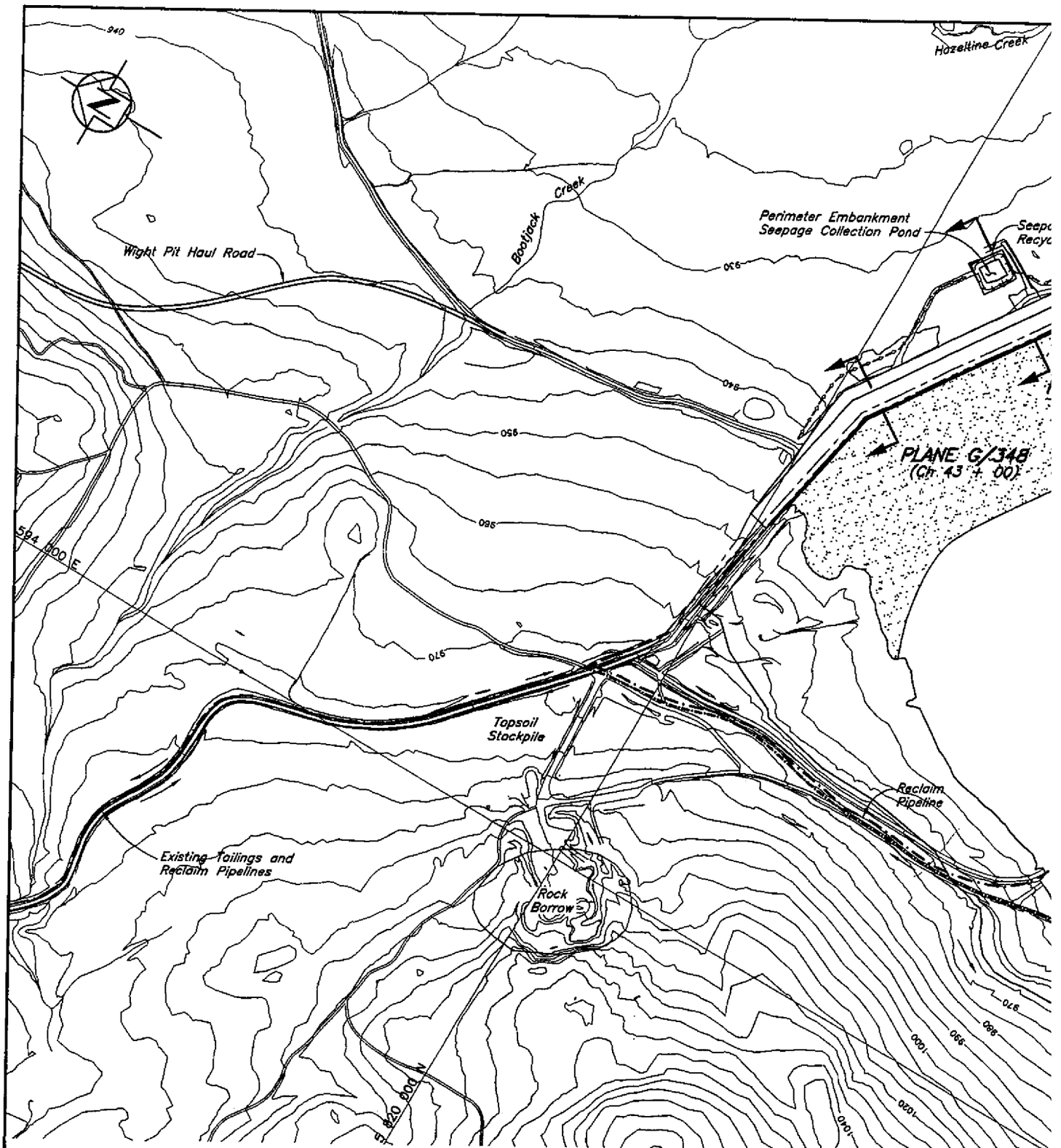

DRG. NO.	DESCRIPTION
349	STAGE 5 INSTRUMENTATION – SOUTH EMB. – PLANES F & I
348	STAGE 5 INSTRUMENTATION – PERIMETER EMB. – PLANES D, G & H
347	STAGE 5 INSTRUMENTATION – MAIN EMB. – PLANES C & D
346	STAGE 5 INSTRUMENTATION – MAIN EMB. – PLANES A & B

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
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REVISIONS

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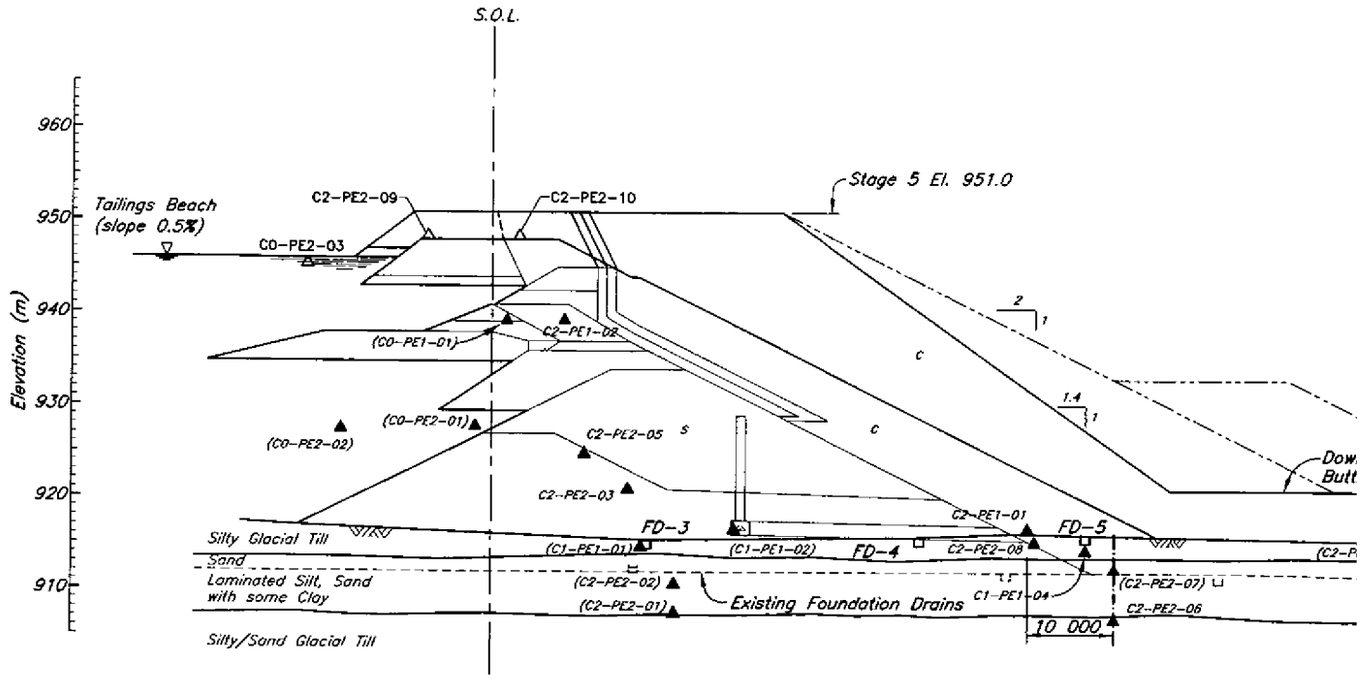
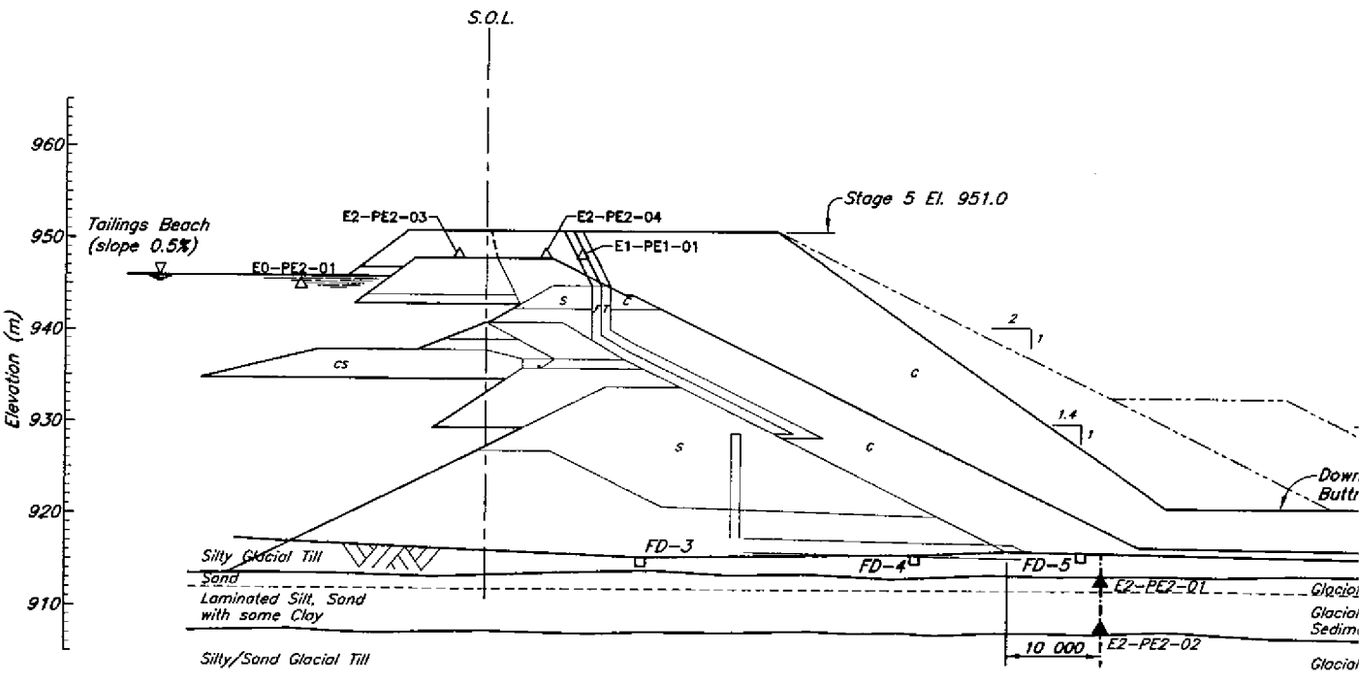


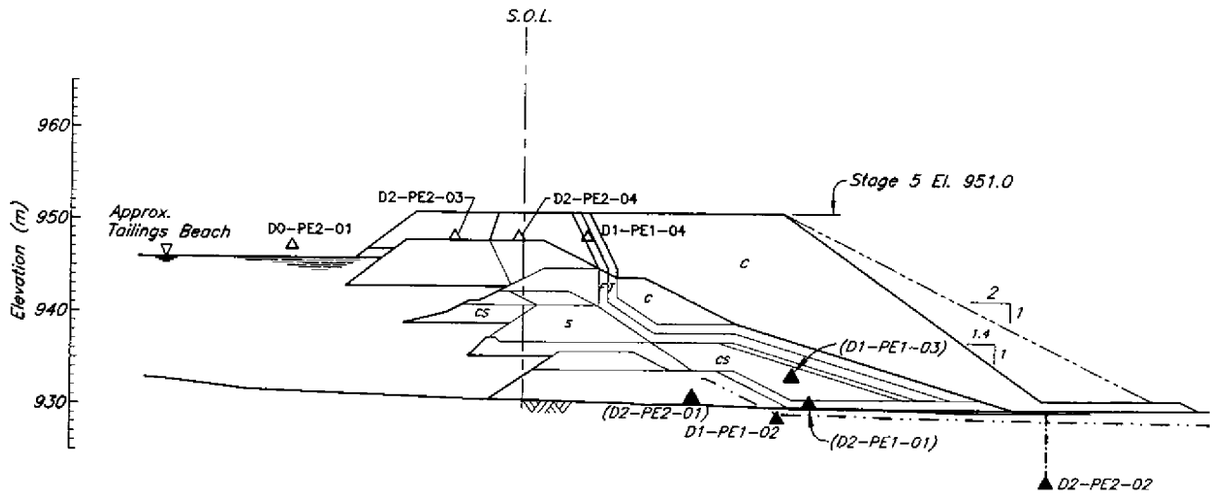
PLANE C/345



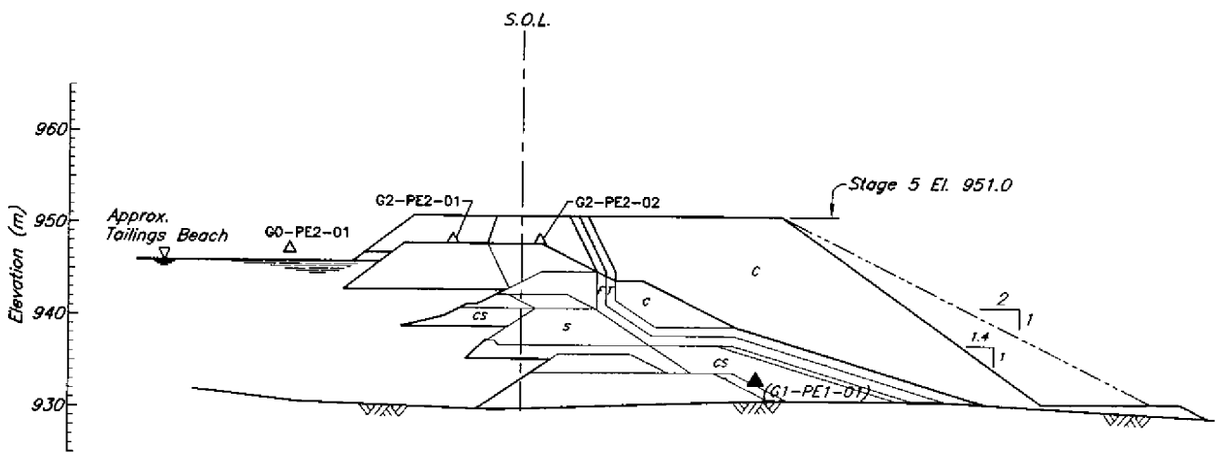
PLANE E/345

345	INSTRUMENTATION – EMBANKMENT – PLAN									0 0
DRG. NO.	DESCRIPTION	REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D	REV.	
REFERENCE DRAWINGS		REVISIONS								

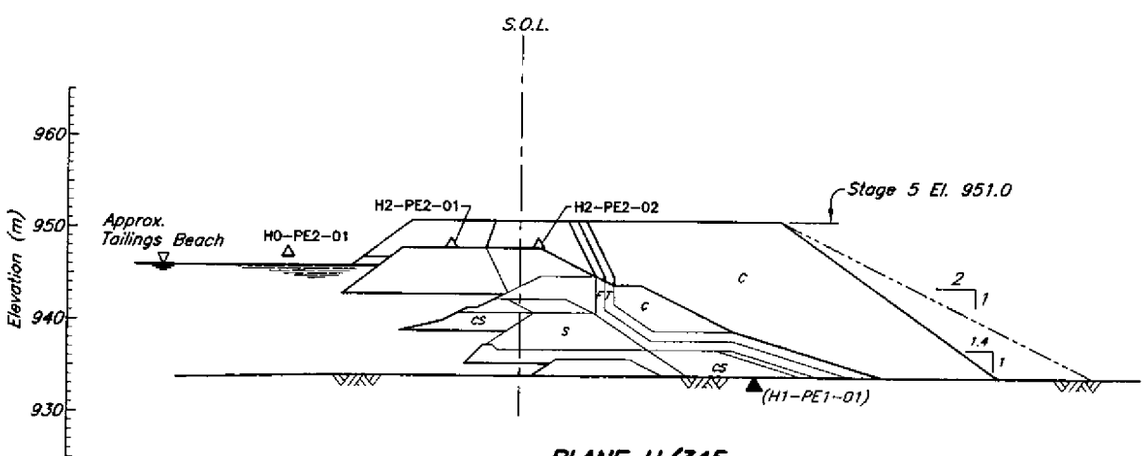
XREF FILE :-



PLANE D/345



PLANE G/345



PLANE H/345

XREF FILE : --

345	INSTRUMENTATION – EMBANKMENT – PLAN
DRG. NO.	DESCRIPTION

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D

REVISIONS

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REV.

APPENDIX A

PIEZOMETER RECORDS

- Figures A1-1 to A1-7 Tailings Piezometers
- Figures A2-1 to A2-7 Foundation Piezometers
- Figures A3-1 to A3-9 Fill Piezometers
- Figures A4-1 to A4-7 Drain Piezometers

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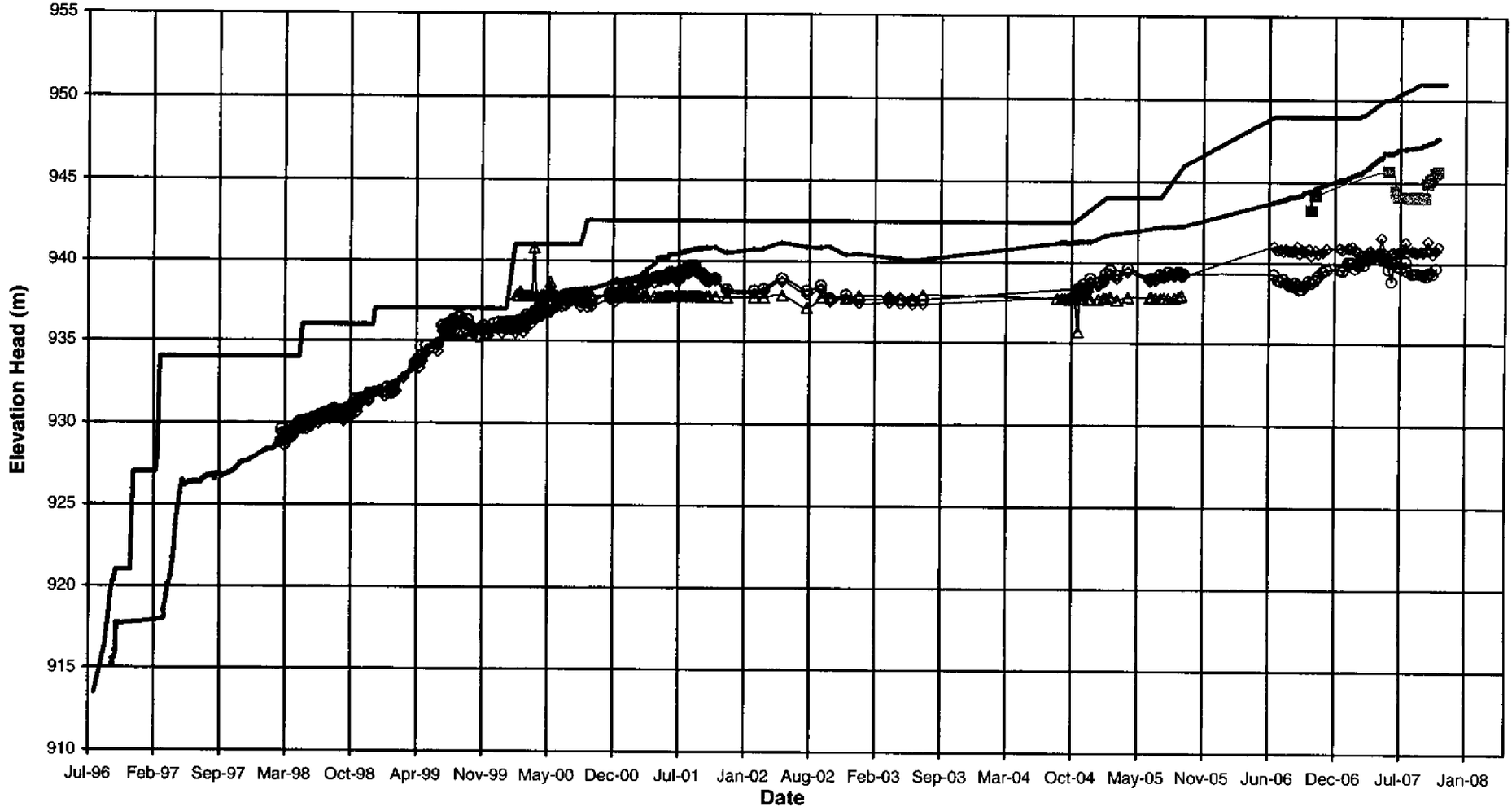

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE A TAILINGS PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

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REF NO. 1

FIGURE A1-1

REV. 0

AMEC010457_0042

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane B 2007.xls Plane B Tailings

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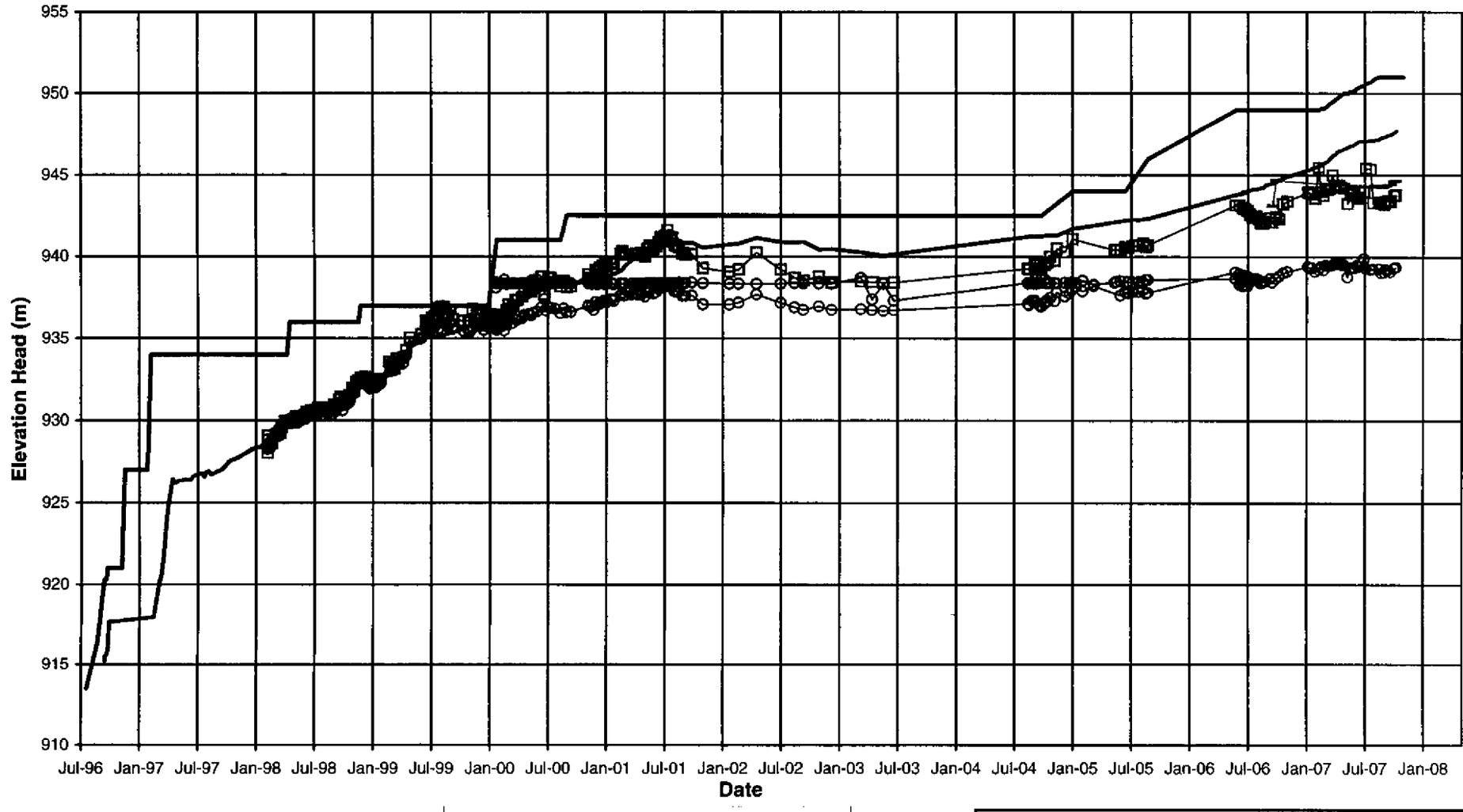

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE B TAILINGS PIEZOMETERS
ELEVATION HEAD VS. TIME

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REF NO. 1

FIGURE A1-2

REV. 0

AMEC010457_0043

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane C 2007.xls Plane C Tailings

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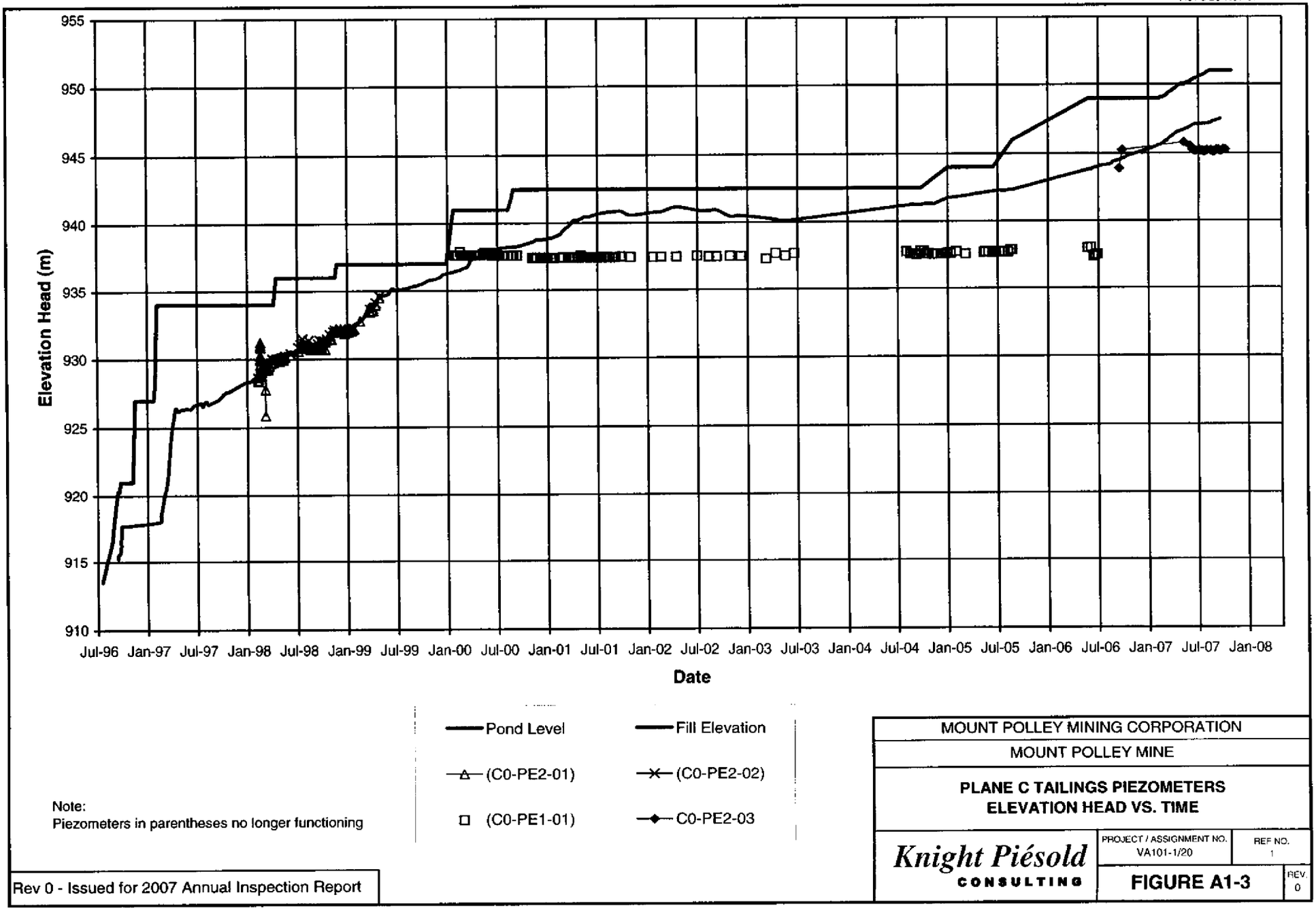

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINE

PLANE C TAILINGS PIEZOMETERS
ELEVATION HEAD VS. TIME

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VA101-1/20	1	0

FIGURE A1-3

AMEC010457_0044

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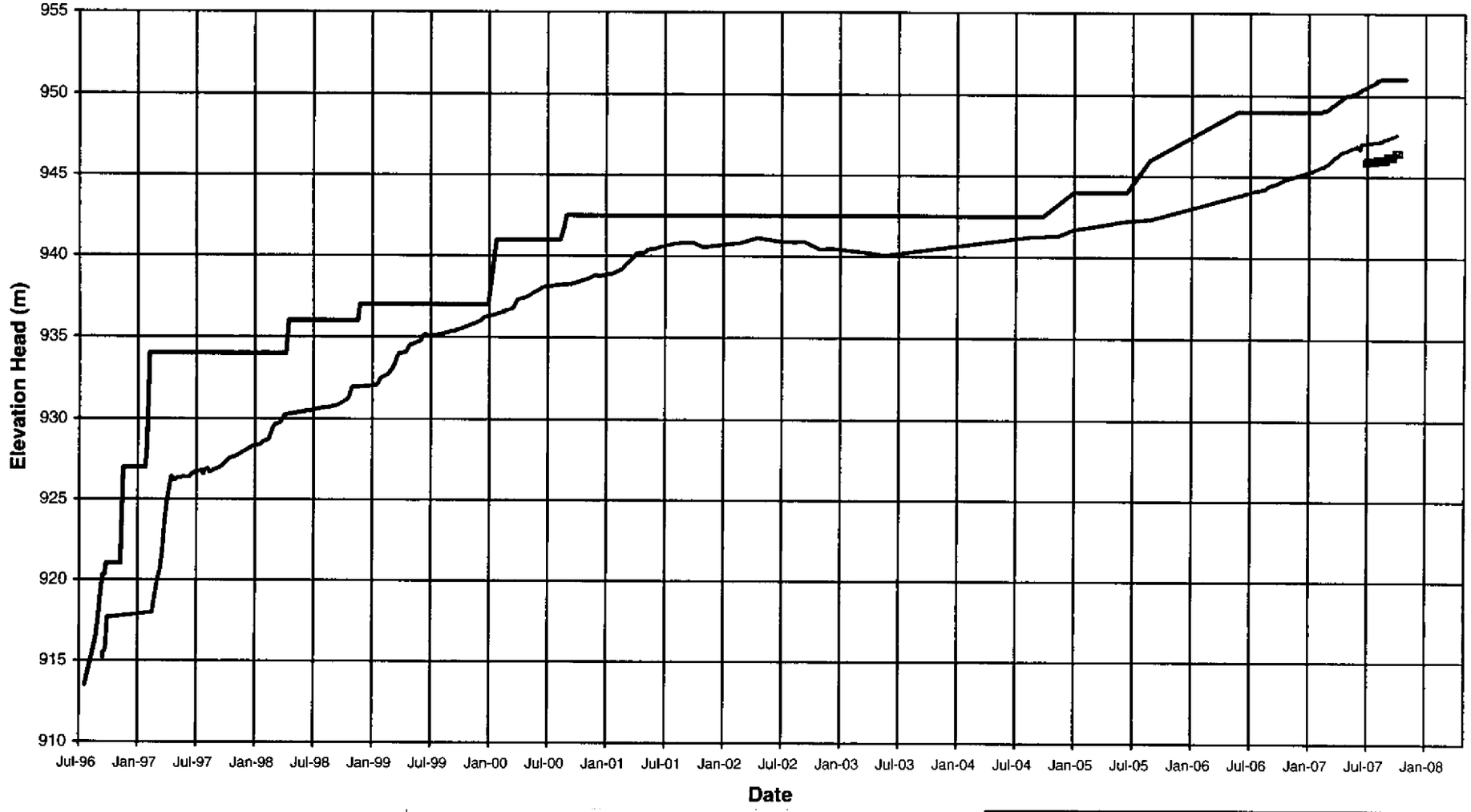

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

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PLANE D TAILINGS PIEZOMETERS
ELEVATION HEAD VS. TIME

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REF NO. 1

FIGURE A1-4

REV. 0

AMEC010457_0045

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane E 2007.xlsPlane E Tailings

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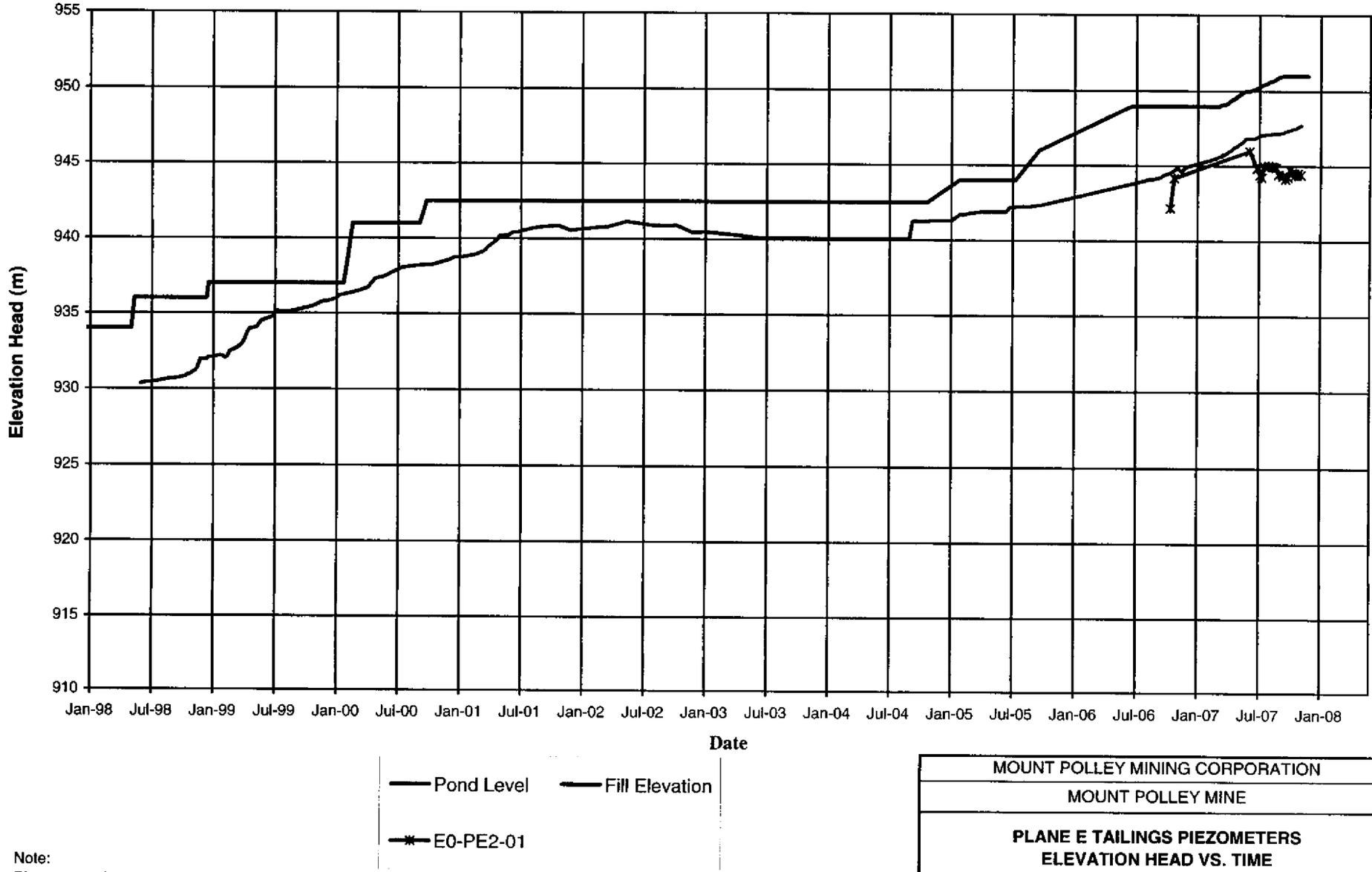

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINE

PLANE E TAILINGS PIEZOMETERS
ELEVATION HEAD VS. TIME

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PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A1-5

REV 0

AMEC010457_0046

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane G 2007.xls Plane G Tailings

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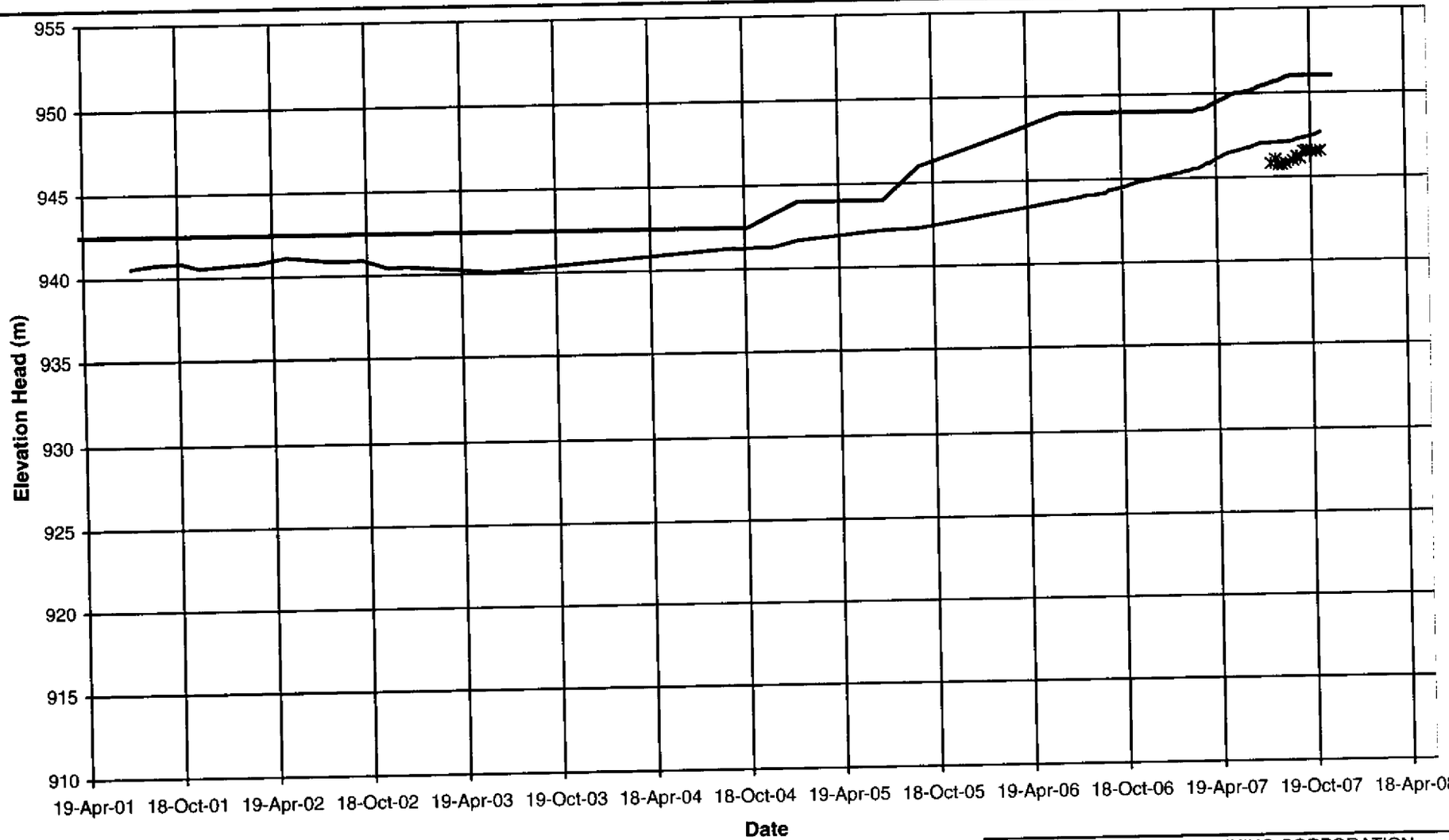

Note:
Piezometers in parentheses no longer functioning

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PLANE G TAILINGS PIEZOMETERS
ELEVATION HEAD VS. TIME

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VA101-1/20	1	0

FIGURE A1-6

AMEC010457_0047

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane H 2007.xls Plane H Tailings

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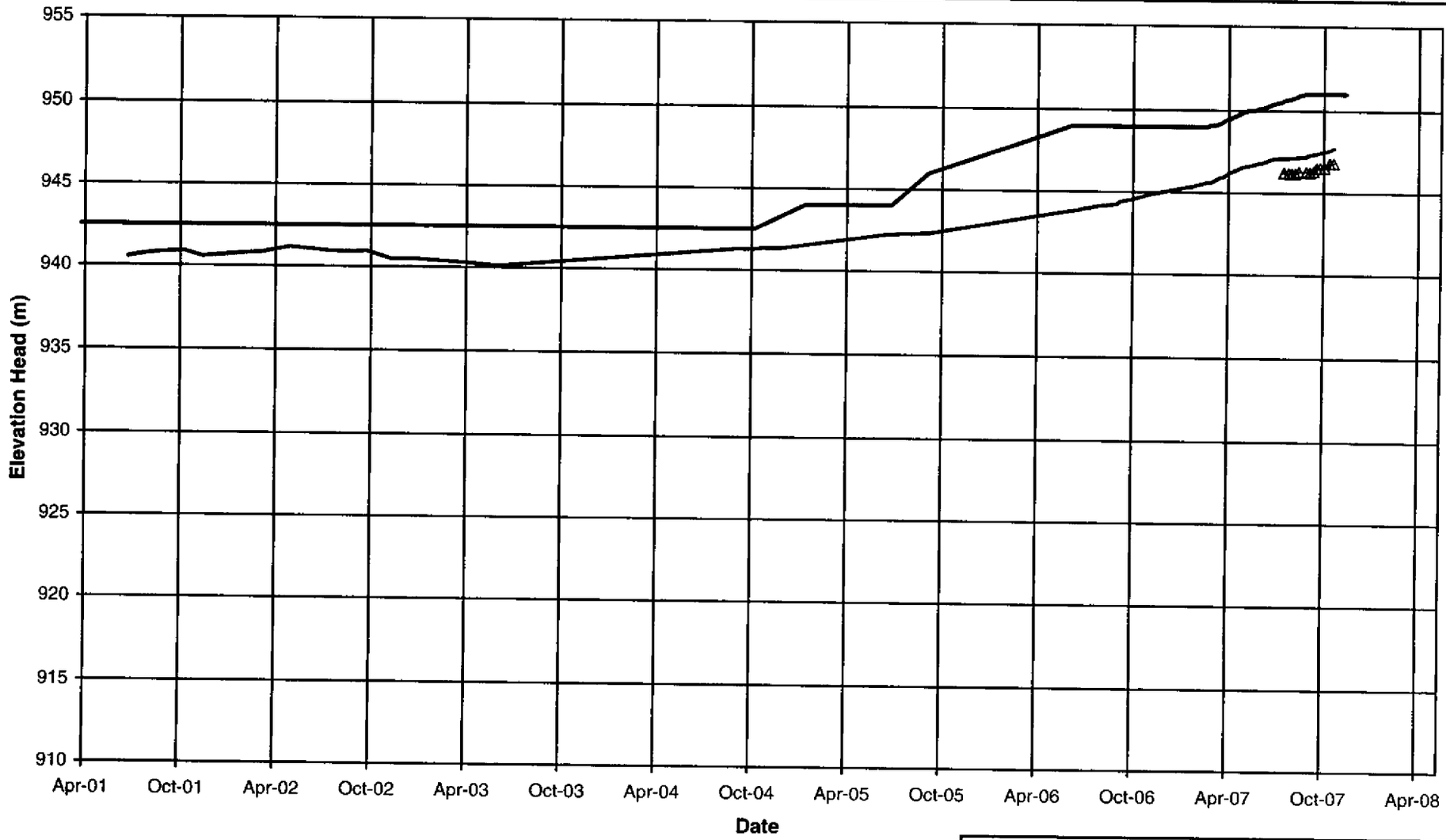

Note:
Piezometers in parentheses no longer functioning

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PLANE H TAILINGS PIEZOMETERS ELEVATION HEAD VS. TIME

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REF NO. 1

FIGURE A1-7

REV. 0

AMEC010457_0048

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane A 2007.xls Plane A Foundation

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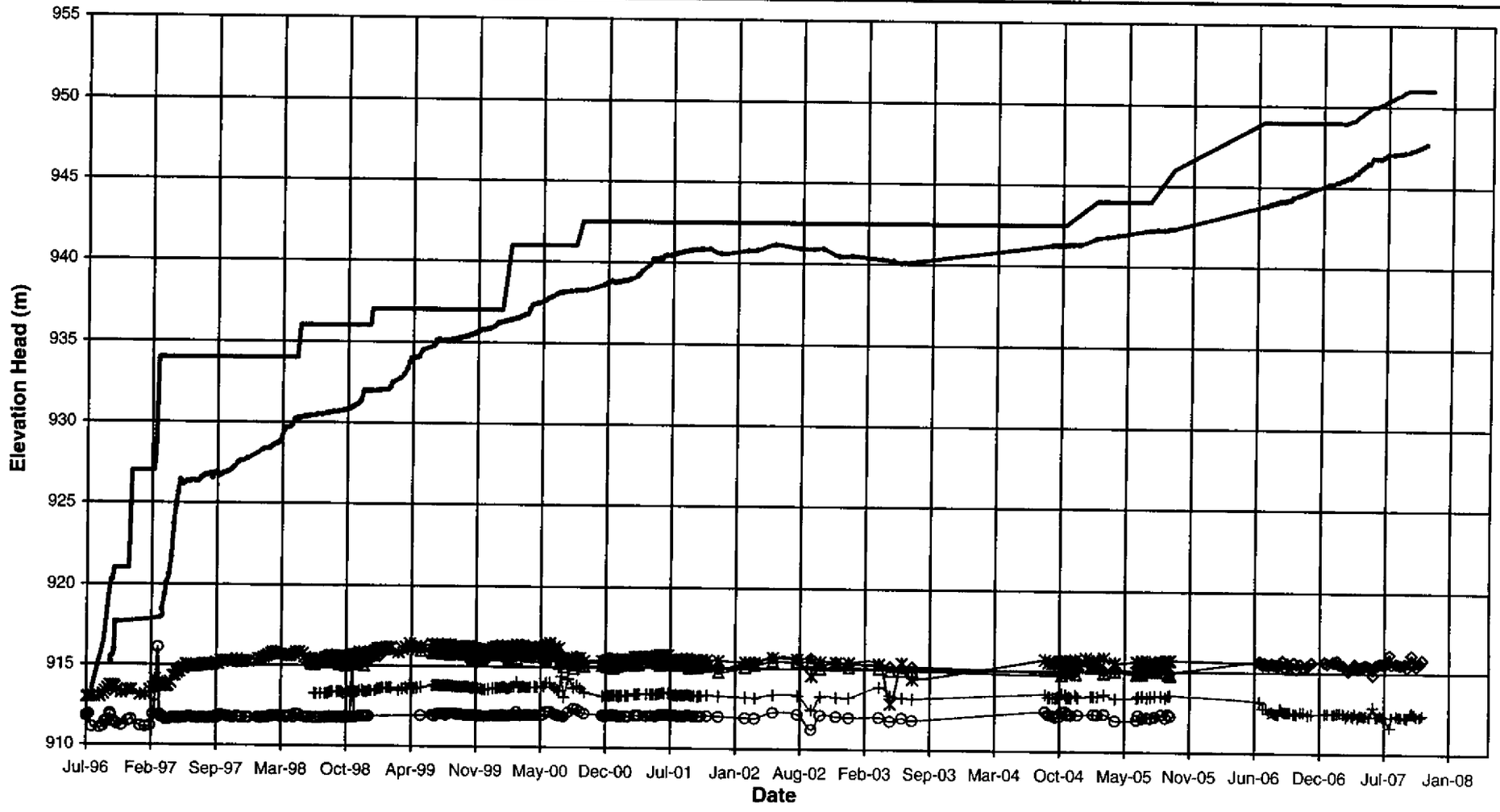

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE A FOUNDATION PIEZOMETERS ELEVATION HEAD VS. TIME

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REF NO. 1

FIGURE A2-1

REV. 0

AMEC010457_0049

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane B 2007.xls Plane B Foundation

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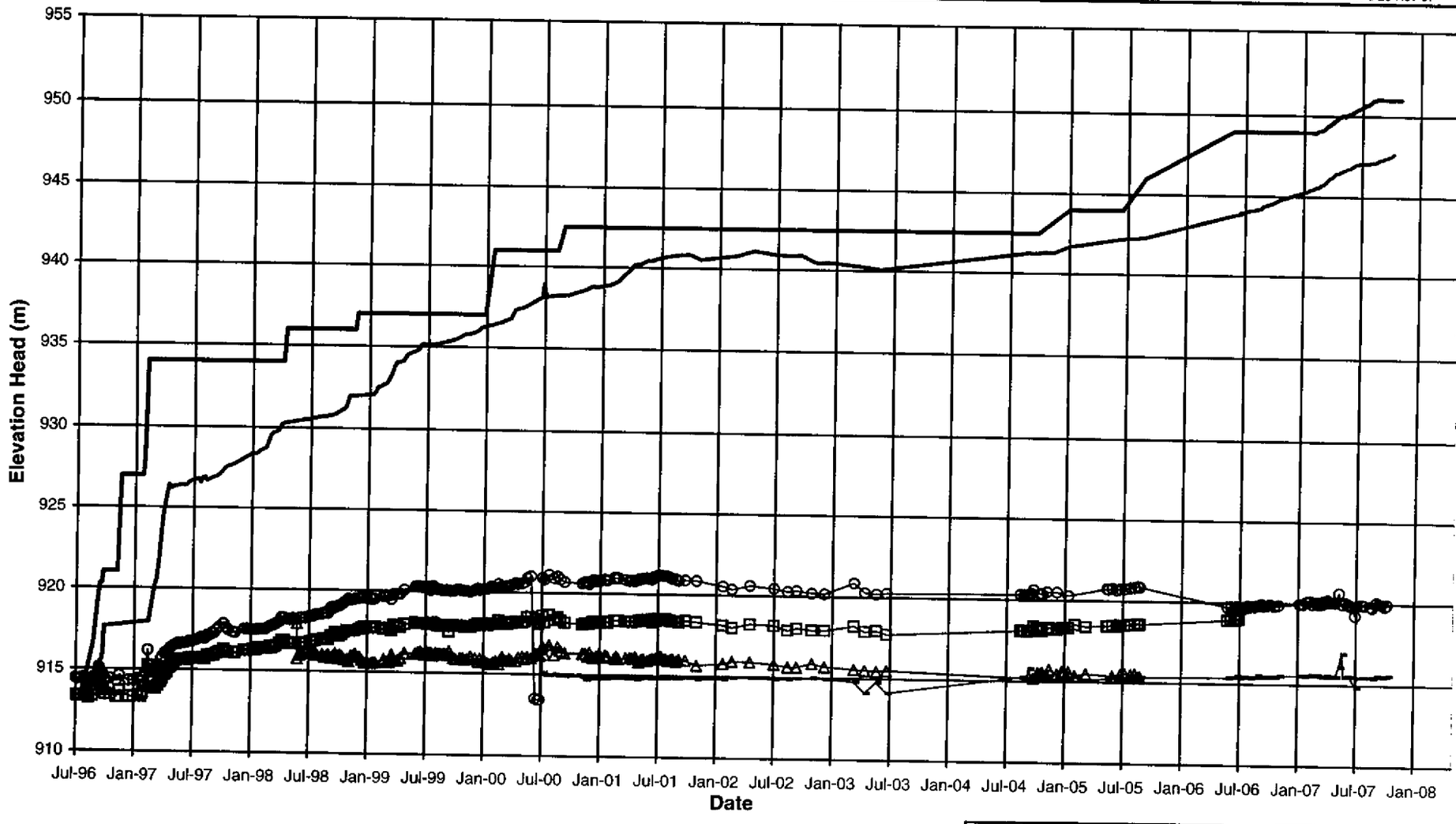

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE B FOUNDATION PIEZOMETERS
ELEVATION HEAD VS. TIME

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REF NO. 1

FIGURE A2-2

REV. 0

AMEC010457_0050

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane C 2007.xls Plane C Foundation

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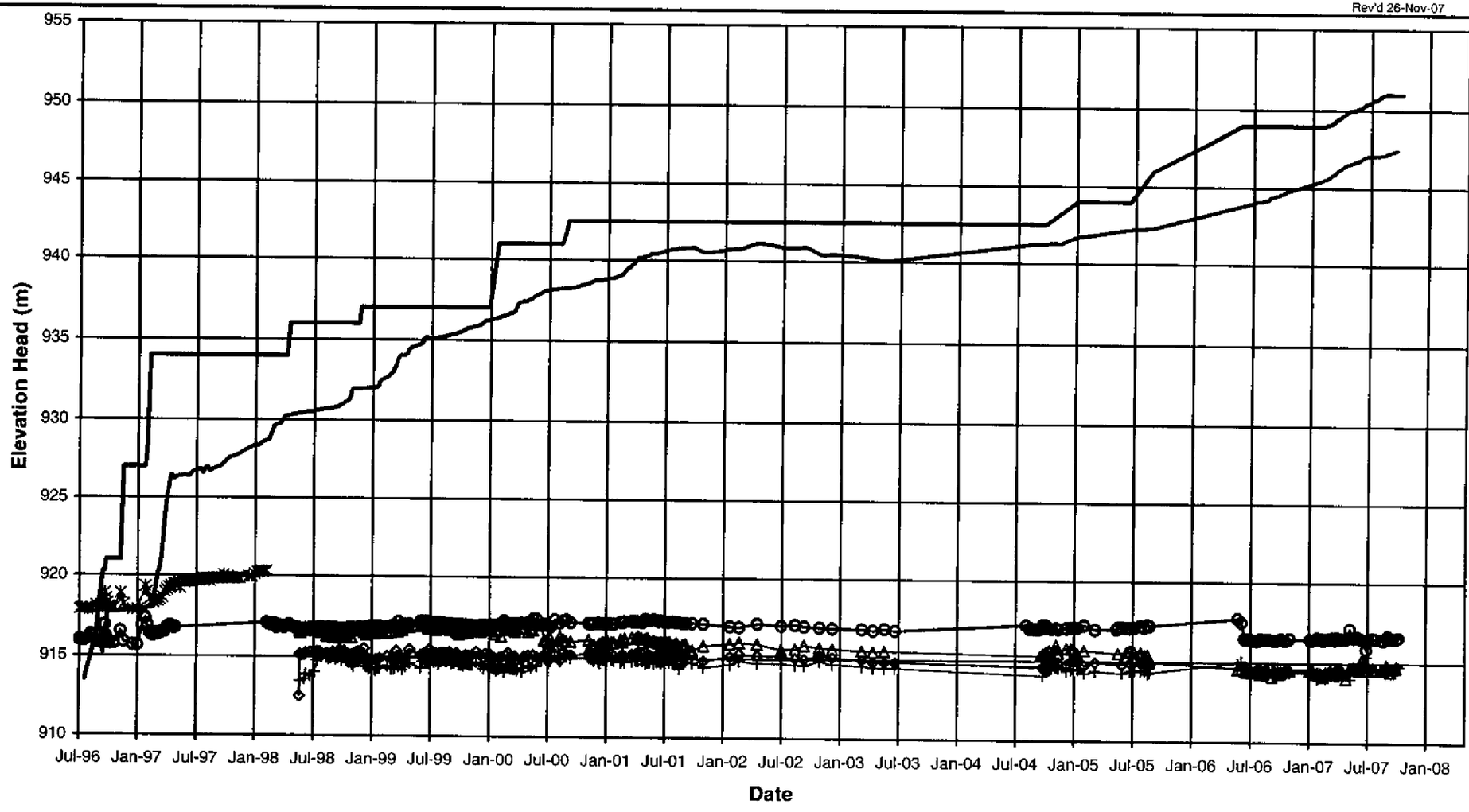

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE C FOUNDATION PIEZOMETERS
ELEVATION HEAD VS. TIME

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PROJECT / ASSIGNMENT NO. VA101-1/20 | REF NO. 1

FIGURE A2-3 | REV. 0

AMEC010457_0051

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane D 2007.xls Plane D Foundation

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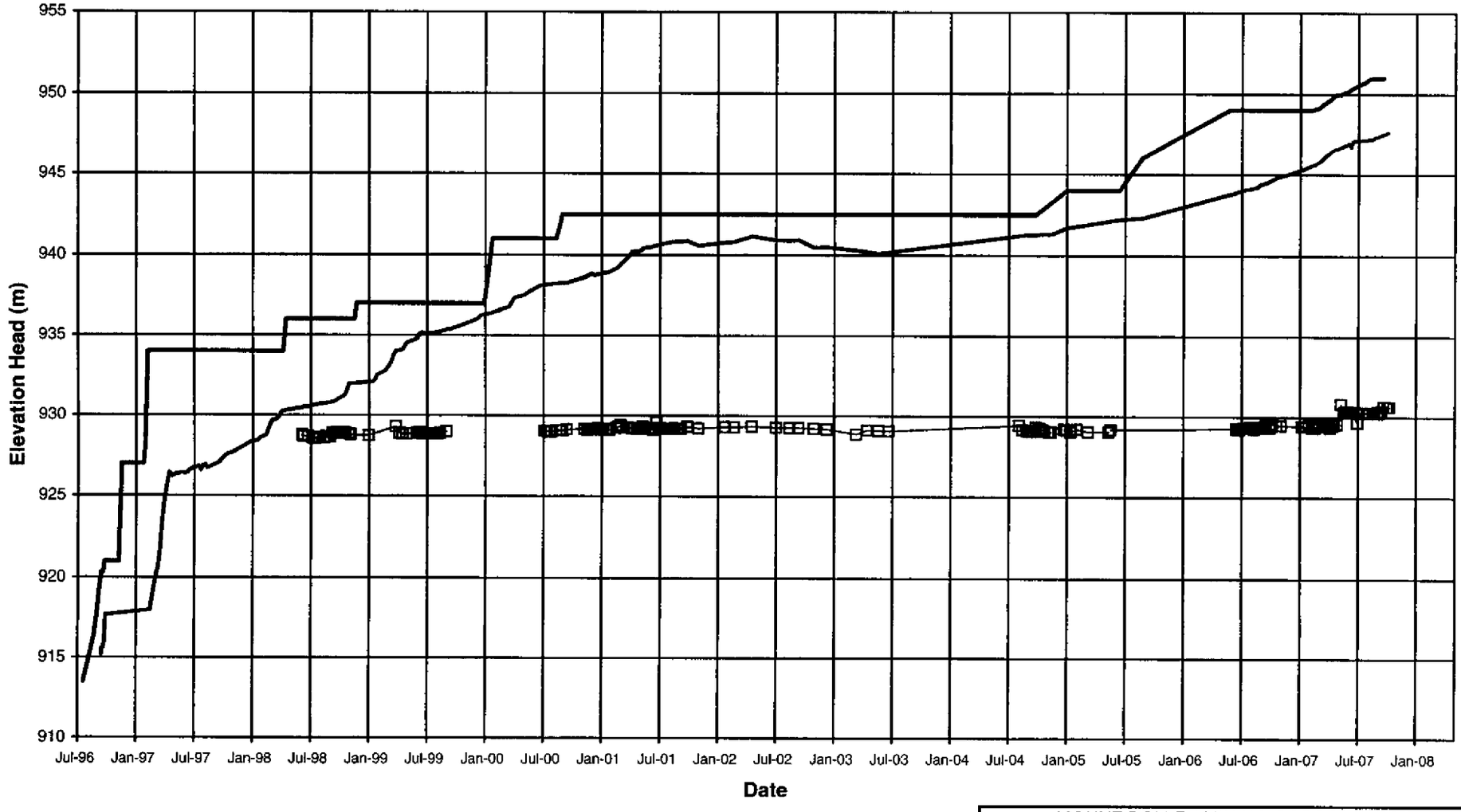

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE D FOUNDATION PIEZOMETERS
ELEVATION HEAD VS. TIME

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PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A2-4

REV. 0

AMEC010457_0052

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane E 2007.xlsPlane E Foundation

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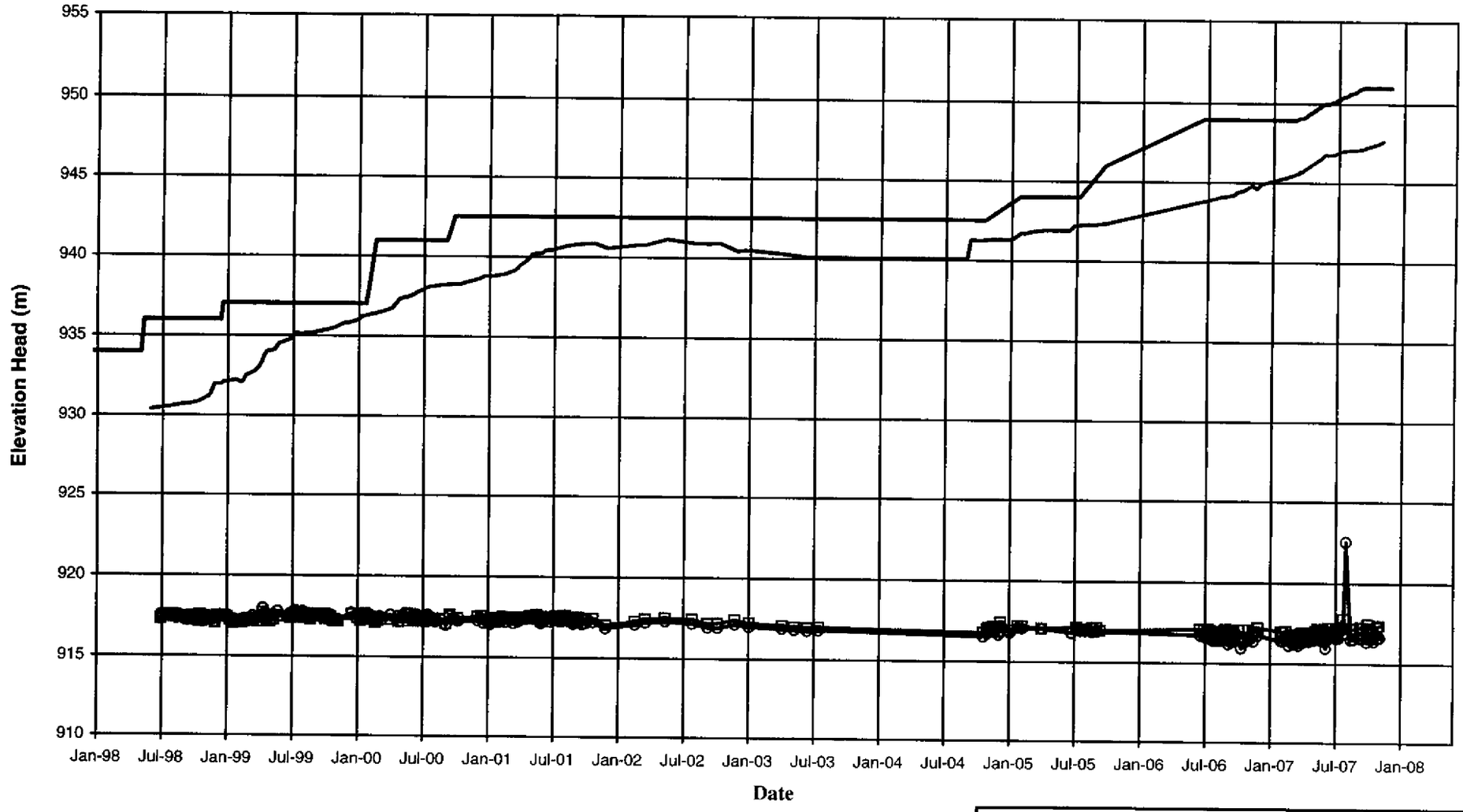

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE E FOUNDATION PIEZOMETERS
ELEVATION HEAD VS. TIME

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REF NO. 1

FIGURE A2-5

REV. 0

AMEC010457_0053

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane F 2007.xlsPlane F 2007.xlsPlane F Foundation

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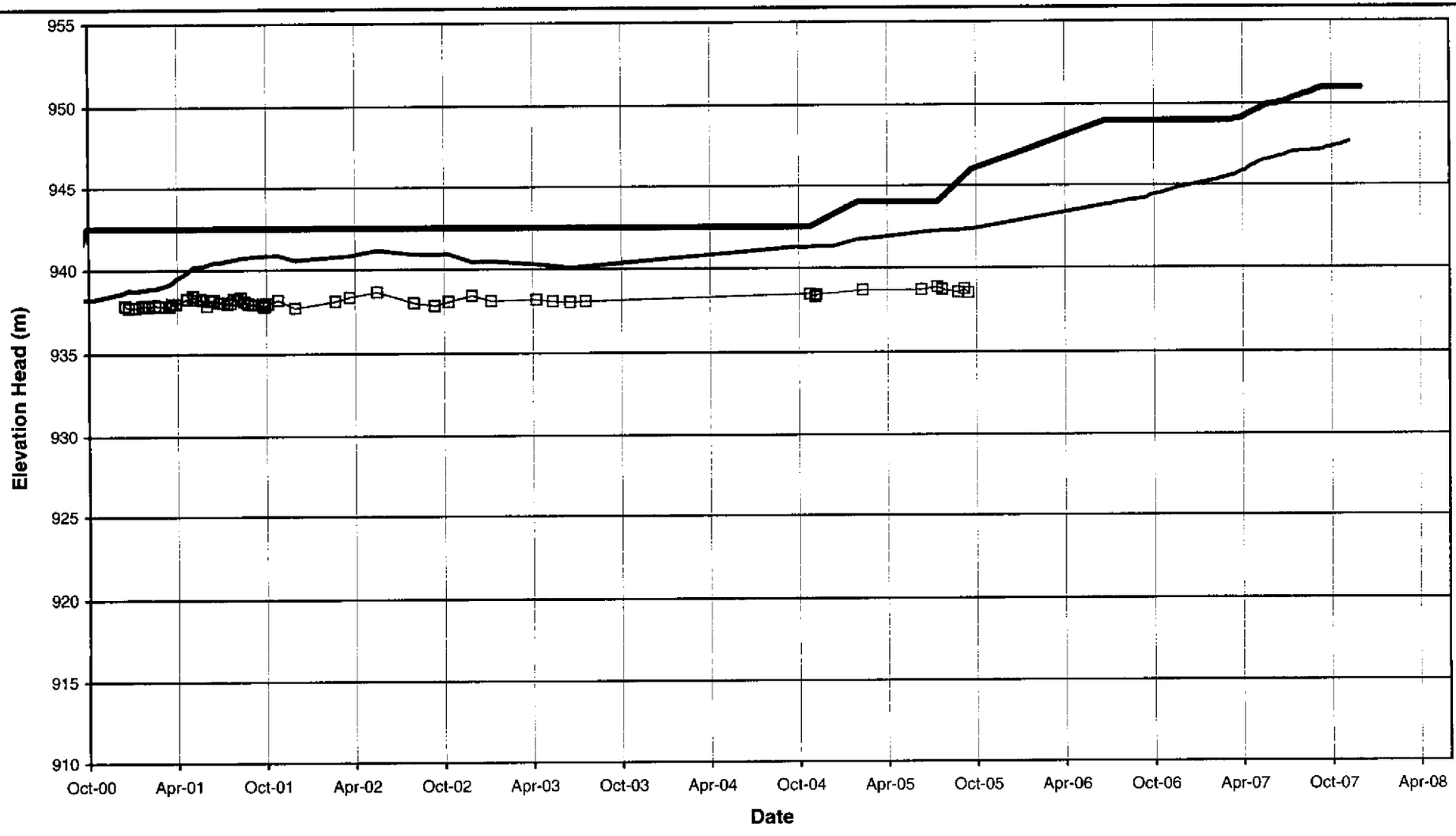

Note:
Piezometers in parentheses no longer functioning

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE F FOUNDATION PIEZOMETERS
ELEVATION HEAD VS. TIME

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REF NO. 1

FIGURE A2-6

REV. 0

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AMEC010457_0054

- Continue with the deposition of tailings from around the facility to facilitate the development of tailings beaches and manage the location of the tailings pond.
- Continue regular monitoring of the water quality and levels in the surrounding groundwater wells.
- Continue regular monitoring of the tailings pond elevation. The TSF is required to have sufficient live storage capacity for containment of runoff from the 72-hour PMP, in addition to regular inflows from other precipitation runoff, including the spring freshet, while maintaining the minimum freeboard requirements.
- Review the condition of the tailings pipeline. A complete design review of the tailings pipeline should be conducted and appropriate modifications completed to ensure that it has the required pressure rating and proper alignment to transport and discharge tailings around the entire TSF.
- Review the Water Management Plan and site water balance on a regular basis to ensure they are consistent with updated plans for ongoing operations and development of the mine site.

Embankment upstream toe drain. The pore pressures in piezometer A1-PE1-04 are expected to dissipate once the tailings beach has been established in this area and the pond is located away from the embankment. There are no concerns indicated by the drain piezometers.

4.2 SLOPE INCLINOMETERS

Three new slope inclinometers were installed downstream of the toe of the Main Embankment during the Stage 4 construction program. One of the inclinometers installed in 2001 (SI01-01) was damaged during the placement of the shell zone material and is no longer functioning. The last reading for SI01-01 was March 2006. There are four functioning inclinometers installed at the Main Embankment.

The results of the inclinometer readings indicate that there have not been any significant deviations measured in the inclinometers since their installation. There were no measurable deformations recorded in the inclinometers during or after the Stage 5 construction program. The results of the readings for inclinometers are included in Appendix B.

4.3 SURVEY MONUMENT DATA

There are currently no survey monuments installed on the TSF embankment crests due to the ongoing construction of the TSF embankments.

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane I 2007.xls Plane I Fill

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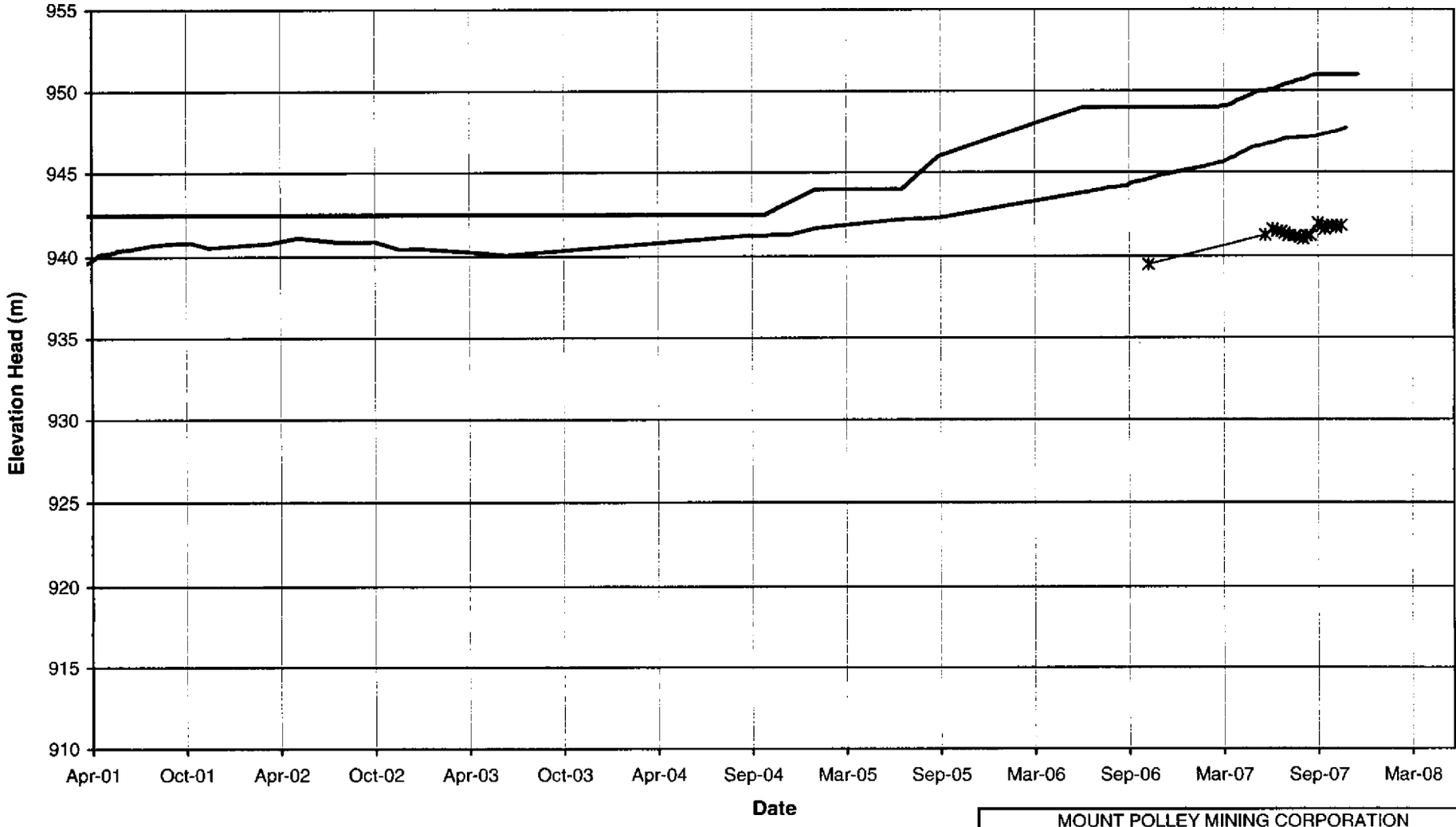

Note:
Piezometers in parentheses no longer functioning

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE I FILL PIEZOMETERS
ELEVATION HEAD VS. TIME

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PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A2-7

REV. 0

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AMEC010457_0057

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane A 2007.xls Plane A Fill

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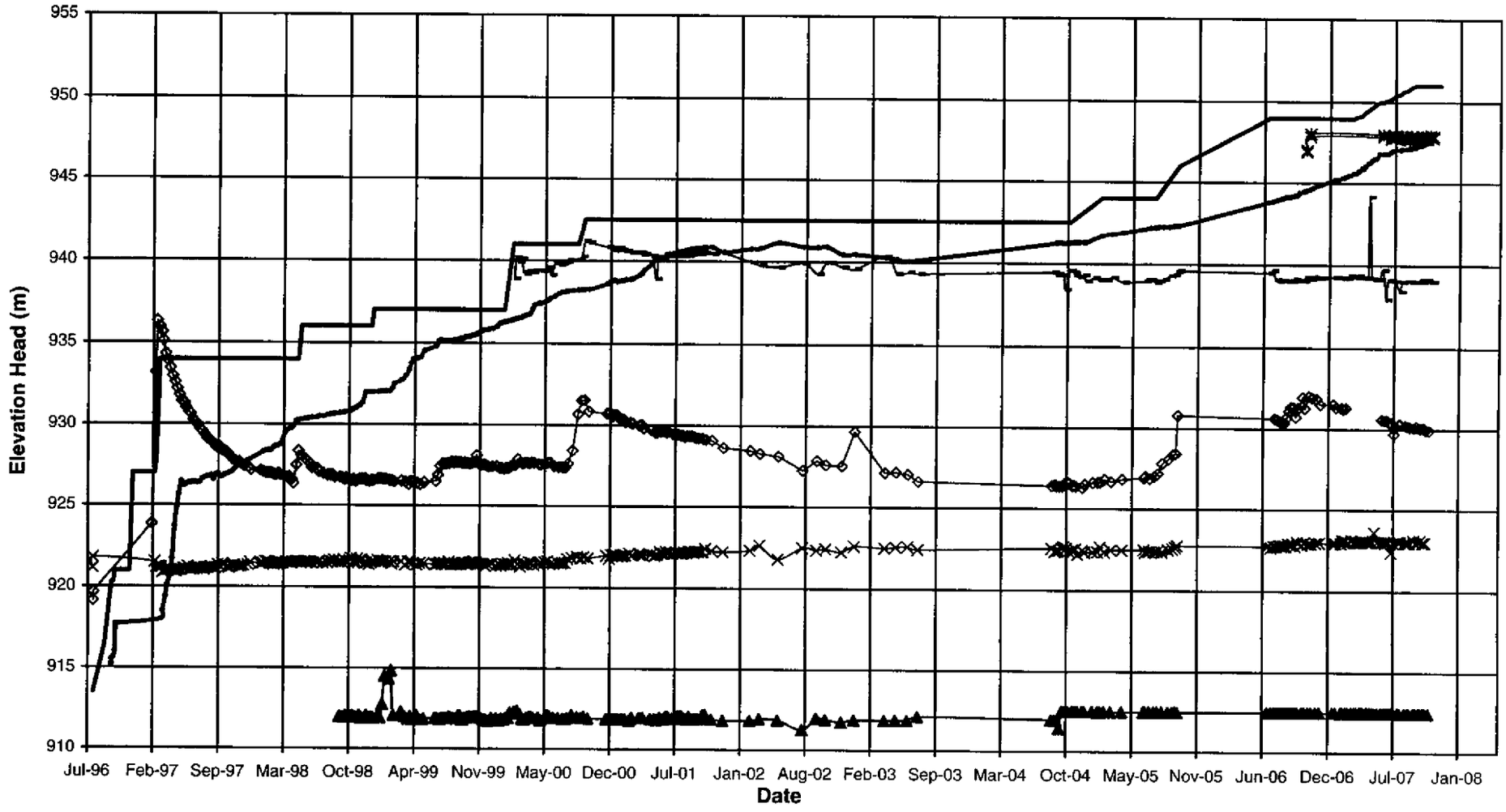

Pond Level
Fill Elevation
A2-PE1-01
A2-PE2-03
A2-PE2-05
A2-PE1-02
A2-PE2-09
A2-PE2-10

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE A FILL PIEZOMETERS
ELEVATION HEAD VS. TIME

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PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A3-1

REV 0

AMEC010457_0058

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane B 2007.xls Plane B Fill

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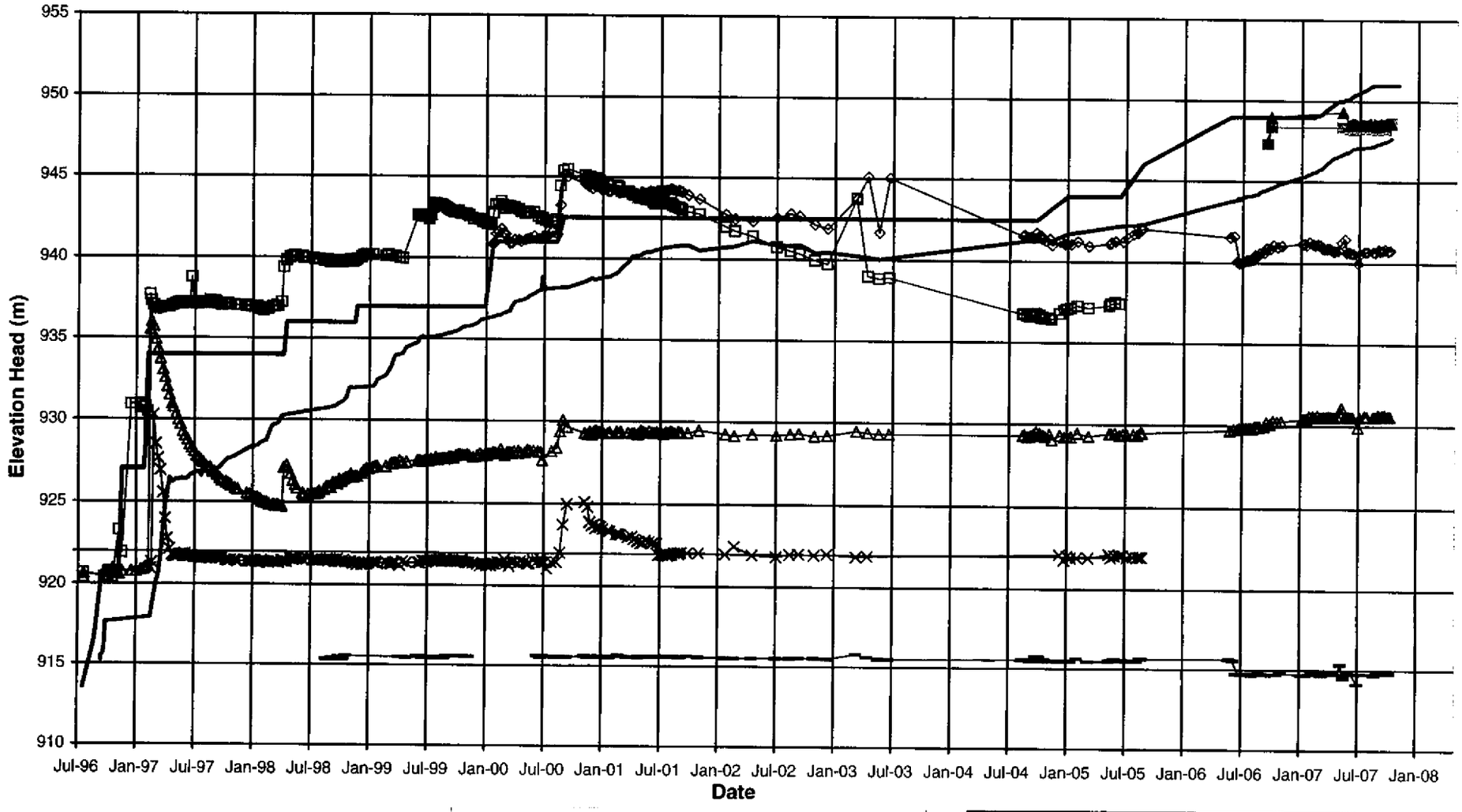

Note:
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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE B FILL PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT/ ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A3-2

REV. 0

AMEC010457_0059

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane C 2007.xls Plane C Fill

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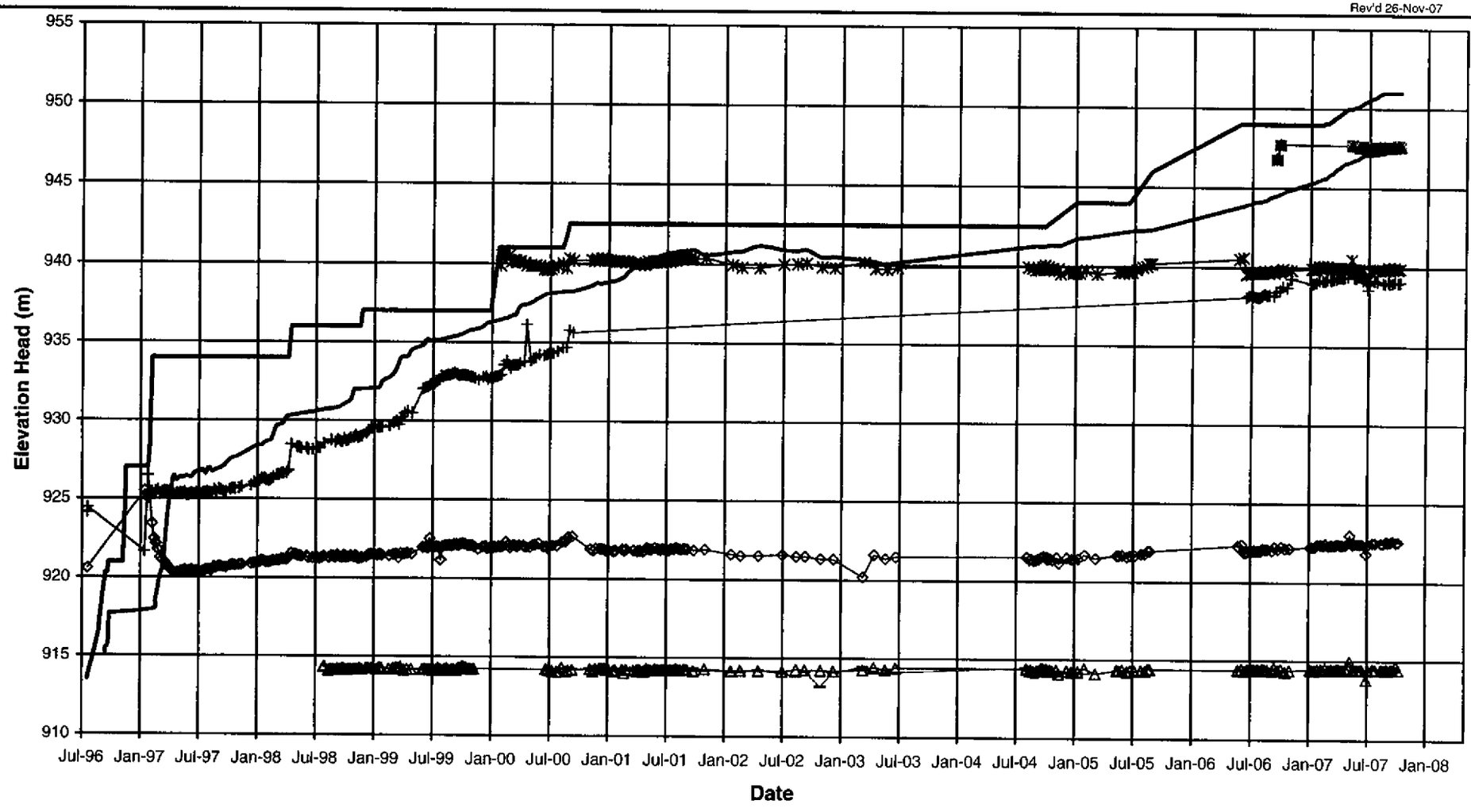

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE C FILL PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A3-3

REV. 0

AMEC010457_0060

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane D 2007.xls Plane D Fill

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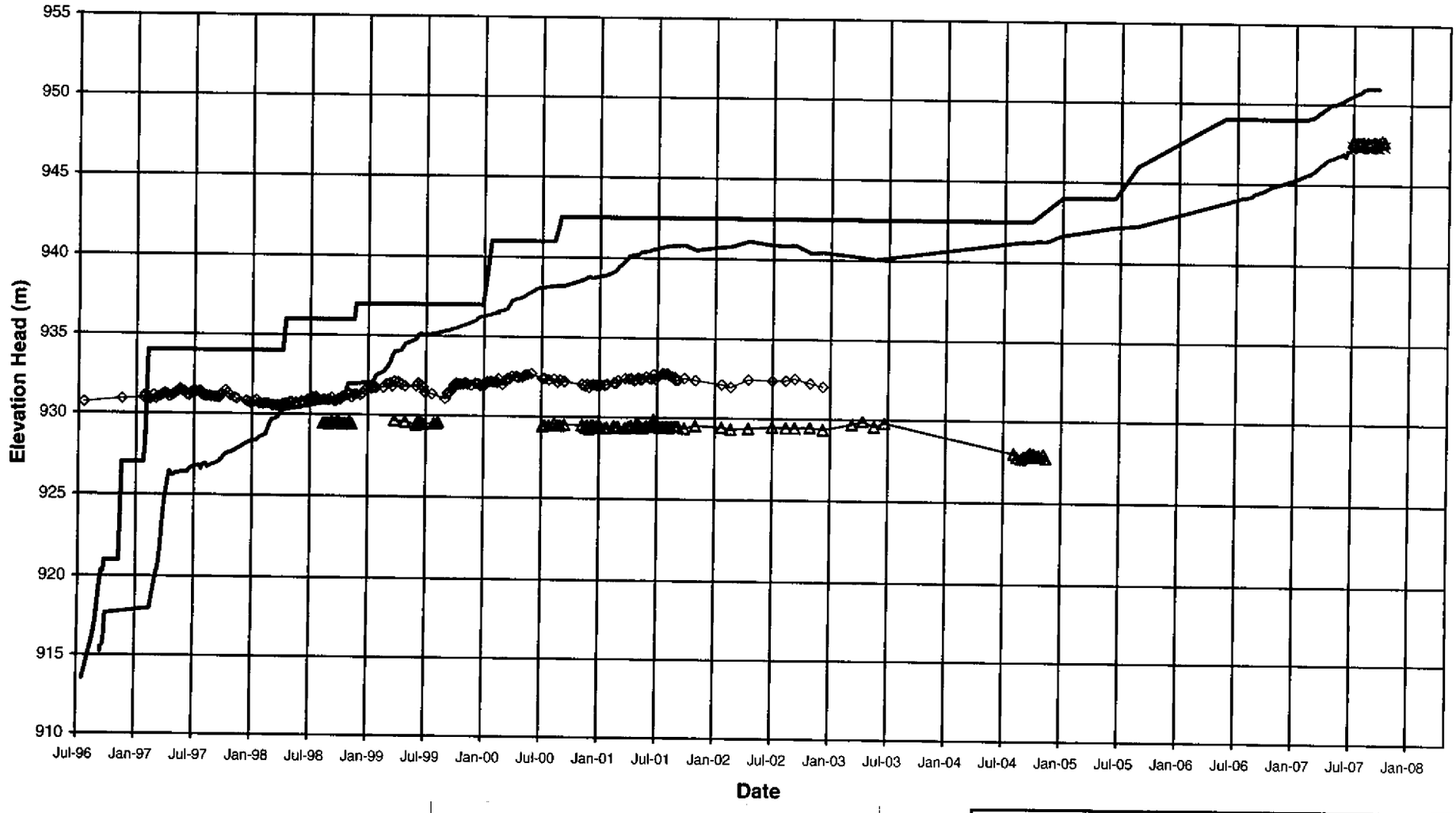

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE D FILL PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A3-4

REV. 0

AMEC010457_0061

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane E 2007.xlsPlane E Fill

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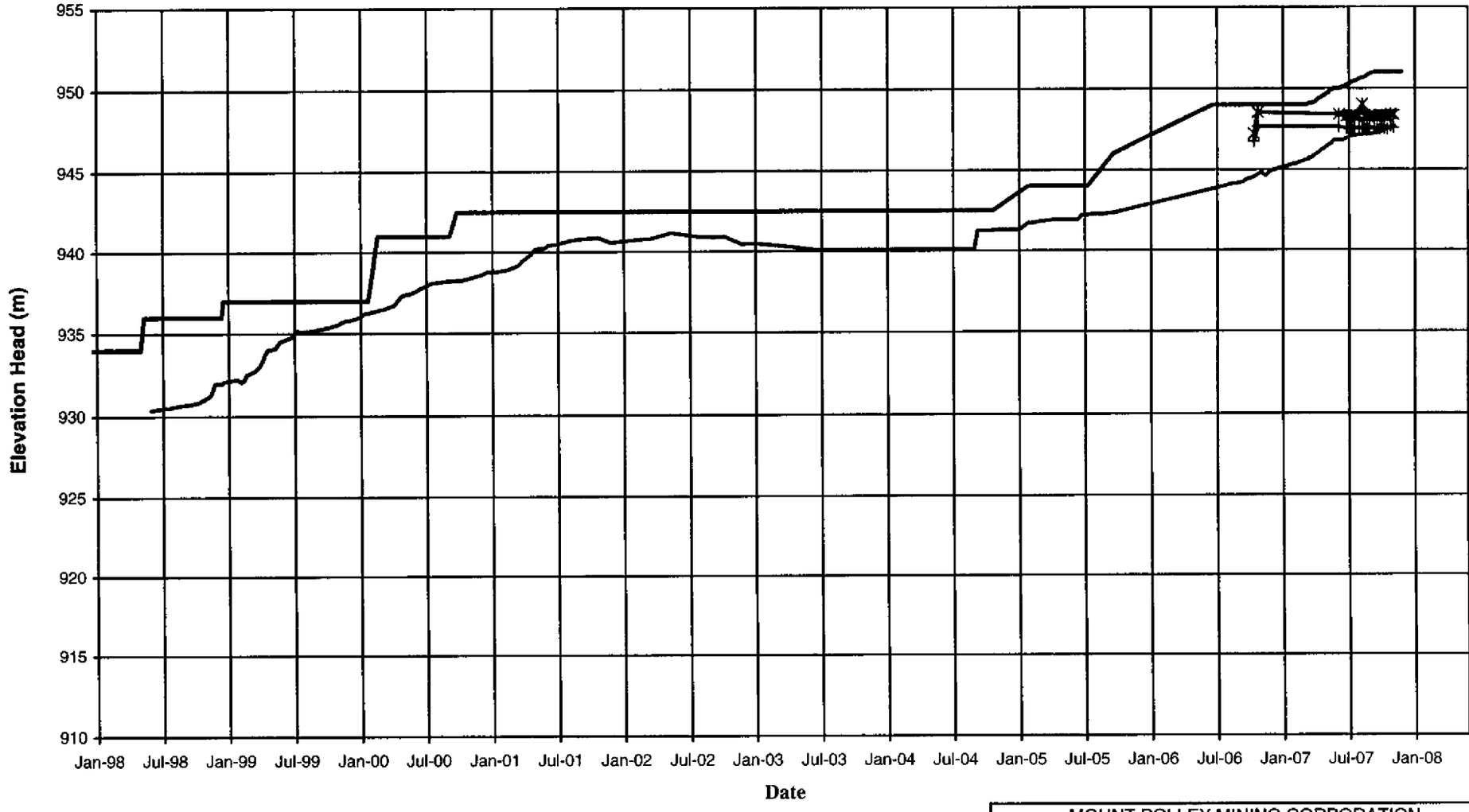

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE E FILL PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A3-5

REV. 0

AMEC010457_0062

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane F 2007.xlsPlane F 2007.xlsPlane F Fill

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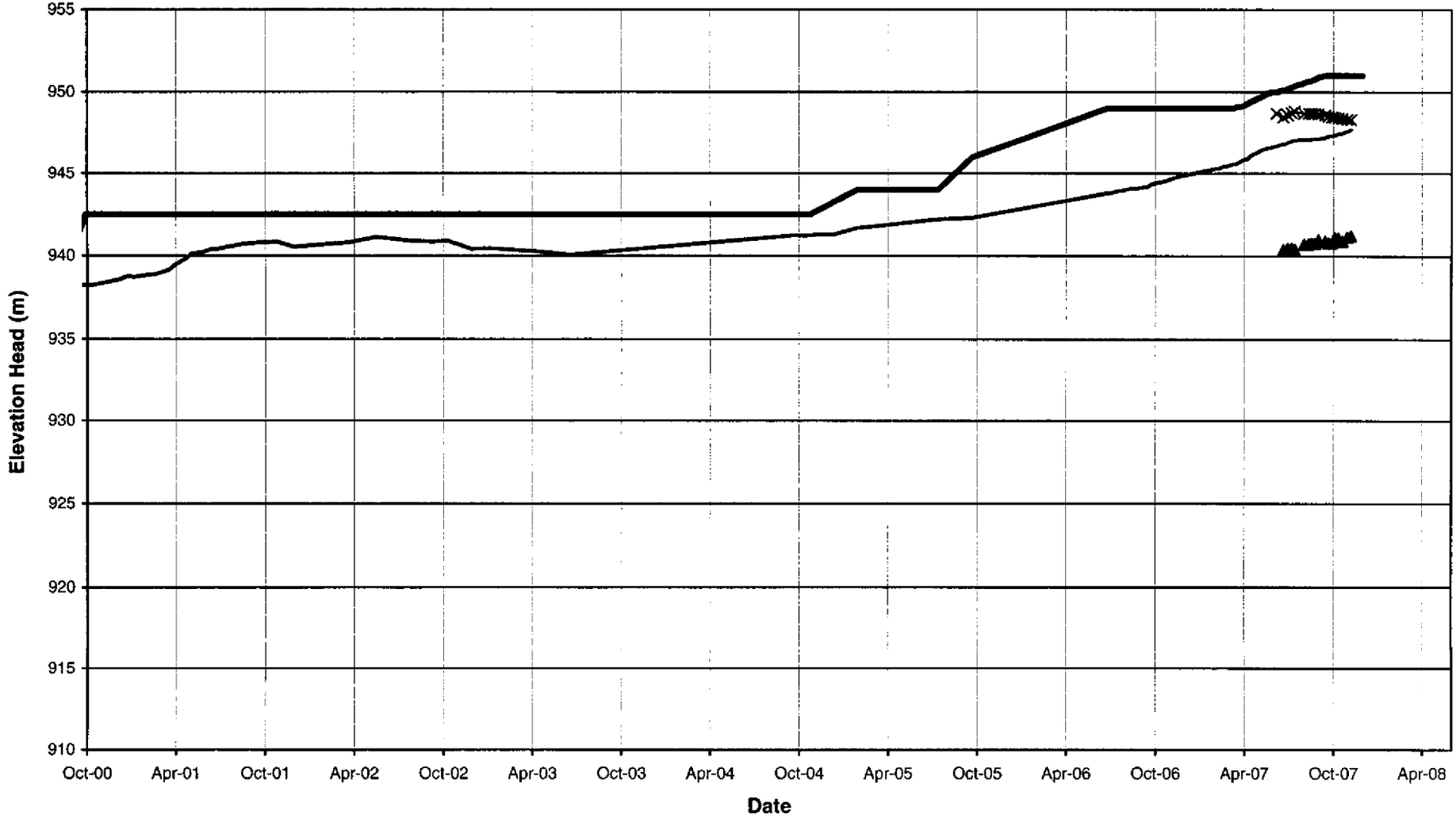

Note:
Piezometers in parentheses no longer functioning

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE F FILL PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A3-6

REV. 0

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AMEC010457_0063

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane G 2007.xls Plane G Fill

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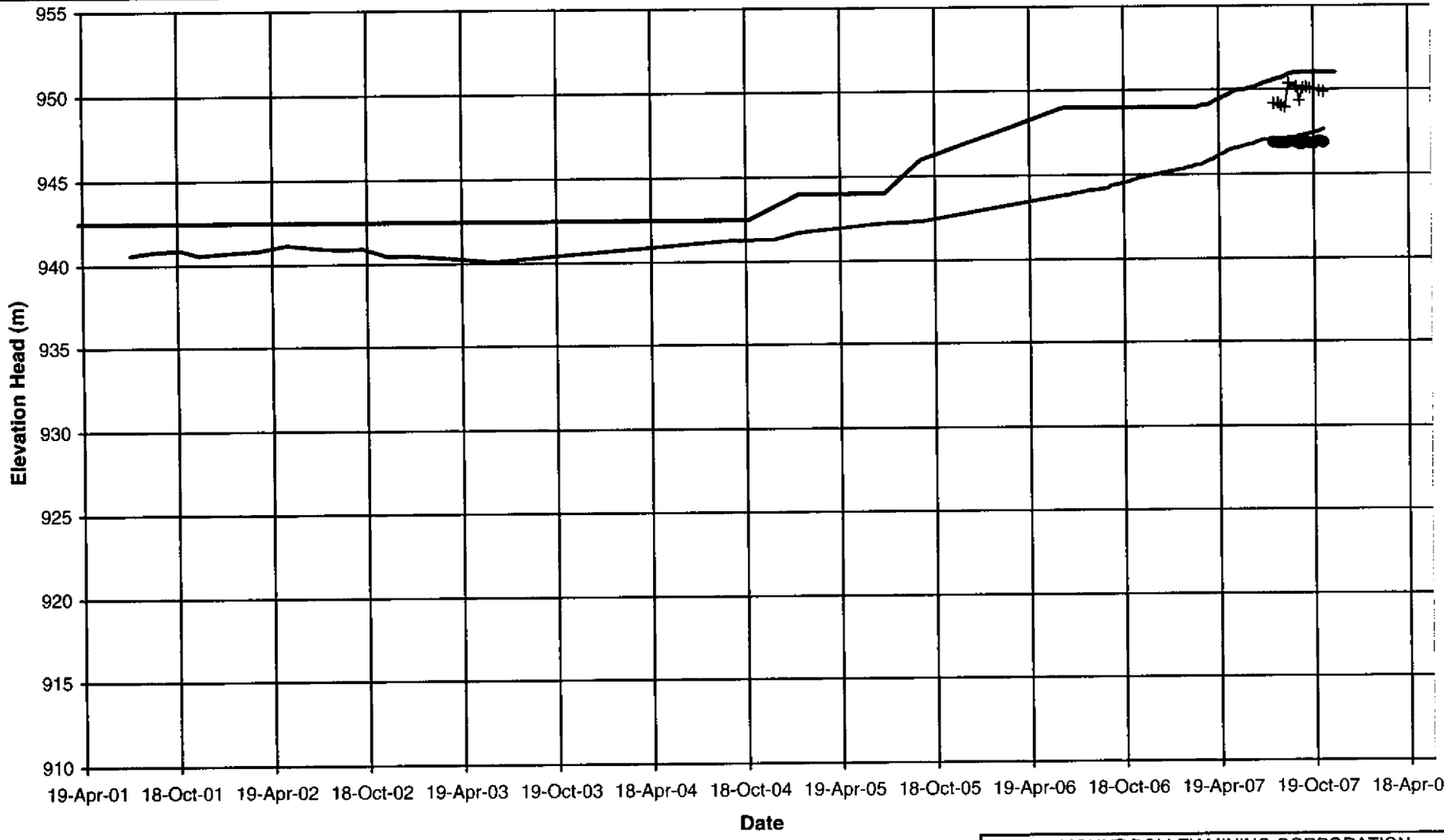
Rev'd: 27-Nov-07



Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE G FILL PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO.	REF NO.
VA101-1/20	1

FIGURE A3-7

REV. 0

AMEC010457_0064

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane H 2007.xls Plane H Fill

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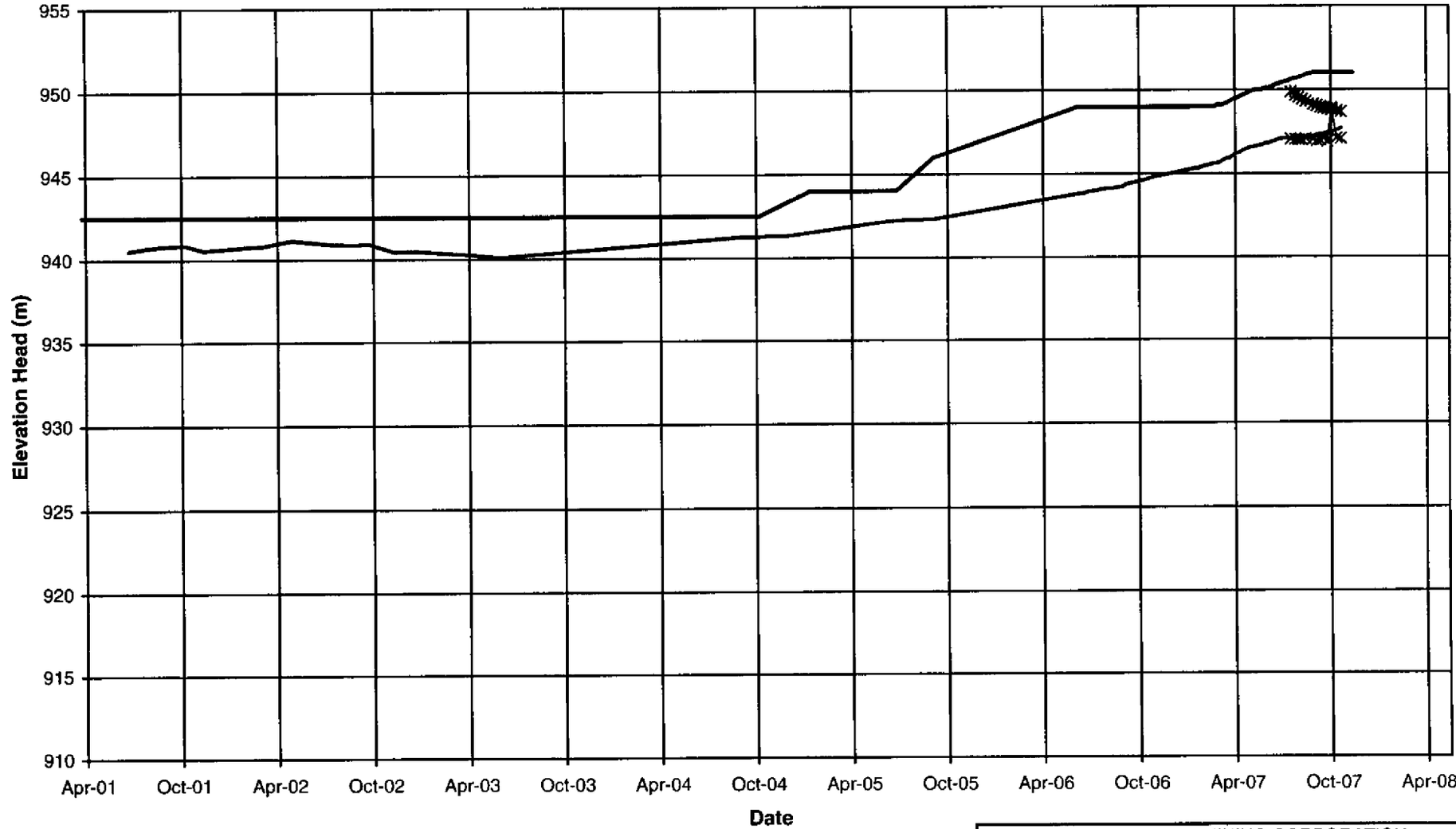

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE H FILL PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO.	REF NO.
VA101-1/20	1

FIGURE A3-8

REV. 0

AMEC010457_0065

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane I 2007.xls Plane I Fill

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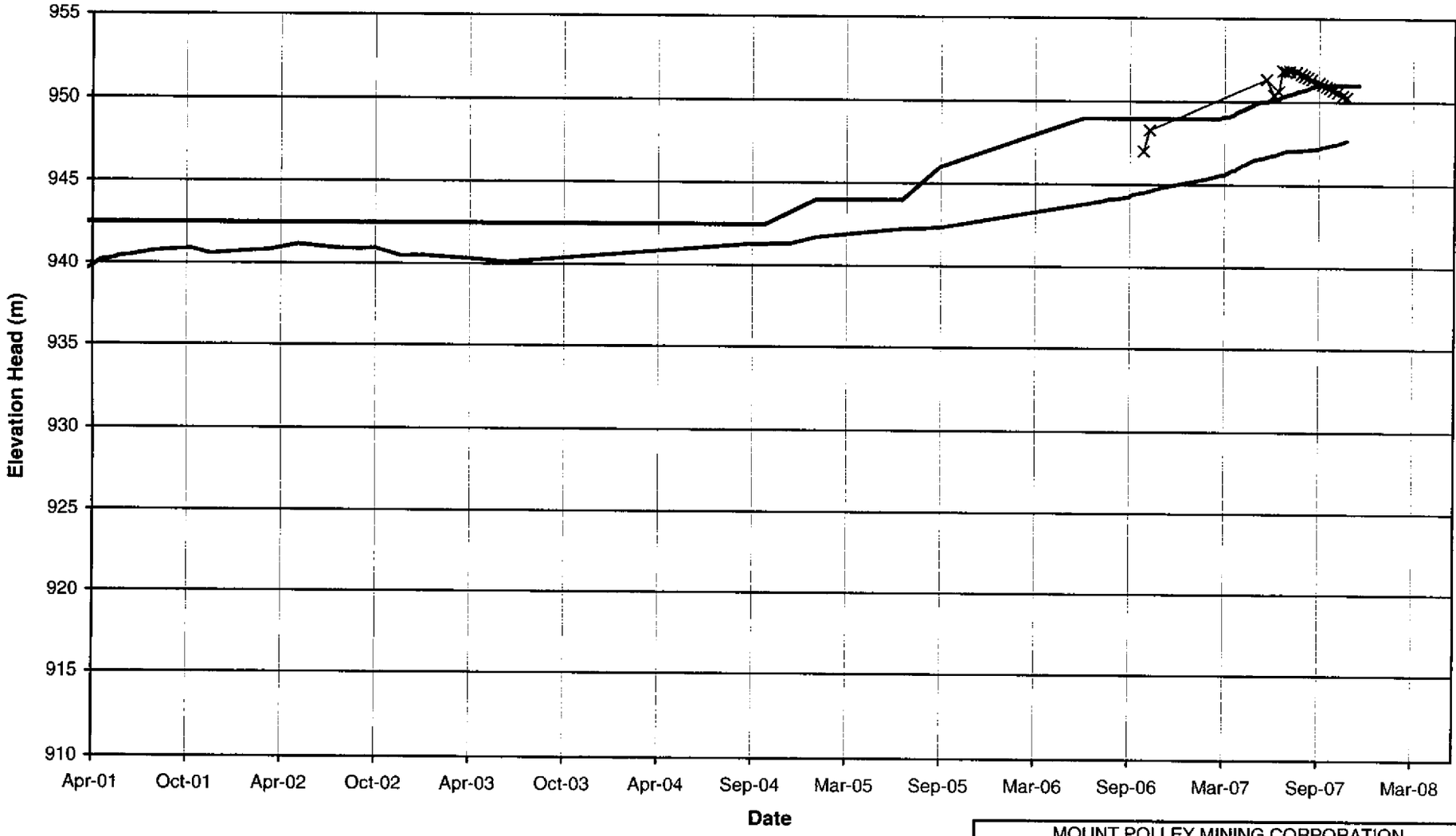
Rev'd: 27-Nov-07



Note:
Piezometers in parentheses no longer functioning

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE I FILL PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold
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PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A3-9

REV. 0

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AMEC010457_0066

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane A 2007.xls Plane A Drain

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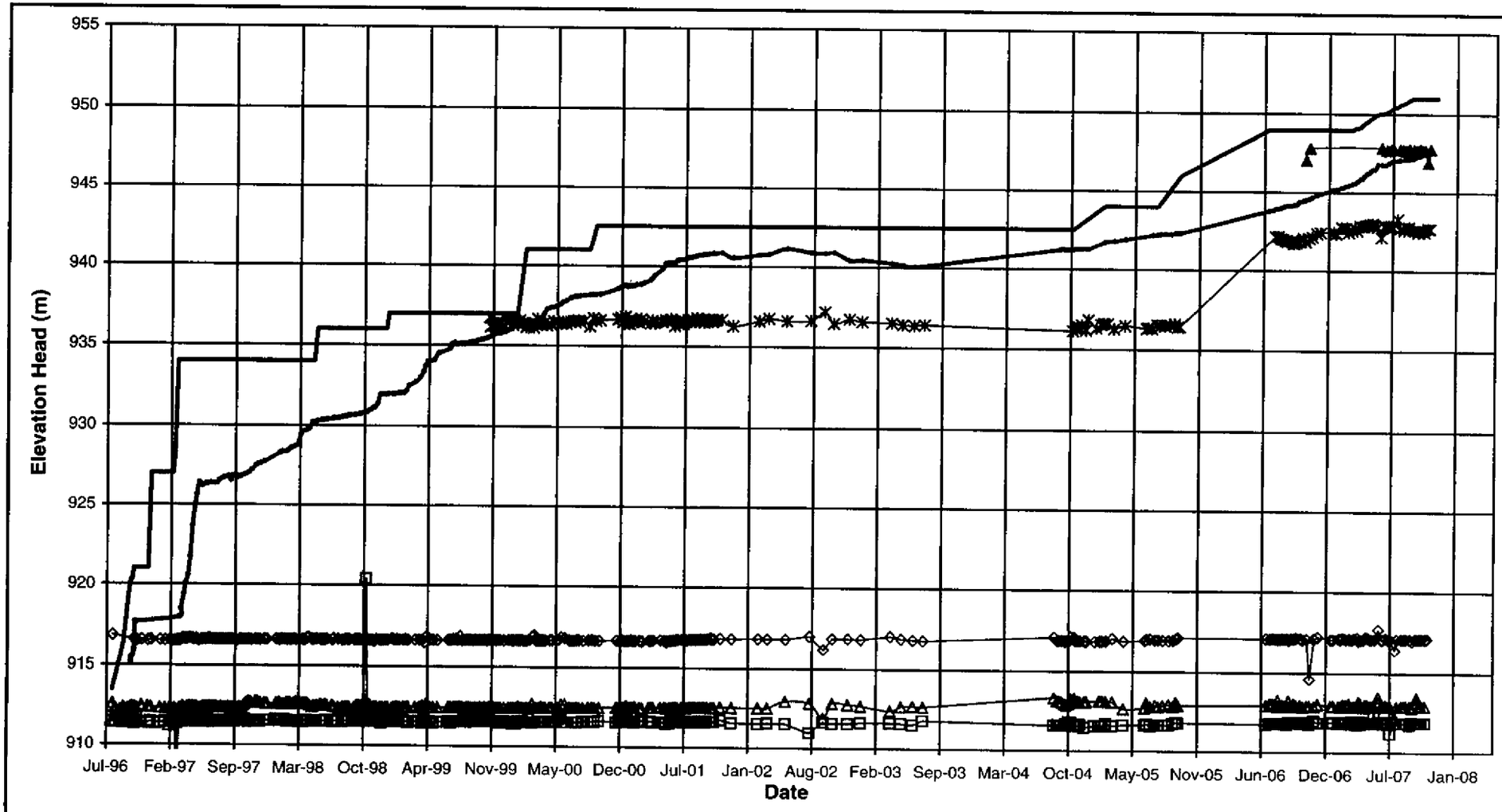

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE A DRAIN PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A4-1

REV. 0

AMEC010457_0067

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane B 2007.xls Plane B Drain

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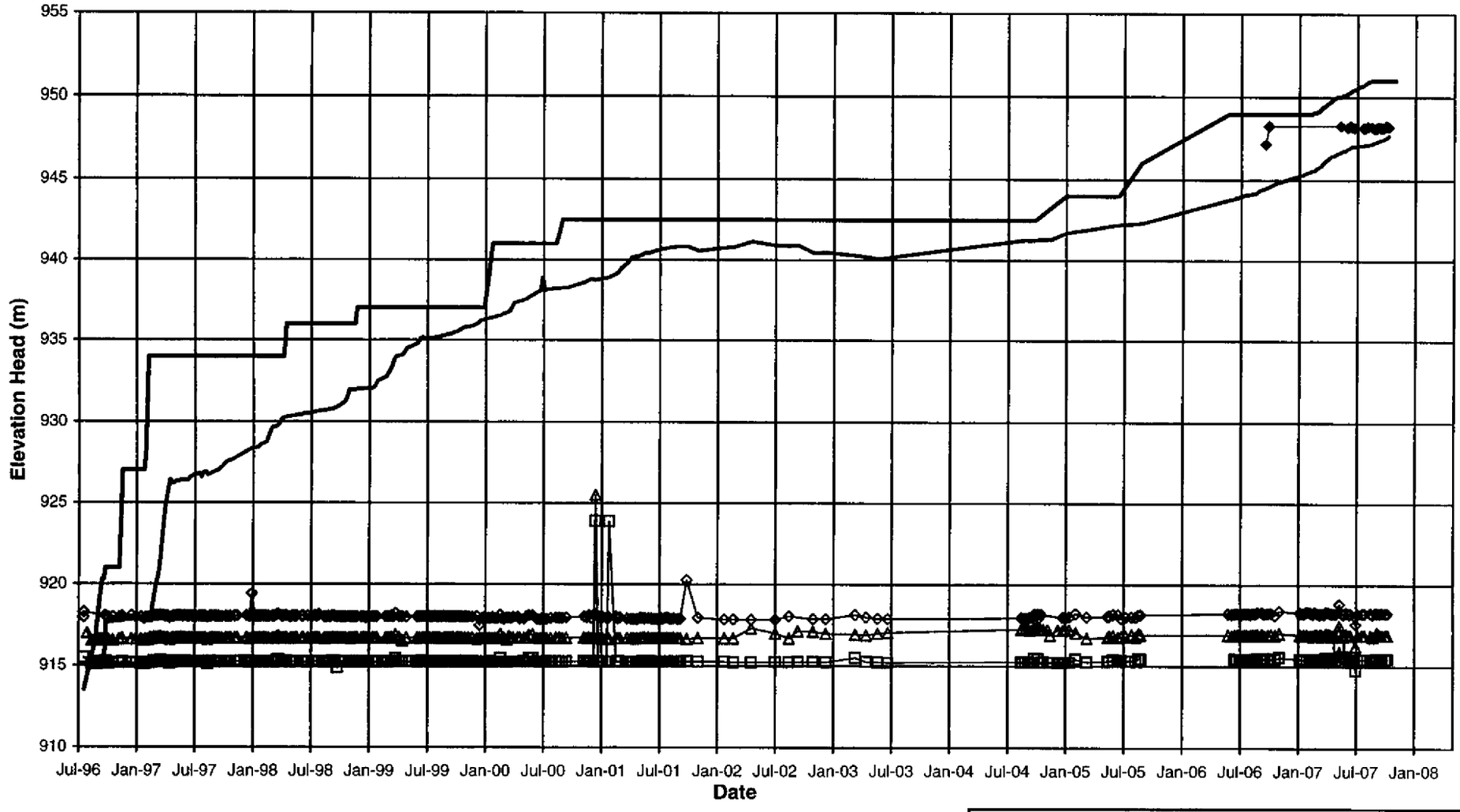

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE B DRAIN PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT/ ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A4-2

REV. 0

AMEC010457_0068

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane C 2007.xls Plane C Drain

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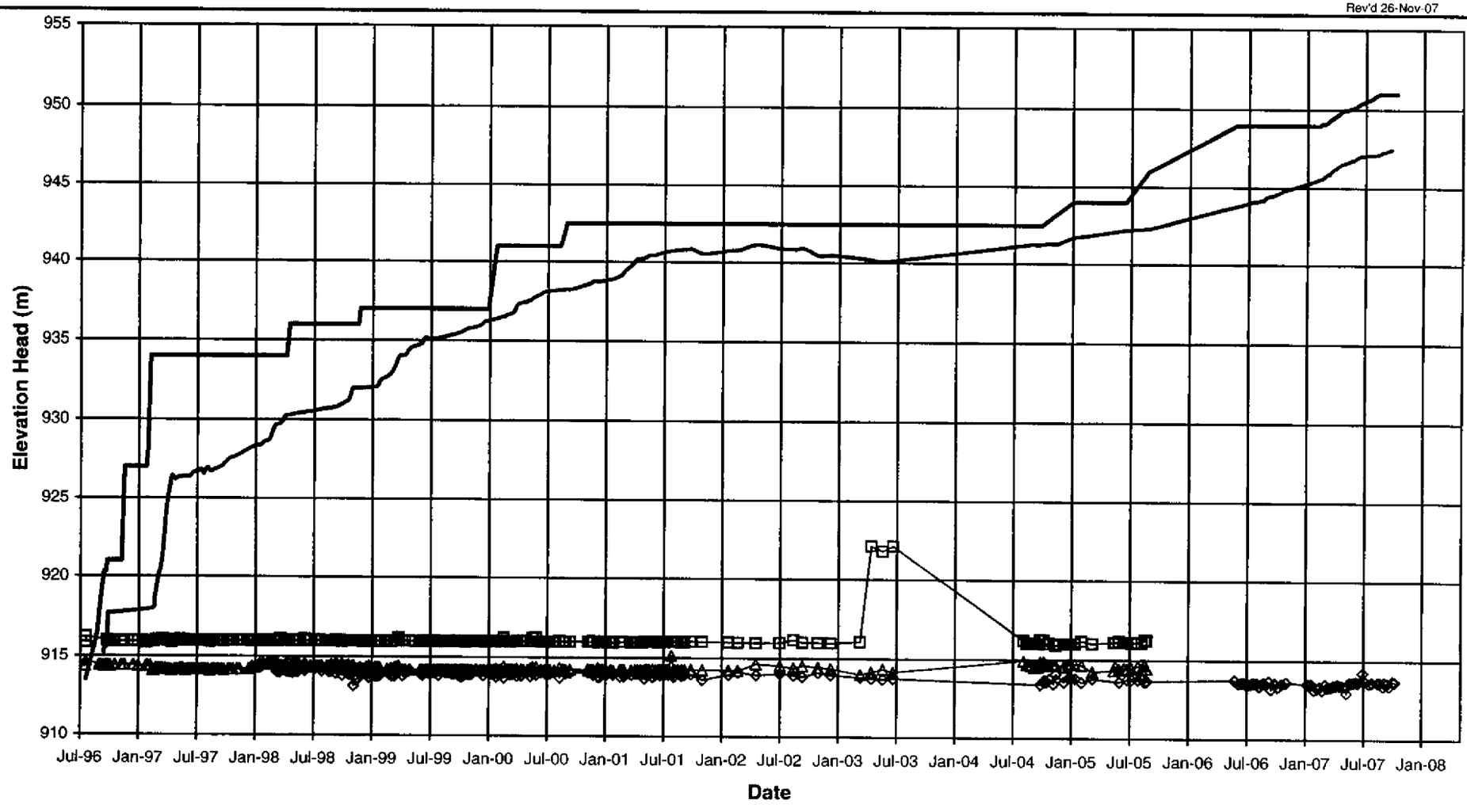

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE C DRAIN PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A4-3

REV. 0

AMEC010457_0069

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane D 2007.xls Plane D Drain

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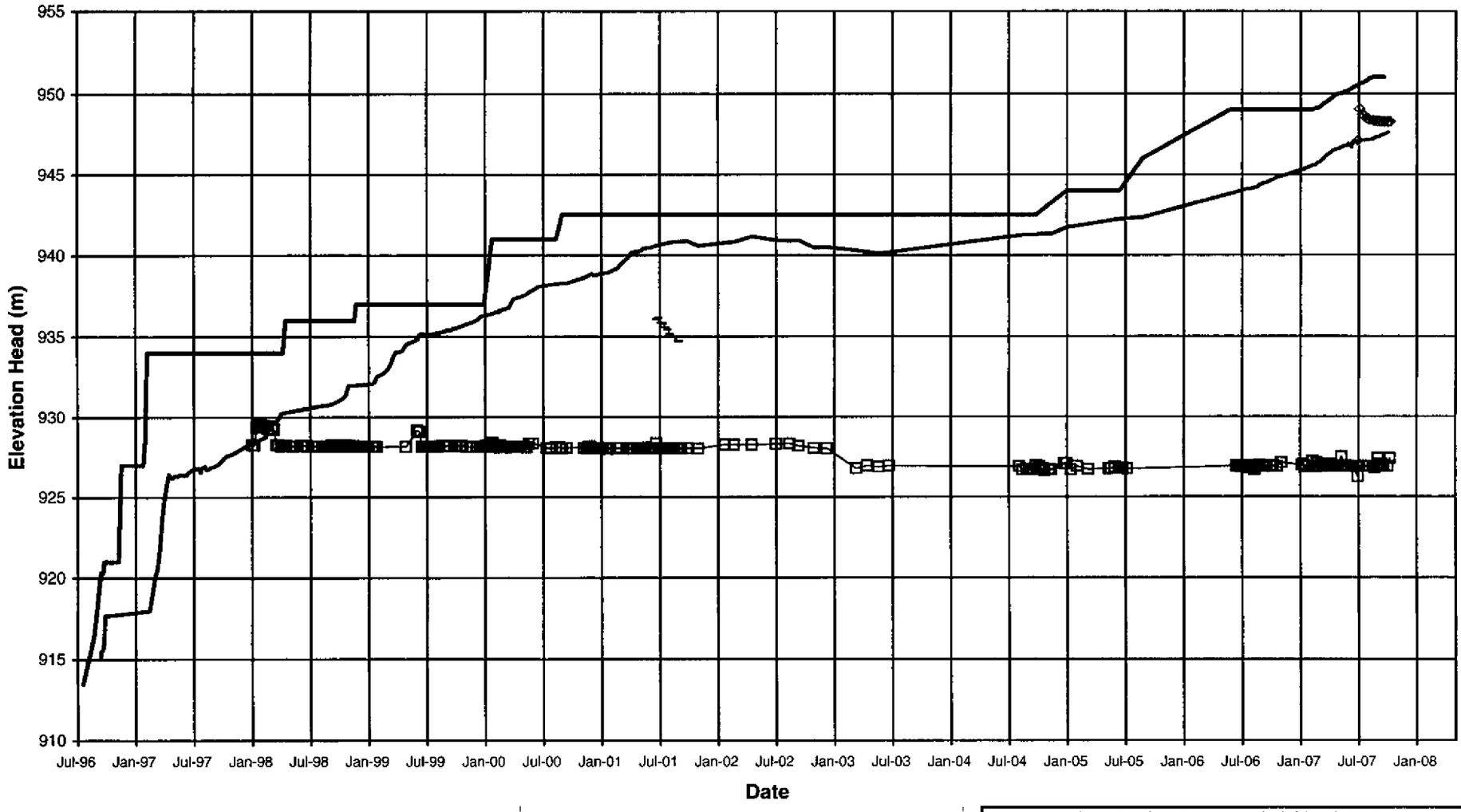

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE D DRAIN PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A4-4

REV. 0

AMEC010457_0070

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane E 2007.xlsPlane E Drain

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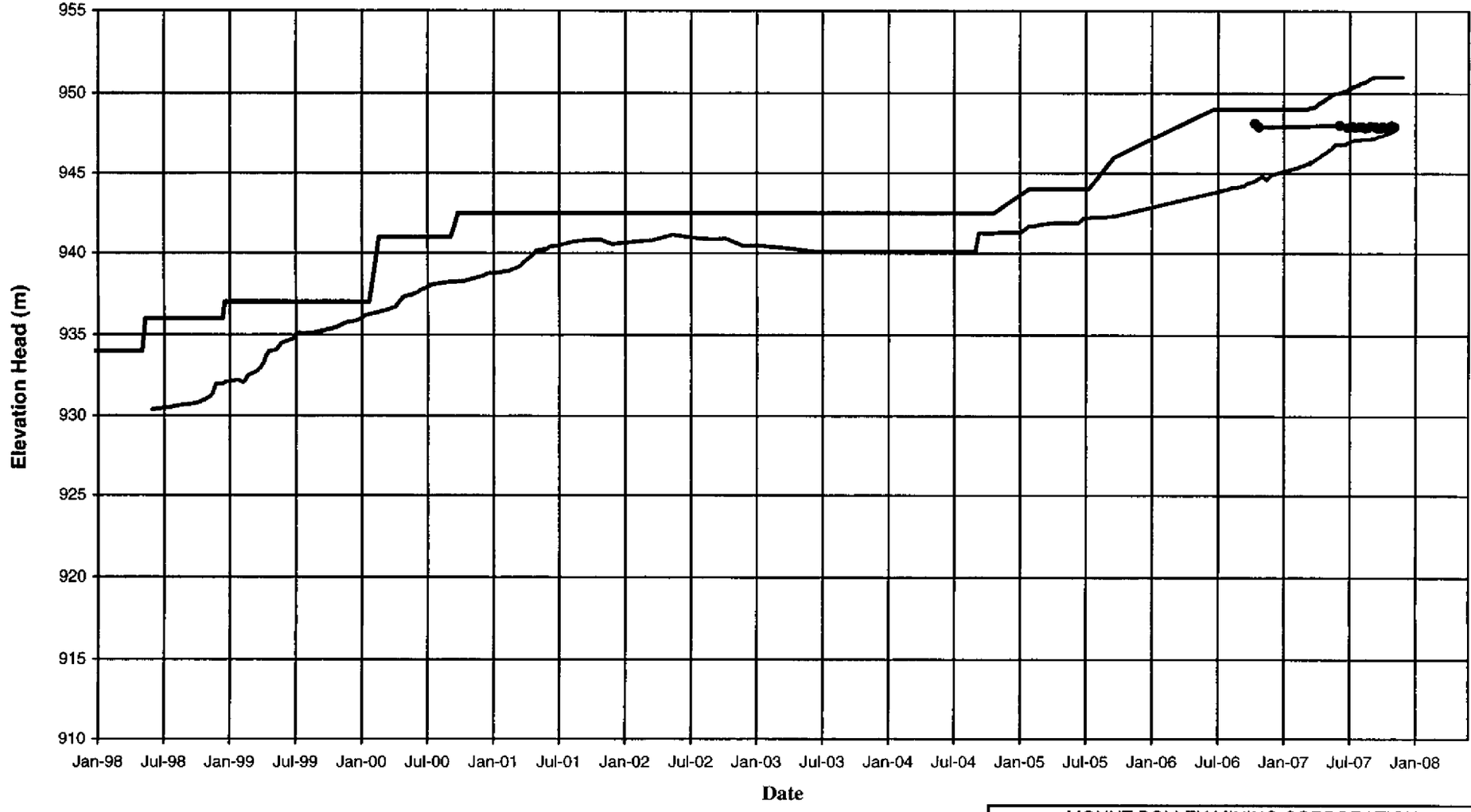

Note:
Piezometers in parentheses no longer functioning

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE E DRAIN PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO. VA101-1/20

REF NO. 1

FIGURE A4-5

REV. 0

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AMEC010457_0071

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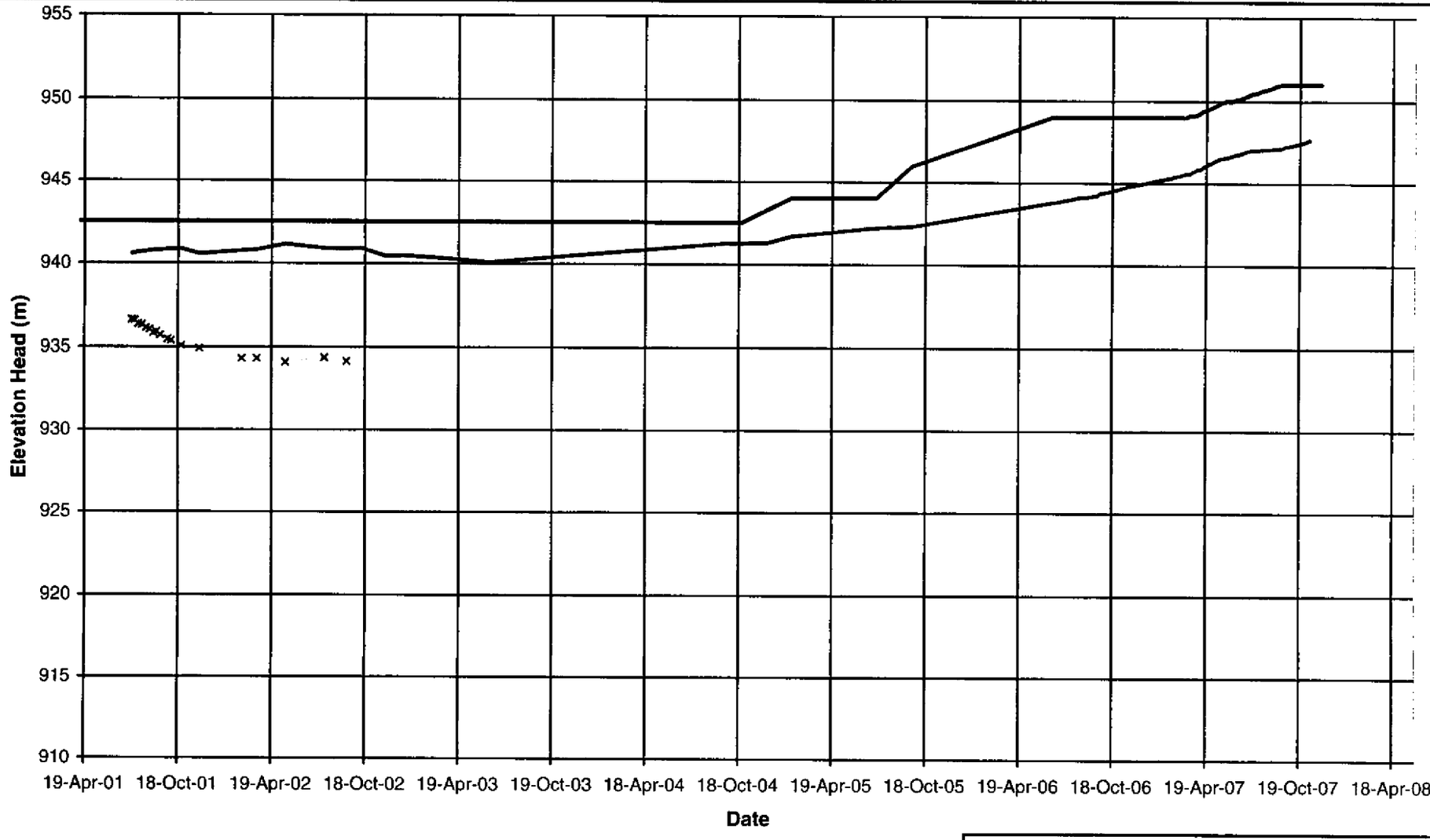

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE G DRAIN PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO.	REF NO.
VA101-1/20	1

FIGURE A4-6 REV. 0

AMEC010457_0072

M:\1\01\00001\20\A\Report\Appendicies\Appendix A\Plane H 2007.xls Plane H Drain

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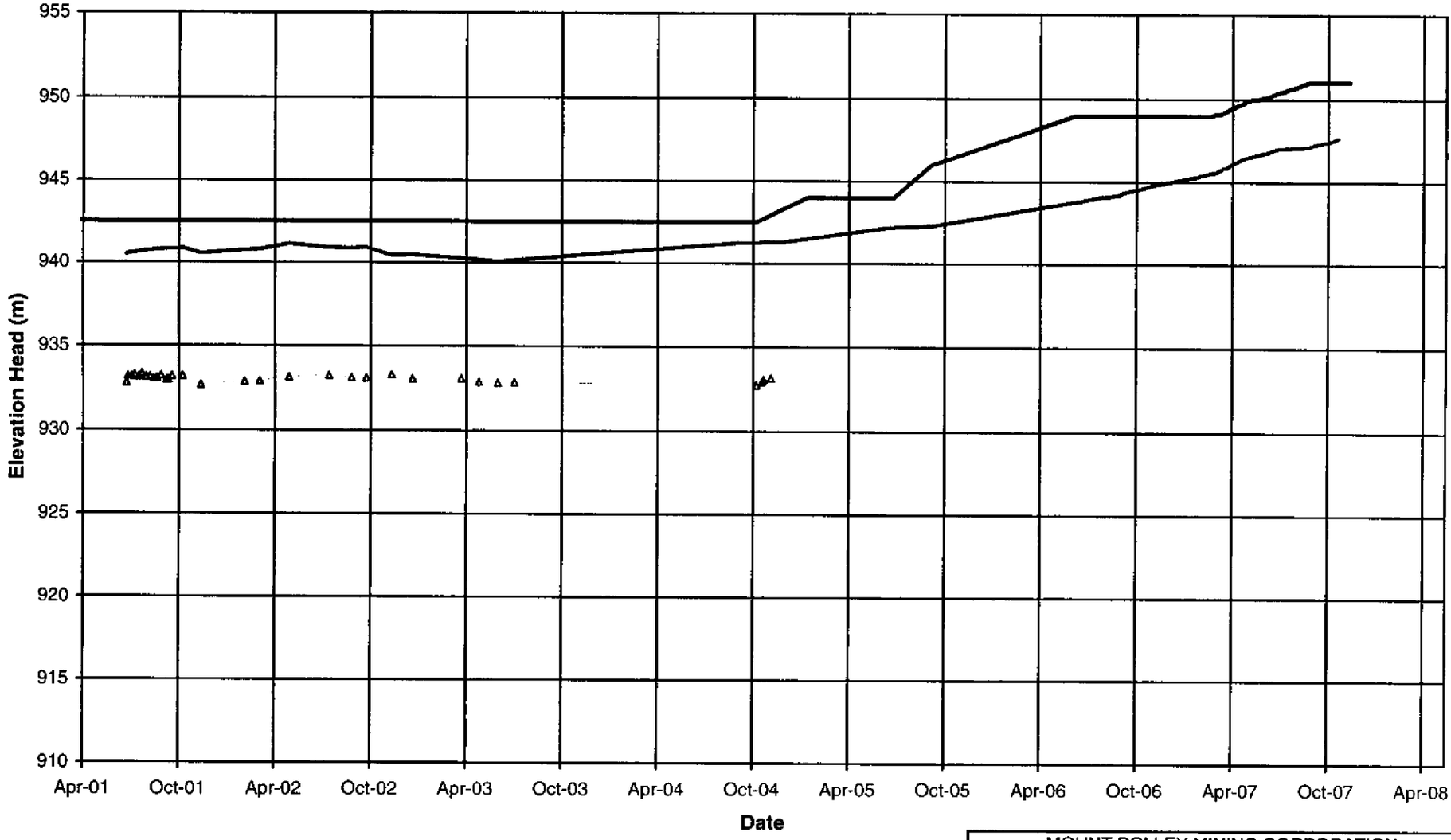

Note:
Piezometers in parentheses no longer functioning

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

PLANE H DRAIN PIEZOMETERS
ELEVATION HEAD VS. TIME

Knight Piésold
CONSULTING

PROJECT / ASSIGNMENT NO.	REF NO.
VA101-1/20	1

FIGURE A4-7

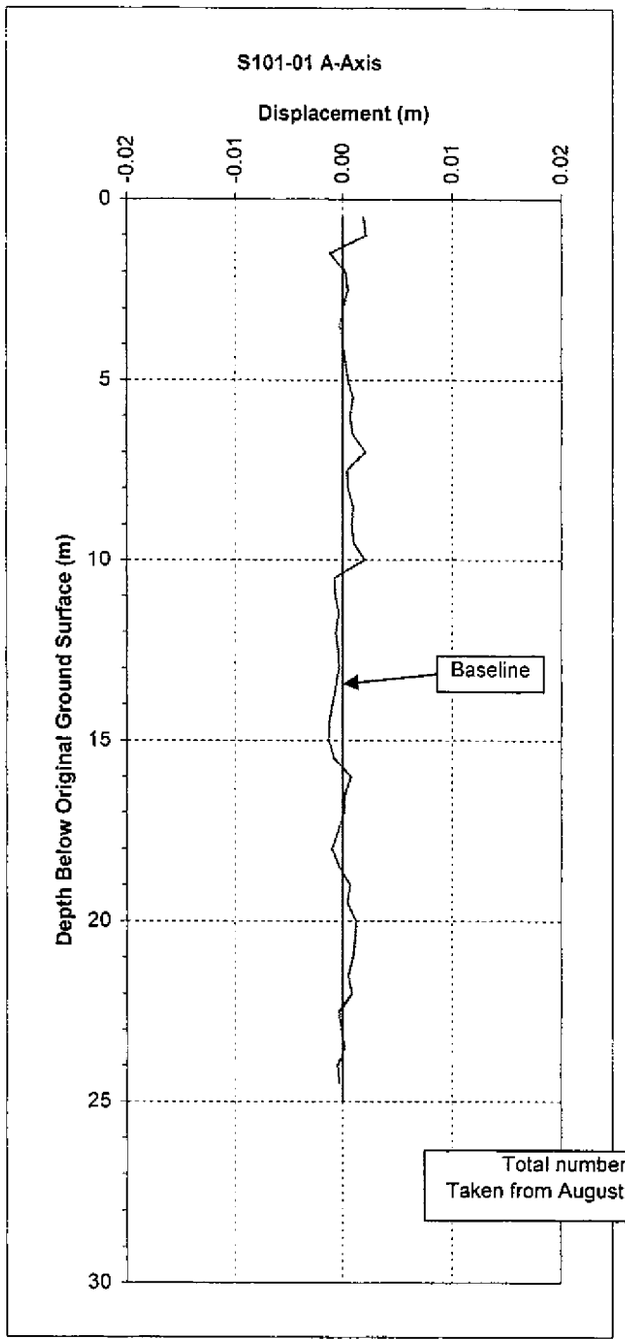
REV. 0

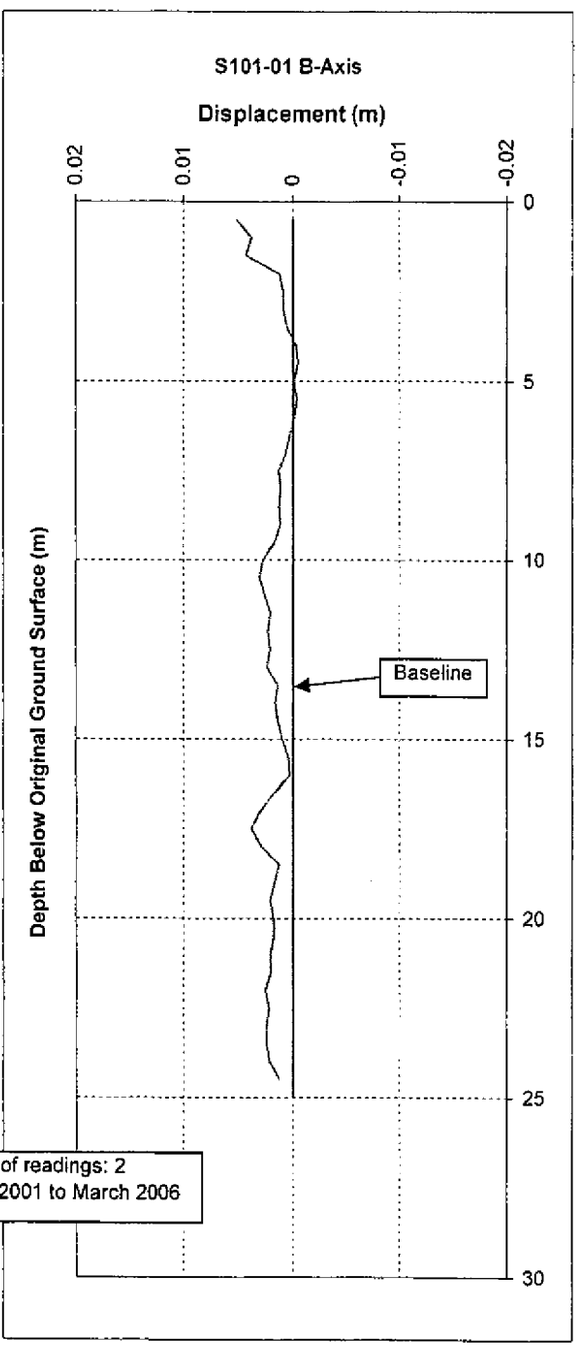
AMEC010457_0073

APPENDIX B

INCLINOMETER DATA

(Figures B-1 to B-5)





Total number of readings: 2
Taken from August 2001 to March 2006

Notes:
1.) Displacement is relative to the baseline reading taking in August 2001.
2.) SI01-01 damaged furing Stage 4 construction and is no longer functioning

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
INCLINOMETER SI01-01
DISPLACEMENT VS. DEPTH

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO.	REF NO.
VA101-1/20	1

FIGURE B-1

REV. 0

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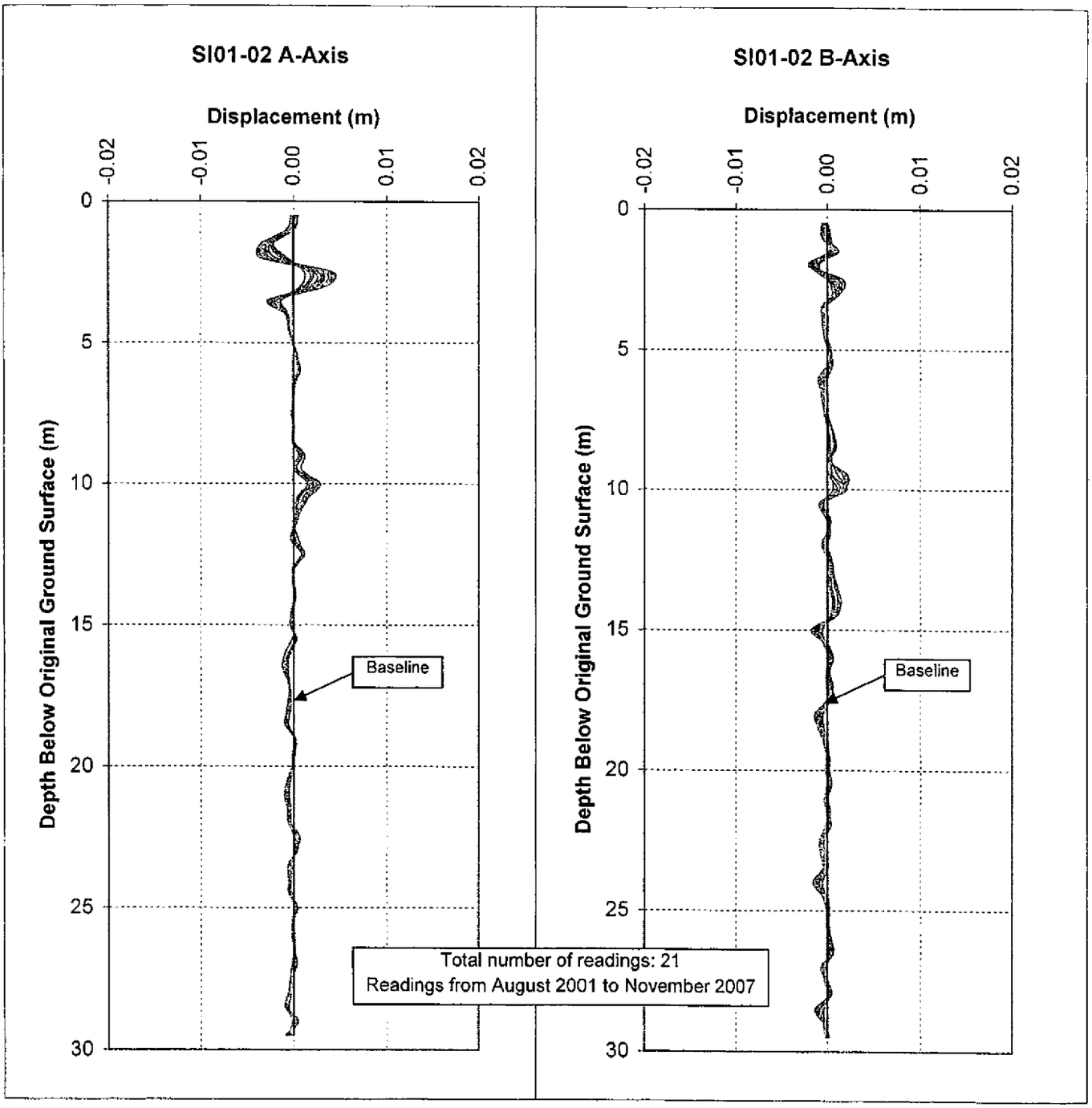

Notes:
1) Displacement is calculated relative to the initial data set, recorded in August 2001.

MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
TAILINGS STORAGE FACILITY INCLINOMETER SI01-02 DISPLACEMENT VS. DEPTH		
Knight Piésold CONSULTING	PROJECT / ASSIGNMENT NO. VA101-1/20	REF NO. 1
FIGURE B-2		REV. 0

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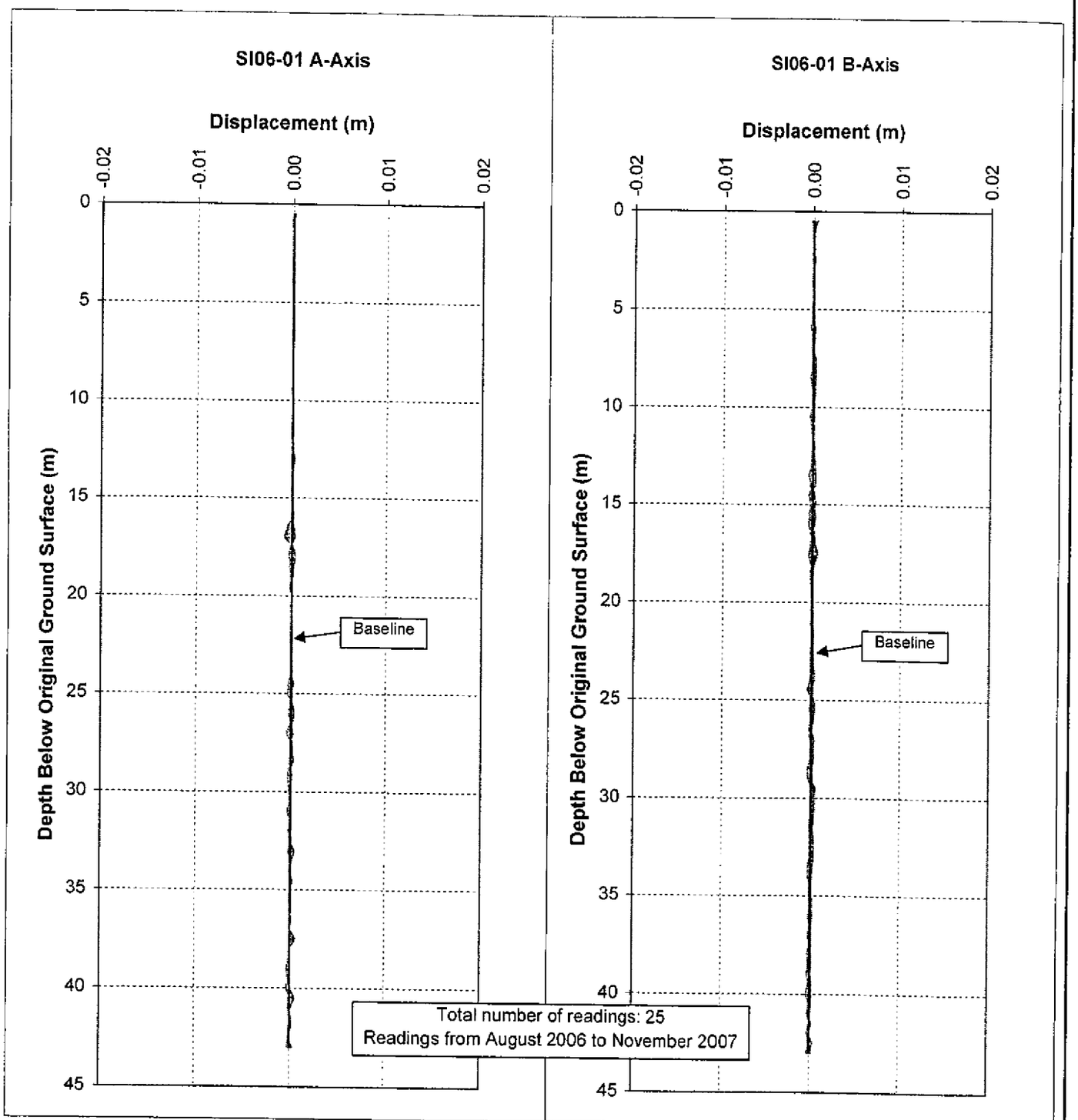

Notes:
1) Displacement is calculated relative to the initial data set, recorded in August 2006.

MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
TAILINGS STORAGE FACILITY INCLINOMETER SI06-01 DISPLACEMENT VS. DEPTH		
Knight Piésold CONSULTING	PROJECT / ASSIGNMENT NO. VA101-1/20	REF NO. 1
FIGURE B-3		REV. 0

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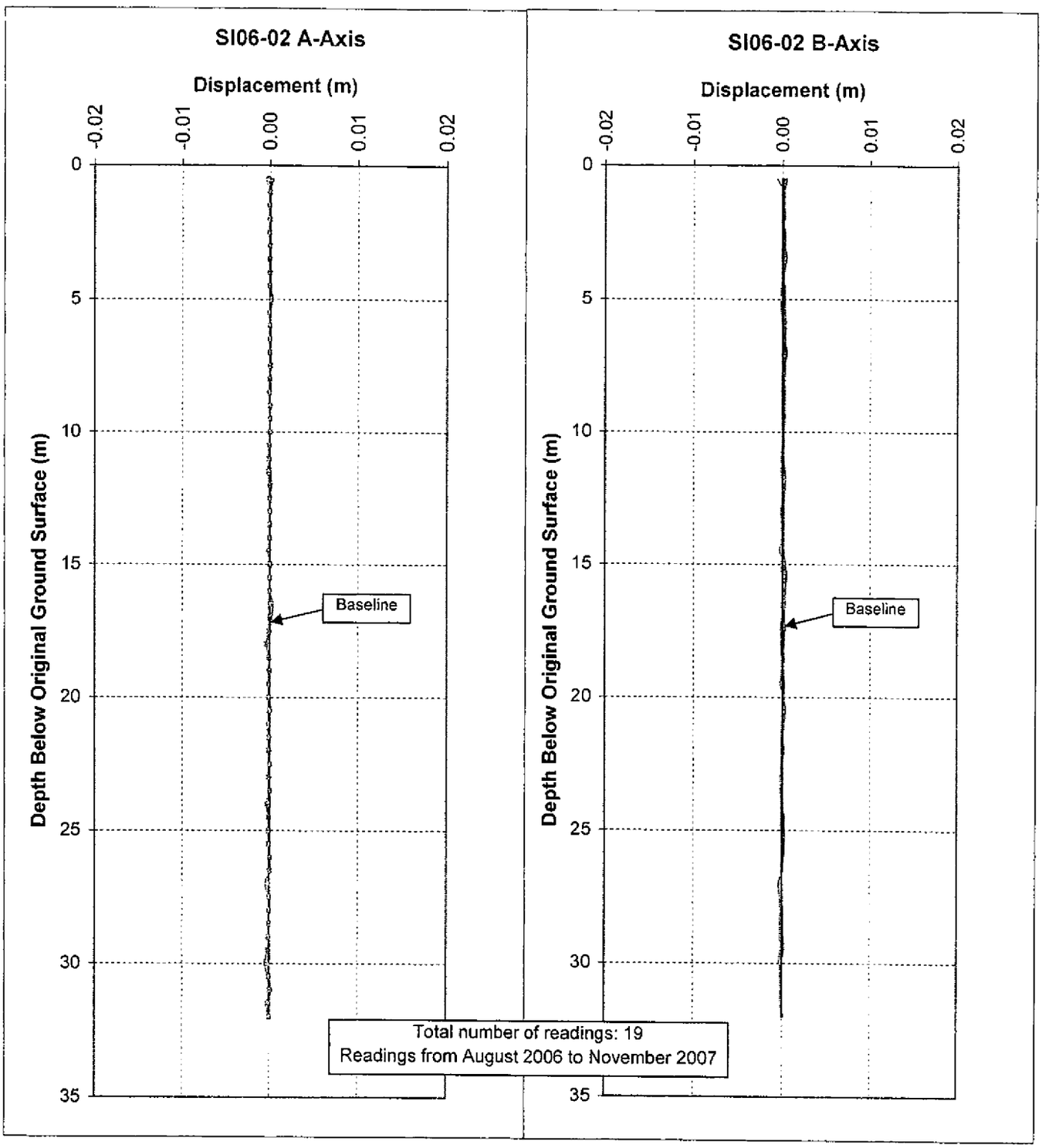

Notes:

1) Displacement is calculated relative to the initial data set, recorded in August 2006.

2.) SI06-02 was was blocked by ice burinf the winter 06 06/07, therefore, no data was recorded.

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE
TAILINGS STORAGE FACILITY INCLINOMETER SI06-02 DISPLACEMENT VS. DEPTH

Knight Piésold CONSULTING	PROJECT / ASSIGNMENT NO. VA101-1/20	REF NO. 1
FIGURE B-4		REV. 0

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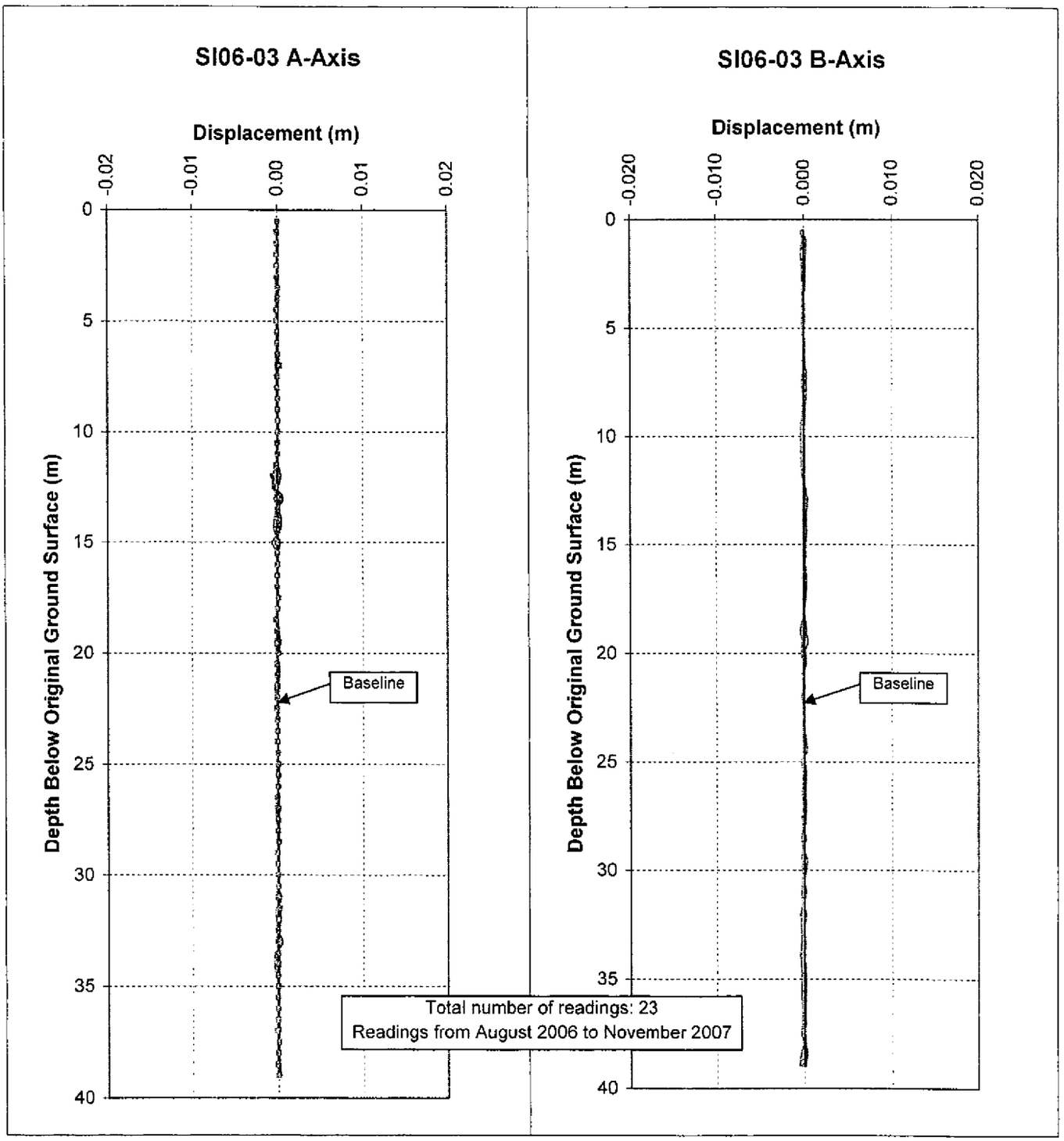

Notes:
1) Displacement is calculated relative to the initial data set, recorded in August 2006.

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
INCLINOMETER SI06-03
DISPLACEMENT VS. DEPTH

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT NO. VA101-1/20 | REF NO. 1

FIGURE B-5 | REV. 0

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Knight Piésold
CONSULTING

APPENDIX C

OVERVIEW OF 2006 DAM SAFETY REVIEW

(Pages C1 to C4)

APPENDIX C

OVERVIEW OF 2006 DAM SAFETY REVIEW

General

A Dam Safety Review (DSR) for the Tailings Storage Facility at Mount Polley Mine was completed by AMEC in October 2006. The results of the DSR were issued in a report to Imperial Metals Corporation in December 2006. The DSR indicated that "the three embankments that impound the Mount Polley Tailings are well designed and well constructed entities from a dam safety perspective. Each of the three dams has demonstrated similar good performance behaviour with little indication of potential concerns in the future provided the design, continuance of past construction practices, and inspection procedures remain in place".

However, there were a few operational issues raised in the DSR, as discussed below:

1. *Operating criteria for pond and beach management are presently at odds with the optimal dam seepage performance and stated closure objectives, with the latter issue being of greatest concern.*

A beach width of at least 20 m is to be maintained along the abutments of the embankments (where the embankment contacts natural ground) and at least 10 m width elsewhere to keep the pond away from the embankments. Knight Piésold has recommended that MPMC develop a plan and schedule to enable the minimum target beach widths to be re-established within a 2 week period should they be infringed upon. MPMC shall increase the frequency of measurements to at least once per week for embankment instrumentation systems (piezometers and foundation drains - flow rate and turbidity) during any periods that ponded water encroaches within the minimum target beach widths.

The use of tailings sand is currently being used as upstream Zone U construction material. Zone U forms the upstream shell zone immediately adjacent to Zone S (low permeability core zone) and is required to provide upstream support of the Zone S material during modified centerline construction. The sand cell construction method involves discharging tailings into constructed cells along the upstream side of the embankment. Prolonged discharge of tailings from the Perimeter Embankment has resulted in the tailings pond migrating over to the Main Embankment, which has resulted in increased flows reporting to the Main Embankment upstream toe drain. MPMC has recently purchased additional HDPE pipe to facilitate the deposition of tailings from around the entire facility without having to relocate the tailings pipeline. This will allow MPMC to quickly develop tailings beaches in response to the pond encroaching on the embankments.

The current mine plan has the mine operating at 20,000 tpd for the next 8 years. It is recognized that improvements in tailings deposition will be beneficial for optimizing beach development round the facility but this is only a minor consideration for closure planning. The current tailings deposition practices are not particularly relevant for the closure plan unless one considers sudden pre-mature mine closure during the next few months which is extremely unlikely (impossible?) given current metal prices and excellent operating performance of the Mount Polley Mine. This

concern, expressed in the DSR with respect to satisfying closure objectives are not particularly relevant during the current stage of mine operations. The closure objectives for the TSF are currently under review by MPMC. The tailings pond will continue to be managed in accordance with the TSF closure objectives in the later years of the mine life.

2. *As the facility has no operating spillway, the selection of the 24-hour PMP event may not be appropriately conservative. The amount of wave induced freeboard being allowed for is likely excessive by a factor of two.*

The previous design basis required the TSF to have sufficient live storage capacity for containment of runoff from the 24-hour PMP volume of 679,000 m^3 at all times, which would result in an incremental rise in the tailings pond level of approximately 0.4 m. The 24-hour PMP allowance was in addition to regular inflows from other precipitation runoff, including the spring freshet. The TSF design also incorporated an additional allowance of 1 meter of freeboard for wave run-up, for total freeboard requirement of 1.4 m.

The design basis has been updated to include storm water freeboard for the 72-hour PMP event. The volume of water associated with the 72-hour PMP event is approximately 1,070,000 m^3, which would result in an increase in the TSF pond elevation of approximately 0.6 m. The freeboard requirement for wave run-up has been reduced to 0.7 m, for total updated freeboard requirement of 1.3 m, which is consistent with the previous freeboard requirement. However, MPMC has elected to maintain the previous freeboard requirement of at least 1.4 m for the remaining mine life. The freeboard requirement post closure will be reviewed as part of the closure and reclamation plans as they are updated.

3. *The lack of potential of the nature of pre-shearing in the glaciolacustrine foundation leads to uncertainty in terms of present and post closure stability. There is an uncertainty in the need, or lack thereof, of the closure berm.*

Knight Piésold has been studying the lacustrine unit at the Main Embankment and investigating the potential for a weak layer within this unit since the initial design of the TSF embankments. The upper portion of this unit was investigated thoroughly by Knight Piésold during the excavation of the Main Embankment Seepage Collection Pond during the initial construction program in 2006, and no evidence of a pre-shear or a weak layer within this unit was discovered. The Lacustrine unit was also investigated in 1996 (CPT drilling) and in 2001 and 2006 when the inclinometers were installed. The results of the investigations indicate that the lacustrine unit is typically comprised of very stiff silt and clay. However, this does not prove that a pre-sheared or weak layer could not exist within the unit and it is therefore prudent to incorporate suitable contingency features in the design of the embankment. This has resulted in the installation of five inclinometers (of which four are still functioning) at the Main Embankment and the inclusion of a downstream closure buttress. The inclinometers are read on a regular basis during construction programs with an inclinometer probe and no deviations have been observed to date. The results of the readings for the inclinometers are shown in Appendix B.

The Stage 6 design of the TSF includes provisions to ensure stability in the event that a weak layer exists in the lacustrine material. A buttress at the Main Embankment has been included in the design to ensure that the integrity of the Main Embankment is not compromised by a

potentially weak layer in the lacustrine unit, even though there is no direct evidence that indicates that such a feature is present.

A study comparing the drained residual strength to the clay content, liquid limit, and effective normal stress was completed by Stark and Eid (1995). The results of the study indicate that the residual strength of a material with a clay content ranging from 25 to 50%, with a liquid of 40%, and an effective normal stress of 700 kPa is in the order of 24 degrees. Samples of the lacustrine material have recently been collected for direct shear testing, as recommended in the DSR, however the testing had not been completed at the time this report was issued. The results of the direct shear tests will be reviewed once received and the design of the Stage 6 buttress will be adjusted if required.

4. *The hazard classification of the TSF embankments is "HIGH" and is based on the economic and social loss category. The classification based on the Loss of Life and Environmental Loss Categories is LOW. The DSR recommends that the hazard classification be reviewed assuming that the owner's costs are not included.*

The classification of the TSF has been assessed using the Canadian Dam Association and the British Columbia Dam Safety Regulation guidelines. These guidelines look at the consequences of failure and consider life safety, economic and social losses, and environmental and cultural losses. The life safety category considers the potential for multiple loss of life after ascertaining the degree of development within the inundation area. The economic and social loss category considers damage to infrastructure, public and commercial facilities that are in and beyond the inundation area. This includes damage to railways, highways, powerlines, residences etc. The environmental and cultural loss considers damage to fish habitat at the regional, provincial, and national level, wildlife habitat, including water quality, and unique landscapes or sites of cultural significance.

Previous assessments of the TSF have resulted in a "HIGH" hazard classification (or consequence category) based on the economic and social loss category. The classification for the life safety and environmental and cultural loss categories is "LOW", as there is low potential for loss of life, the inundation area is typically undeveloped, and there is unlikely to be loss or significant deterioration of provincially or nationally important fish habitat. However, the estimated costs associated with repairing any damage to the TSF, loss of service to the mine, and the potential economic impact on Imperial Metals, could exceed $1,000,000, which placed the TSF into the "HIGH" economic and social losses category under the British Columbia Dam Safety Regulation guidelines.

The hazard classification of the TSF was discussed with MPMC and it was agreed that the owner's costs should not be included in the classification of the TSF embankments. The hazard classification for the TSF embankments has therefore been reduced to "LOW", based on the Canadian Dam Association and the British Columbia Dam Safety Regulation guidelines.

The maximum design earthquake (MDE) for the TSF with a LOW hazard classification is the 1 in 1000 year event. This corresponds to a peak ground acceleration of 0.096, based on the 2005 National Building Code Seismic Hazard Classification.

5. *There were "about the right" number of piezometers installed in the embankment dams, however there is nothing in the way of much redundancy and any lost instrument locations need to be re-established with a new installation.*

A total of 57 vibrating wire piezometers have been installed at the TSF as of the end of the Stage 4 construction program. The piezometers are grouped into tailings, foundation, embankment fill and drain piezometers. A total of 22 piezometers were accidentally destroyed during the Stage 4 construction program, and six additional piezometers have previously stopped functioning. MPMC and Knight Piésold attempted to locate and splice the damaged piezometers and successfully repaired five of them. The number of functioning piezometers at the end of the Stage 4 construction program was 34. Additional piezometers will be installed in the tailings and embankment fill materials and tailings during the Stage 5 construction program, which is currently in progress.

No unexpected or anomalous pore pressures have been observed while monitoring the vibrating wire piezometers during the TSF construction programs. The timeline plots for the piezometers on planes A through I are provided in Appendix A. The timeline plots indicate that the pore pressures increased slightly in piezometers A2-PE2-03, B2-PE2-03, and B2-PE1-02, which are fill piezometers installed in the Zone S glacial till. These pore pressure increases were expected as these piezometers have shown similar trends in previous construction programs where the pore pressures have increased during fill placement activities and subsequently decreased following the construction programs as the pore pressures dissipate. The pore pressures have also increased in the piezometers installed in the tailings, which is a direct result of the increase in elevation of the tailings pond. There has been no increase in the pore pressures in the foundation piezometers.

Although a number of piezometers are no longer functioning at the TSF, replacing all of them is not practical nor considered necessary at this time as there are functioning piezometers in the vicinity of most that were damaged. However, five of the damaged piezometers were foundation piezometers at the Main Embankment, where there are slight artesian conditions (less than 3.0 m). Additional piezometers will be installed in the Main Embankment foundation materials during Stage 6 to offset those that are no longer functioning. The foundation piezometers at the Main Embankment will have a trigger level of 15 m above ground, which corresponds to the elevated pore pressure that reduces the factor of safety to 1.1.

Knight Piésold
CONSULTING

APPENDIX D

2007 ANNUAL INSPECTION PHOTOGRAPHS

(Pages D-1 to D-12)

PHOTO #1 – Southeast Sediment Control Pond

PHOTO #2 – Southeast Sediment Control Pond crest and downstream slope

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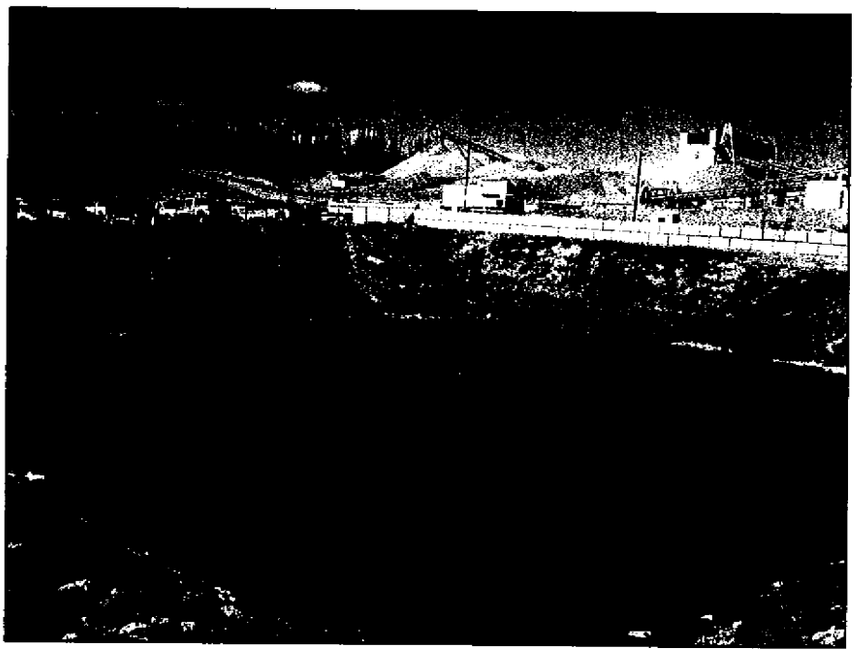

PHOTO 3 – Millsite Sump

PHOTO 4 – Millsite Sump Spillway

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PHOTO 5 – Perimeter Embankment downstream slope looking North.

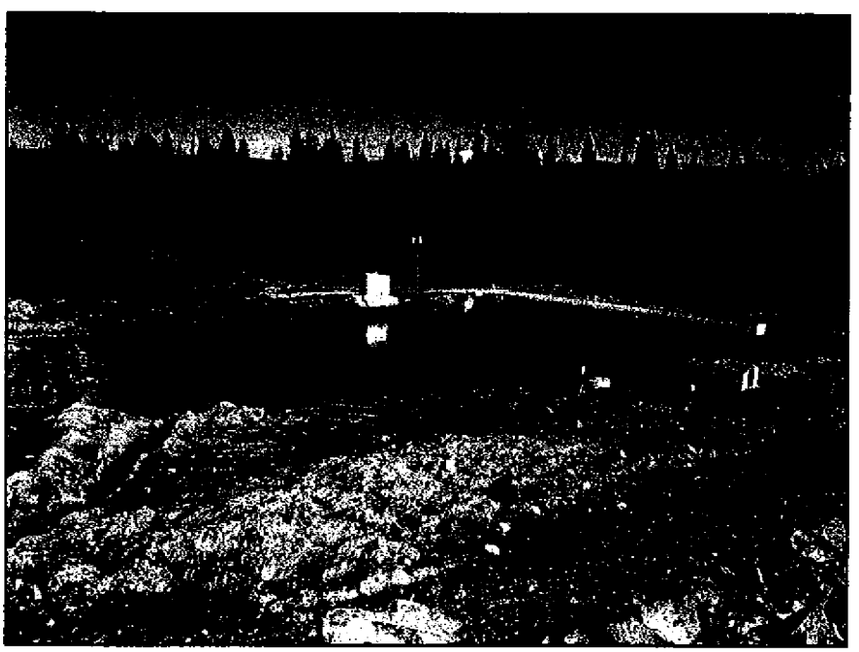

PHOTO 6 – Perimeter Embankment Seepage Collection Pond

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PHOTO 7 – Single point discharge on the Perimeter Embankment during sand cell construction.

PHOTO 8 – Sand cell construction on the Perimeter Embankment

PHOTO 9 – Main Embankment downstream slope looking east.

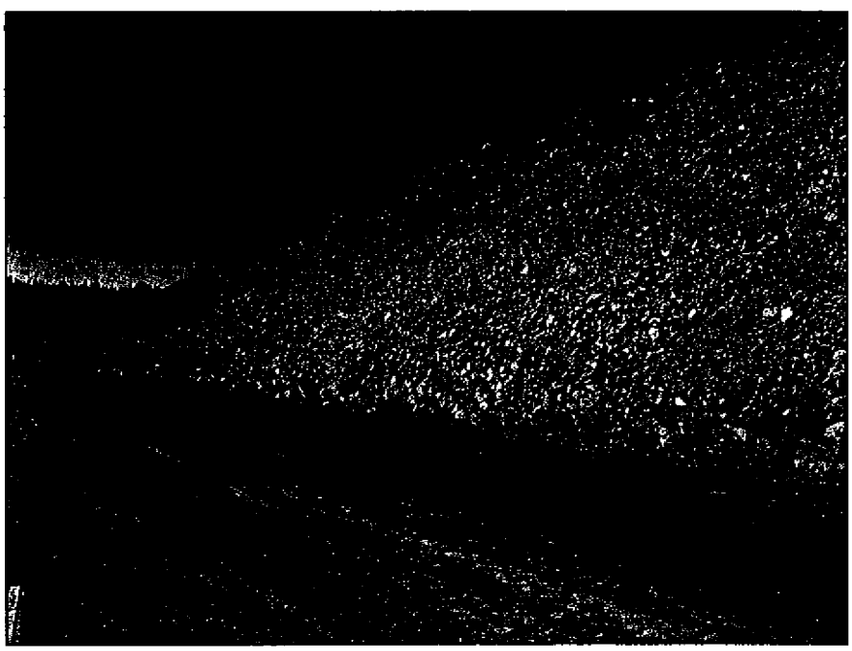

PHOTO 10 – Main Embankment downstream slope looking west.

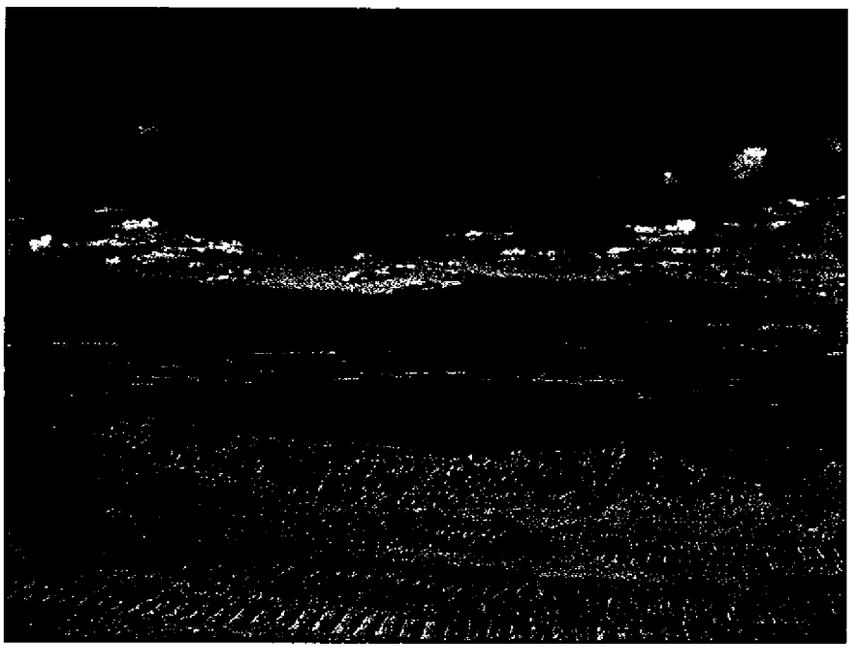

PHOTO 11 – Tailings beach on the Main/Perimeter Embankment Corner

PHOTO 12 – Main Embankment crest looking west.

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PHOTO 13 – Main Embankment seepage collection pond.

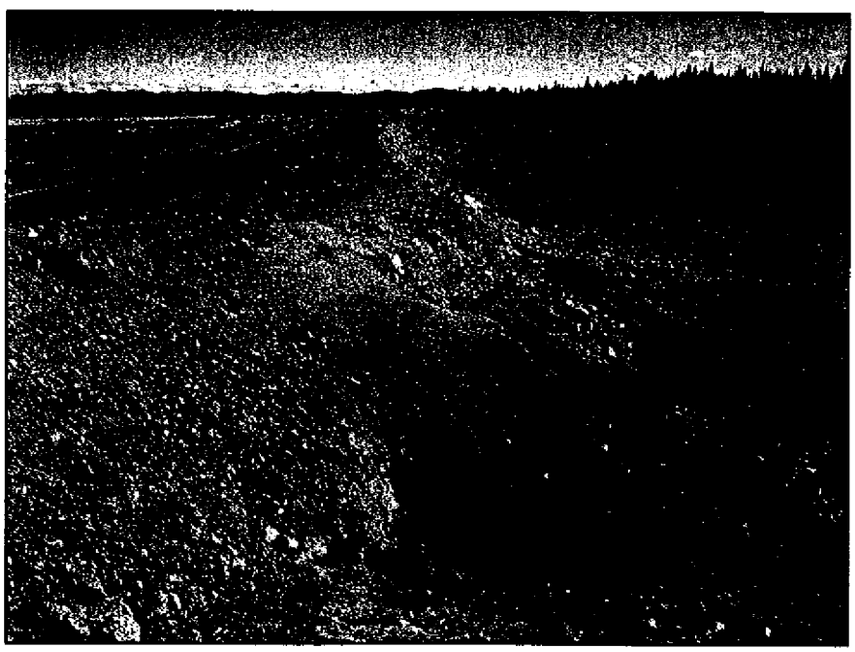

PHOTO 14 – South Embankment crest and downstream area.

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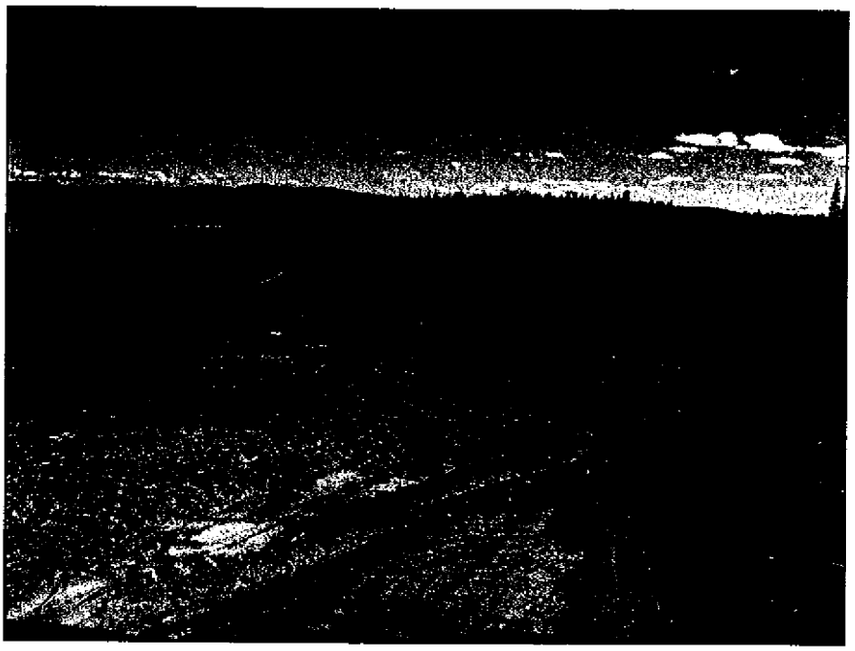

PHOTO 15 – South Embankment showing recent sand cell construction.

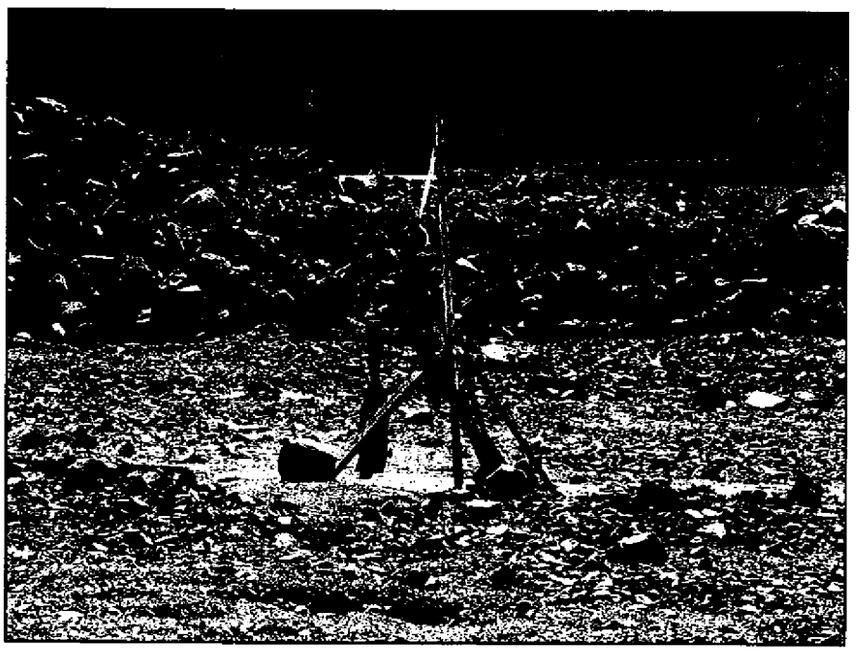

PHOTO 16 – Existing inclinometer at the Main Embankment.

PHOTO 17 – Perimeter Embankment upstream toe drain flow

PHOTO 18 – Perimeter Embankment ditch routed to Perimeter Embankment Seepage Collection Pond for the upstream toe drain flow.

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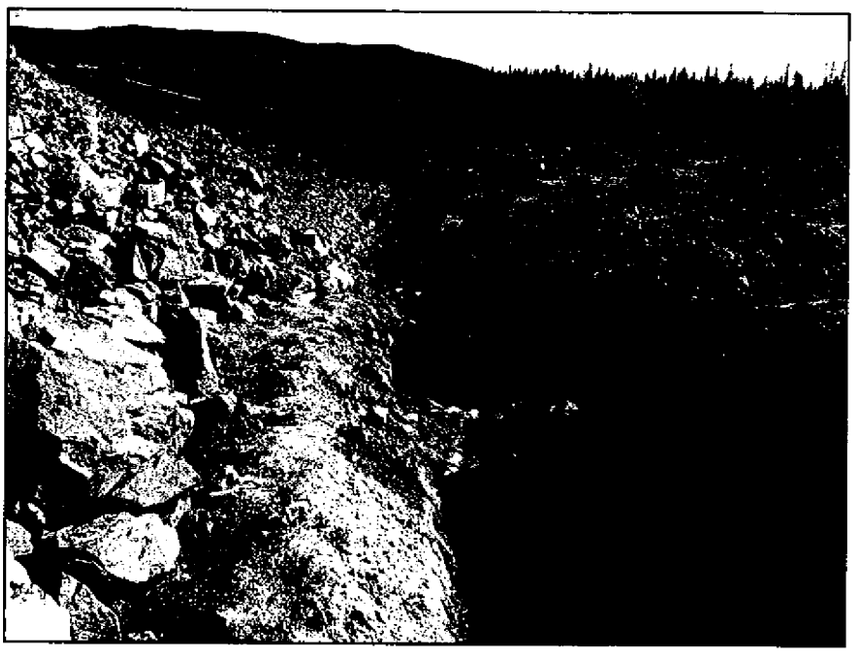

PHOTO 19 – Seepage from the Main/South Embankment corner routed to the Main Embankment Seepage Collection Pond.

PHOTO 20 – Main Embankment ultimate downstream toe with a ditch routed to the Main Embankment Seepage Pond.

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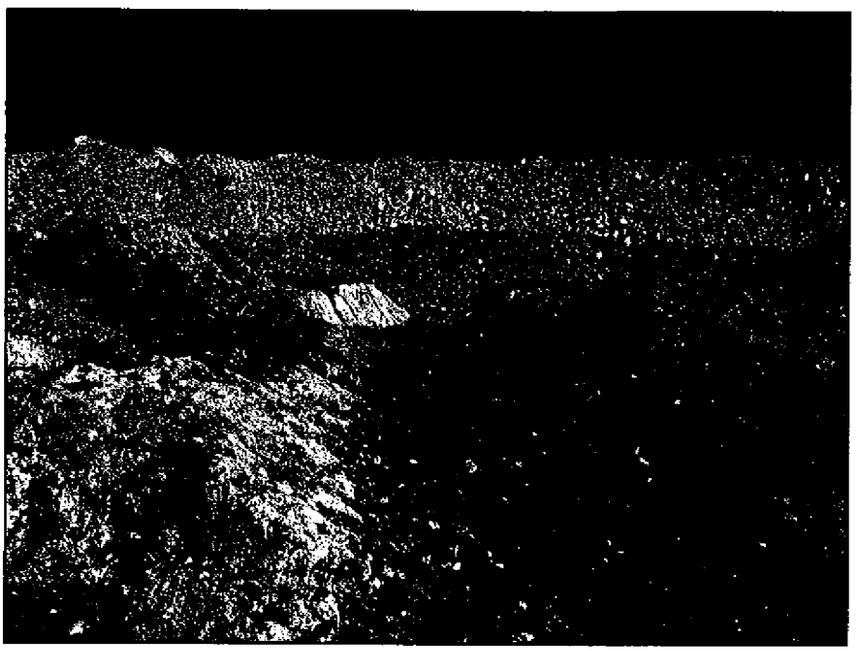

PHOTO 21 – South Embankment foundation drain excavated sump.

PHOTO 22 – South Embankment Concrete Encasement preparation.

PHOTO 23 – South Bootjack Dam – Upstream Slope.

PHOTO 24 – South Bootjack Dam – Downstream Slope.

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