MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE
TAILINGS STORAGE FACILITY

REPORT ON STAGE 3C CONSTRUCTION
(REF.NO. VA101-1/5-2)

MP 00038

Rev. No.	Revision	Date	Approved
0	Issued in Final	September 23, 2005	KJB

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MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE
TAILINGS STORAGE FACILITY

REPORT ON STAGE 3C CONSTRUCTION
(REF.NO. VA101-1/5-2)

EXECUTIVE SUMMARY

The Mount Polley gold and copper mine is owned by Mount Polley Mining Corporation (MPMC). Mount Polley Mine started production in 1997 and had milled approximately 27.5 million tonnes of ore prior to stopping production in October 2001. Mount Polley Mining Corporation commenced upgrading the mine facilities in the second half of 2004, which included increasing the elevation of the Tailings Storage Facility embankments from an elevation of 942.5m to 944.0m. This construction program (Stage 3C) is the final part of a tailings embankment raise previously permitted by the Ministry of Energy and Mines. Stage 3C of the Mount Polley Mine Tailings Storage Facility was constructed between August 2004 and March 2005 and involved placing a 1.50 m cap on the existing crest of 942.5 m. This report documents the Stage 3C construction program for the TSF.

Knight Piésold was been involved with Mount Polley Mine since 1989 and has provided the detailed design, construction supervision, site investigation work, quality assurance/quality control (QA/QC), technical specifications, and contract documents for all stages of the Tailings Storage Facility construction programs. Knight Piésold also provided the design, technical specifications, construction supervision and the quality assurance/quality control (QA/QC) services for the Stage 3C construction program, which included a review of the instrumentation and monitoring records.

The results of the technical supervision and QA/QC testwork indicate that the fill materials placed and compacted on the tailings embankments were within the required material specifications and were in accordance with the modified Stage 3C design of the TSF. The results of the instrumentation monitoring show that no unexpected or anomalous pore pressures were observed in the vibrating wire piezometers and there have been no significant deviations in the inclinometer casings since their installation in 2001. No new instrumentation was installed during the Stage 3C construction program.

The monitoring frequency of the vibrating wire piezometers, inclinometers, and survey monuments following the Stage 3C construction program should be completed as outlined in the Operations and Maintenance Manual. The tailings pond elevation should also be monitored on a regular basis to ensure that the stormwater and freeboard requirements are not infringed upon during operations.

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TABLE OF CONTENTS

PAGE

TABLES

FIGURES

DRAWINGS

APPENDICES

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SECTION 1.0 - INTRODUCTION

1.1 PROJECT DESCRIPTION

The Mount Polley gold and copper 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 stopping production in October 2001. Mount Polley Mining Corporation commenced upgrading the mine facilities in the second half of 2004 and started production again in March 2005. The upgrading of the mine facilities included increasing the elevation of the Tailings Storage Facility (TSF) embankments from an elevation of 942.5m to 944.0m. An overall site plan of the Mount Polley Mine is shown on Drawing 100.

Knight Piésold Ltd. was originally engaged by Imperial Metals Corporation to provide engineering services for the design of the Tailings Storage Facility in 1989. Over the period since, Knight Piésold Ltd. has provided the following services:

- Detailed design of all stages of the Tailings Storage Facility and Ancillary Works completed to date.
- Preparation of contract documents and technical specifications for all stages of the Tailings Storage Facility construction to date.
- Construction supervision and quality assurance/quality control (QA/QC) for all stages of the Tailings Storage Facility completed to date.
- Site investigations and evaluations for engineering design and construction materials suitability.
- Consulting services on all aspects of the operation and monitoring of the Tailings Storage Facility.

Knight Piésold Ltd. provided the design, technical specifications, construction supervision and the quality assurance/quality control (QA/QC) services for the Stage 3C construction program. Knight Piésold Ltd. also reviewed the instrumentation and monitoring records during the Stage 3C construction program.

1.2 SCOPE OF REPORT

This report documents the Stage 3C construction program for the TSF. The report includes a discussion of the construction methods used to complete the work, the results of quality assurance tests, a review of the instrumentation monitoring results, and the results of the site investigation work completed during the construction program. The report also includes a set of "As -Built" drawings corresponding to Stage 3C construction program.

SECTION 2.0 - STAGE 3C CONSTRUCTION PROGRAM

2.1 GENERAL

The Stage 3C construction program at Mount Polley Mine commenced in August 2004 and was completed at the end of March 2005. This construction program was the final part of a tailings embankment raise previously permitted by the Ministry of Energy and Mines. The construction program initially involved raising the TSF embankments from elevation 942.5 m to 945 m, however, the design crest elevation was modified to elevation 944 m to reflect changes in the mill start-up date.

The general arrangement of the TSF is shown on Drawing 102. The material specifications are shown on Drawing 104. The Stage 3C Main Embankment Plan and Sections and Details are shown on Drawings 210 and 215 respectively. The Stage 3C Perimeter Embankment Plan and Section and Detail are shown on Drawings 120 and 125 respectively. The Main and Perimeter Embankment transition zone is shown on Drawing 127. The Stage 3C South Embankment Plan and Sections and Details are shown on Drawing 130. Select photographs of the construction program are included in Appendix D.

The main components of the TSF are as follows:

- The TSF embankments, which incorporate the following zones and materials:
    - Zone S - Core zone - fine grained glacial till.
    - 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 gravel and sand.
    - Zone T - Transition filter zone - select well-graded fine-grained rockfill.
    - Zone C - Downstream shell zone – rockfill.
    - Zone U – Upstream shell zone – parameters vary depending on material availability.
- A low permeability basin liner (natural and constructed), which 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.
- Embankment drainage provisions which include foundation drains, upstream toe drains, and chimney, longitudinal and outlet drains. The embankments drains have been incorporated into the design of the TSF to facilitate drainage of the tailings mass, dewater the foundation soils, and to control the phreatic surface within the embankments.
- Seepage collection ponds located downstream of the Main and Perimeter Embankments. These ponds were excavated in low permeability soils and store water collected from the embankment drains and from local runoff.
- Instrumentation in the tailings, earthfill embankments and embankment foundations. This includes vibrating wire piezometers, survey monuments, and slope inclinometers.
- A system of groundwater quality monitoring wells installed around the TSF.

The Stage 3C construction program was limited to raising the TSF embankments to an elevation of 944 m, which involved placing a 1.50 m cap on the existing crest of 942.5 m. The existing vibrating wire piezometers and inclinometers were monitored during the program but no new instrumentation was installed.

2.2 QUALITY ASSURANCE/QUALITY CONTROL

Knight Piésold provided the Stage 3C design for the Tailings Embankments, prepared the Technical Specifications, provided technical assistance and performed quality assurance/quality control (QA/QC) testing during the construction Program. Key items addressed by Knight Piésold Ltd. included:

- Foundation inspection and approval prior to fill placement.
- Assessment of borrow material suitability.
- Inspection of fill placement procedures.
- In-situ testing of placed and compacted fill for moisture content and density.
- Collection and testing of Control and Record samples.
- Instrumentation monitoring.

Knight Piésold worked under the overall management and administration of MPMC. Peterson Construction and MPMC completed the construction work. The QA/QC procedures were similar to previous construction programs at the TSF. Material samples collected for laboratory testing during the construction program included Control and Record samples. The Control tests were carried out on materials collected from the borrow areas or from source locations to determine their suitability for use in the work. Record tests were performed on materials after placement and compaction to document the level of workmanship achieved and to ensure that the design objectives were met. The Control and Record test results are presented in Appendix A.

The Stage 3C construction program extended through the winter months of 2004/2005. The portion of the construction program that was completed during freezing conditions was monitored carefully by Knight Piésold to ensure that the work was carried out in accordance with the Technical Specifications.

2.3 STAGE 3C EARTHWORKS

2.3.1 GENERAL

Earthworks for the Stage 3C Tailings Storage Facility construction program comprised the following zones and materials:

- Zone S - fine grained glacial till.
- Zone F - processed gravel and sand filter.
- Zone T - select rockfill transition zone.
- Zone C - rockfill zone.

The material specifications for the fill materials are shown on Drawing 104. The fill materials are discussed in the following sections.

2.3.2 ZONE S

Zone S forms the low permeability core and seal zones for the Main, Perimeter and South Embankments. The material used in Zone S was fine grained glacial till from Borrow Area No. 2, 4, and 5, which are located downstream of the left (East) abutment of the Main Embankment, at the north end of the TSF and at the west end of the TSF, respectively. The Control tests results for the Zone S material are presented in Appendix A and summarized on Table 2.1. The results of the Control tests particle size analyses on the Zone S material are shown on Figure 2.1.

The Specification for Zone S material required placement and compaction in maximum 300 mm thick horizontal lifts. The compaction specification was 95 percent of the Standard Proctor maximum dry density. Each lift of Zone S was tested and approved prior to the placement of the subsequent lift. Areas that failed to meet the compaction requirements were re-compacted until the minimum compaction requirements were met. Material that did not meet the compaction requirements was typically too wet for use as construction material and was pushed upstream of the crest onto the tailings beach.

Record tests on the compacted Zone S fill included the following:

- Moisture Content (ASTM D2216).
- Particle Size Distribution (ASTM D422).
- Laboratory Compaction (ASTM D698).
- Specific Gravity (ASTM D854).
- Atterberg Limits (ASTM D4318).
- Field Density by Nuclear Methods (ASTM D2922).
- Field Moisture Content by Nuclear Methods (ASTM D3017).

A total of six Zone S Record samples were collected and tested during the Stage 3C construction program. The Record test results indicate that the Zone S material is typically silty sand with some gravel and some clay. The gradation curves of the Zone S Record Tests are shown on Figure 2.2. The moisture content of the Record Samples ranged from 11.2 to 15.9 percent, with an average of 12.6 percent. The Standard Proctor Maximum Dry Density ranged from 1,948 to 2,092 kg/m^3, with an average of 2,040 kg/m^3. The plastic limits ranged from 14.5 to 18 percent, with an average of 15.7 percent. The liquid limits ranged from 24 to 32 percent, with an average of 26 percent. The plasticity index ranged from 9.0 to 14 percent, with an average of 10.3 percent. The field density and moisture content tests for the Zone S Record tests are shown on Figures 2.3 and 2.4 respectively. Specific gravity tests were completed on five record samples. The median result was 2.62, which is consistent with values measured on similar materials during previous construction programs. All of the Zone S Record test results were within the specified limits for the material.

An additional 359 field density and moisture content tests were performed on the Zone S material using a nuclear densometer to assess the compacted density and moisture content. The compacted dry density ranged from 1,674 to 2,191 kg/m^3, with an average of 2,029 kg/m^3, with the compacted moisture content ranging from 7.2 to 15.7%, with an average of 11.1%. The percent compaction as compared to the Standard Proctor maximum dry density ranged from 88.5 to 108.5%, with an average of 99.5%. Compacted material that failed to meet the compaction requirements were re-compacted until the minimum compaction requirements were met or the material was removed from the dam. The compacted dry density results are shown on Figure 2.5, with the percent compaction results shown on Figure 2.6. The compacted moisture content results are shown on Figure 2.7, with the deviation from the Standard Proctor optimum moisture content results shown on Figure 2.8. The nuclear densometer results are presented in Appendix C.

2.3.3 ZONE F

The Zone F material forms the filter zone immediately downstream of Zone S on the Main and Perimeter Embankments. The material used in Zone F was mine waste rock that was processed at the millsite using the primary crusher. The Zone F Control tests gradation curves are shown on Figure 2.9.

The Specification for Zone F called for placement and compaction in maximum 600 mm thick horizontal lifts. The Zone F fill placement was carefully monitored to ensure that segregation did not occur. Compaction was achieved with a hand-operated vibrating compactor or with tamping/compacting of the filter material with the excavators bucket at every intermediate lift. The third lift was compacted with a Bomag 10 tonne vibratory smooth drum compactor.

Record tests on Zone F consisted of Particle Size Distribution tests (ASTM D422). A total of sixteen (16) particle size distribution tests were completed on Zone F. These tests showed that Zone F consists of sand and gravel with less than 10% fines. Five of the Zone F test results fell outside of the specified coarse limit basically due to dry screen test method rather than the more accurate wet screen analysis. All the wet screen tests on sampled filter specimens fall between the required gradation limits as shown on Figure 2.10.

2.3.4 ZONE T

Zone T is a transition zone immediately downstream of Zone F in the Main and Perimeter Embankments and immediately downstream of Zone S at the South Embankment. The material used in Zone T was select rockfill quarried from the Rock Borrow. The Zone T Control tests gradation curves are shown on Figure 2.11.

The Specification for Zone T required placement and compaction in maximum 600 mm thick horizontal lifts. Fill placement was carefully monitored to ensure that segregation did not occur. Compaction was achieved with a 10 tonne vibratory smooth drum roller.

Record tests on Zone T consisted of Particle Size Distribution tests (ASTM D422). A total of eight (8) Zone T samples were tested for particle size distribution. These tests showed that Zone T consists of gravel with some sand and trace cobbles and fines. Gradation curves are shown on Figure 2.12. All of the Zone T record test results fell inside the specified limits.

2.3.5 ZONE C

Zone C is a rockfill zone immediately downstream of Zone T in the Main and Perimeter Embankments. The material used in Zone C was rockfill quarried from the Rock Borrow.

The Specification for Zone C called for placement and compaction in maximum 1000 mm thick horizontal lifts. This was followed and compaction was achieved with a 10 ton vibratory smooth drum roller.

Record tests on Zone C consisted of Particle Size Distribution tests (ASTM D422). A total of two (2) Record Tests were completed on Zone C. The results showed that Zone C is a cobbly gravel material with some boulders and sand. All of the test results were within the specified limits for Zone C. Gradation curves are shown on Figure 2.13.

2.4 INSTRUMENTATION MONITORING

2.4.1 GENERAL

Instrumentation planning and installation had been carried out during the earlier stages of construction and no further instrumentation was installed during Stage 3C construction program.

2.4.2 VIBRATING WIRE PIEZOMETERS

A total of 56 vibrating wire piezometers have been installed at the TSF along eight planes designated as Monitoring Plans A to H. The piezometer locations are shown on Drawings 250, 252, 254, 256, 258 and 259. The piezometers are grouped into tailings, foundation, embankment fill and drain piezometers. The piezometers were discussed in detail in the Knight Piésold Ltd. "Report on 2004 Annual Inspection, (Ref. No. VA101-01/7-1). The piezometers were measured on a weekly basis by MPMC during the Stage 3C construction program. No unexpected or anomalous pore pressures were observed while monitoring the vibrating wire piezometers during the construction program. The timeline plots for the piezometers are included in Appendix B.

2.4.3 SLOPE INCLINOMETERS

The two slope inclinometers installed at the toe of the Main Embankment in July 2001 were read during the construction program to monitor any movement in the Main Embankment and the underlying lacustrine unit. A 'poor-boy' monitoring rod was also constructed and used twice a month during the construction program to ensure that casing deformation due to soil movement associated with settlement or instability could be identified.

The results of the inclinometer readings and 'poor-boy' measurements indicate that there have not been any significant deviations in the inclinometers since their installation in 2001, and there were no measurable impacts on the inclinometers resulting from the Stage 3C construction program. The results of the inclinometer readings are shown in Appendix B.

2.4.4 SURVEY MONUMENTS

Six survey monuments were installed on the Stage 3B embankment crest following the 2001 construction. MPMC has reported that the initial survey of the monuments in 2001 was not closed properly, resulting in inconsistent surveys since their installation. New survey monuments will be installed on the embankment crests during the Stage 4 construction program, scheduled for the spring of 2005.

2.4.5 DESIGN MODIFICATIONS

Knight Piésold Ltd. employs a strict procedure for making design modifications (changes or substitutions) in the field. All design change requests are submitted in writing by the Resident Engineer to the Knight Piésold Ltd. Vancouver Office for review and evaluation. If approved by the Project Principal, the design change request is forwarded to the Owner and Contractor in a formal, written decision.

The design modification implemented during the Stage 3C construction program involved reducing the design crest elevation from an elevation of 945 m to 944 m to reflect changes in the mill start-up date. The reduced elevation of the TSF embankments will not impact the stormwater storage and freeboard requirements.

SECTION 3.0 - SUMMARY AND RECOMENDATIONS

Stage 3C of the Mount Polley Mine Tailings Storage Facility was constructed between August 2004 and March 2005. The Stage 3C construction program was limited to raising the TSF embankments to an elevation of 944 m, which involved placing a 1.50 m cap on the existing crest of 942.5 m. The construction program initially involved raising the TSF embankments to elevation 945 m, however, the Stage 3C crest elevation was modified to elevation 944 m to reflect changes in the mill start-up date. No new instrumentation was installed during the Stage 3C construction program.

Technical supervision of the work included QA/QC testing and monitoring the existing vibrating wire piezometers and inclinometers. The QA/QC testing included collecting and testing Record samples of the placed and compacted material, and testing the compacted density and moisture content of the Zone S material using a nuclear densometer. The results of the QA/QC testwork indicate that the fill materials placed and compacted on the tailings embankments were within the required material specifications and were in accordance with the modified Stage 3C design of the TSF.

The piezometers were measured on a weekly basis by MPMC and the inclinometers were measured twice a month using a "poor boy" probe. The inclinometers were also read using a SINCO inclinometer probe to provide a more detailed assessment of any significant deviations in the inclinometer casing since their installation in 2001. The results of the instrumentation monitoring show that no unexpected or anomalous pore pressures were observed while monitoring the vibrating wire piezometers and there were no measurable impacts on the inclinometers during the construction program.

The vibrating wire piezometers, inclinometers, and survey monuments should be read continually throughout the year as outlined in the Operations and Maintenance Manual.

The TSF is required to have sufficient live storage capacity for containment of runoff from the 24-hour PMP, in addition to regular inflows from other precipitation runoff, including the spring freshet, while maintaining the minimum freeboard requirements. The tailings pond elevation should be monitored on a regular basis to ensure that the stormwater and freeboard requirements are not infringed upon during operations.

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SECTION 4.0 - CERTIFICATION

This report was prepared and approved by the undersigned.

PROFESSIONAL
PROVINCE OF
L.J. GALBRAITH
25493
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Sep 23/05

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Approved by:

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Managing Director

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TABLE 2.1

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE
STAGE 3C CONSTRUCTION PROGRAM

ZONE S CONTROL SAMPLES - SUMMARY

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Revised: 31-Mar-05

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Sample	Atterberg Limits			MC	Grain Size Analysis				Standard Proctor				MC
No.					Gravel	Sand	Silt	Clay	Uncorrected		Corrected		Difference for Optimum (%)
	L.L. (%)	P.L. (%)	P.I. (%)	M.C. (%)	> #4 (%)	#4 to #200 (%)	#200 to .002 (%)	< .002 (%)	Max D.D. (kg/m^3)	Opt. M.C. (%)	Max D.D. (kg/m^3)	Opt. M.C. (%)	
C-ZS-1	32	16.5	15.5	13.5	4.1	50.3	43.6	2	1870	14.5	1892	14.0	-0.5
C-ZS-2	29	15.5	13.5	14.7	6.9	38.9	43.2	11	1860	14.0	1895	13.2	1.5
C-ZS-3	23	15.0	8	8.6	22.8	38	25.6	13.6	2040	11.5	2152	9.1	-0.5
C-ZS-4	14.5	6.0	8.5	10	24.4	35.3	26.5	13.8	1980	12.0	2103	9.3	0.7
C-ZS-5	NA	NA	NA	11.4	15.7	55	20.3	9	2040	10.0	2107	8.7	2.7
C-ZS-6	23	14.0	9	8.6	27.9	34.3	25.8	12	2080	10.5	2212	7.9	0.7
C-ZS-7	25.5	16.0	9.5	11.4	17.9	36.2	29.9	16	2030	11.5	2119	9.6	1.8
C-ZS-8	24.5	14.5	10	12.7	29.1	36.9	22	12	2030	11.0	2112	9.4	3.3
C-ZS-9	26	15.5	10.5	13.2	2.6	36.4	39.8	21.2	1950	12.5	1967	12.1	1.1
C-ZS-10	25	12.0	13	9.7	12.7	34.6	36.2	16.5	1990	12.0	2081	10.0	-0.3
C-ZS-11	23.5	14.5	9	13.6	14.7	32.2	35.6	17.5	1970	12.0	2097	9.4	4.2
AVERAGE	24.6	14.0	10.7	11.6	16.3	38.9	31.7	13.1	1985	12.0	2067	10.2	1.3
MAXIMUM	32.0	16.5	15.5	14.7	29.1	55.0	43.6	21.2	2080	14.5	2212	14.0	4.2
MINIMUM	14.5	6.0	8.0	8.6	2.6	32.2	20.3	2.0	1860	10.0	1892	7.9	-0.5

TABLE 2.2

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY MINE
STAGE 3C CONSTRUCTION PROGRAM

ZONE S RECORD SAMPLES - SUMMARY

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Revised: 31-Mar-05

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Sample	Atterberg Limits			MC	Grain Size Analysis				Standard Proctor				MC
No.					Gravel	Sand	Silt	Clay	Uncorrected		Corrected		Difference for Optimum (%)
	L.L. (%)	P.L. (%)	P.I. (%)	M.C. (%)	> #4 (%)	#4 to #200 (%)	#200 to .002 (%)	< .002 (%)	Max D.D. (kg/m³)	Opt. M.C. (%)	Max D.D. (kg/m³)	Opt. M.C. (%)	
R-ZS-1	32.0	18.0	14.0	15.9	3.3	36.8	38.6	21.3	1930	14.0	1948	13.6	2.3
R-ZS-2	25.0	16.0	9.0	13.7	5.1	36.5	58.4		2010	11.5	2035	11.0	2.7
R-ZS-3	26.0	16.0	10.0	12.3	13.7	42.5	33.6	10.2	1950	13.5	2018	11.9	0.4
R-ZS-4	24.5	14.5	10.0	11.2	15.9	40.2	27.4	16.5	2012	11.3	2092	9.7	1.5
R-ZS-5	24.5	14.5	10.0	11.2	17.5	34.4	30.5	17.6	1970	12.5	2059	10.6	0.6
R-ZS-6	24.0	15.0	9.0	11.5	9.5	44.6	45.9		2040	12.0	2085	11.0	0.5
AVERAGE	26.0	15.7	10.3	12.6	10.8	39.2	39.1	16.4	1985	12	2040	11.3	1.3
MAXIMUM	32.0	18.0	14.0	15.9	17.5	44.6	58.4	21.3	2040	14.0	2092	13.6	2.7
MINIMUM	24.0	14.5	9.0	11.2	3.3	34.4	27.4	10.2	1930	11.3	1948	9.7	0.4

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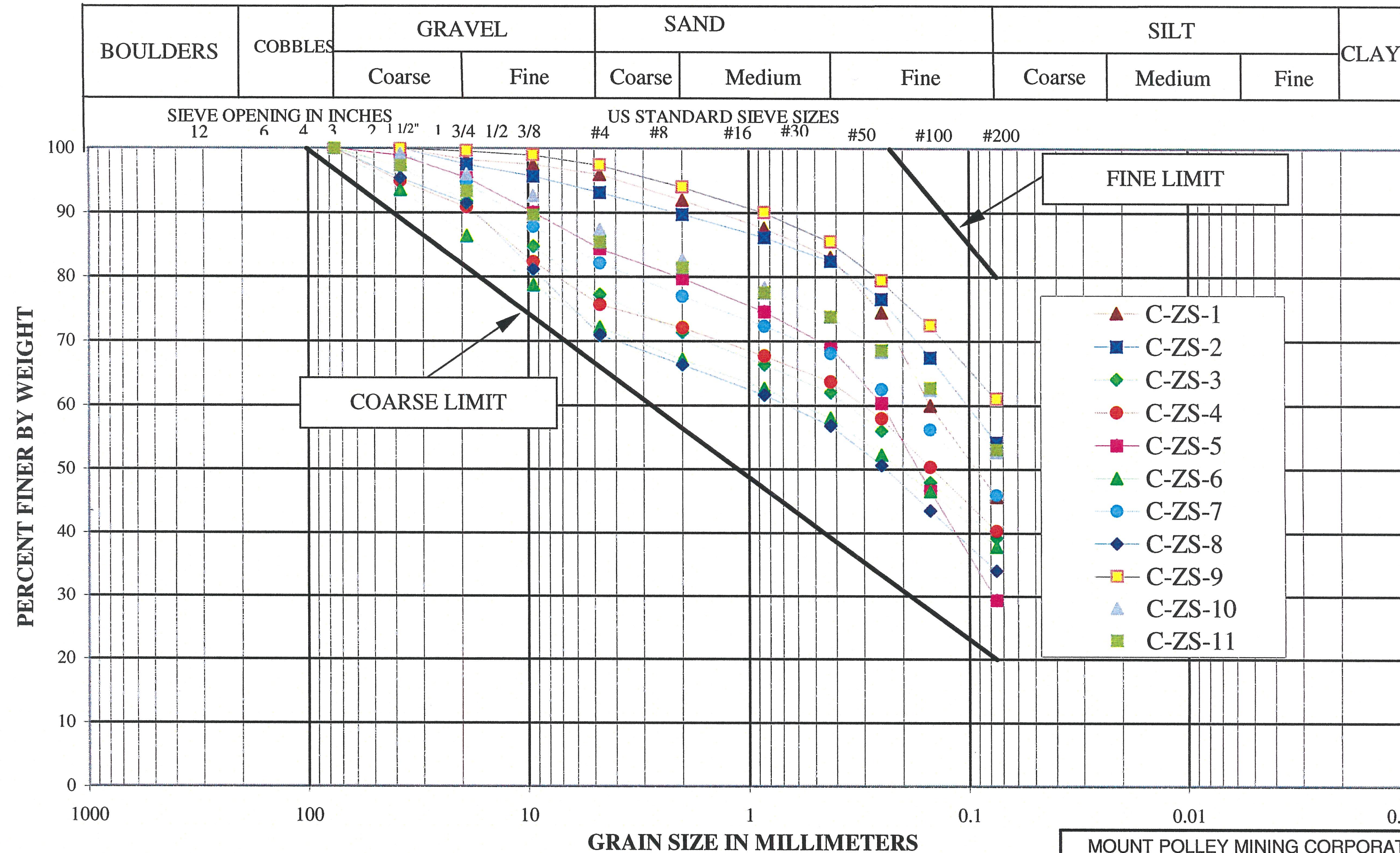

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MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
ZONE S CONTROL SAMPLES GRADATION CURVES		
PROJECT NO. VA 101-1/5	REF. NO. 2	REV. 0

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FIGURE 2.1

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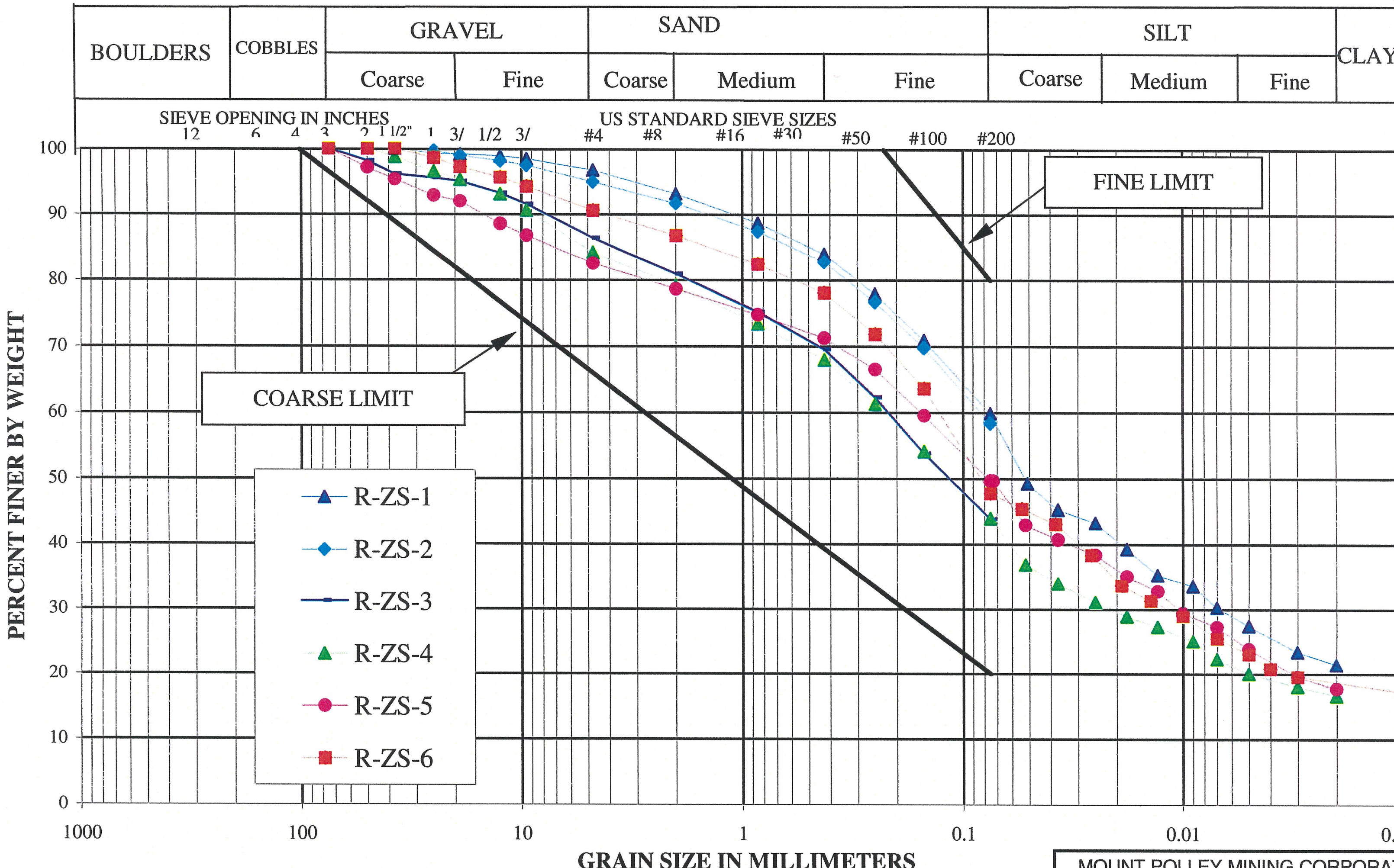

MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
ZONE S RECORD SAMPLES GRADATION CURVES		
PROJECT NO. VA101-1/5	REF. NO. 2	REV. 0
Knight Piésold CONSULTING	FIGURE 2.2	

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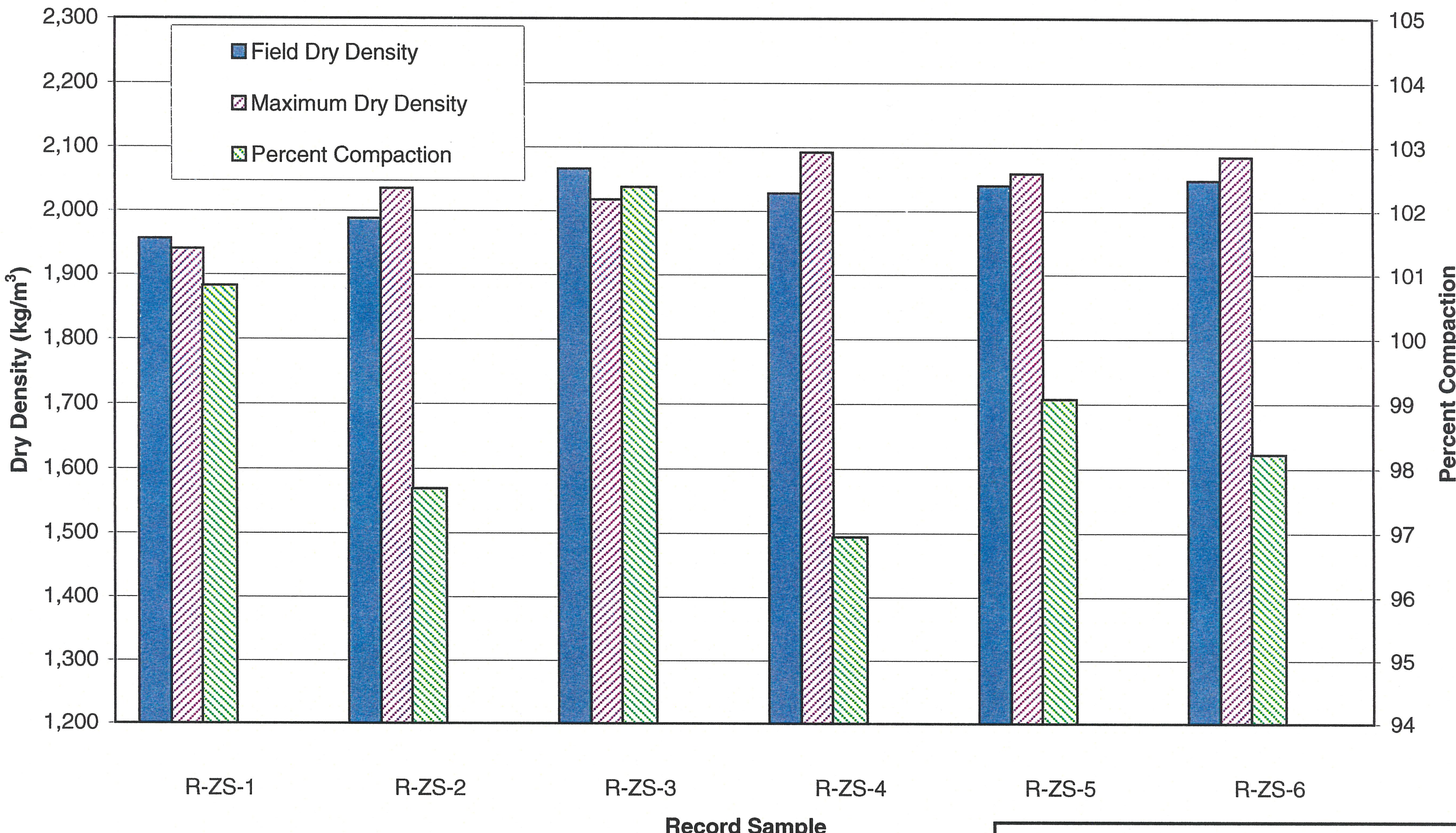

Notes:
1. The Maximum Dry Density obtained from Standard Proctor Test (ASTM D698).

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MOUNT POLLEY MINING CORPORATION			
MOUNT POLLEY MINE			
ZONE S RECORD SAMPLES DRY DENSITY/PERCENT COMPACTION			
Knight Piésold CONSULTING	PROJECT NO. VA101-1/5	REF. 2	REV. 0
	FIGURE 2.3		

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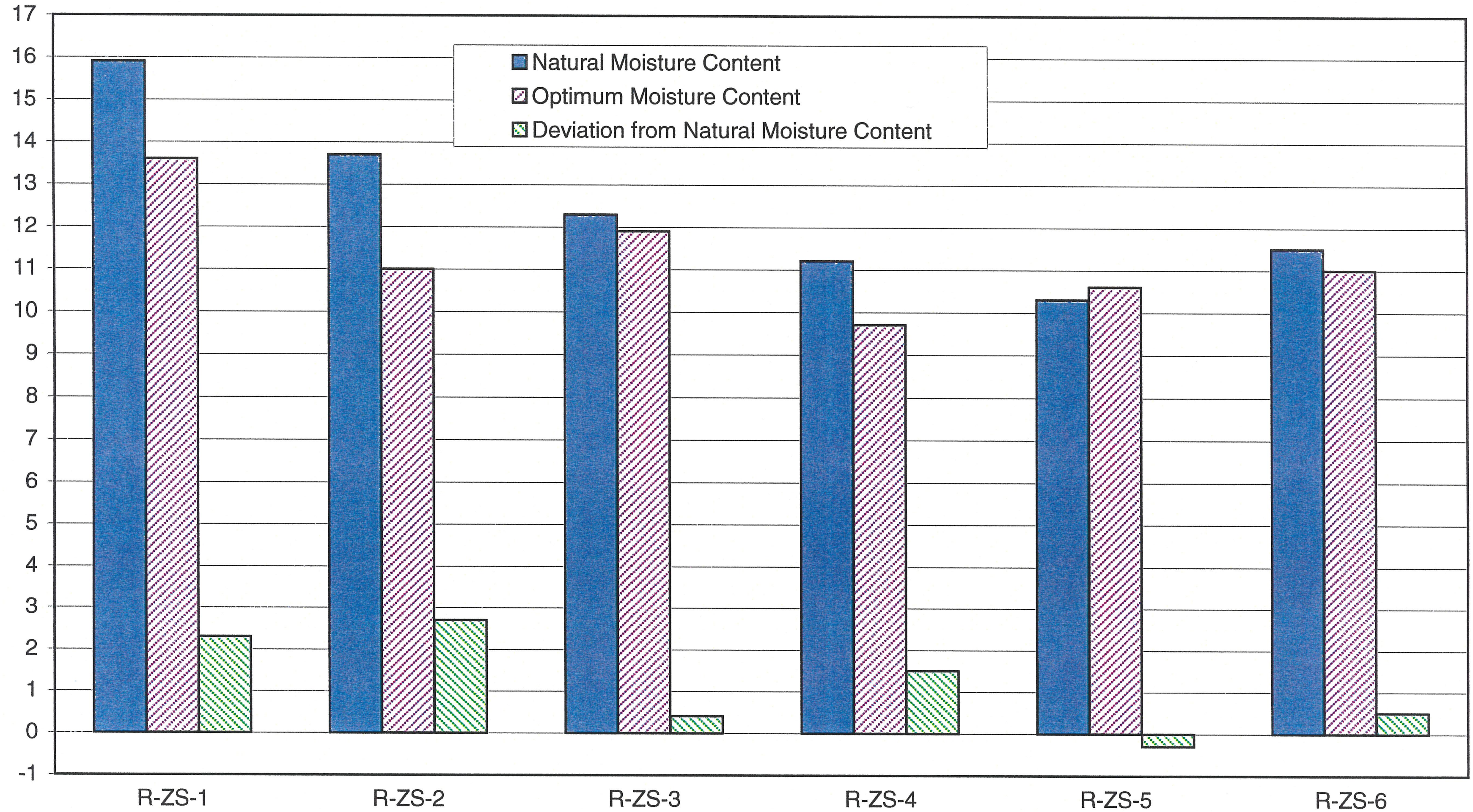

Notes:
1. The Optimum Moisture content obtained from Standard Proctor Test (ASTM D698).

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MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
ZONE S RECORD SAMPLES MOISTURE CONTENT		
PROJECT NO. VA101-1/5	REF 2	REV. 0
FIGURE 2.4		

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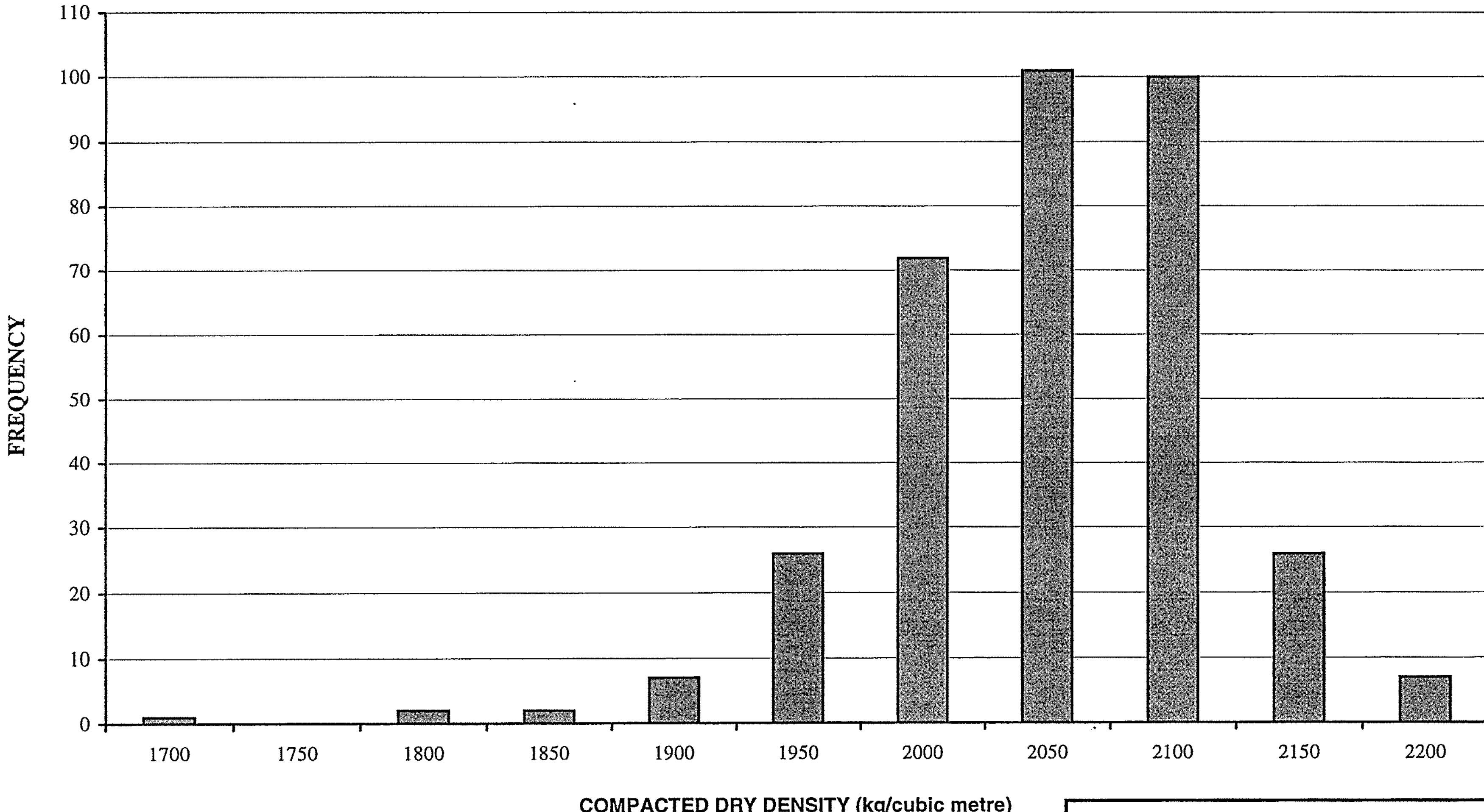
M:\1\01\00001\05\A\Report\Report 2_Stage 3C Construction\Figures\Figs 2.3 - 2.8.xls FIG 2.5

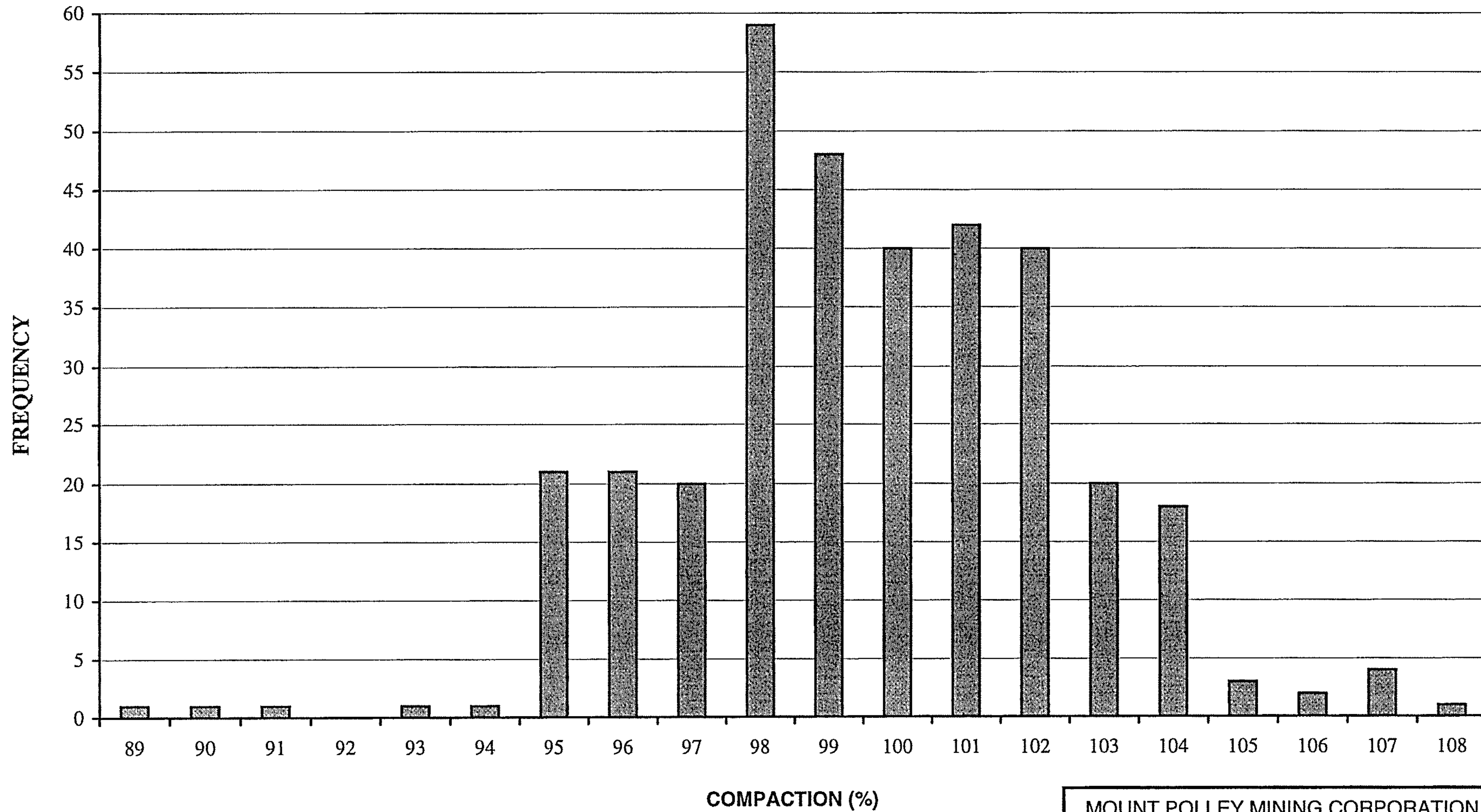
Print: 9/22/2005 10:25 AM
Revised: 14-Sep-05



Notes:
1. The compacted dry density was measured using a nuclear densometer.

Rev. 0. - Issued for Report

MOUNT POLLEY MINING CORPORATION			
MOUNT POLLEY MINE			
ZONE S RECORD TESTS **DRY DENSITY**			
Knight Piésold CONSULTING	PROJECT NO. VA101-1/5	REF. 2	REV 0
	FIGURE 2.5		

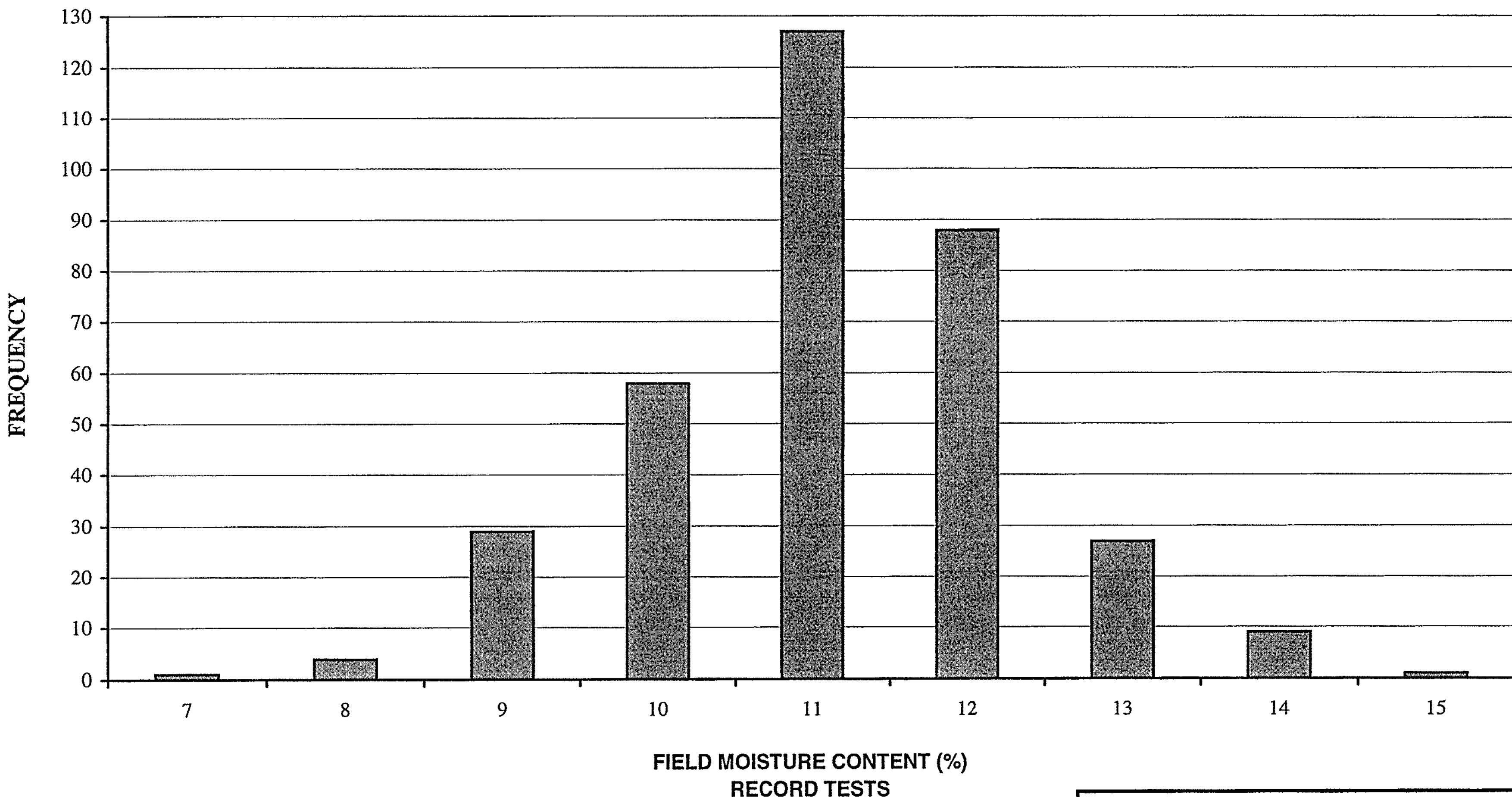


Notes:
1. The field dry density was measured using a nuclear densometer. The nuclear densometer test results compared to Zone S control and record tests for comparison.

Rev. 0. - Issued for Report

MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
ZONE S RECORD TESTS PERCENT COMPACTION		
PROJECT VA101-1/5	REF. 2	REV. 0
FIGURE 2.6		

Knight Piésold CONSULTING



Notes:
1. The compacted moisture content was measured using a nuclear densometer.

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

ZONE S RECORD TESTS
MOISTURE CONTENT

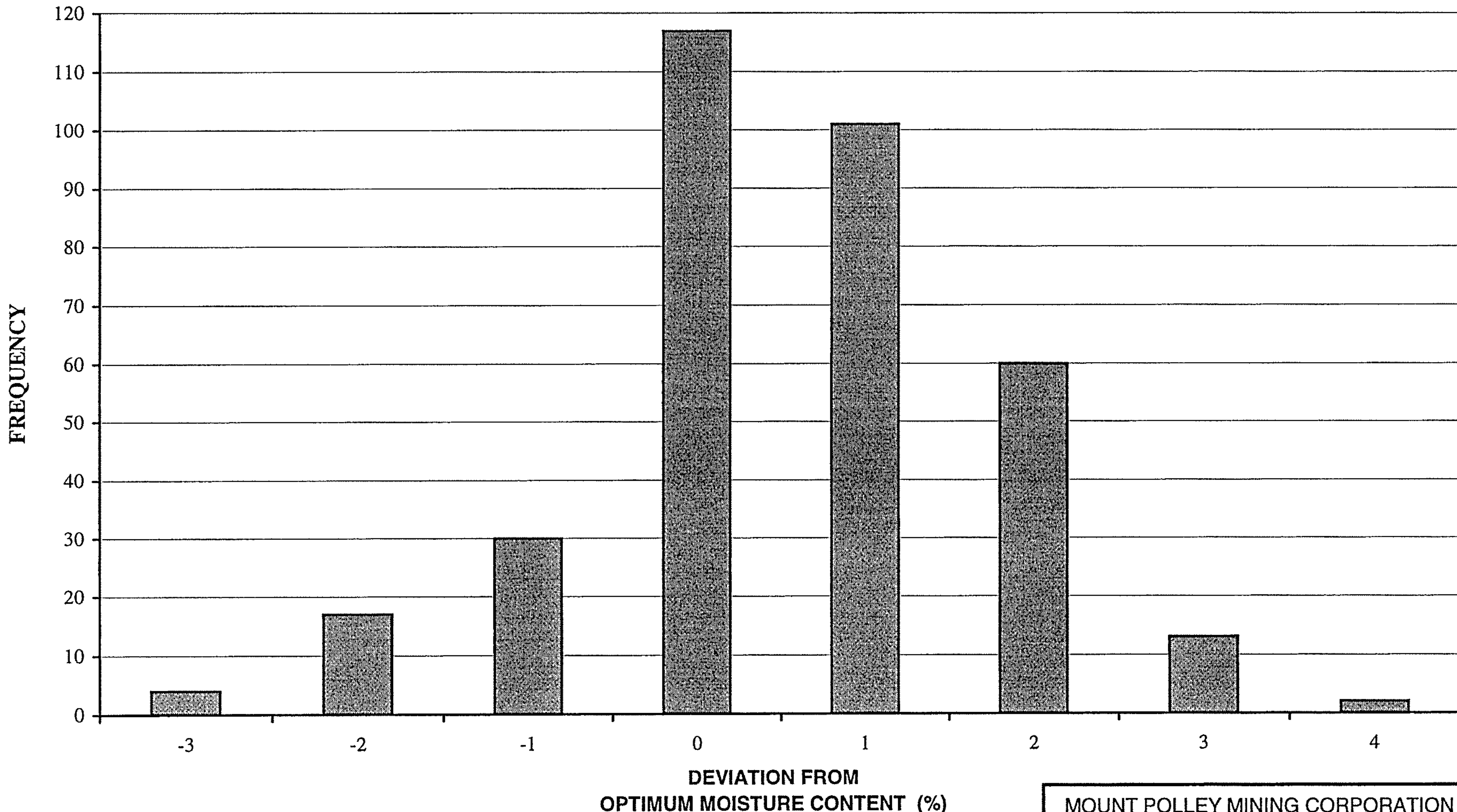
Knight Piésold CONSULTING

PROJECT NO.	REF.	REV.
VA101-1/5	2	0

FIGURE 2.7

M:\1\01\00001\05\A\Report\Report 2_Stage 3C Construction\Figures\Figs 2.3 - 2.8.xls FIG 2.8

Print: 9/22/2005 11:33 AM
Revised: 14-Sep-05



Notes:
1. The Optimum Moisture Content refers to the Standard Proctor Optimum Moisture Content.
2. The compacted moisture content was measured using a nuclear densometer. The nuclear densometer test results compared to Standard Proctor Optimum Moisture Content for comparison.

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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

ZONE S RECORD TESTS
DEVIATION FROM OPTIMUM
MOISTURE CONTENT

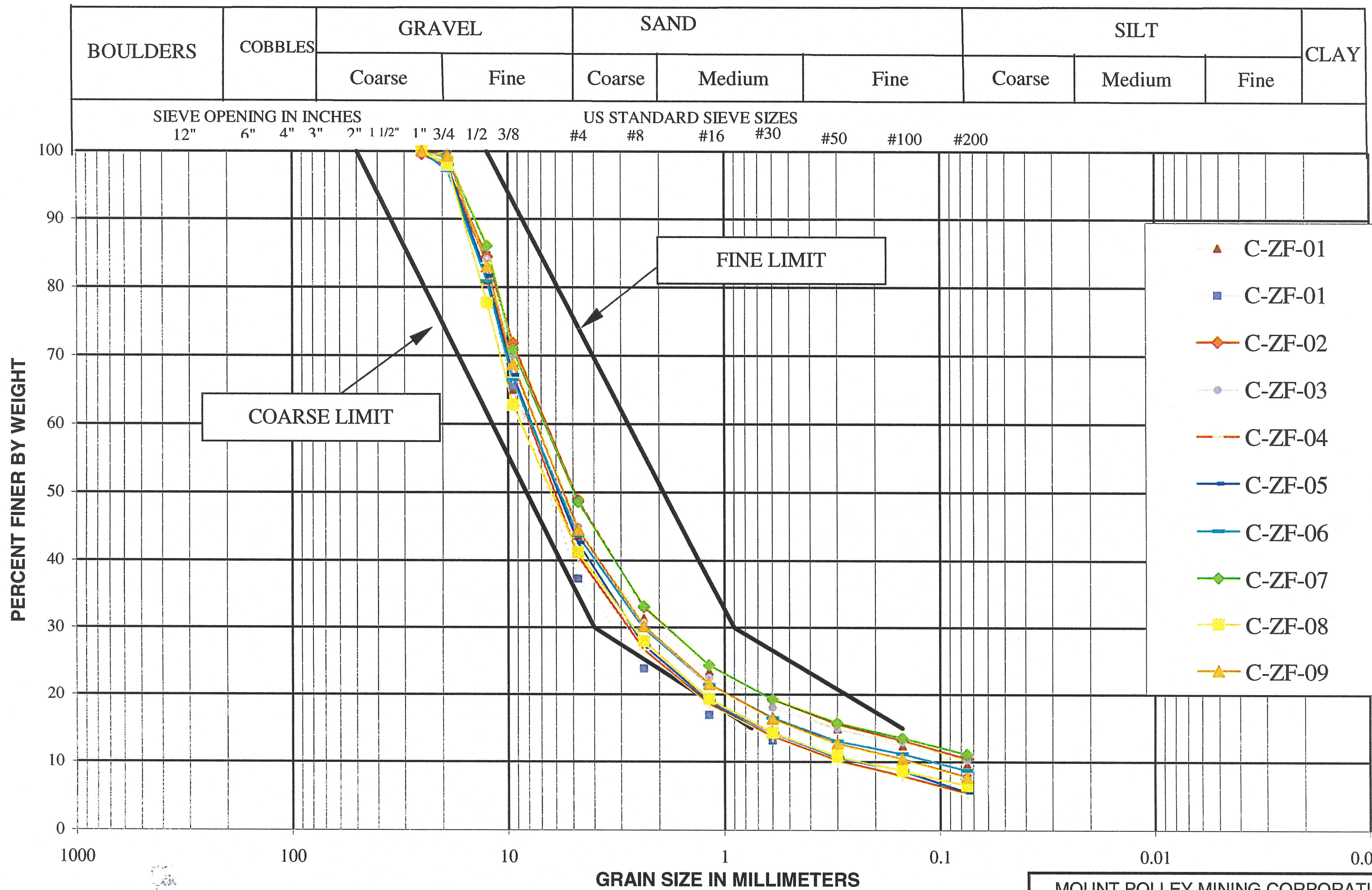
Knight Piésold CONSULTING

PROJECT	REF.	REV
VA101-1/5	2	0

FIGURE 2.8

M:\1\01\00001\05\A\Report\Report 2_Stage 3C Construction\Figures\Figs 2.9.xls Summary (wet)

Print: 9/22/2005 11:22 AM
Rev'd 12/20/01



MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

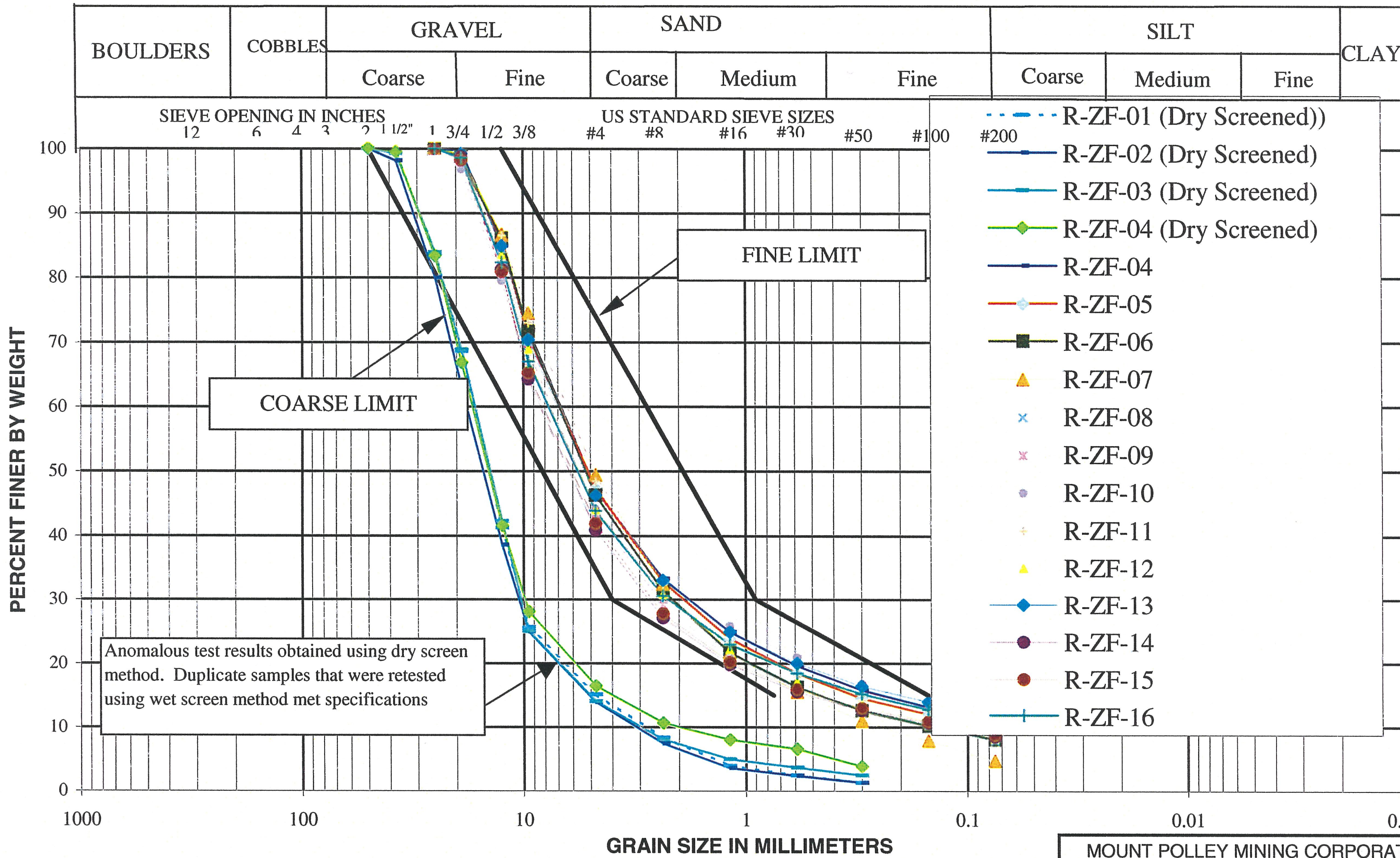
ZONE F CONTROL SAMPLES
GRADATION CURVES

Knight Piésold CONSULTING

PROJECT NO.	REF. NO.	REV.
VA101-1/5	2	0

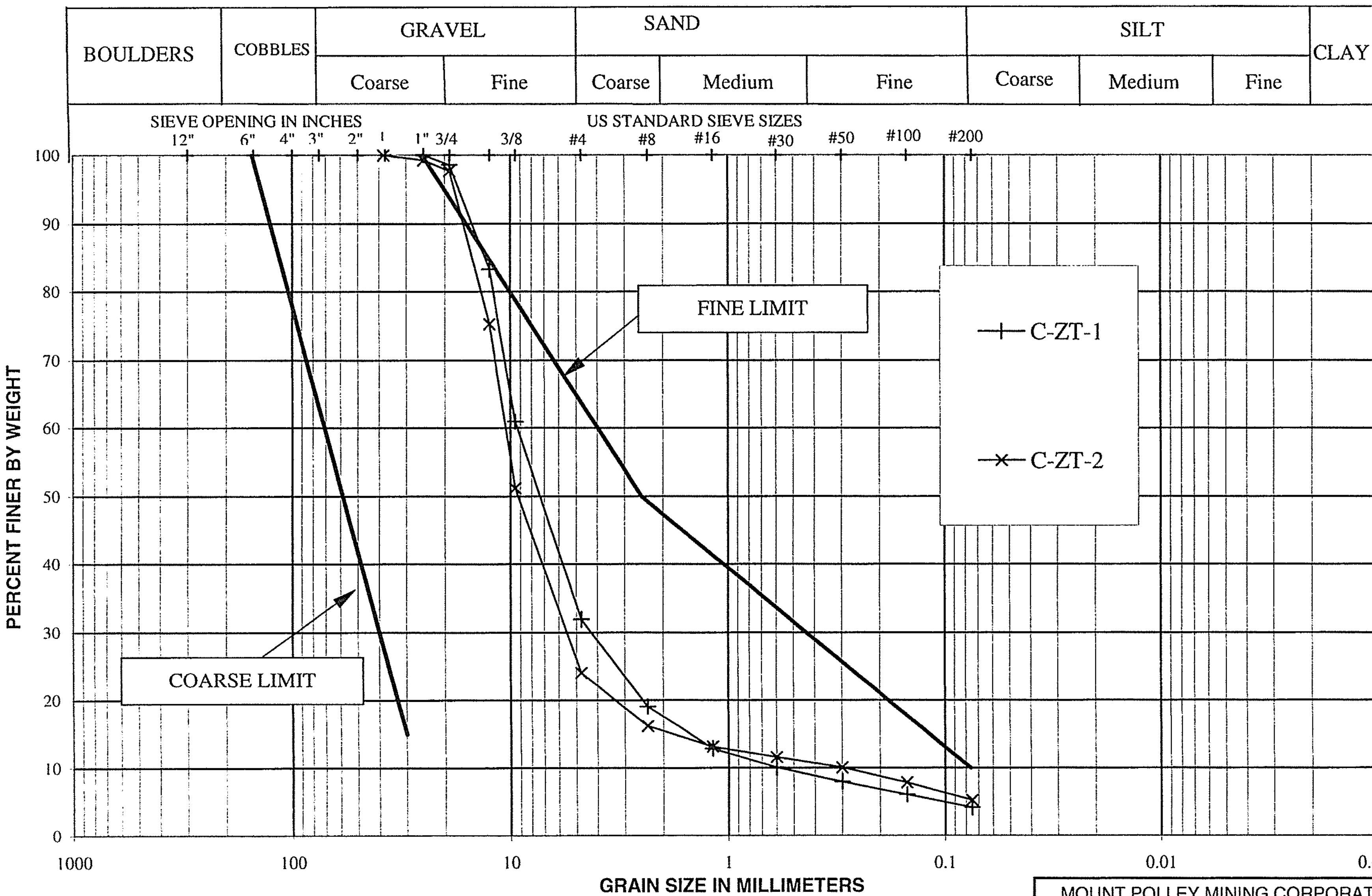
FIGURE 2.9

Rev. 0. - Issued for Report



MOUNT POLLEY MINING CORPORATION			
MOUNT POLLEY MINE			
ZONE F RECORD SAMPLES GRADATION CURVES			
Knight Piésold CONSULTING	PROJECT NO. VA 101-1/5	REF. NO. 2	REV. 0
	FIGURE 2.10		

Rev. 0. - Issued for Report



MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

ZONE T CONTROL SAMPLES
GRADATION CURVES

Knight Piésold CONSULTING

PROJECT NO.	REF. NO.	REV.
VA101-1/5	2	0

FIGURE 2.11

Rev. 0. - Issued for Report

M:\1\01\00001\05\A\Report\Report 2_Stage 3C Construction\Figures\Figs 2.12.xls SUMMARY

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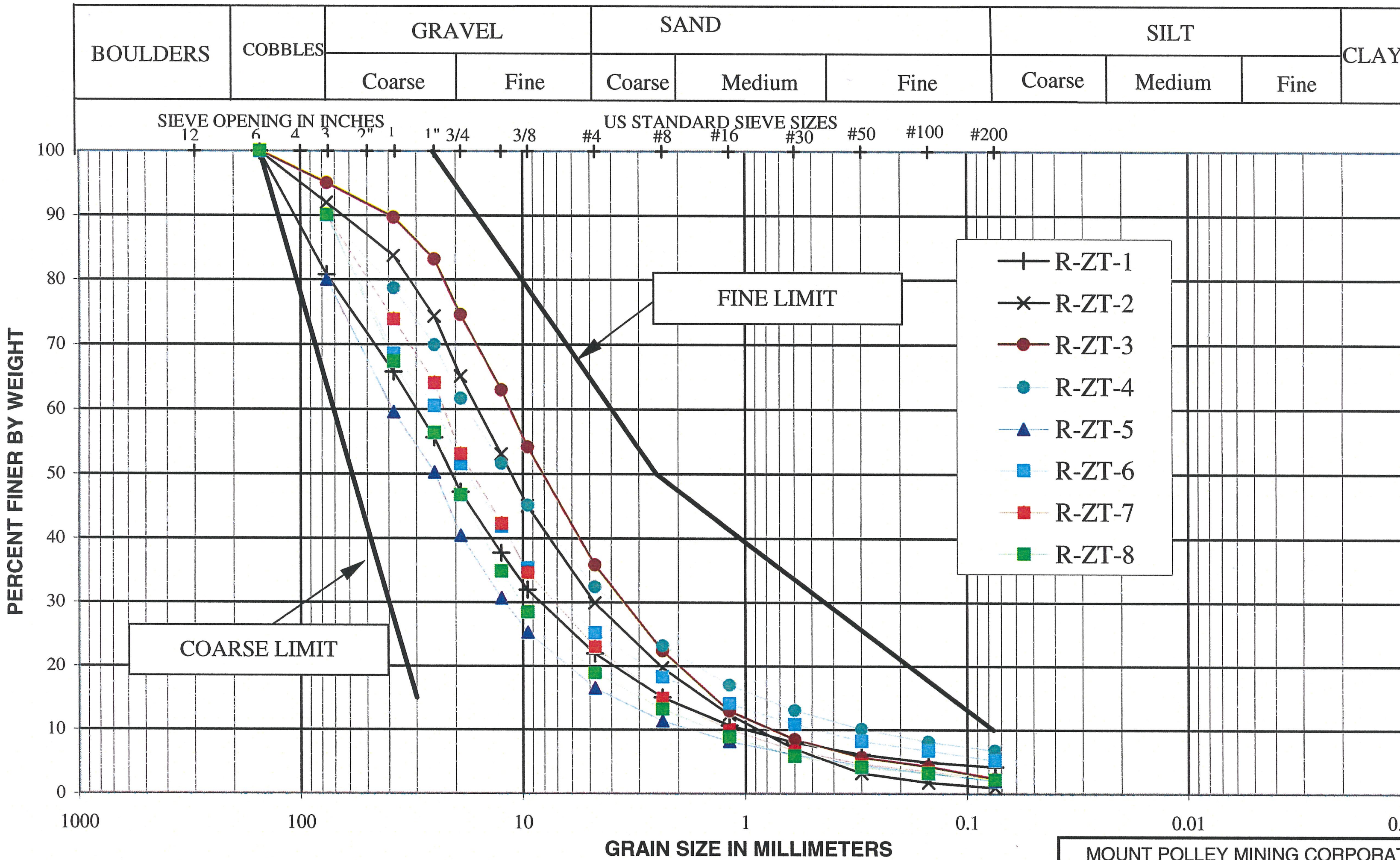
Rev'd: 12/20/01



Rev. 0 - Issued for Report

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

ZONE T RECORD SAMPLES GRADATION CURVES

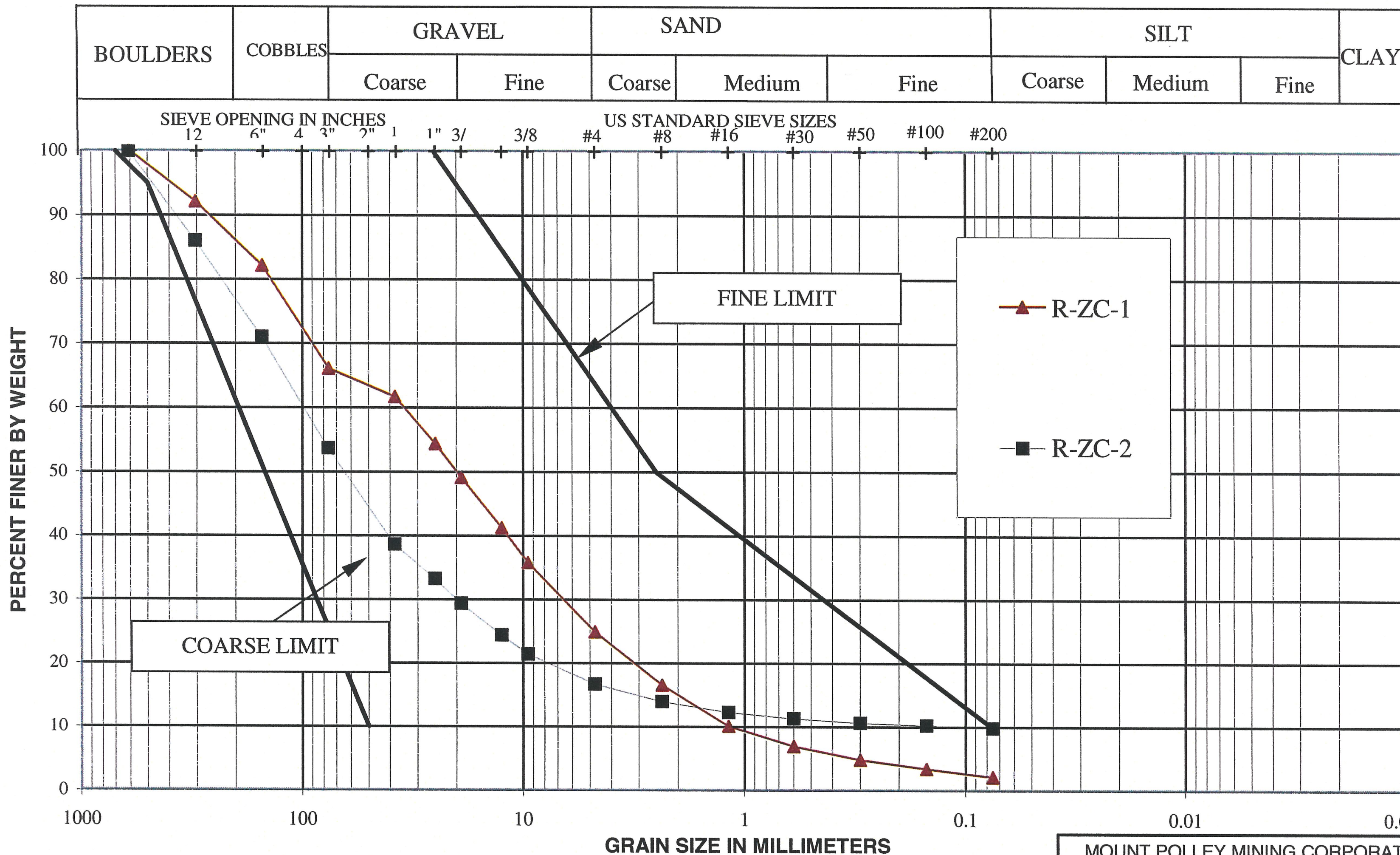
Knight Piésold CONSULTING

PROJECT NO.	REF. NO.	REV.
VA101-1/5	2	0

FIGURE 2.12

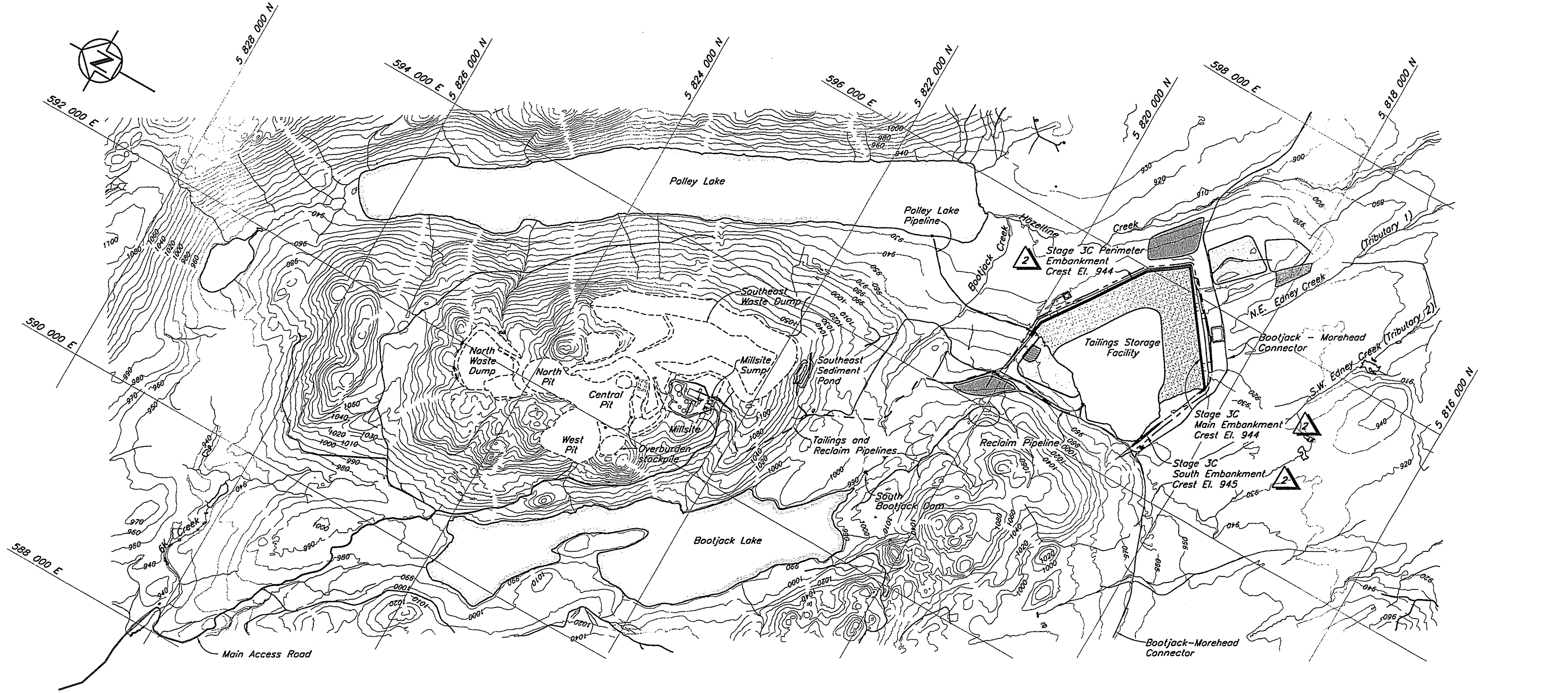
M:\1\01\00001\05\A\Report\Report 2_Stage 3C Construction\Figures\Figs 2.13.xls SUMMARY

Print: 9/22/2005 11:54 AM
Rev'd: 14-Sep-05



MOUNT POLLEY MINING CORPORATION			
MOUNT POLLEY MINE			
ZONE C RECORD SAMPLES GRADATION CURVES			
Knight Piésold CONSULTING	PROJECT NO. VA101-1/5	REF. NO. 2	REV. 0
	FIGURE 2.13		

Rev. 0 - Issued for Report



NOTES

1. Open Pits and Waste Dumps are shown in their final configurations.
2. Topography at TSF generated from points and break lines sent from MPMC in July 1999. The topography outside the TSF area is from 1997 flyover. UTM, NAD83, ZONE 10.
3. Stage 3C crest El. 944.0.

Scale 400 0 400 800 1200 1600 2000 m

VANCOUVER B.C. CAD FILE:M:\1\01\00001\05\A\Acad\Dwgs\100\100 1=20 000 Plot 1=1(PS) Sept 19 2005 tom

XREF FILE : TOPO99, Stage3C

DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

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

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
2	15AUG'05	AS-BUILT	FE	NSD		
1	27AUG'04	ISSUED FOR CONSTRUCTION	FE	WAL	MW	KJB
0	31MAY'04	ISSUED FOR STAGE 3C TENDER	FE	TAM	BB	KJB

REVISIONS

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PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
L.J. GALBRAITH
25493

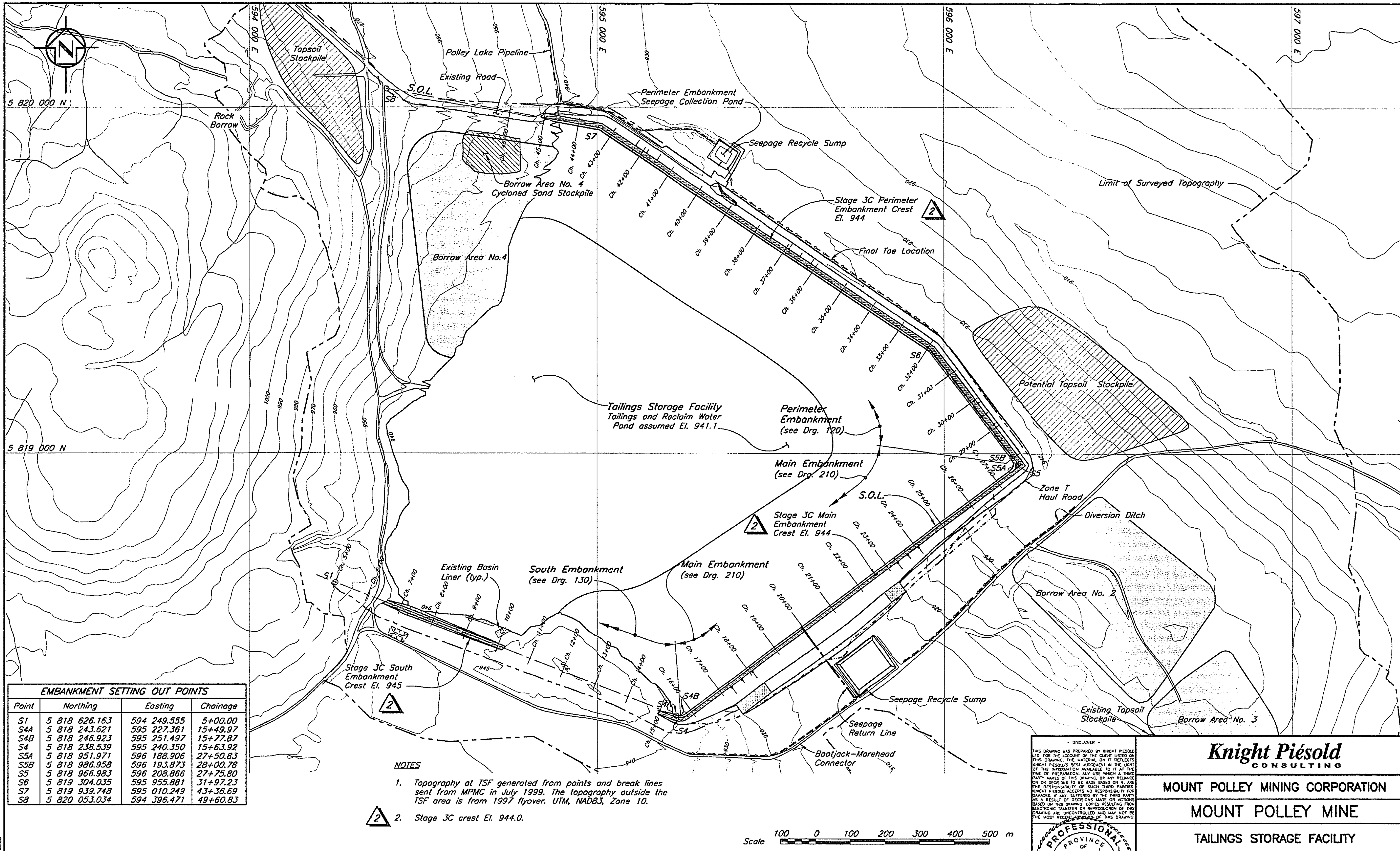
Knight Piésold CONSULTING

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C TAILINGS EMBANKMENT
OVERALL SITE PLAN

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	100	2



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 at TSF generated from points and break lines sent from MPMC in July 1999. The topography outside the TSF area is from 1997 flyover. UTM, NAD83, Zone 10.
2. Stage 3C crest El. 944.0.

Scale 100 0 100 200 300 400 500 m

DRG. NO.	DESCRIPTION
120	T.S.F. – STAGE 3C PERIMETER EMBANKMENT – PLAN
210	T.S.F. – STAGE 3C MAIN EMBANKMENT – PLAN
130	T.S.F. – STAGE 3C SOUTH EMBANKMENT – PLAN AND SECTION

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
2	15AUG'05	AS-BUILT	FE	NSD		
1	27AUG'04	ISSUED FOR CONSTRUCTION	FE	WAL	MW	KJB
0	31MAY'04	ISSUED FOR STAGE 3C TENDER	FE	TAM	BB	KJB

REVISIONS

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Knight Piésold CONSULTING

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C TAILINGS EMBANKMENT
GENERAL ARRANGEMENT

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	102	2

XREF FILE : TOPO99, STAGE3C

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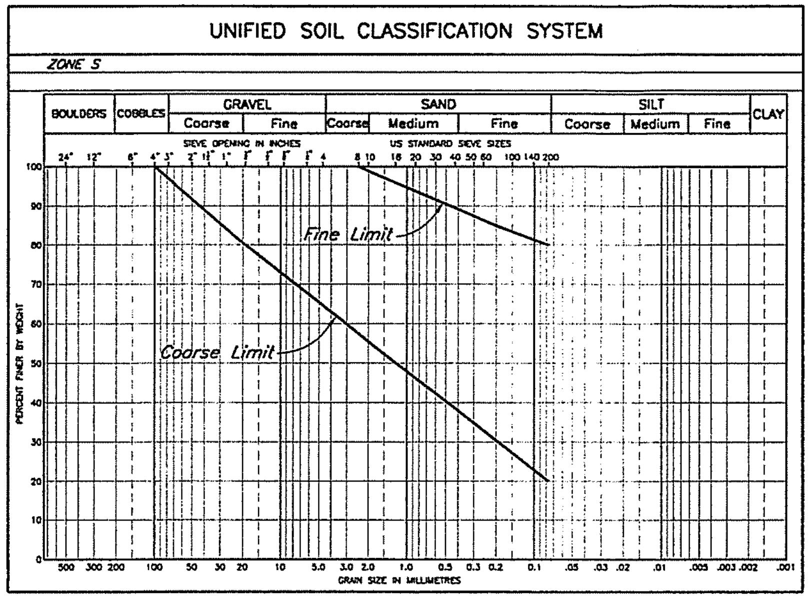

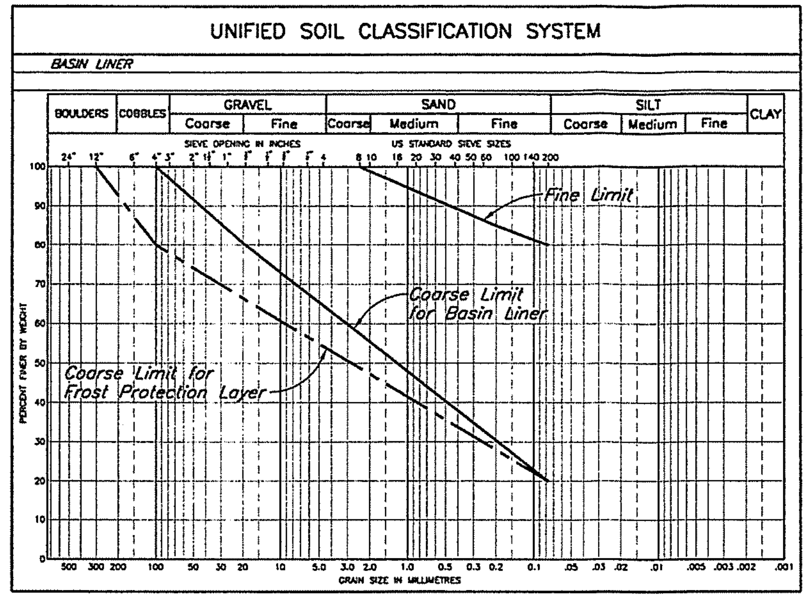

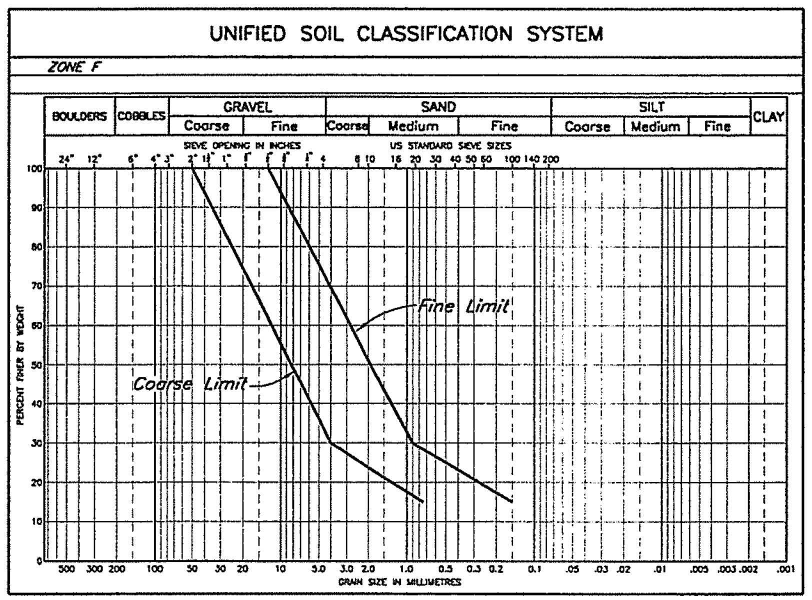

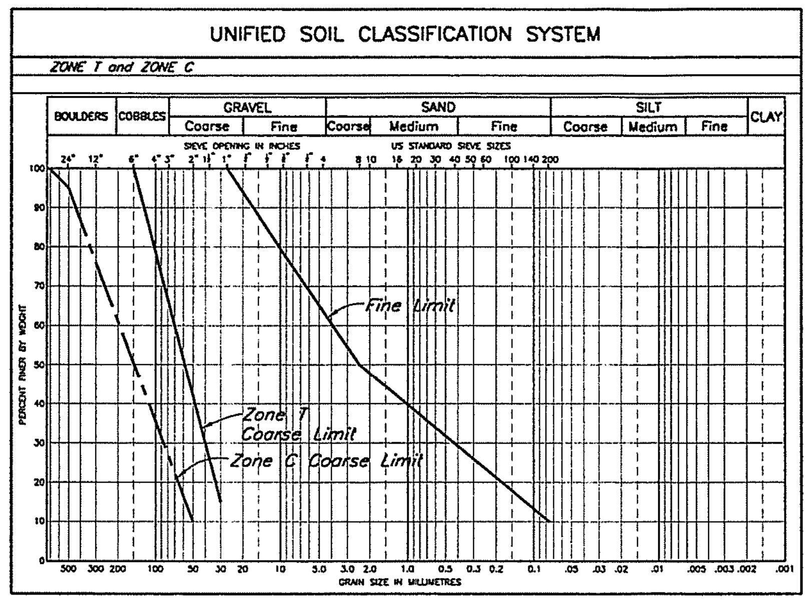

ZONE	MATERIAL TYPE	LOCATION	PLACEMENT AND COMPACTION REQUIREMENTS
S	Glacial till	Core Zone	Placed, moisture conditioned and spread in maximum 300 mm thick layers (after compaction). Vibratory compaction to 95% of Standard Proctor maximum dry density or as approved by the Engineer.
C	Rock	Shell Zone	Placed and spread in maximum 1000 mm thick layers and compacted with minimum 4 passes of 10 ton smooth drum vibratory roller, or as approved by the Engineer.
T	Rock	Transition Zone/ Confining Berm	Placed and spread in maximum 600 mm thick layers and compacted with minimum 4 passes of 10 ton smooth drum vibratory roller, or as approved by the Engineer.
F	Filter sand	Chimney Drain	Placed and spread in maximum 600 mm thick layers and compacted with minimum 4 passes of 10 ton smooth drum vibratory roller, or as approved by the Engineer.
CS	Cyclone Sand, Mechanically placed	Shell Zone	Placed, moisture conditioned and spread in maximum 500 mm thick layers (after compaction). Vibratory compaction to 95% of Standard Proctor Maximum Dry Density, or as approved by the Engineer.
CBL	Random Rockfill	Coarse Bearing Layer	End dumped and spread as required for trafficability and fill placement.
–	Glacial till, glaciolacustrine material	Basin Liner	Placed and spread in maximum 150 mm thick lifts. Compacted to 92% of the Standard Proctor Maximum Dry Density, or as approved by the Engineer.
–	Glacial till, glaciolacustrine or granular material	Basin Liner Frost Protection	Placed and spread in maximum 300 mm thick lift. Compaction as directed by the Engineer.

VANCOUVER B.C. CAD FILE: M:\1\01\00001\05\A\Acad\Dwgs\104\104 1=1 Plot 1=1 Sept 19 2005 1am

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Knight Piésold
CONSULTING

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C TAILINGS EMBANKMENT
MATERIAL SPECIFICATIONS

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	104	2

REFERENCE DRAWINGS

DRG. NO.	DESCRIPTION
215	TSF – STAGE 3C MAIN EMBANKMENT – SECTION
130	TSF – STAGE 3C SOUTH EMBANKMENT – PLAN AND SECTION

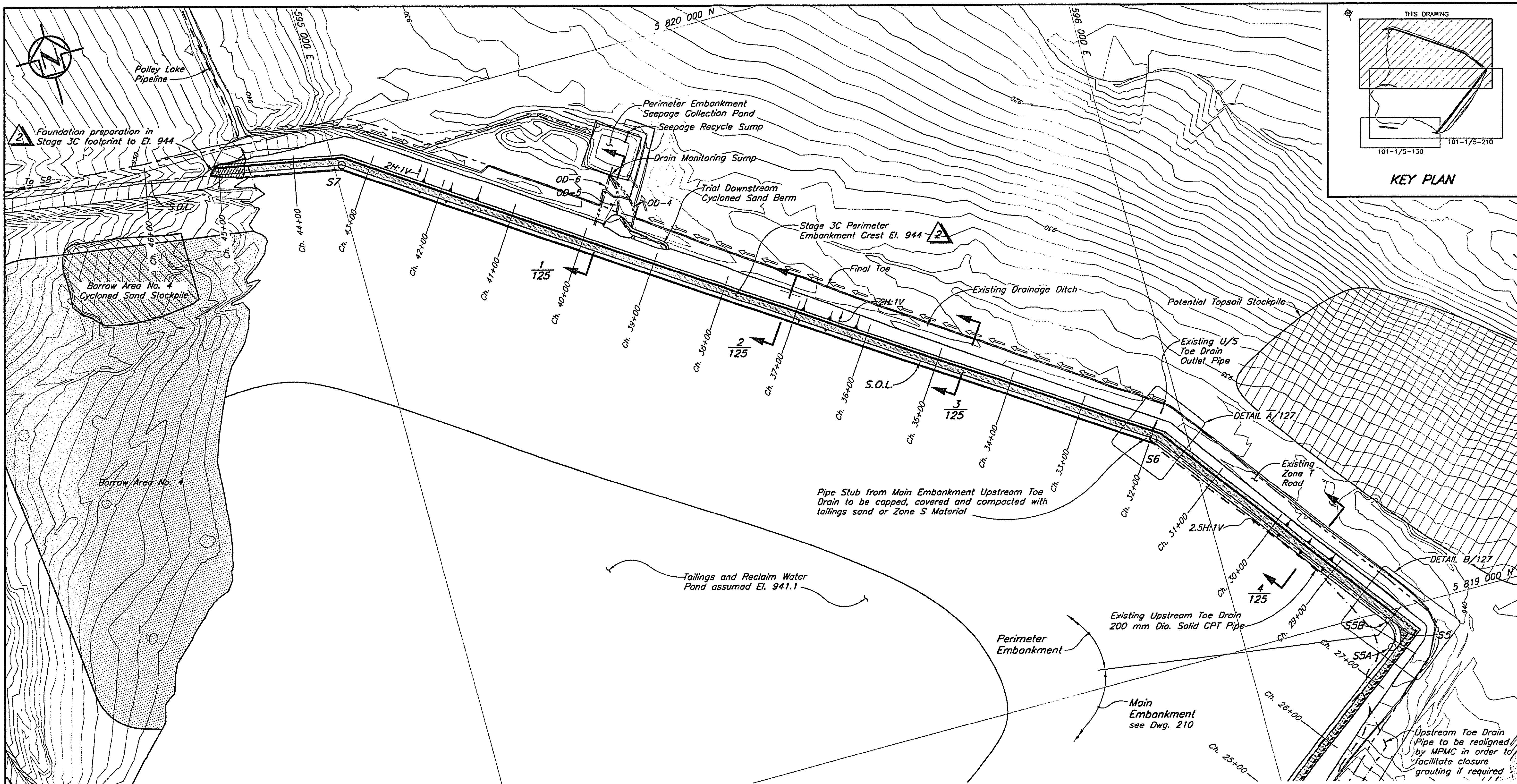
REVISIONS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
2	15AUG'05	AS-BUILT	FE	NSD		
1	27AUG'04	ISSUED FOR CONSTRUCTION	FE	WAL	MW	KJB
0	31MAY'04	ISSUED FOR STAGE 3C TENDER	FE	TAM	BB	KJB

XREF FILE : -



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. Chainage defined by Setting Out Point S1 at Ch. 5+00.
2. Stripping and clearing required 5 m beyond toe of embankments.
3. Topography at TSF generated from points and break lines sent from MPMC in July 1999. The Topography outside the TSF area is from 1997 flyover.

2 3. Stage 3C crest El. 944.0.

Scale 50 0 50 100 150 200 250 m

DRG. NO.	DESCRIPTION
127	TSF - STAGE 3C PERIMETER EMBANKMENT-TRANSITION ZONE DETAILS
210	TSF - STAGE 3C MAIN EMBANKMENT - PLAN
125	TSF - STAGE 3C PERIMETER EMBANKMENT - SECTIONS

REFERENCE DRAWINGS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
2	15AUG'05	AS-BUILT	FE	NSD		
1	27AUG'04	ISSUED FOR CONSTRUCTION	FE	WAL	MW	KJB
0	31MAY'04	ISSUED FOR STAGE 3C TENDER	FE	TAM	BB	KJB

REVISIONS

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA L.J. GALBRAITH

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MOUNT POLLEY MINING CORPORATIOIN

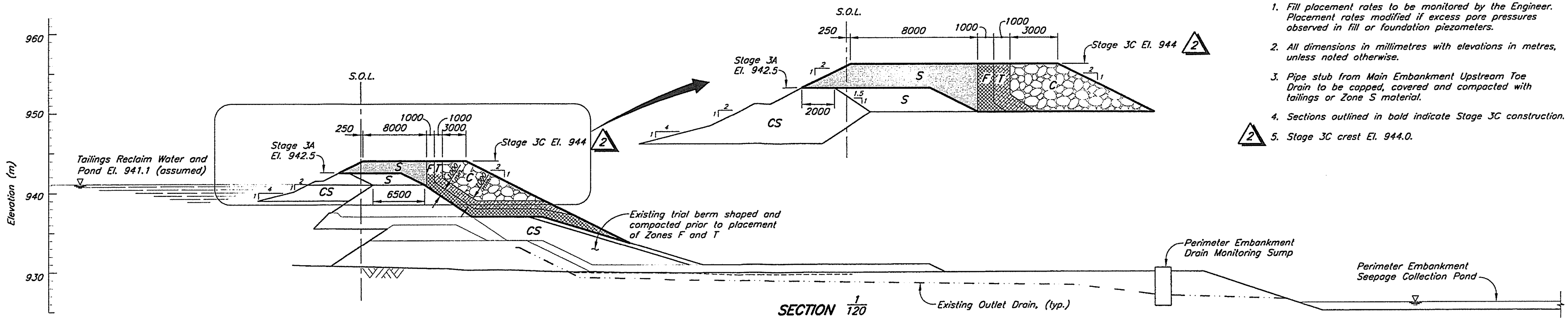
MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C PERIMETER EMBANKMENT
PLAN

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	120	2

XREF FILE : TOPO99, STAGE3C

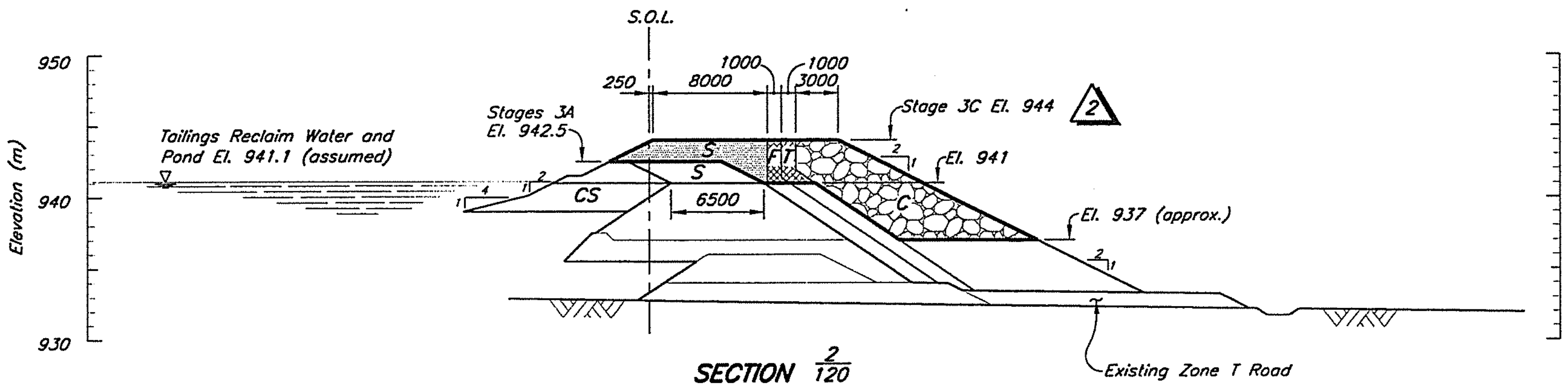
CAD FILE: M:\1\01\00001\05\A\Acad\Dwgs\120\120 1:2500 Plot 1=1(PS) Sept 19 2005 tom VANCOUVER B.C.



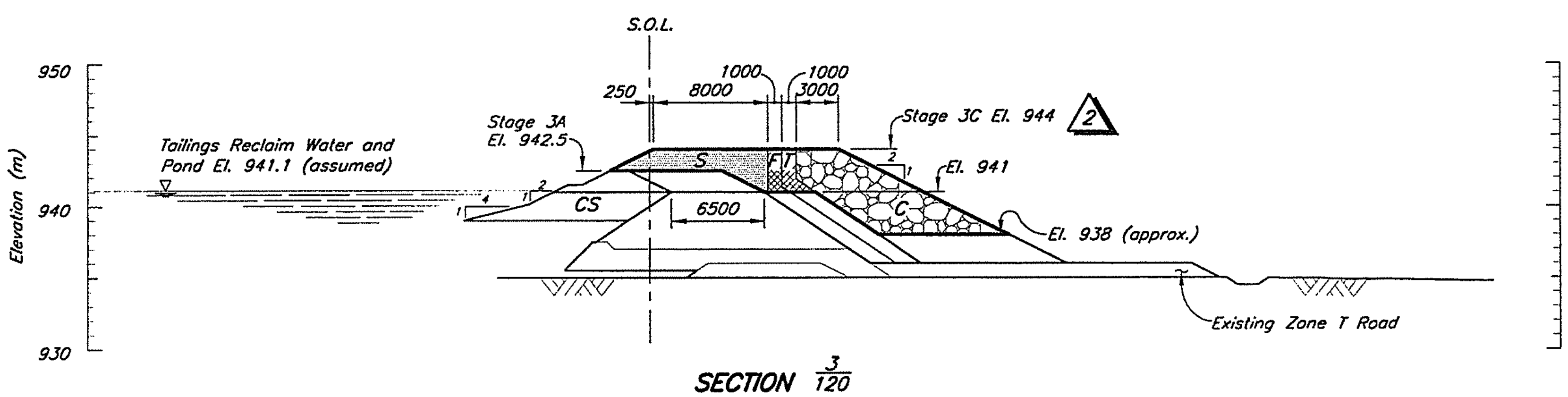
SECTION $\frac{1}{120}$

NOTES

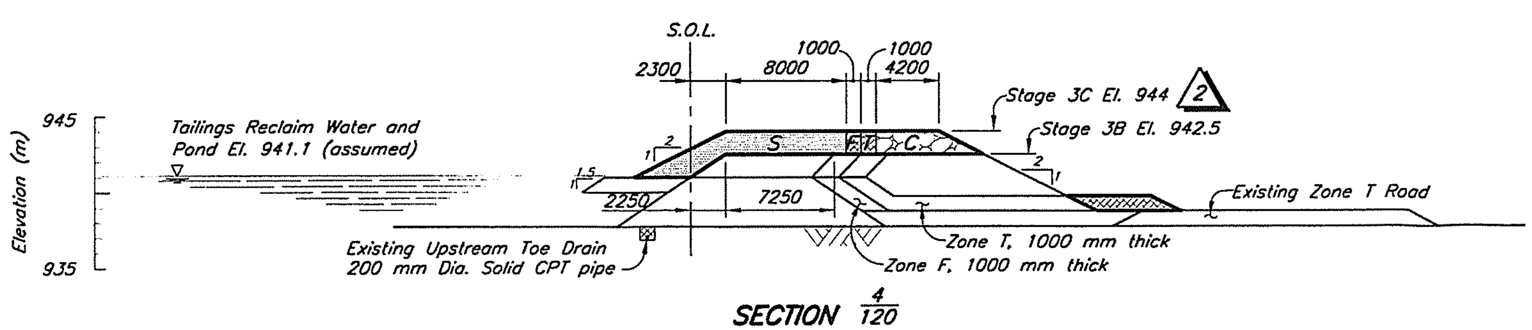
1. Fill placement rates to be monitored by the Engineer. Placement rates modified if excess pore pressures observed in fill or foundation piezometers.
2. All dimensions in millimetres with elevations in metres, unless noted otherwise.
3. Pipe stub from Main Embankment Upstream Toe Drain to be capped, covered and compacted with tailings or Zone S material.
4. Sections outlined in bold indicate Stage 3C construction.
5. Stage 3C crest El. 944.0. (2)



SECTION $\frac{2}{120}$



SECTION $\frac{3}{120}$



SECTION $\frac{4}{120}$

Scale 5 0 5 10 15 20 25 m

DRG. NO.	DESCRIPTION
120	TSF – STAGE 3C – PERIMETER EMBANKMENT – PLAN
104	TSF – STAGE 3C – MATERIAL SPECIFICATIONS

REFERENCE DRAWINGS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
2	15AUG'05	AS-BUILT	FE	NSD		
1	27AUG'04	ISSUED FOR CONSTRUCTION	FE	WAL	MW	KJB
0	31MAY'04	ISSUED FOR STAGE 3C TENDER	FE	TAM	BB	KJB

REVISIONS

PROFESSIONAL ENGINEER – PROVINCE OF BRITISH COLUMBIA – L.J. GALBRAITH

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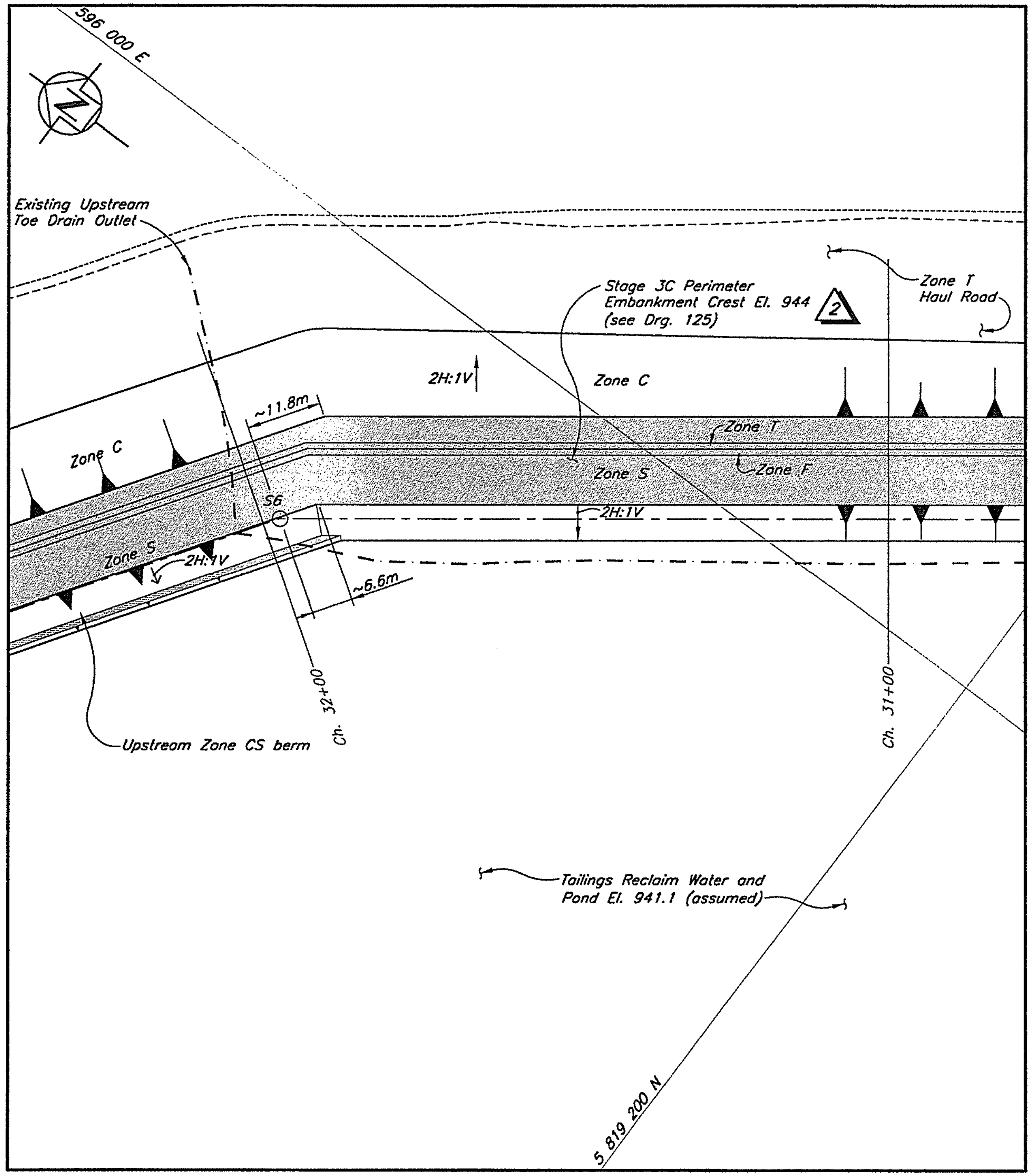
MOUNT POLLEY MINING CORPORATION

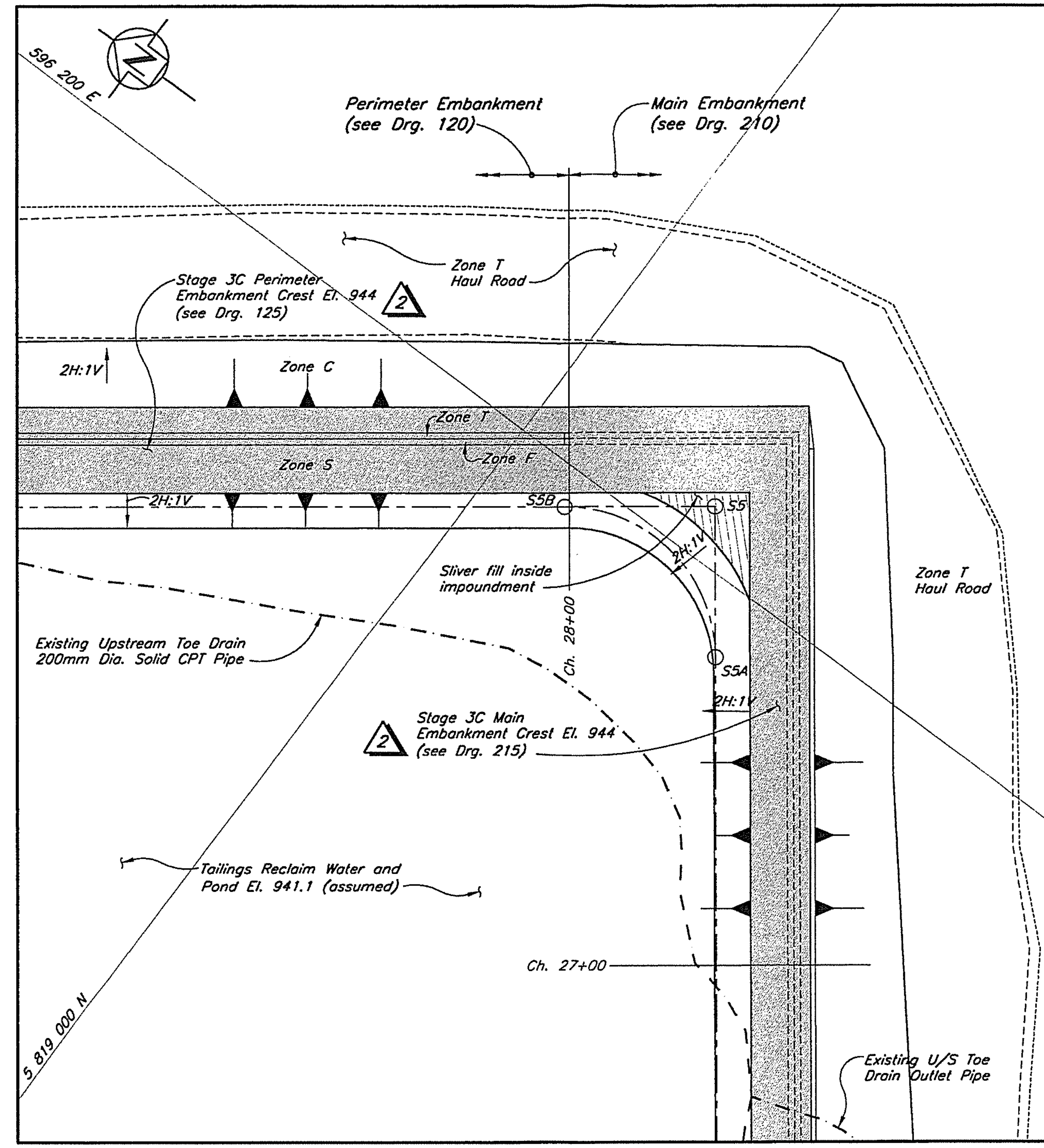
MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C PERIMETER EMBANKMENT
SECTIONS

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	125	2



DETAIL A/120
TRANSITION AT SETTING OUT POINT S6



DETAIL B/120
TRANSITION TO MAIN EMBANKMENT

NOTE

2 1. Stage 3C crest El. 944.0.

Scale 10 0 10 20 30 40 50 m

DRG. NO.	DESCRIPTION
210	TSF – STAGE 3C MAIN EMBANKMENT – PLAN
125	TSF – STAGE 3C PERIMETER EMBANKMENT – SECTIONS
120	TSF – STAGE 3C PERIMETER EMBANKMENT – PLAN

REFERENCE DRAWINGS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
2	15AUG'05	AS-BUILT	FE	NSD		
1	27AUG'04	ISSUED FOR CONSTRUCTION	FE	WAL	MW	KJB
0	31MAY'04	ISSUED FOR STAGE 3C TENDER	FE	TAM	BB	KJB

REVISIONS

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA L.J. GALBRAITH 25493

Knight Piésold CONSULTING

MOUNT POLLEY MINING CORPORTION

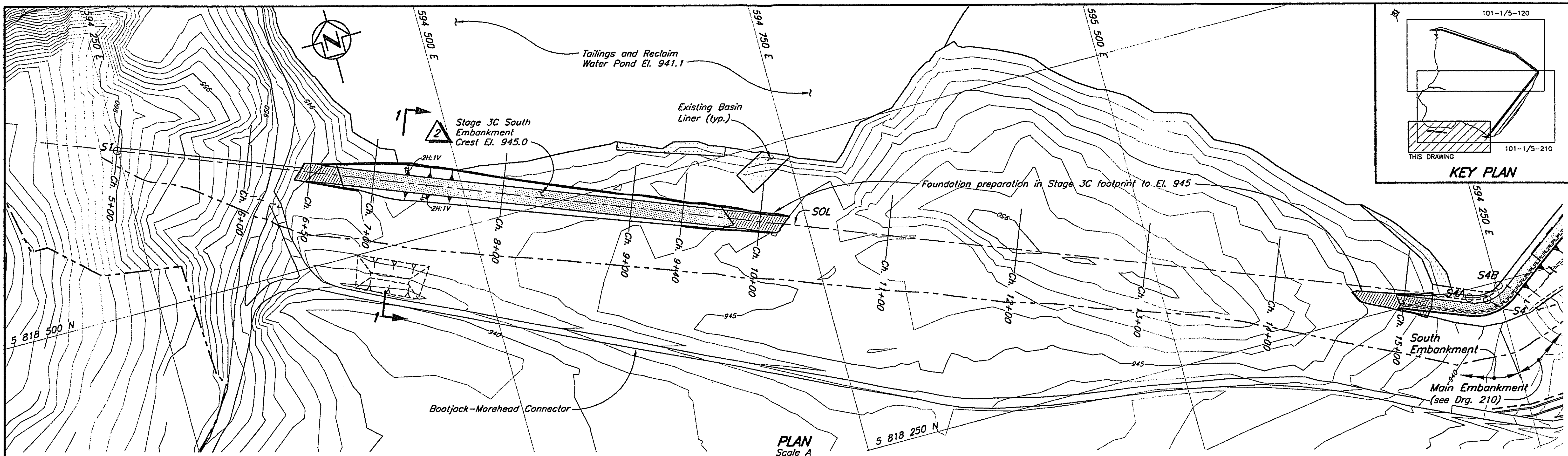
MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C PERIMETER EMBANKMENT
TRANSITION ZONES DETAILS

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101–1/5	127	2

VANCOUVER B.C. CAD FILE: M:\1\01\00001\05\A\Acad\Drgs\127\127 1=500 Plot 1=1(PS) Aug 8 2005

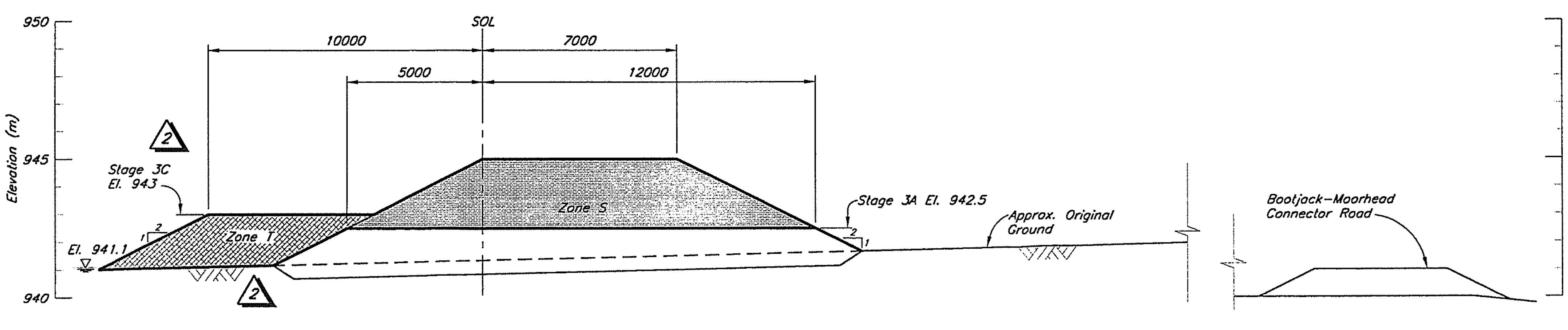
XREF FILE : Stage3C



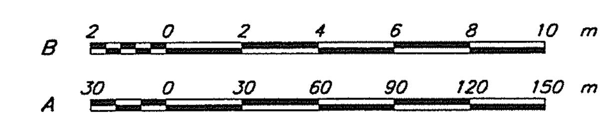
PLAN
Scale A

NOTES

1. All dimensions in millimeters and elevations in metres, unless noted otherwise.
2. Topography at TSF generated from points and break lines sent from MPMC in July 1999. The Topography outside the TSF area is from 1997 flyover.
3. For Zone Materials Specifications and legend, see Drg. 104.
4. Stripping and clearing required for 5 m beyond toe of embankment.
5. Sections outlined in bold indicate Stage 3C construction.
6. Stage 3C crest El. 944.0.



SECTION 1
Scale B



DRG. NO.	DESCRIPTION
210	TSF - STAGE 3C MAIN EMBANKMENT - PLAN
120	TSF - STAGE 3C PERIMETER EMBANKMENT - PLAN
104	TSF - STAGE 3C TAILINGS EMBANKMENT - MATERIALS SPECS.

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
2	15AUG'05	AS-BUILT	FE	NSD		KJB
1	27AUG'04	ISSUED FOR CONSTRUCTION	FE	WAL	MW	KJB
0	31MAY'04	ISSUED FOR STAGE 3C TENDER	FE	TAM	BB	KJB

REVISIONS

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — L.J. GALBRAITH — 25493

Knight Piésold CONSULTING

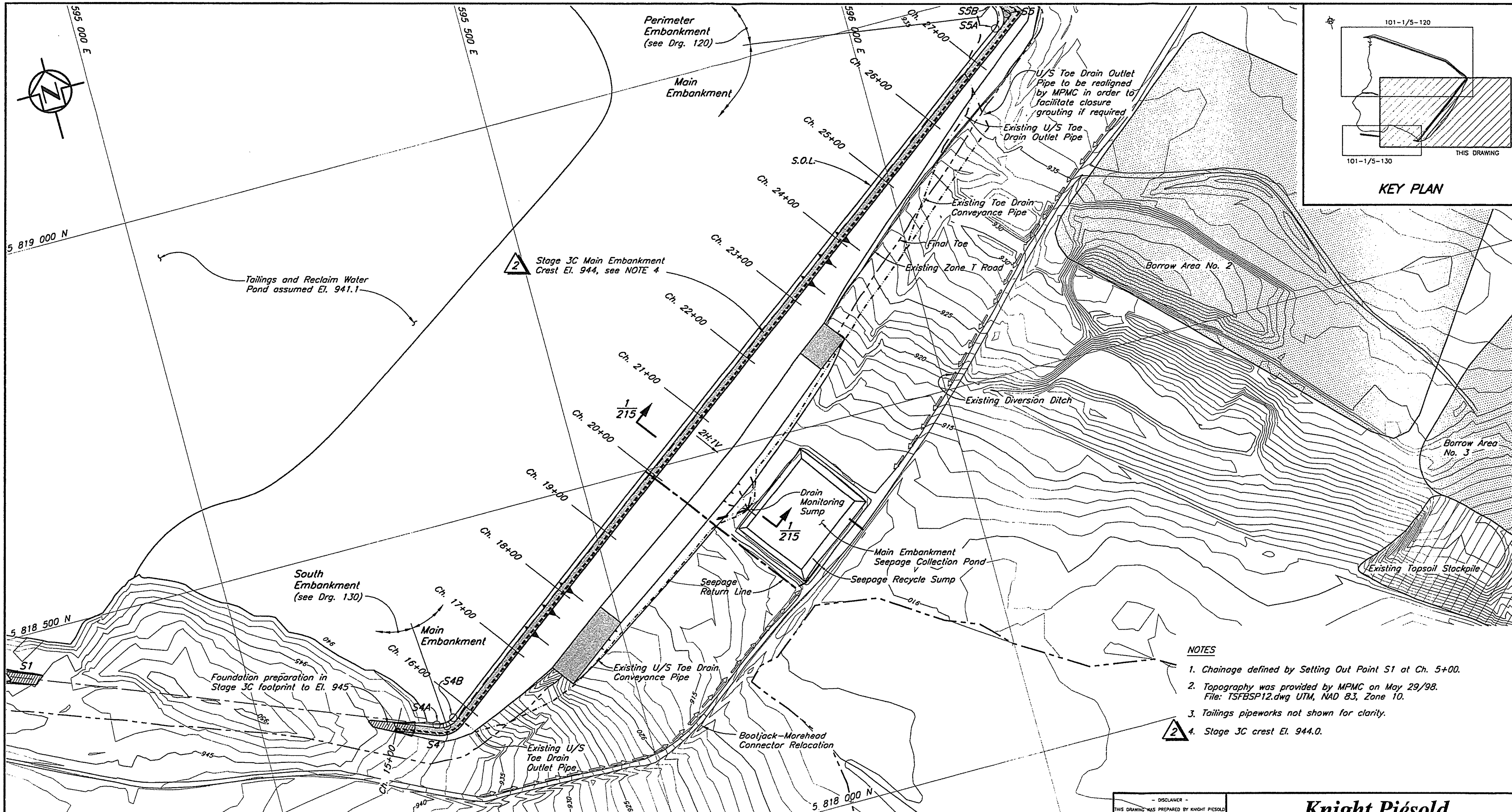
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C SOUTH EMBANKMENT
PLAN AND SECTION

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	130	2

VANCOUVER B.C. CAD FILE: M:\1\01\00001\05\A\Acad\Dwgs\130\130 1=1500 Plot 1=1(PS) Sept 13 2005 tom
XREF FILE: TOPO99, STAGE3C



NOTES

1. Chainage defined by Setting Out Point S1 at Ch. 5+00.
2. Topography was provided by MPMC on May 29/98. File: TSFBSP12.dwg UTM, NAD 83, Zone 10.
3. Tailings pipeworks not shown for clarity.
4. 2 Stage 3C crest El. 944.0.

DRG. NO.	DESCRIPTION
120	TSF – STAGE 3C PERIMETER EMBANKMENT – PLAN
215	TSF – STAGE 3C MAIN EMBANKMENT – SECTION AND DETAIL
130	TSF – STAGE 3C SOUTH EMBANKMENT – PLAN AND DETAILS

REFERENCE DRAWINGS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
2	15AUG'05	AS-BUILT	FE	NSD		
1	27AUG'04	ISSUED FOR CONSTRUCTION	FE	WAL	MW	KJB
0	31MAY'04	ISSUED FOR STAGE 3C TENDER	FE	TAM	BB	KJB

REVISIONS

PROFESSIONAL PROVINCE OF L.J. GALBRAITH 25493 BRITISH COLUMBIA ENGINEER

Knight Piésold CONSULTING

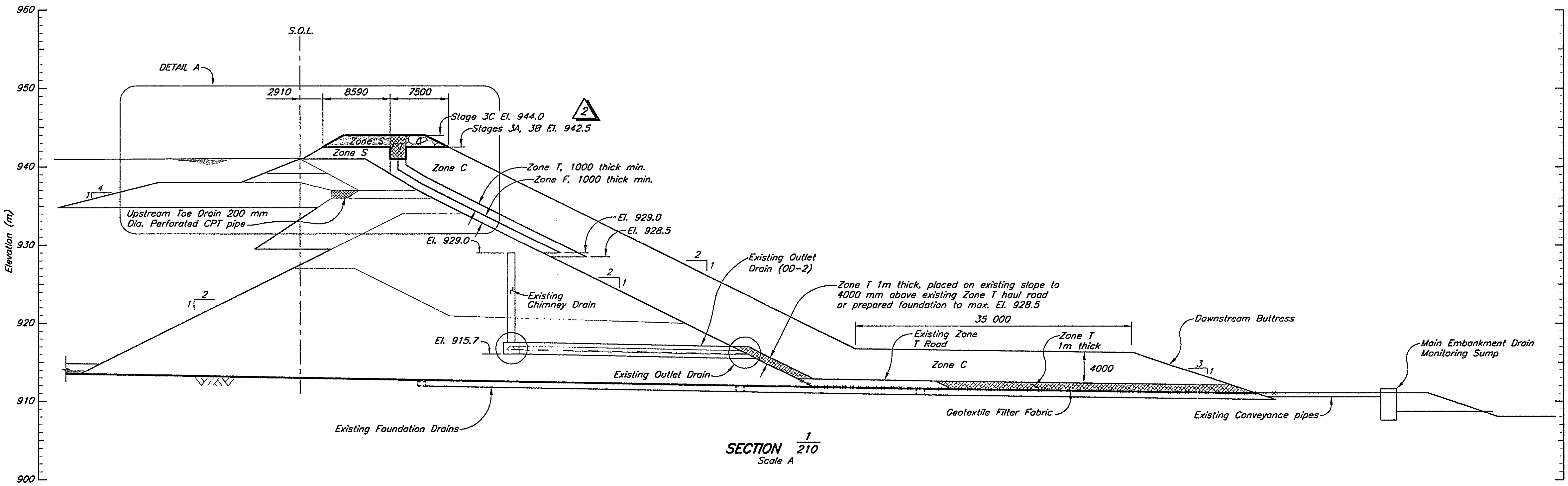
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C MAIN EMBANKMENT
PLAN

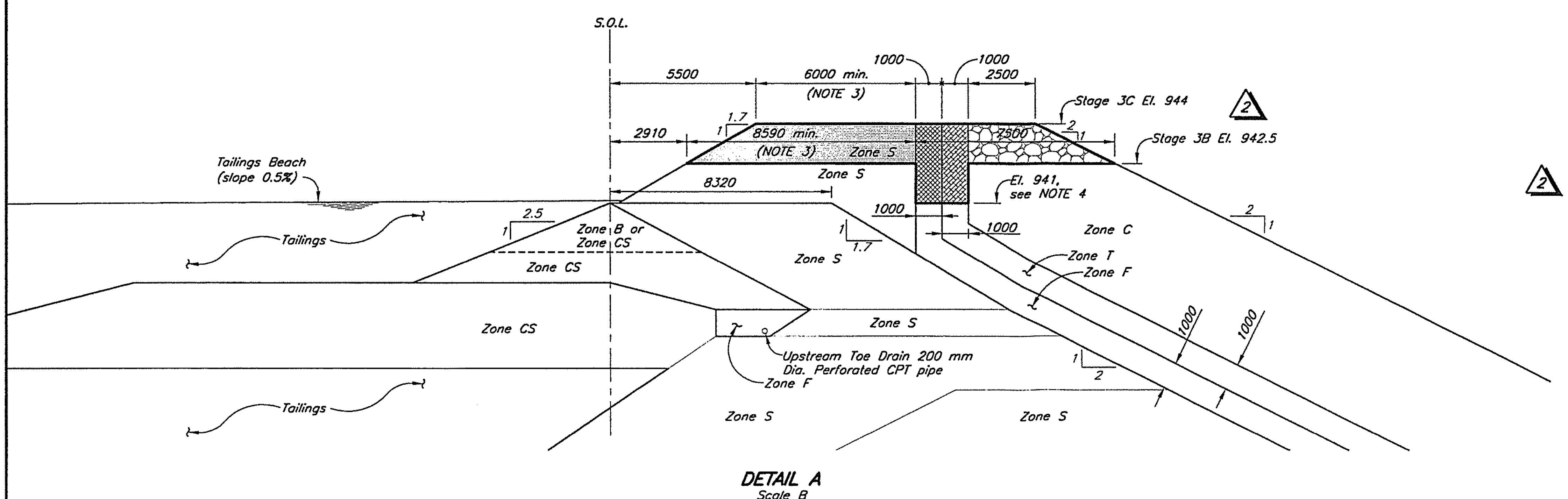
PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	210	2

XREF FILE : Topo99, Stage3C



SECTION $\frac{1}{210}$

Scale A



DETAIL A

Scale B

NOTES

1. For zone material specifications and legend see Drg. 104.
2. All dimensions in millimetres and elevations in metres, unless noted otherwise.
3. Zone S to minimum 6 m width at El. 944. Zone F and Zone T to be extended in future construction programs.
4. Zone F and T placed to El. 944.
5. Minimum lines and grades shown. Lines and grades may be extended upstream and downstream during Stage 3C construction.
6. Stage 3C crest El. 944.0.

B 2 0 2 4 6 8 10 m

A 5 0 5 10 15 20 25 m

DRG. NO.	DESCRIPTION
210	TSF - STAGE 3C - MAIN EMBANKMENT - PLAN
104	TSF - STAGE 3C - MATERIALS SPECIFICATIONS

REFERENCE DRAWINGS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
2	15AUG'05	AS-BUILT	FE	NSD		
1	27AUG'04	ISSUED FOR CONSTRUCTION	FE	WAL	MW	KJB
0	31MAY'04	ISSUED FOR STAGE 3C TENDER	FE	TAM	KJB	KJB

REVISIONS

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA L.J. GALBRAITH

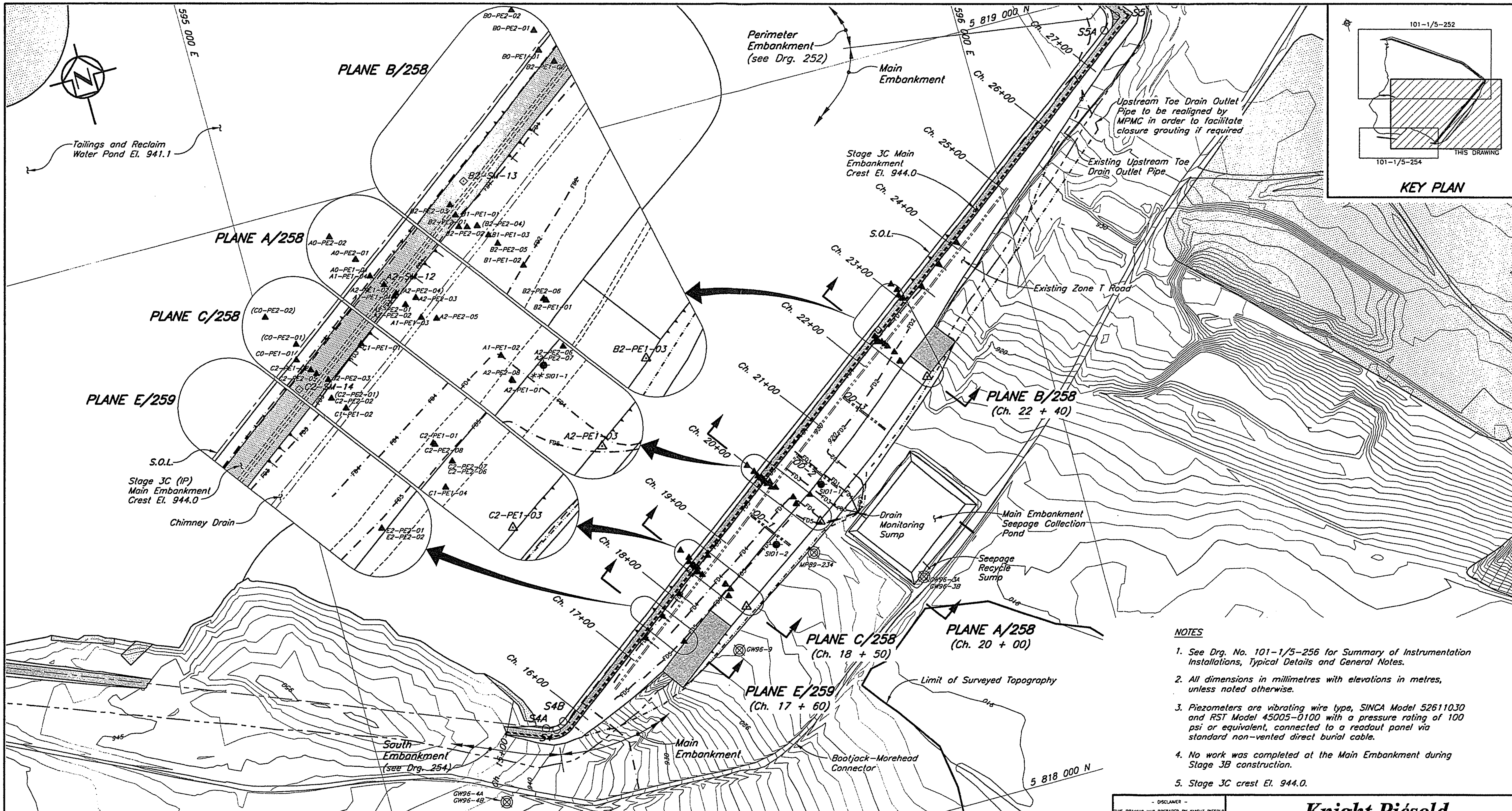
Knight Piésold CONSULTING

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C MAIN EMBANKMENT
SECTION AND DETAIL

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	215	2



NOTES

1. See Drg. No. 101-1/5-256 for Summary of Instrumentation Installations, Typical Details and General Notes.
2. All dimensions in millimetres with elevations in metres, unless noted otherwise.
3. Piezometers are vibrating wire type, SINCA Model 52611030 and RST Model 45005-0100 with a pressure rating of 100 psi or equivalent, connected to a readout panel via standard non-vented direct burial cable.
4. No work was completed at the Main Embankment during Stage 3B construction.
5. Stage 3C crest El. 944.0.

LEGEND

- GW96-9 Groundwater Monitoring Well
- A1-PE1-01 Previously installed Piezometer
- A2-PE2-06 New Stage 3 Piezometer
- A2-SM-01 New Embankment Survey Monument
- SI01-1 Slope Inclinometer

Scale 50 0 50 100 150 200 250 m

DRG. NO.	DESCRIPTION
259	STAGE 3C TAILINGS EMBANKMENT – INSTRUMENTATION – SECTIONS – SHEET 2 OF 2
258	STAGE 3C TAILINGS EMBANKMENT – INSTRUMENTATION – SECTIONS – SHEET 1 OF 2
256	STAGE 3C TAILINGS EMBANKMENT – INSTRUMENTATION – SUMMARY OF INSTALLATION AND TYPICAL DETAILS
254	STAGE 3C SOUTH EMBANKMENT – INSTRUMENTATION – PLAN
252	STAGE 3C PERIMETER EMBANKMENT – INSTRUMENTATION – PLAN

REFERENCE DRAWINGS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
0	15AUG'05	AS-BUILT	FE	NSD		

REVISIONS

– DISCLAIMER –

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Knight Piésold CONSULTING

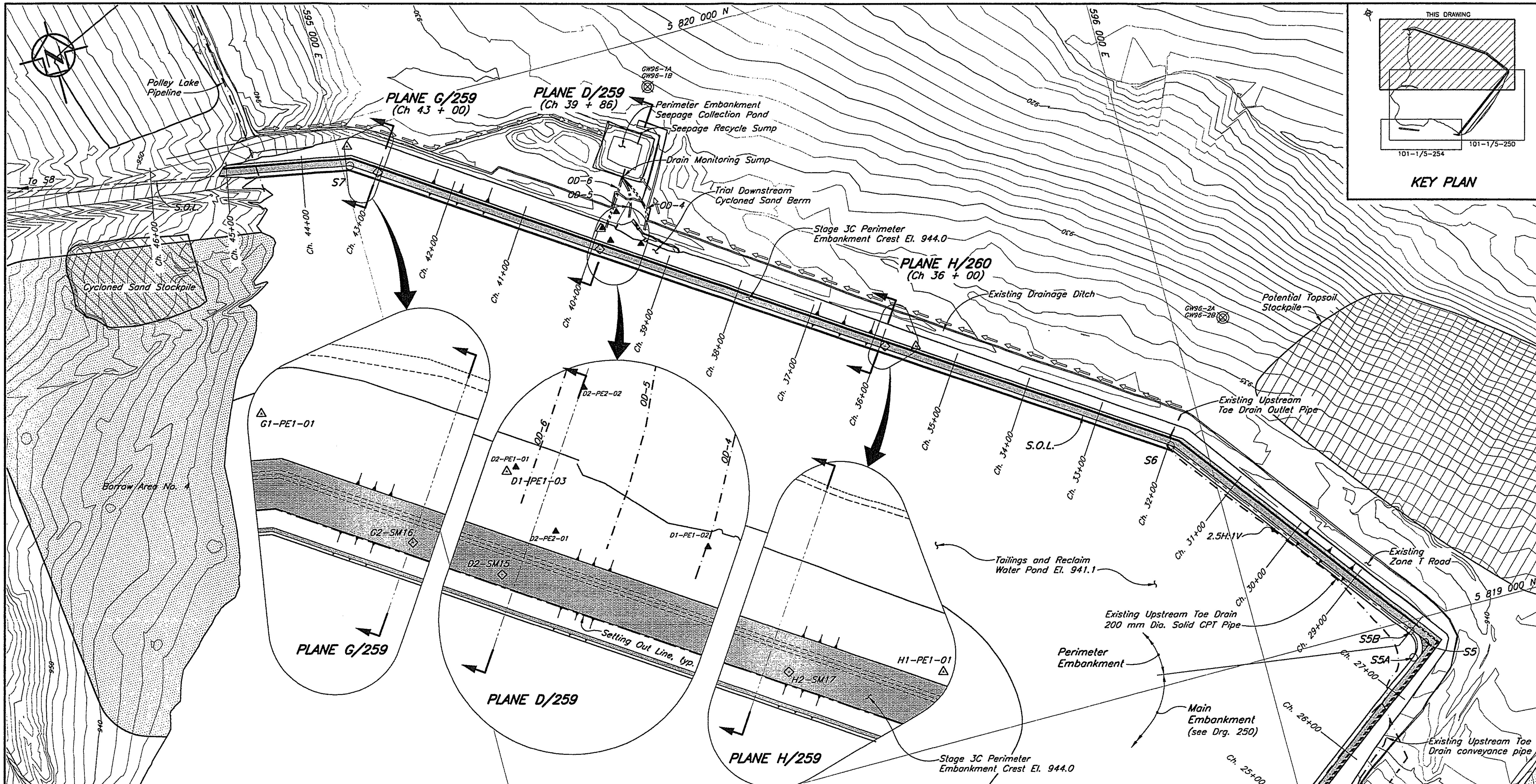
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C MAIN EMBANKMENT
INSTRUMENTATION
PLAN

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	250	0

VANCOUVER B.C.



LEGEND

- ⊗ GW96-9 Groundwater Monitoring Well
- ▲ A1-PE1-01 Previously installed Piezometer
- △ A2-PE2-06 New Stage 3 Piezometer
- ◇ A2-SM-01 New Embankment Survey Monument

NOTES

1. Chainage defined by Setting Out Point S1 at Ch. 5+00.
2. Topography generated from points and break lines provided by MPMC on July 20, 1999. Topography outside the TSF area is from 1997 flyover.
3. See Drg. No. 101-1/5-256 for Summary of Instrumentation Installations, Typical Details and General Notes.
4. All dimesnions in millimetres with elevations in metres, unless noted otherwise.
5. Piezometers are vibrating wire type, SINCA Model 52611030 and RST Model 45005-0100 with a pressure rating of 100 psi or equivalent, connected to a readout panel via standard non-vented direct burial cable.
6. Stage 3C crest El. 944.0.

Scale 50 0 50 100 150 200 250 m

DRG. NO.	DESCRIPTION
259	TSF - STAGE 3 TAILINGS EMBANKMENT - INSTRUMENTATION - SECTIONS - SHEET 2 OF 2
258	TSF - STAGE 3 TAILINGS EMBANKMENT - INSTRUMENTATION - SECTIONS - SHEET 1 OF 2
250	TSF - STAGE 3 MAIN EMBANKMENT - INSTRUMENTATION - PLAN

REFERENCE DRAWINGS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
0	15AUG'05	AS-BUILT	FE	NSD		

REVISIONS

PROFESSIONAL
PROVINCE OF BRITISH COLUMBIA
L.J. GALBRAITH
25463
ENGINEER

Knight Piésold CONSULTING

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

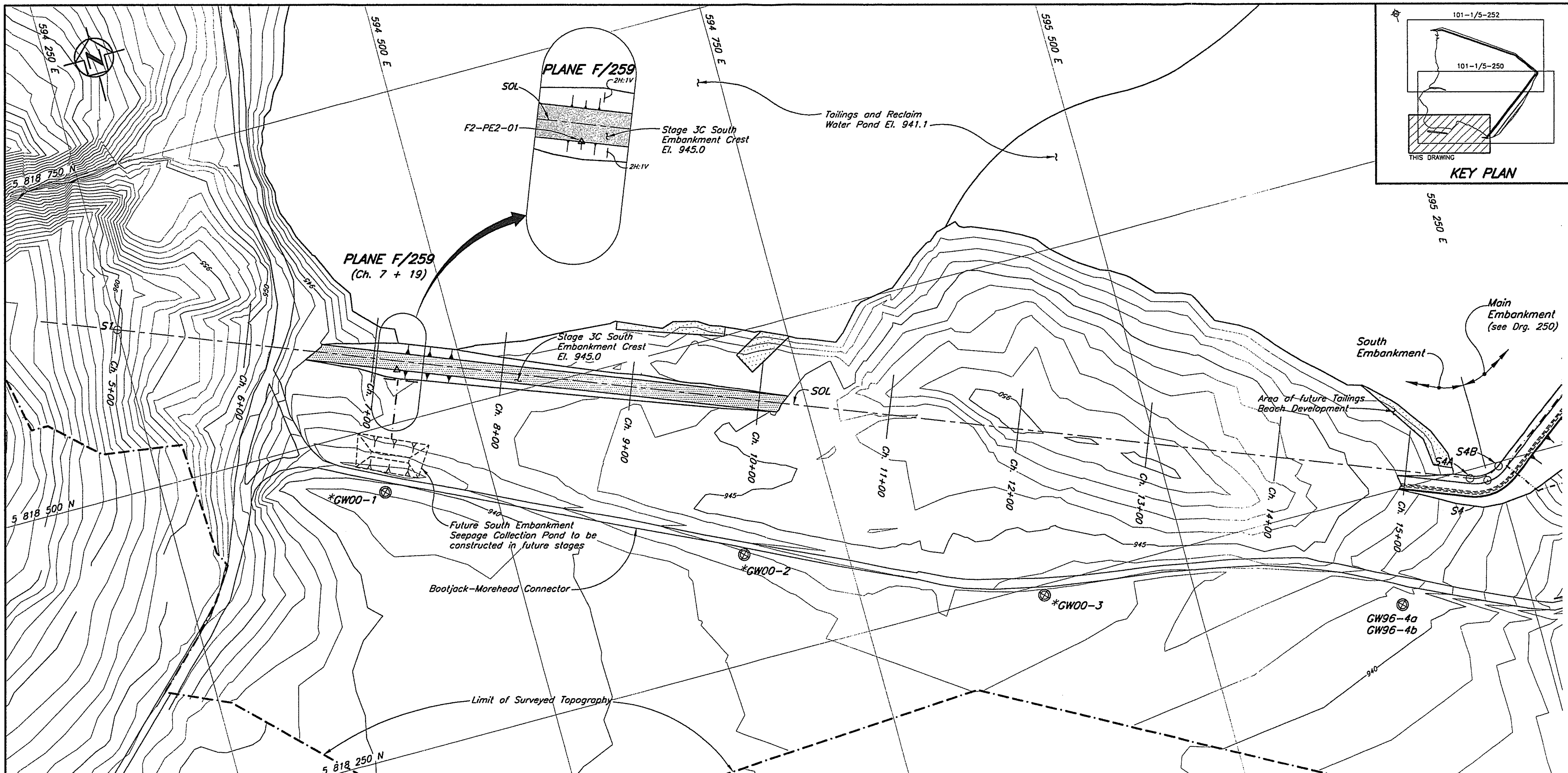
TAILINGS STORAGE FACILITY
STAGE 3C PERIMETER EMBANKMENT
INSTRUMENTATION
PLAN

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	252	0

XREF FILE : Topo99, Stock99, Stage3C

CAD FILE: M:\1\01\00001\05\A\Acad\Dwgs\252\252 1=2500 Plot 1=(PS) Aug 8 2005 tom

VANCOUVER B.C.



LEGEND

- ⊗ GW96-9 Groundwater Monitoring Well
- ▲ A1-PE1-01 Previously installed Piezometer
- △ A2-PE2-06 New Stage 3 Piezometer
- ◇ A2-SM-01 New Embankment Survey Monument

NOTES

1. See Drg. No. 101-1/5-256 for Summary of Instrumentation Installations, Typical Details and General Notes.
2. All dimensions in millimetres with elevations in metres, unless noted otherwise.
3. No work was completed at the South Embankment during Stage 3B construction.
4. Piezometers are vibrating wire type, SINCA Model 52611030 and RST Model 45005-0100 with a pressure rating of 100 psi or equivalent, connected to a readout panel via standard non-vented direct burial cable.
5. Stage 3C crest El. 945.0.

Scale 30 0 30 60 90 120 150 m

DRG. NO.	DESCRIPTION
259	STAGE 3C TAILINGS EMBANKMENT - INSTRUMENTATION SECTIONS - SHEET 2 OF 2
256	STAGE 3C TAILINGS EMBANKMENT - INSTRUMENTATION - SUMMARY OF INSTALLATION AND TYPICAL DETAILS
250	STAGE 3C MAIN EMBANKMENT - INSTRUMENTATION - PLAN

REFERENCE DRAWINGS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
0	15AUG'05	AS-BUILT	FE	NSD		

REVISIONS

PROFESSIONAL PROVINCE OF BRITISH COLUMBIA L. J. GALBRAITH 25493 ENGINEER

Knight Piésold
CONSULTING

MOUNT POLLEY MINING CORPORATION

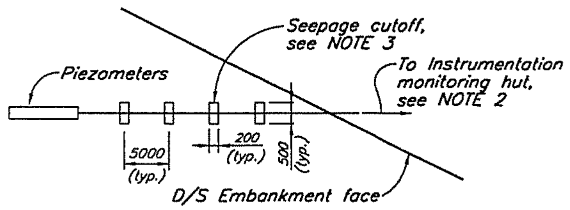
MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C SOUTH EMBANKMENT
INSTRUMENTATION
PLAN

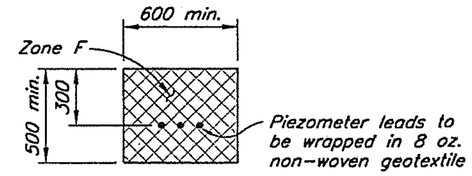
PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	254	0

VANCOUVER B.C. CAD FILE: M:\1\01\00001\05\A\Acad\Dwgs\254\254 1=1500 Plot 1=1(PS) Sept 19 2005 lom

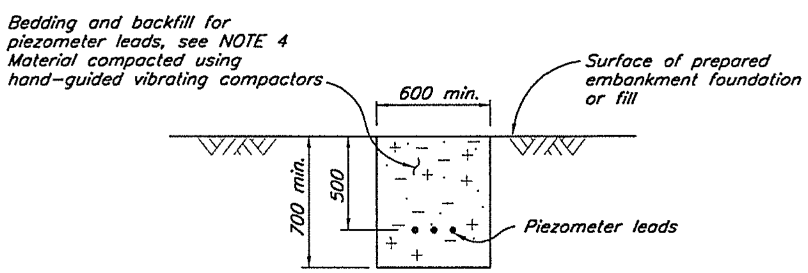
XREF FILE : TOPO99, STAGE3C



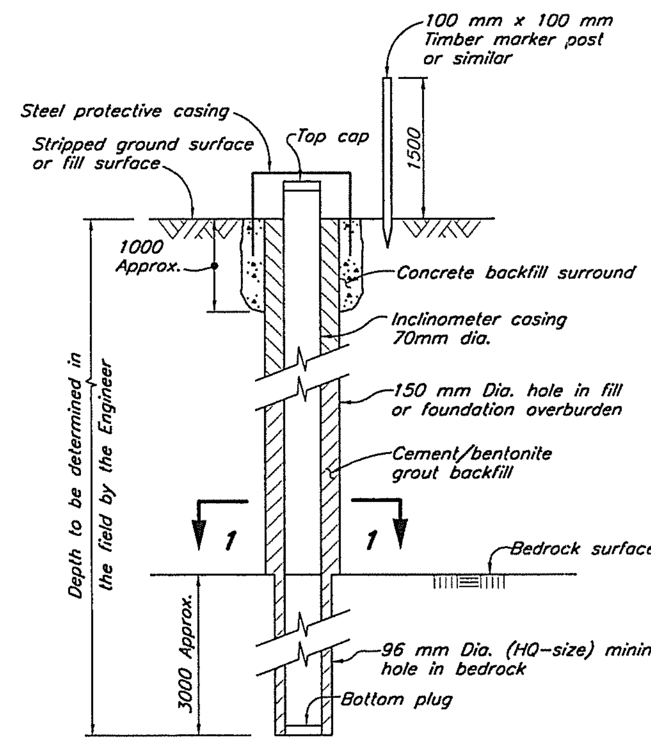
DETAIL A/258
TYPICAL INSTALLATION DETAIL OF SEEPAGE CUTOFF FOR PIEZOMETER LEADS IN GLACIAL TILL
NTS



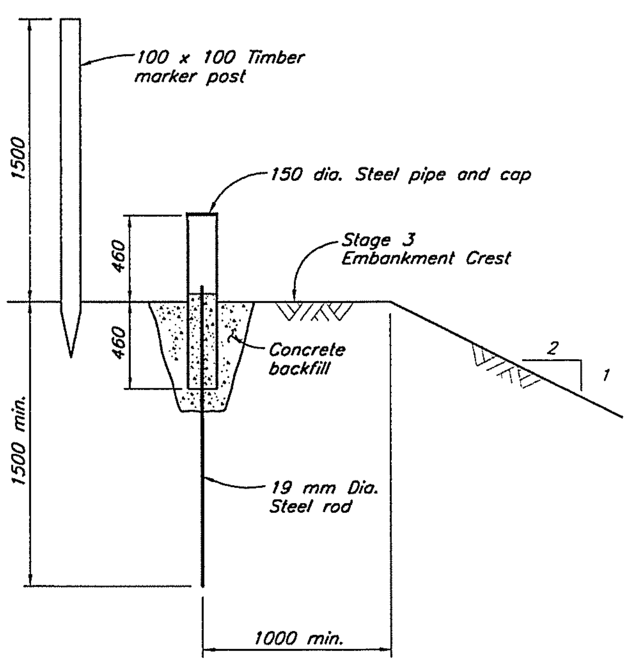
DETAIL B/258
TYPICAL INSTALLATION DETAIL FOR PIEZOMETER LEADS IN ZONE F



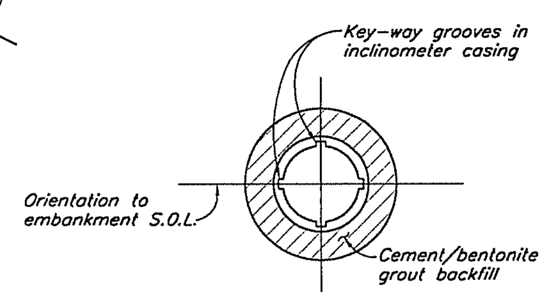
TYPICAL SECTION THROUGH PIEZOMETER LEAD TRENCH IN PREPARED EMBANKMENT FOUNDATION OR FILL



TYPICAL INCLINOMETER INSTALLATION IN BOREHOLE
N.T.S.



TYPICAL DETAIL OF SURFACE MOVEMENT MONUMENT



SECTION 1
N.T.S.

SUMMARY OF INSTRUMENTATION INSTALLATIONS				
PIEZOMETER ID	NORTHING	EASTING	ELEV.	DATE INSTALLED
A0-PE1-01	5 818 495.773	595 588.746	938.542	25/02/00
A0-PE2-01	5 818 502.850	595 585.398	928.03	09/03/98
A0-PE2-02	5 818 513.042	595 578.418	927.87	09/03/98
A1-PE1-01	5 818 486.650	595 595.060	912.99	27/08/96
A1-PE1-02	5 818 456.420	595 626.250	912.14	27/08/96
A1-PE1-03	5 818 476.822	595 602.380	917.17	22/10/96
A1-PE1-04	5 818 495.773	595 588.746	936.5	01/11/99
A2-PE1-01	5 818 446.550	595 628.010	912.89	26/08/98
A2-PE1-02	5 818 491.574	595 592.678	938.474	27/02/00
A2-PE1-03	5 818 423.31	595 663.2	909.3	19/07/00
A2-PE2-01	5 818 482.710	595 598.140	903.7	25/07/96
A2-PE2-02	5 818 482.710	595 598.140	909.8	25/07/96
A2-PE2-03	5 818 484.196	595 602.354	919.43	12/02/97
(A2-PE2-04)	5 818 487.510	595 595.995	926.07	22/02/97
A2-PE2-05	5 818 475.061	595 607.560	921.87	22/02/97
A2-PE2-06	5 818 453.926	595 648.458	898.03	21/06/98
A2-PE2-07	5 818 453.926	595 648.458	902.83	21/06/98
A2-PE2-08	5 818 447.045	595 627.758	907.57	23/06/98
A2-SM-09	NOT INSTALLED		942.5	
A2-SM-12	5 818 492.317	595 592.84	942.5	
B0-PE1-01	5 818 681.542	595 831.874	939.05	20/02/00
B0-PE2-01	5 818 688.820	595 832.067	930.00	06/03/98
B0-PE2-02	5 818 697.980	595 826.160	927.18	06/03/98
B1-PE1-01	5 818 632.550	595 787.910	917.27	10/09/96
B1-PE1-02	5 818 609.040	595 806.770	915.95	10/09/96
B1-PE1-03	5 818 622.780	595 797.260	918.69	22/10/96
B2-PE1-01	5 818 594.940	595 811.260	916.272	26/08/98
B2-PE1-02	5 818 676.310	595 836.050	939.536	20/02/00
B2-PE1-03	5 818 572.78	595 847.27	914.1	19/07/00
B2-PE2-01	5 818 628.270	595 787.880	902.00	25/07/96
B2-PE2-02	5 818 627.470	595 790.660	909.50	25/07/95
B2-PE2-03	5 818 636.530	595 786.970	921.00	22/10/96
(B2-PE2-04)	5 818 626.940	595 794.190	921.00	22/10/96
B2-PE2-05	5 818 619.014	595 799.804	921.70	14/03/97
B2-PE2-06	5 818 595.767	595 810.605	914.59	23/06/98
B2-SM-10	NOT INSTALLED		942.5	
B2-SM-13	5 818 643.472	595 793.692	942.54	
SI01-1	5 818 463.54	595 666.536	916.923	
SI01-2	5 818 400.999	595 588.808	918.152	

SUMMARY OF INSTRUMENTATION INSTALLATIONS (con't)				
PIEZOMETER ID	NORTHING	EASTING	ELEV.	DATE INSTALLED
C0-PE1-01	5 818 408.969	595 469.750	939.267	26/02/00
(C0-PE2-01)	5 818 414.319	595 471.099	927.80	09/03/98
(C0-PE2-02)	5 818 426.495	595 463.101	927.48	09/03/98
C1-PE1-01	5 818 410.500	595 496.070	914.70	28/09/96
C1-PE1-02	5 818 387.690	595 482.400	916.60	22/10/96
C1-PE1-04	5 818 351.420	595 509.060	914.31	03/04/98
C2-PE1-01	5 818 367.670	595 508.900	915.016	26/08/98
C2-PE1-02	5 818 404.117	595 473.754	939.26	26/02/00
C2-PE1-03	5 818 327.18	595 530.51	912.6	12/07/00
(C2-PE2-01)	5 818 392.410	595 478.240	907.50	25/07/96
C2-PE2-02	5 818 392.410	595 478.240	910.50	25/07/96
C2-PE2-03	5 818 399.106	595 478.824	920.97	12/02/97
C2-PE2-05	5 818 402.343	595 475.326	924.84	12/02/97
C2-PE2-06	5 818 359.734	595 513.663	906.84	18/06/98
C2-PE2-07	5 818 359.734	595 513.663	912.28	18/06/98
C2-PE2-08	5 818 367.087	595 509.351	914.03	19/06/98
C2-SM-11	NOT INSTALLED		942.5	
C2-SM-14	5 818 398.488	595 468.018	942.54	
D1-PE1-02	5 819 742.03	595 353.980	928.76	30/01/98
D1-PE1-03	5 819 774.953	595 307.851	933.323	20/07/01
(D2-PE1-01)	5 819 775.449	595 310.522	930	26/08/98
D2-PE2-01	5 819 756.360	595 316.210	931.00	15/12/96
D2-PE2-02	5 819 791.103	595 333.275	922	22/06/98
D2-SM-15	5 819 749.019	595 299.627	942.421	04/10/01
E2-PE2-01	5 818 307.454	595 435.983	908	17/06/98
E2-PE2-02	5 818 307.454	595 435.983	913	17/06/98
G1-PE1-01	5 818 9665.212	595 012.935	933.19	20/07/01
G2-SM-16	5 819 922.045	595 042.824	942.643	04/10/01
H1-PE1-01	5 819 517.62	595 667.86	936.8	20/07/01
H2-SM-17	5 819 528.085	595 628.739	942.342	04/10/01

( ) Piezometer no longer functioning.

LEGEND

A0-PE1-01
- Plane I.D. (A, B etc.)
- Area (0–Tailings, 1–Drain, 2–Embankment)
- Number I.D.
- Pressure Rating (1–Low, 2–High)
- Type of Instrumentation (PE–Piezometer electric, SM–Survey Monument)

A1-PE1-01 ▲ Previously installed Piezometer
D2-PE1-02 △ New Stage 3 Piezometer
A2-SM-12 ◇ New Embankment Survey Monument
GW96-9 ⊠ Groundwater Monitoring Well
SI01-1 ✦ Slope Inclinometer

NOTES

1. All dimensions in millimetres with elevations in metres, unless noted otherwise.
2. Piezometer leads extended as directed by the Engineer.
3. Seepage cutoffs placed at 5 m intervals with 10% bentonite added to fine grained till backfill.
4. Stage 3C crest El. 944.0.

Scale 1000 500 0 1000 2000 mm

VANCOUVER B.C. CAD FILE: M:\1\01\00001\05\A\Acad\Dwgs\256\256.dwg 1=20 PLOT 1=1(PS) Aug 9 2005 byndhaliwal Time @ 08:30

DRG. NO.	DESCRIPTION
259	STAGE 3C TAILINGS EMBANKMENT – INSTRUMENTATION – SECTIONS – SHEET 2 OF 2
258	STAGE 3C TAILINGS EMBANKMENT – INSTRUMENTATION – SECTIONS – SHEET 1 OF 2
254	STAGE 3C SOUTH EMBANKMENT – INSTRUMENTATION – PLAN
252	STAGE 3C PERIMETER EMBANKMENT – INSTRUMENTATION – PLAN
250	STAGE 3C MAIN EMBANKMENT – INSTRUMENTATION – PLAN

REFERENCE DRAWINGS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
0	15AUG'05	AS-BUILT	FE	NSD		

REVISIONS

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
L.J. GALBRAITH

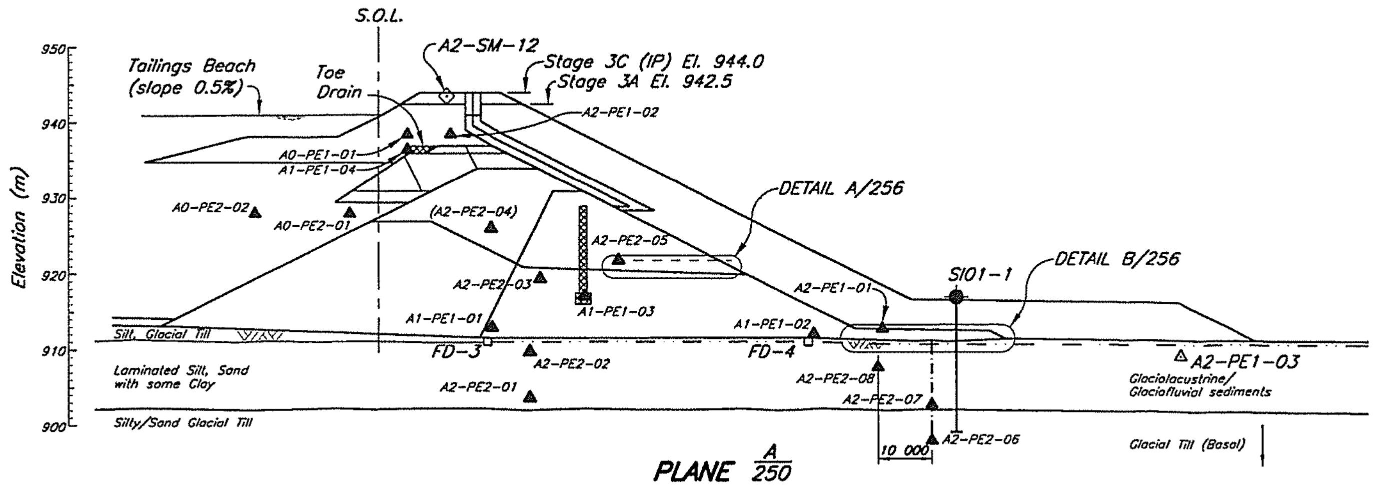
Knight Piésold
CONSULTING

MOUNT POLLEY MINING CORPORATION

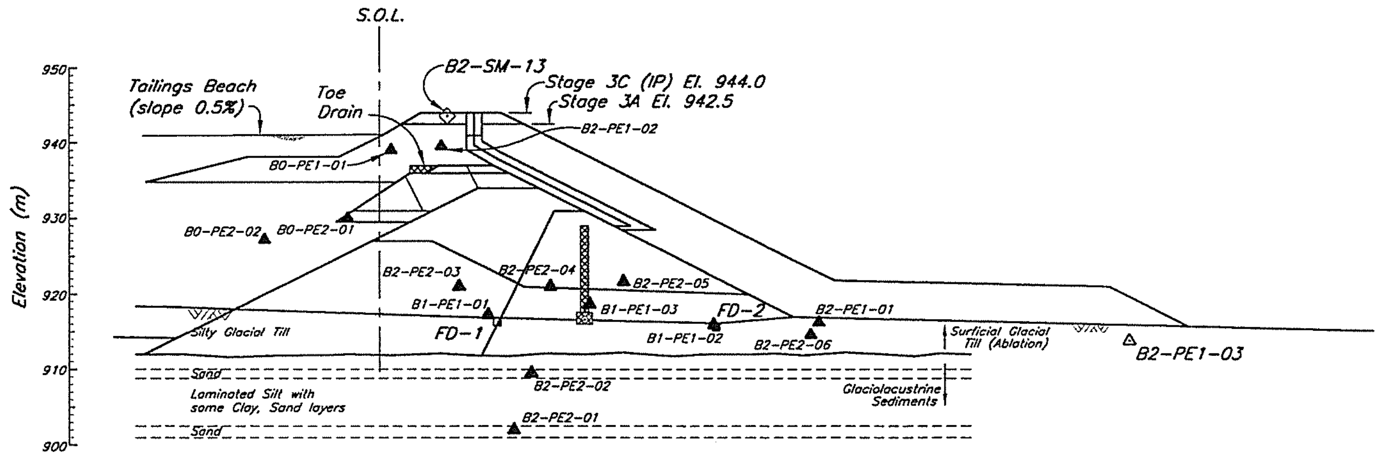
MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C TAILINGS EMBANKMENT
INSTRUMENTATION
SUMMARY OF INSTALLATION & TYPICAL DETAILS

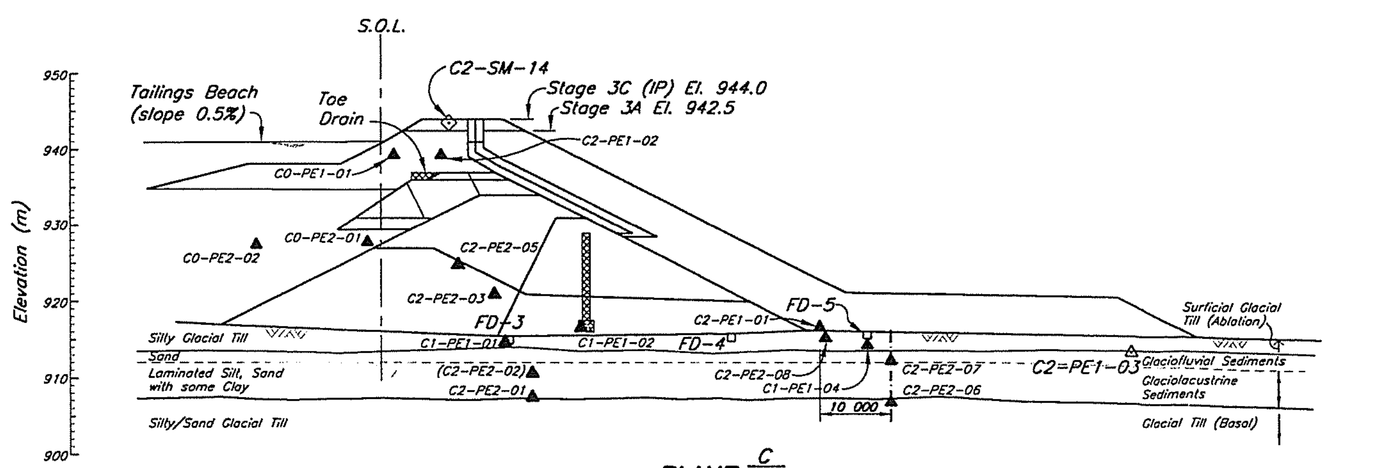
PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	256	0



PLANE $\frac{A}{250}$
CH. 20+00



PLANE $\frac{B}{250}$
CH. 22+40



PLANE $\frac{C}{250}$
CH. 18+50

LEGEND

- A1-PE1-01 Previously installed Piezometer
- A2-PE2-06 New Stage 3 Piezometer
- A2-SM-01 New Embankment Survey Monument
- SI01-1 Slope Inclinometer

NOTES

1. Piezometers are vibrating wire type, SINCA Model 52611030 and RST Model 45005-0100 with a pressure rating of 100 psi or equivalent, connected to a readout panel via standard non-vented direct burial cable.
2. Piezometer leads extended as directed by the Engineer.
3. Zone fill materials and drain pipes not shown in drawing for clarity. For Details see Drg. 215.
4. See Drg. No. 101-1/5-256 for Summary of Instrumentation Installations, Typical Details and General Notes.
5. All dimensions in millimetres with elevations in metres, unless noted otherwise.
6. No work was completed at the Main Embankment during Stage 3B construction.
7. Stage 3C crest El. 944.0.

Scale 10 0 10 20 30 40 50 m

- DISCLAIMER -

THIS DRAWING WAS PREPARED BY KNIGHT PIESOLD LTD. FOR THE ACCOUNT OF THE CLIENT LISTED ON THIS DRAWING. THE MATERIAL ON IT REFLECTS KNIGHT PIESOLD'S BEST JUDGEMENT IN THE LIGHT OF THE INFORMATION AVAILABLE TO IT AT THE TIME OF PREPARATION. ANY USE WHICH A THIRD PARTY MAKES OF THIS DRAWING, OR ANY RELIANCE ON OR DECISIONS TO BE MADE BASED ON IT, ARE THE RESPONSIBILITY OF SUCH THIRD PARTIES. KNIGHT PIESOLD ACCEPTS NO RESPONSIBILITY FOR DAMAGES, IF ANY, SUFFERED BY THE THIRD PARTY AS A RESULT OF DECISIONS MADE OR ACTIONS BASED ON THIS DRAWING. COPIES RESULTING FROM ELECTRONIC TRANSFER OR REPRODUCTION OF THIS DRAWING ARE UNCONTROLLED AND MAY NOT BE THE MOST RECENT REVISION OF THIS DRAWING.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA L.J. GALBRAITH 25453

Knight Piésold
CONSULTING

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C TAILINGS EMBANKMENT
INSTRUMENTATION
SECTIONS - SHEET 1 OF 2

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	258	0

DRG. NO.	DESCRIPTION
259	STAGE 3C TAILINGS EMBANKMENT - INSTRUMENTATION - SECTIONS 2 OF 2
256	STAGE 3C TAILINGS EMBANKMENT - INSTRUMENTATION - SUMMARY OF INSTALLATION & TYPICAL DETAILS
250	STAGE 3C MAIN EMBANKMENT - INSTRUMENTATION - PLAN

REFERENCE DRAWINGS

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

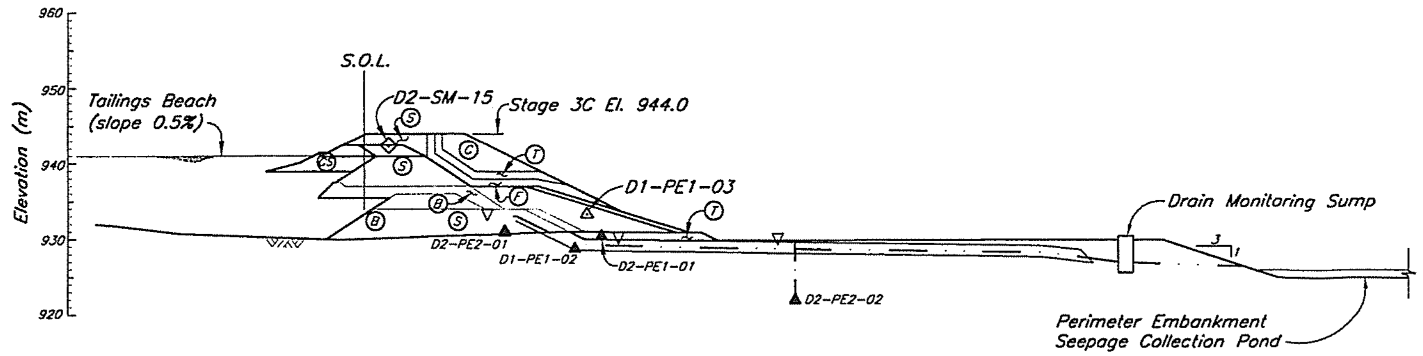
REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
0	15AUG'05	AS-BUILT	FE	NSD	[signature]	KJB

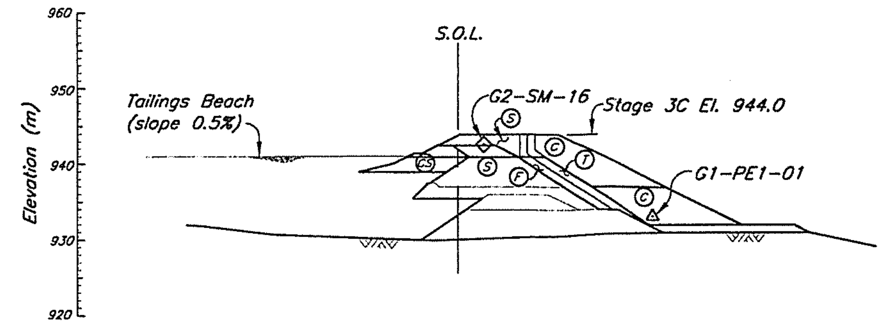
REVISIONS

VANCOUVER B.C. CAD FILE: M:\1\01\00001\05\A\Acad\Dwgs\258\258.dwg 1=500 PLOT 1=1(PS) Aug 8 2005 by:nhdhaliwal Time @ 05:40

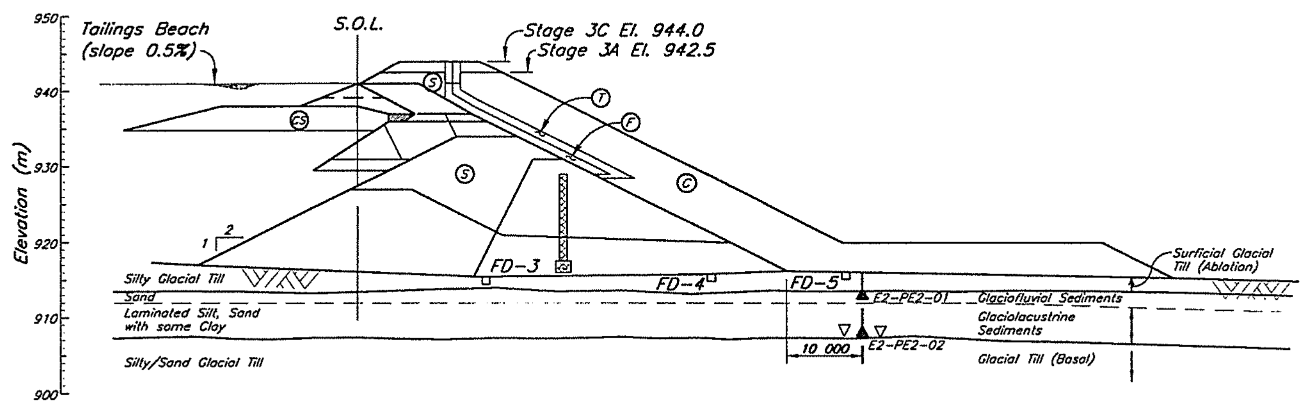
XREF FILE : -



PLANE $\frac{D}{252}$
CH. 39+86



PLANE $\frac{G}{252}$
CH. 43+00



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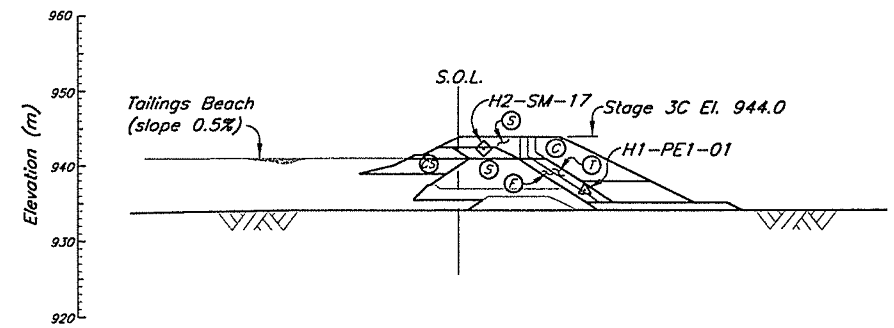
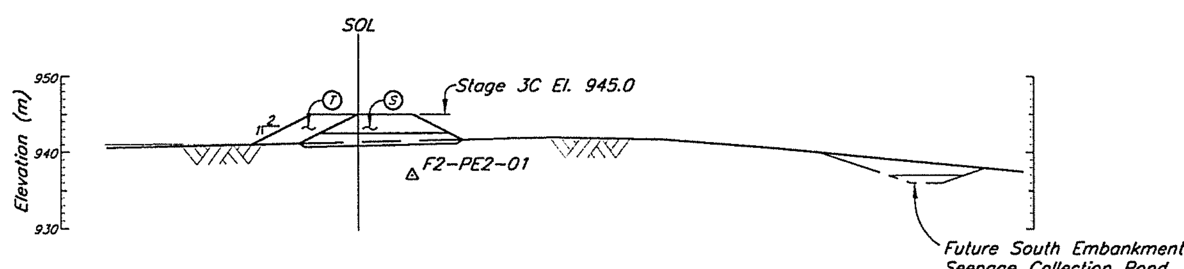
CH. 17+60



PLANE $\frac{H}{252}$
CH. 36+00



PLANE $\frac{F}{254}$
CH. 7+19

LEGEND

- ▲ A1-PE1-01 Previously installed Piezometer
- △ A2-PE2-06 New Stage 3 Piezometer
- ◇ A2-SM-01 New Embankment Survey Monument

NOTES

1. Piezometers are vibrating wire type, SINCA Model 52611030 and RST Model 45005-0100 with a pressure rating of 100 psi or equivalent, connected to a readout panel via standard non-vented direct burial cable.
2. Piezometer leads extended as directed by the Engineer.
3. Zone fill materials and drain pipes not shown in drawing for clarity. For Details see Drg. 215.
4. See Drg. No. 101-1/5-256 for Summary of Instrumentation Installations, Typical Details and General Notes.
5. All dimensions in millimetres with elevations in metres, unless noted otherwise.
6. No work was completed at the Main and South Embankments during Stage 3B construction.
7. Stage 3C crest El. 944.0.

Scale 10 0 10 20 30 40 50 m

VANCOUVER B.C. CAD FILE: M:\1\01\00001\05\A\Acad\Drgs\259\259.dwg 1=500 PLOT 1=1(PS) Aug 9 2005 by:ndhaliwal Time @ 08:50

DRG. NO.	DESCRIPTION
256	STAGE 3C TAILINGS EMBANKMENT – INSTRUMENTATION – SUMMARY OF INSTALLATION & TYPICAL DETAILS
254	STAGE 3C SOUTH EMBANKMENT – INSTRUMENTATION – PLAN
252	STAGE 3C PERIMETER EMBANKMENT – INSTRUMENTATION – PLAN
250	STAGE 3C MAIN EMBANKMENT – INSTRUMENTATION – PLAN

REFERENCE DRAWINGS

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

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
0	15AUG'05	AS-BUILT	FE	NSD		

REVISIONS

XREF FILE : -

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA L.J. GALBRAITH 28493

Knight Piésold
CONSULTING

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
STAGE 3C TAILINGS EMBANKMENT
INSTRUMENTATION
SECTIONS – SHEET 2 OF 2

PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
VA101-1/5	259	0

Knight Piésold
CONSULTING

APPENDIX A

LABORATORY TESTS RESULTS

(Pages A-1 to A-71)

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1NO

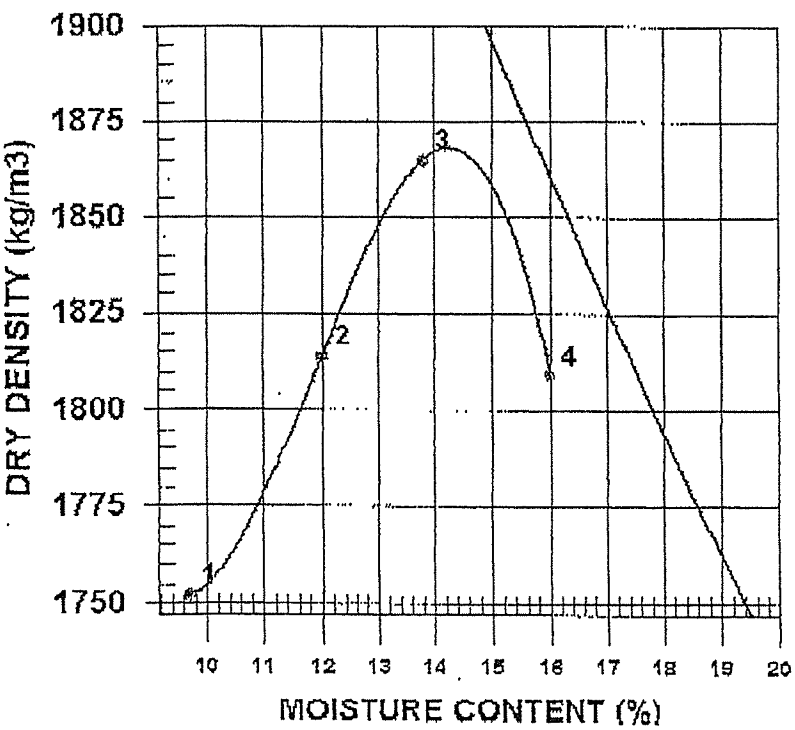
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 1 NO. OF TRIALS 4 DATE RECEIVED 2004.Aug.27 DATE SAMPLED 2004.Aug.27

INSITU MOISTURE N/A %
SAMPLED BY Client
TESTED BY NDS
SUPPLIER
SOURCE C-ZS-1
MATERIAL IDENTIFICATION
MAJOR COMPONENT Glacial Till
SIZE
DESCRIPTION Gravelly
ROCK TYPE

COMPACTION STANDARD Standard Proctor, ASTM D698
COMPACTION PROCEDURE A: 101.6mm Mold, Passing 4.75mm
RAMMER TYPE [illegible]
PREPARATION [illegible]
OVERSIZE CORRECTION METHOD ASTM 4718
RETAINED 4.75mm SCREEN [illegible] %
OVERSIZE SPECIFIC GRAVITY [illegible]



TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	1922	1752	9.7
2	2032	1814	12.0
3	[illegible]	1865	13.8
4	2099	1809	16.0

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.65	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	1870	14.5
OVERSIZE CORRECTED	1892	14.0

COMMENTS

A-1

GeoNorth Engineering Ltd.
1301 Kellihor Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

ATTN: Art Frye @ 250-790-2268

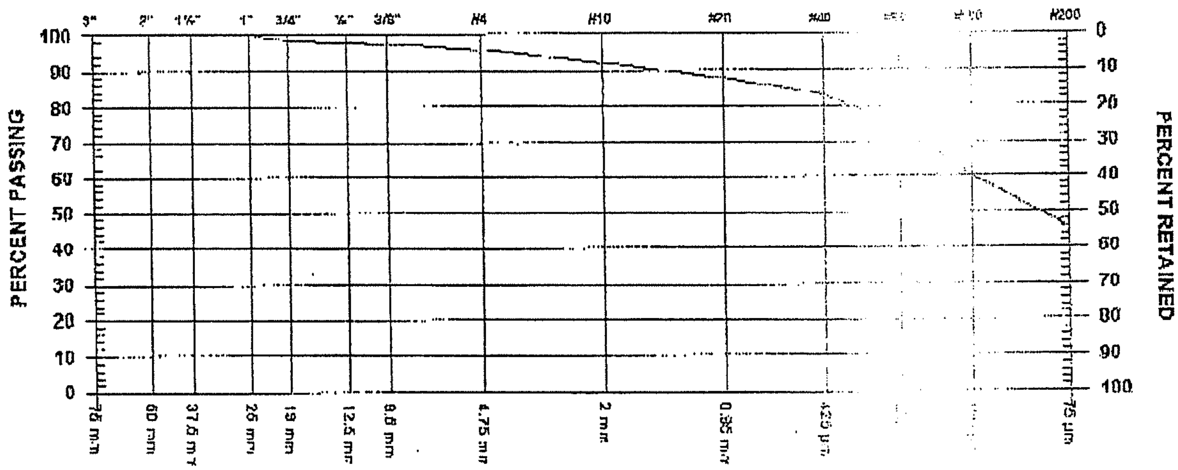
PROJECT Construction Program - Mount Polley Mine
Testing Services

CONTRACTOR

SIEVE TEST NO. 1 DATE RECEIVED 2004.Aug.27 DATE TESTED 2004.Sep. DATE SAMPLED 2004.Aug.27

SUPPLIER
SOURCE C-2S-1
SPECIFICATION
MATERIAL TYPE Glacial Till

SAMPLED BY Client
TESTED BY MDS
TEST METHOD WASHED



GRAVEL SIZES		PERCENT PASSING	GRADATION LIMITS
3"	75 mm		
2"	50 mm		
1 1/2"	37.5 mm		
1"	25 mm	100.0	
3/4"	19 mm	98.2	
1/2"	12.5 mm	97.8	
3/8"	9.5 mm	97.5	

SAND SIZES AND FINES		PERCENT PASSING	GRADATION LIMITS
No. 4	4.75 mm	95.9	
No. 10	2.00 mm	91.9	
No. 20	[illegible]	87.5	
No. 40	425 µm	83.0	
No. 60	[illegible]	74.4	
No. 100	[illegible]	59.9	
No. 200	[illegible]	45.6	

COMMENTS

A-2

GeoNorth Engineering

Test Designation: ASTM D-422

Hydrometer Analysis

Client: Mount Polley Attn:Knight Piesold			Date:
Project Name:Construction Program Mount Polley			Project #:K-1587
Source/Location:C-ZS-1			Type:Glacial Till
Sample #:	Test# 1	Hole #: Depth:	Time:
Sampled By:Client	Tested By:NDS		Checked By:
Date Sampled:August 27,2004	Date Received:August 27,2004		Date Tested:Sept 3,2004

Starting Wt. (g)	% -#10	Elapsed Time (min)	Reading R	Temp (0C)	K	Corr. Reading R'	Zr (cm)	SQRT(Zr/T) (min)	D (mm)	N (%)	N'(%-#10)
40.0	0.919	0.5	25.0	20.0	0.01367	19.35	14.290	5.346	0.073	48.4	44.5
40.0	0.919	1	22.0	20.0	0.01367	16.35	14.784	3.845	0.053	40.9	37.6
40.0	0.919	2	20.0	20.0	0.01367	14.35	15.114	2.749	0.038	35.9	33.0
40.0	0.919	4	19.0	20.0	0.01367	13.35	14.145	1.880	0.026	33.4	30.7
40.0	0.919	8	16.5	20.0	0.01367	10.85	14.555	1.349	0.018	27.1	24.9
40.0	0.919	15	15.0	20.0	0.01367	9.35	14.802	0.993	0.014	23.4	21.5
40.0	0.919	30	14.0	20.0	0.01367	8.35	14.966	0.706	0.010	20.9	19.2
40.0	0.919	60	11.5	20.0	0.01367	5.85	15.376	0.506	0.007	14.6	13.4
40.0	0.919	120	9.0	20.0	0.01367	3.35	15.787	0.363	0.005	8.4	7.7
40.0	0.919	240	7.0	20.0	0.01367	1.35	16.115	0.259	0.004	3.4	3.1
40.0	0.919	1365	6.0	20.0	0.01367	0.35	16.280	0.109	0.001	0.9	0.8
40.0	0.919			20.0	0.01367	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!

Hydrometer #:	Graduate #:	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =	Wt. Passing #200 =			

Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

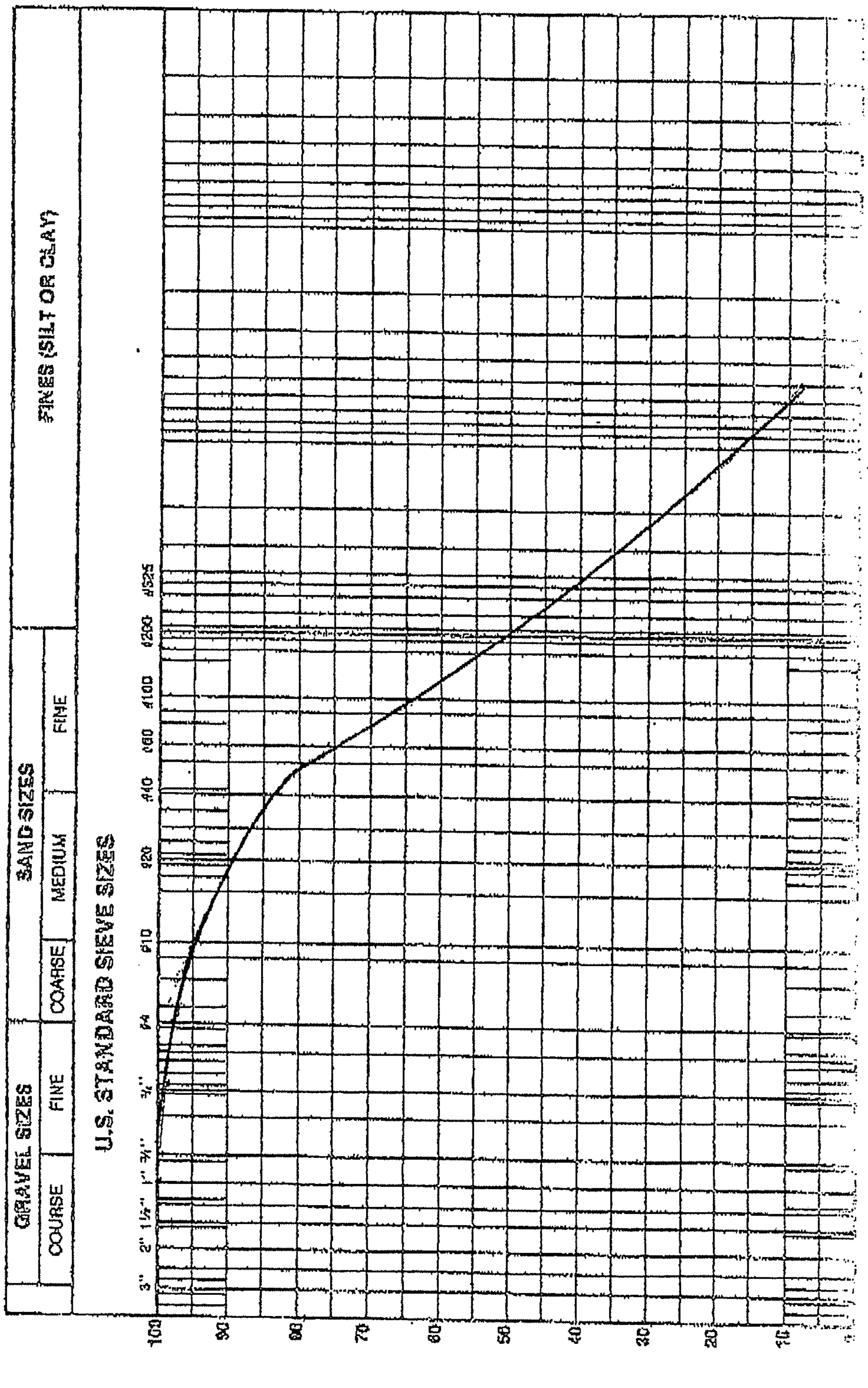
Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-3

GRAIN SIZE CURVE

LAB ORDER NO.	K1527
CLIENT	MT POLLEY ... KNIGHT PIESOLD
SAMPLE	
SOURCE	C-2S
HOLE	DEPTH
DATE REC'D	08.27
TECHNICIAN	
DATE TESTED	09.03



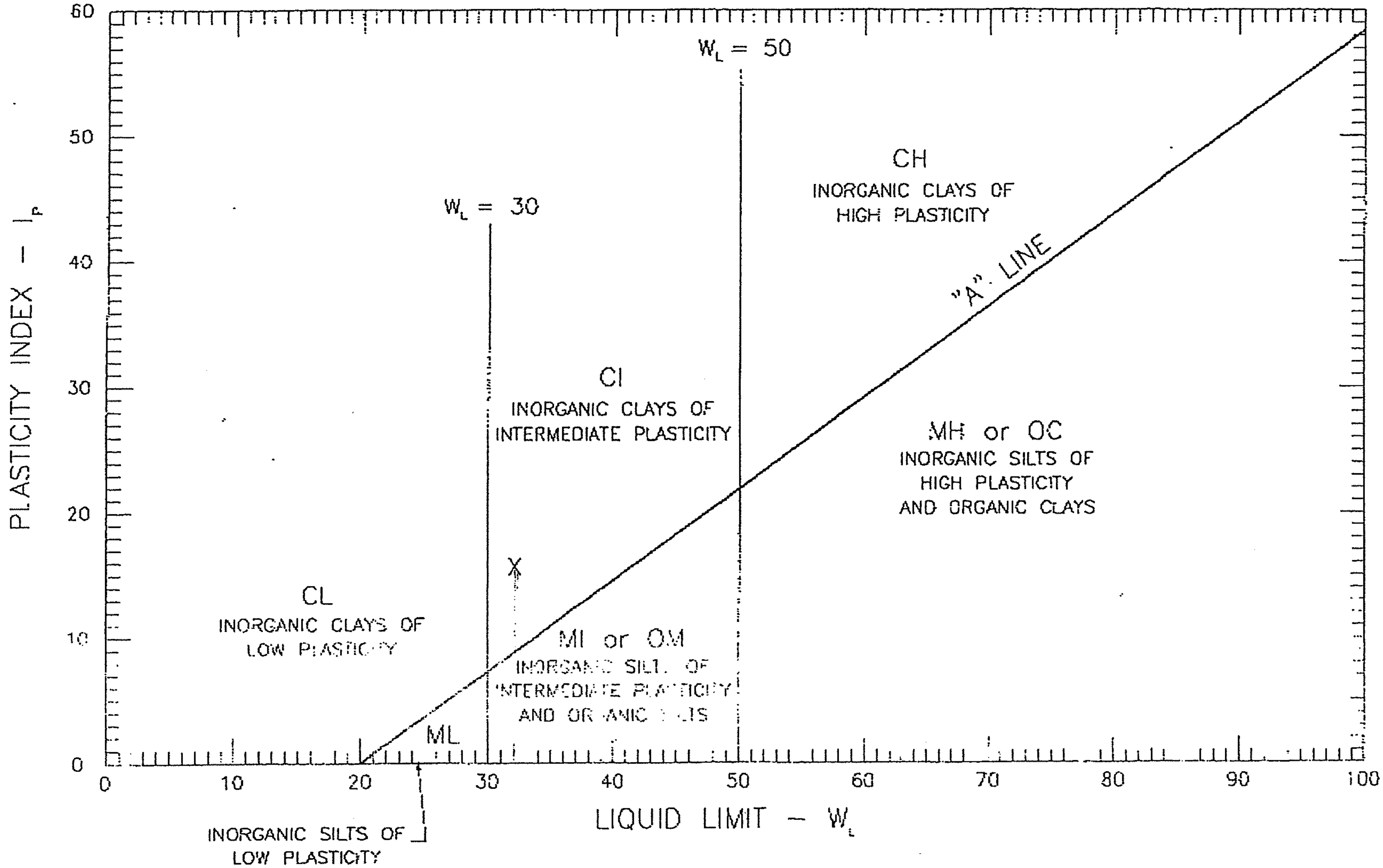
D_{10} = ____ MM.
D_{30} = ____ MM.
D_{60} = ____ MM.
C_U = ____
C_C = ____

REMARKS: Sample # C-2S1
Specific Gravity = 2.656
Absorption = 2.03%

NOTE: UNIFIED SOIL CLASSIFICATION SYSTEM

DATE ____

MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD; ATTN ART FRYE @ 250 790 2268



GEONORTH ENGINEERING LTD. 1301 Kelliher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF C-ZS 1	SCALE: N.T.S.	DATE: 2004/09/03
		PROJECT NO: K-1587	DRAWING NO. 1587-B1

A-5

GeoNorth Engineering Ltd.
1301 Kellihar Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1NO

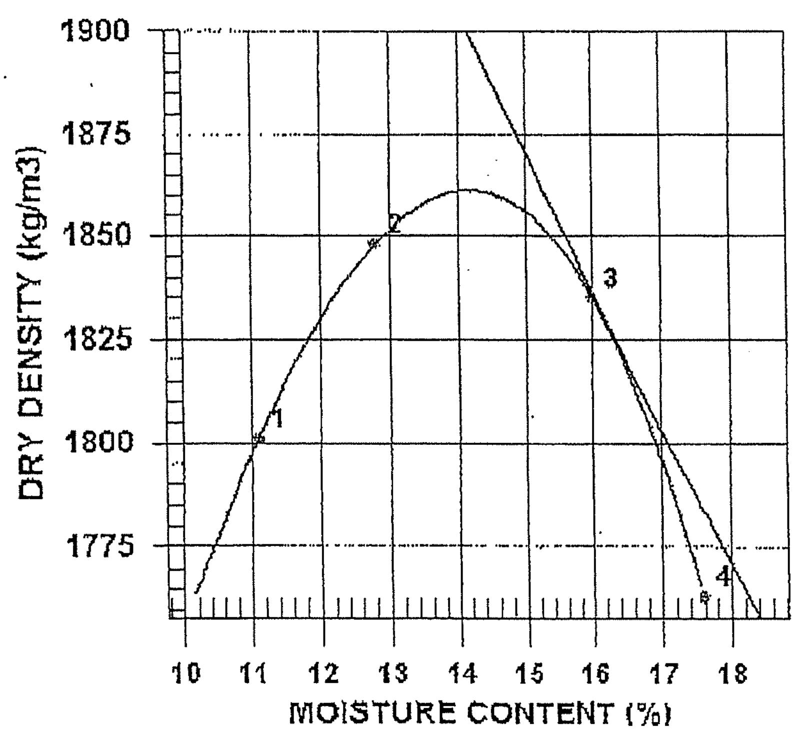
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 2 NO. OF TRIALS 4 DATE RECEIVED 2004.Au[illegible] DATE SAMPLED 2004.Aug.27

INSITU MOISTURE N/A %
SAMPLED BY Client
TESTED BY NDS
SUPPLIER
SOURCE C-ZS-2
MATERIAL IDENTIFICATION
MAJOR COMPONENT Glacial Till
SIZE
DESCRIPTION Gravelly
ROCK TYPE

COMPACTION STANDARD Standard Proctor, [illegible] D698
COMPACTION PROCEDURE [illegible] 101.6mm Mold, [illegible] 4.75mm
RAMMER TYPE [illegible]
PREPARATION [illegible]
OVERSIZE CORRECTION METHOD [illegible] 4718
RETAINED 4.75mm SCREEN [illegible] %
OVERSIZE SPECIFIC GRAVITY [illegible]



TRIAL NUMBER	[illegible]	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1		1801	11.1
2		1848	12.8
3		1835	16.0
4		1763	17.6

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.60	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	1860	14.0
OVERSIZE CORRECTED	1895	13.2

COMMENTS

A-6

GeoNorth Engineering Ltd.
1301 Kellihor Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

[illegible] ANALYSIS REPORT
[illegible] 20 40 60 SERIES

PROJECT NO. K 156[illegible]
CLIENT Mount [illegible] Mine Attn: Knight
C.C. Knigh[illegible]

TO:
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
V0L -1N0

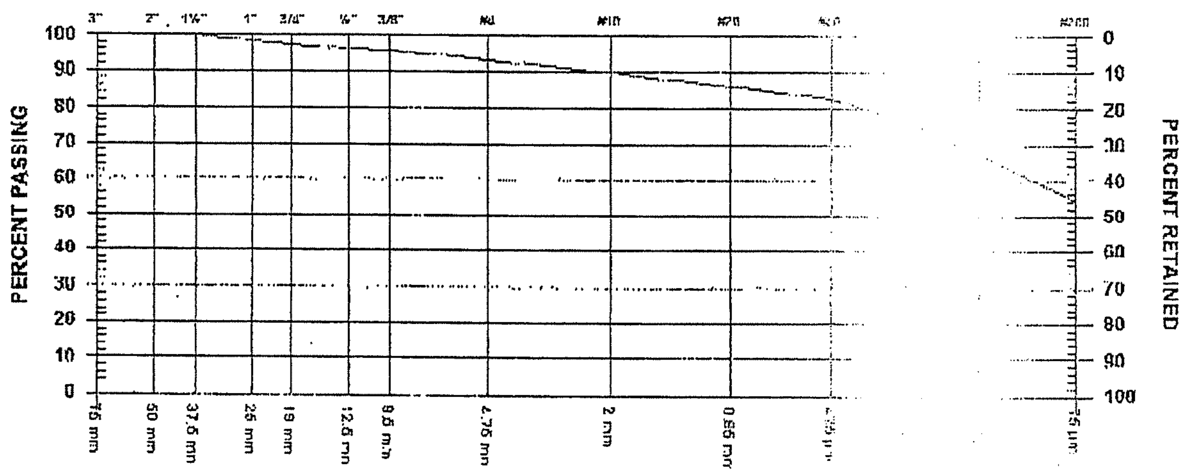
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 2 DATE RECEIVED 2004.Aug.27 DATE TESTED 2004.S[illegible] [illegible]E SAMPLED 2004.Aug.27

SUPPLIER
SOURCE C-ZS-2
SPECIFICATION
MATERIAL TYPE Glacial Till

SAMPLE[illegible] [illegible]ent
TESTE[illegible]
TEST M[illegible] [illegible]SHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm		
2"	50	mm		
1 1/2"	37.5	mm	100.0	
1"	25	mm	98.2	
3/4"	19	mm	97.5	
1/2"	12.5	mm	96.4	
3/8"	9.5	mm	95.6	

SAND SIZES AN[illegible]		PERCENT PASSING	GRADATION LIMITS
No. 4	4[illegible]	93.1	
No. 10	2[illegible]	89.7	
No. 20	[illegible]	86.1	
No. 40	[illegible]	82.4	
No. 60	[illegible]	76.5	
No. 100	[illegible]	67.4	
No. 200		54.2	

COMMENTS

A-7

GeoNorth Engineering

Hydrometer Analysis

Test Designation: ASTM D-422

Client:Mount Polley Attn: Knight Piesold				Date:Sept 3,2004
Project Name:Construction Program Mount Polley				Project #:K-1587
Source/Location:C-ZS-2				Type:Glacial Till
Sample #:	Test #:2	Hole #:	Depth:	Time:
Sampled By:Client		Tested By:NDS		Checked By:
Date Sampled:08.27.04		Date Received:08.27.04		Date Tested:09.03.04

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	K	Corr Reading R	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40.0	0.897	0.5	[illegible]	20.0	0.01367	[illegible]	13.549	5.206	0.071	58.6	53.[illegible]
40.0	0.897	1	27.5	20.0	0.01367	21.85	13.878	3.725	0.051	54.6	49.0
40.0	0.897	2	26.0	20.0	0.01367	20.35	14.125	2.658	0.036	50.9	45.6
40.0	0.897	4	25.0	20.0	0.01367	19.35	13.160	1.814	0.025	48.4	43.4
40.0	0.897	8	23.0	20.0	0.01367	17.35	13.488	1.298	0.018	43.4	38.9
40.0	0.897	15	22.0	20.0	0.01367	16.35	13.652	0.954	0.013	40.9	36.7
40.0	0.897	30	21.0	20.0	0.01367	15.35	13.817	0.679	0.009	38.4	34.4
40.0	0.897	60	20.0	20.0	0.01367	14.35	13.981	0.483	0.007	35.9	32.2
40.0	0.897	120	18.0	20.0	0.01367	12.35	14.309	0.345	0.005	30.9	27.7
40.0	0.897	240	16.5	20.0	0.01367	10.85	14.555	0.246	0.003	27.1	24.3
40.0	0.897	1344	15.0	20.0	0.01367	9.35	14.802	0.105	0.001	23.4	21.0
											0.0

Hydrometer #:	Graduate #:	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =	Wt. Passing #200 =			

Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

Initial Moisture Content

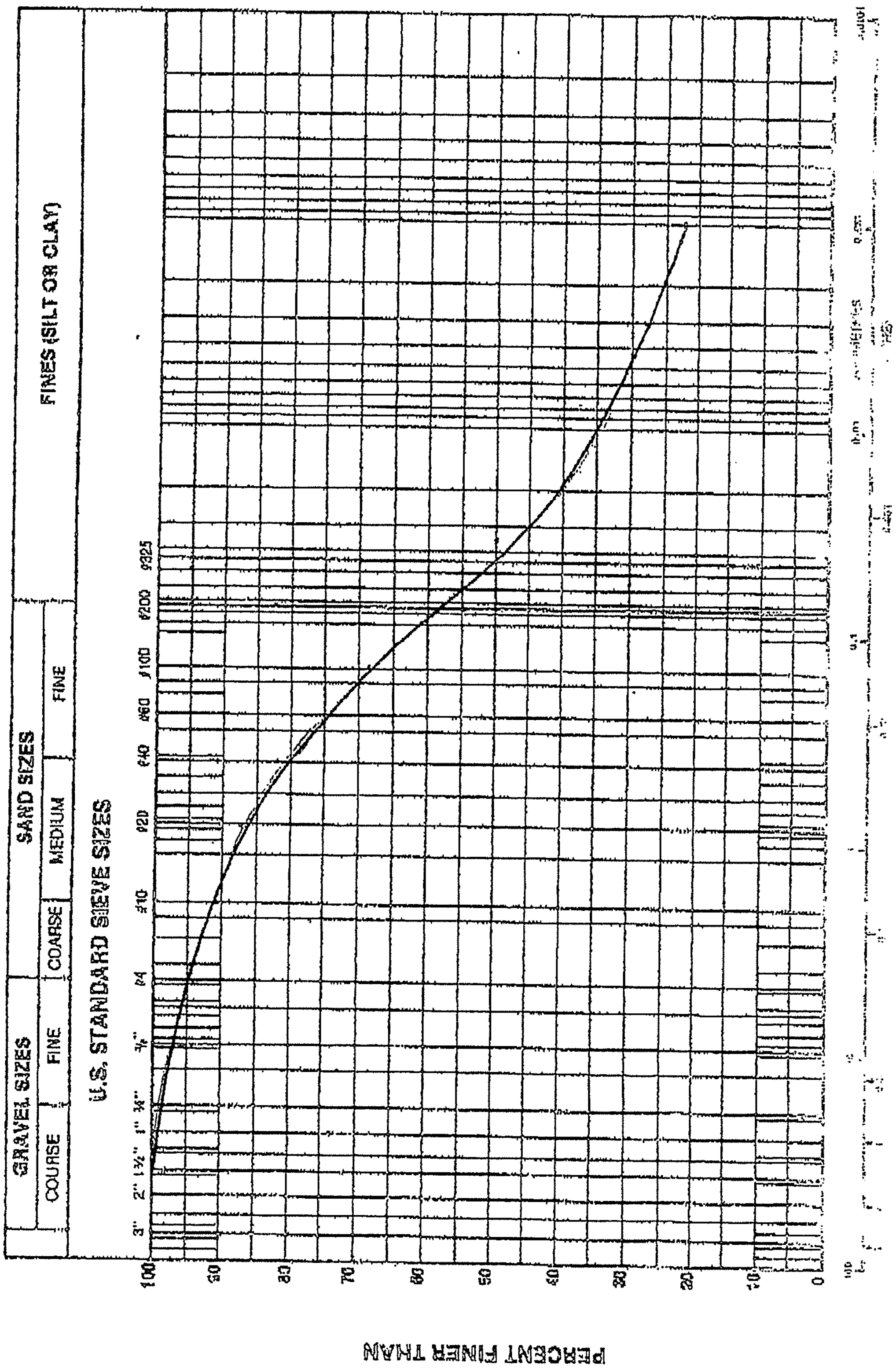
Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-8

Sep. 15. 2004 8:50AM GeoNorth Engineering 564 9323 No. 1580 P. 5

GRAIN SIZE CURVE

LAB ORDER NO.	KISE1
CLIENT	MT. POLLEY MINE ATTN: KNIGHT PIESOLD
SAMPLE	
SOURCE	C-ZS-2
HOLE	DEPTH
DATE REC'D	08.27
TECHNICIAN	NOS
DATE TESTED	09.03



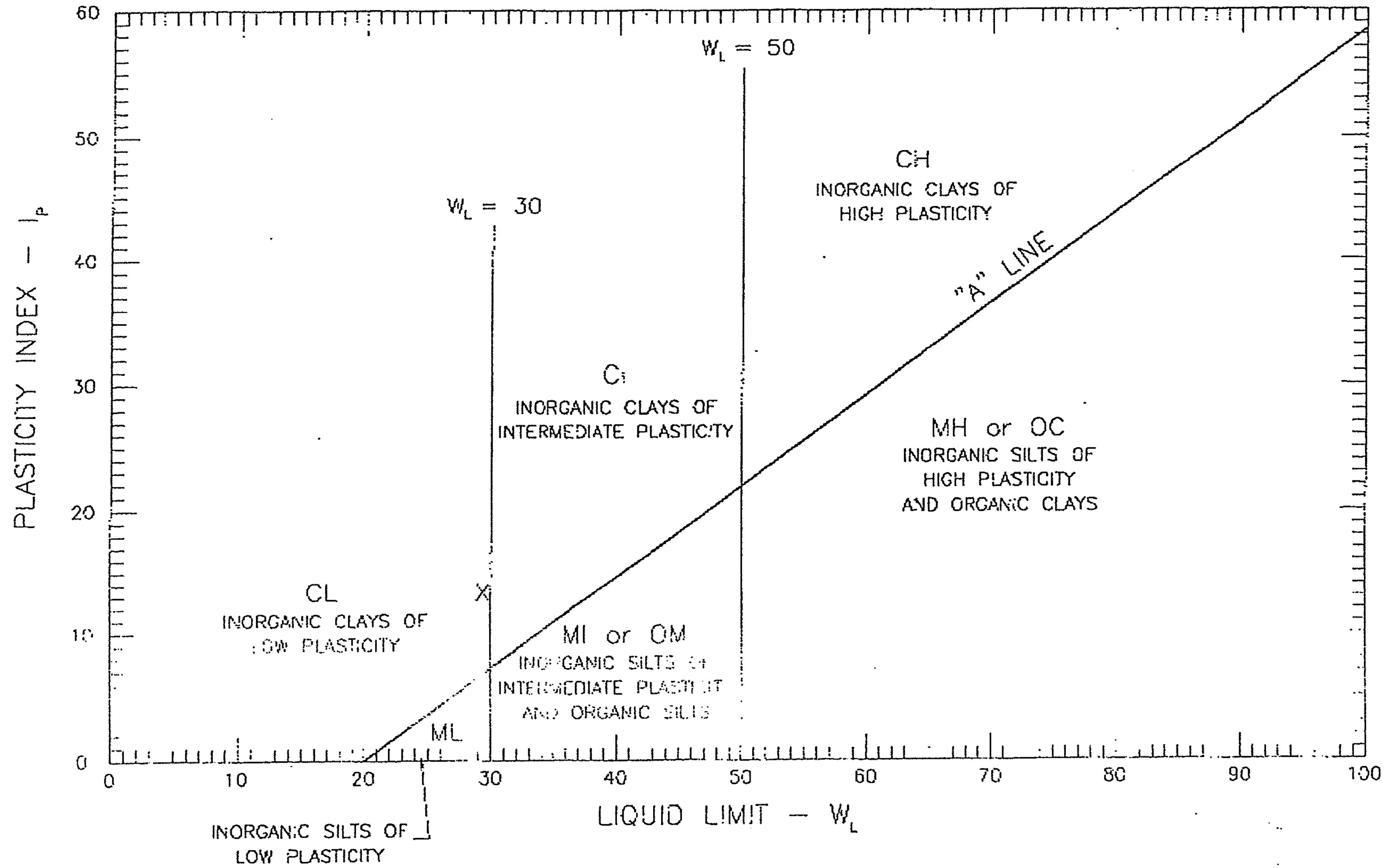
D_{10} = ______ MM.
D_{30} = ______ MM.
D_{60} = ______ MM.
C_U = ______
C_C = ______

REMARKS: Sample # C-ZS2
Specific Gravity = 2.588
Absorption = 3.13%

NOTE: UNIFIED SOIL CLASSIFICATION SYSTEM

PLATE ______

ATTN: ART FRYE @ 250 790-2268



GEONORTH ENGINEERING LTD. 1301 Kelliher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF C-ZS 2	SCALE: N.T.S. PROJECT NO: K-1587	DATE: 2004/09/03 DRAWING NO. 1587-B2

A-10

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

ATTN: Art Frye @ 250-790-2268

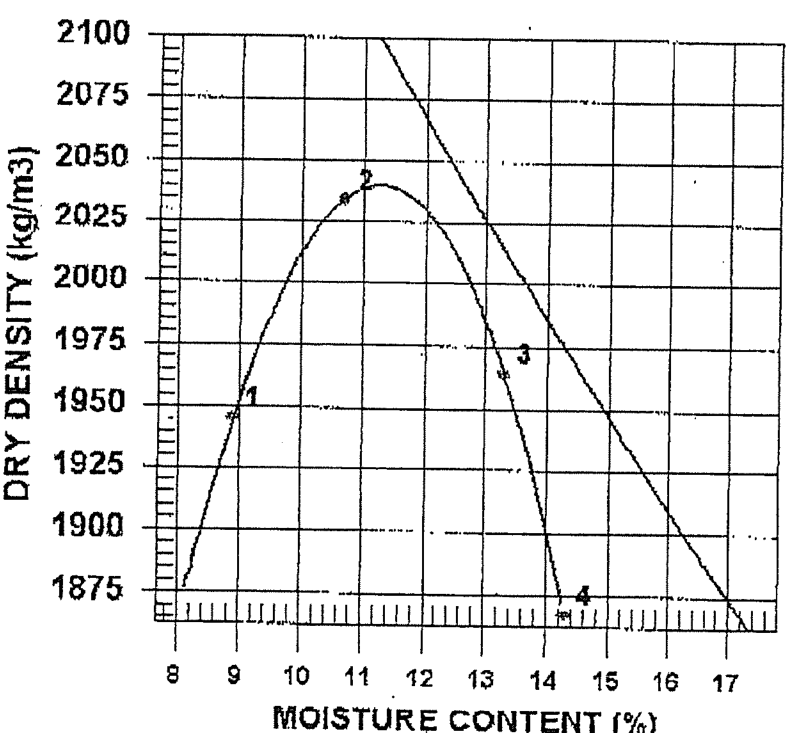
PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 3 NO. OF TRIALS 4 DATE RECEIVED 2004.Sep.[illegible] DATE SAMPLED 2004.Sep.02

INSITU MOISTURE N/A %
SAMPLED BY MW/LJG
TESTED BY NDS
SUPPLIER
SOURCE C-ZS-3
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION CLAY/SILTY
ROCK TYPE

COMPACTION STANDARD Standard Proctor, ASTM D698
COMPACTION PROCEDURE A, 101.6mm Mold, Passing 4.75mm
RAMMER TYPE [illegible]
PREPARATION Moist
OVERSIZE CORRECTION METHOD [illegible].718
RETAINED 4.75mm SCREEN 22.[illegible] %
OVERSIZE SPECIFIC GRAVITY [illegible]



TRIAL NUMBER	WET DENSITY [illegible]	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	[illegible]	1945	8.9
2	[illegible]	2034	10.7
3	[illegible]	1964	13.3
4	[illegible]	1867	14.3

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.75	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	2040	11.5
OVERSIZE CORRECTED	2152	9.1

COMMENTS
SPECIFIC GRAVITY = 2.651

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount P... Mine Attn: Knight
C.C. Knight P...old

TO
Mount Polley Mine Attn: Knight
Picsold
P.O Box 12
Likely, BC
VOL -1N0

ATTN: Art Frye @ 250-790-2268

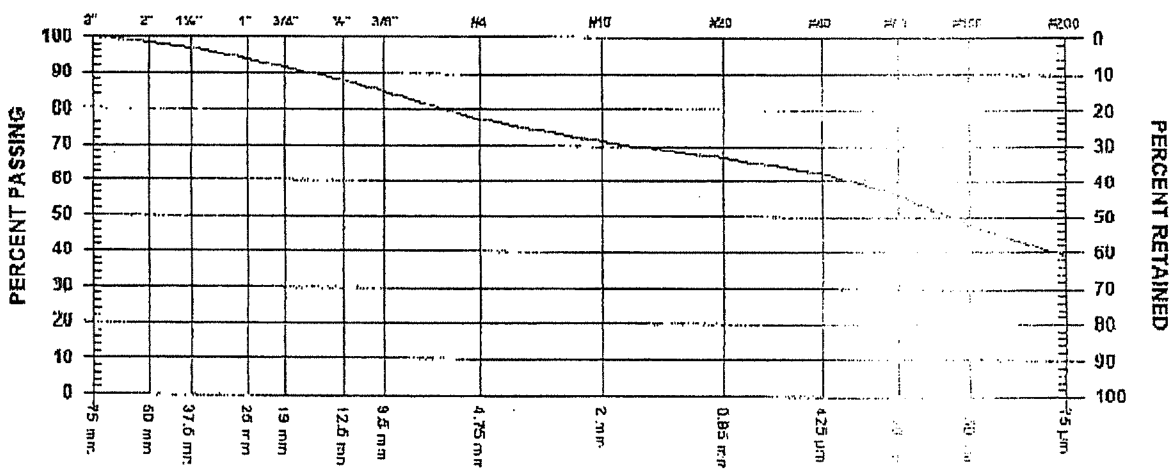
PROJECT Construction Program - Mount Polley Mine
Testing Services

CONTRACTOR

SIEVE TEST NO. 3 DATE RECEIVED 2004.Sep.07 DATE TESTED 2004.Sep.1? DATE SAMPLED 2004.Sep.02

SUPPLIER
SOURCE C-ZS-3
SPECIFICATION
MATERIAL TYPE BULK TILL

SAMPLED BY ?W/JLG
TESTED BY JLG
TEST METHOD WASHED



GRAVEL SIZES		PERCENT PASSING	GRADATION LIMITS
3"	75 mm	100.0	
2"	50 mm	98.4	
1 1/2"	37.5 mm	97.0	
1"	25 mm	93.7	
3/4"	19 mm	91.7	
1/2"	12.5 mm	88.0	
3/8"	9.5 mm	84.7	

SAND SIZES AND FINES		PERCENT PASSING	GRADATION LIMITS
No. 4	4 [illegible]	77.2	
No. 10	2 [illegible]	71.3	
No. 20	[illegible]	66.3	
No. 40	[illegible]	62.0	
No. 60	[illegible]	56.0	
No. 100	150 [illegible]	47.9	
No. 200		39.2	

COMMENTS
LOCATION = TP-04-BAZ-8
CHAINACE = WOODED AREA BEHIND BAZ

GeoNorth Engineering

Test Designation: ASTM D-422

Hydrometer Analysis

Client:Mount Polley Attn:Knight Piesold				Date:Sept 14,2004
Project Name:Construction Program Mount Polley				Project #:K-1587
Source/Location:C-ZS-3				Type:Bulk Till
Sample #:	Test #:3	Hole #:	Depth:	Time:
Sampled By:Client	Tested By:NDS			Checked By:
Date Sampled:09.02.04	Date Received:09.07.04			Date Tested:[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40.0	0.713	0.5	26.0	18.0	0.01401	19.65	14.24[illegible]	[illegible]	0.075	[illegible]	[illegible]
40.0	0.713	1	24.5	18.0	0.01401	18.15	14.488	3.806	0.053	45.4	32.4
40.0	0.713	2	23.0	18.0	0.01401	16.65	14.735	2.714	0.038	41.6	29.7
40.0	0.713	4	22.0	18.0	0.01401	15.65	13.767	1.855	0.026	39.1	27.9
40.0	0.713	8	20.5	18.0	0.01401	14.15	14.014	1.324	0.019	35.4	25.2
40.0	0.713	15	20.0	18.0	0.01401	13.65	14.096	0.969	0.014	34.1	24.3
40.0	0.713	30	18.5	18.0	0.01401	12.15	14.342	0.691	0.010	30.4	21.7
40.0	0.713	60	17.0	18.0	0.01401	10.65	14.588	0.493	0.007	26.6	19.0
40.0	0.713	120	16.0	18.0	0.01401	9.65	14.752	0.351	0.005	24.1	17.2
40.0	0.713	240	15.0	18.0	0.01401	8.65	14.917	0.249	0.003	21.6	15.4
40.0	0.713	480	14.0	18.0	0.01401	7.65	15.081	0.177	0.002	19.1	13.6
0.0	0.000	0	0.0	0.0	0.00000	0	0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Hydrometer #:	Graduate #:	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =		Wt. Passing #200 =		

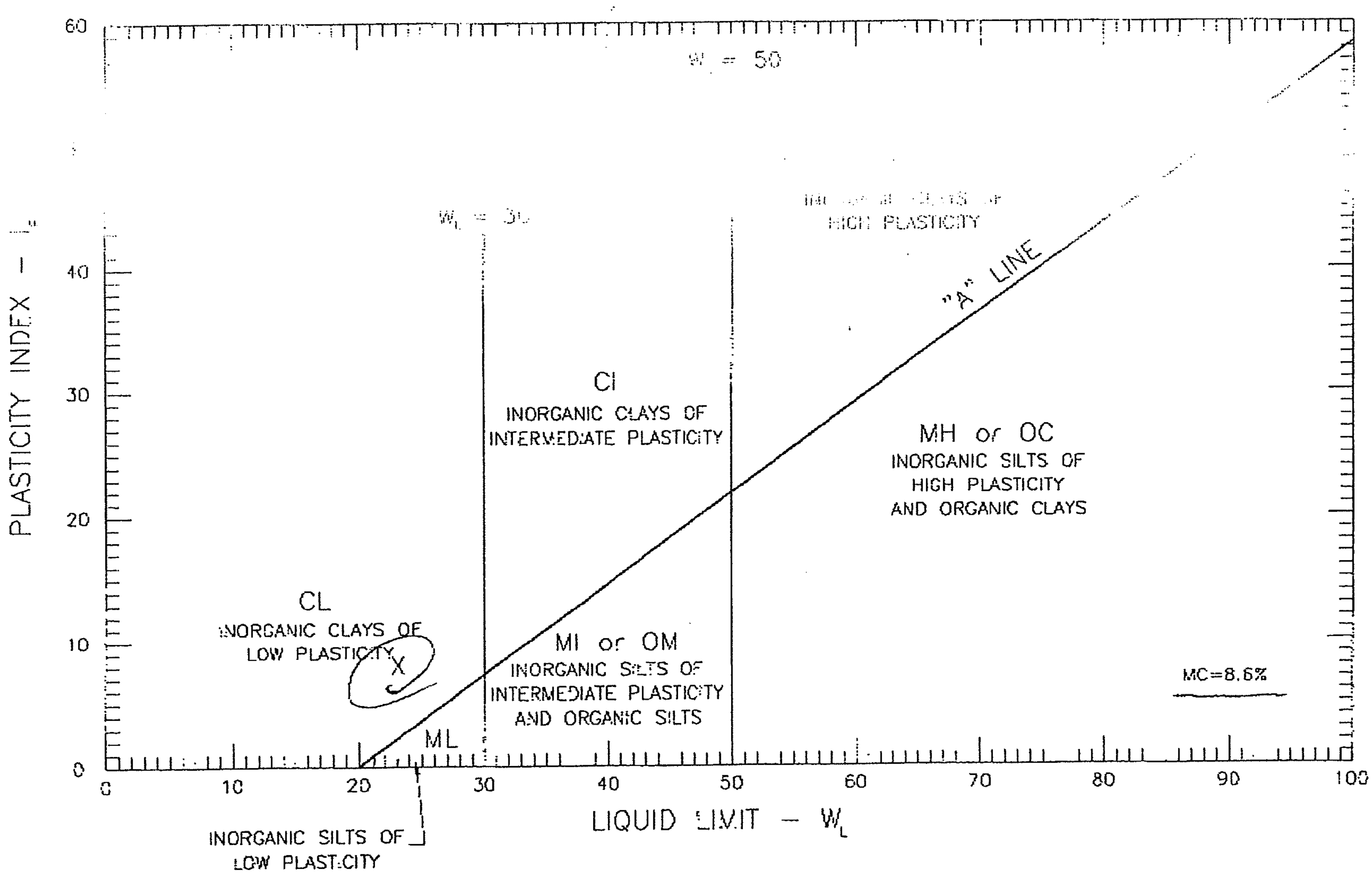
Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-13



GEONORTH ENGINEERING LTD. 1301 Kelliher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF C-ZS 3	SCALE: N.T.S.	DATE: 2004/09/14
		PROJECT NO: K-1587	DRAWING NO. 1587-B3

A-14

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight [illegible]

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1NO

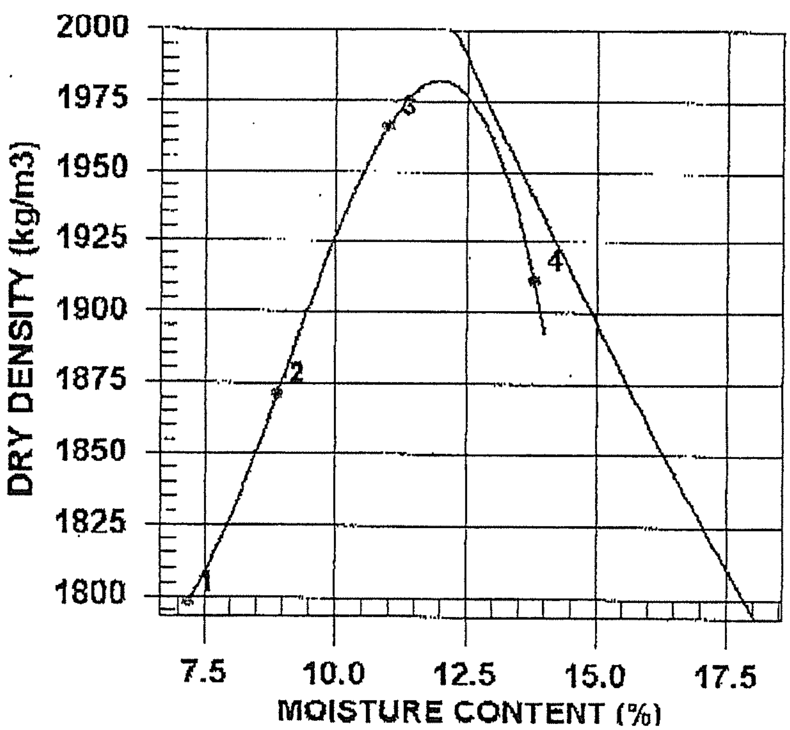
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 4 NO. OF TRIALS 4 DATE RECEIVED 2004.Sep.[illegible] DATE SAMPLED 2004.Sep.02

INSITU MOISTURE N/A %
SAMPLED BY MW/LJG
TESTED BY NDS
SUPPLIER
SOURCE C-ZS-4
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION CLAY/SILTY
ROCK TYPE

COMPACTION STANDARD [illegible]ndard Proctor, [illegible] D698
COMPACTION PROCEDURE [illegible] 101.6mm Mold, [illegible]sing 4.75mm
RAMMER TYPE [illegible]
PREPARATION [illegible]
OVERSIZE CORRECTION METHOD [illegible] 4718
RETAINED 4.75mm SCREEN [illegible] %
OVERSIZE SPECIFIC GRAVITY [illegible]



TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	[illegible]	1798	7.2
2	[illegible]	1871	8.9
3	[illegible]	1966	11.0
4	[illegible]	1911	13.8

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.65	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	1980	12.0
OVERSIZE CORRECTED	2103	9.3

COMMENTS
SPECIFIC GRAVITY = 2.605

A-15

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1NO

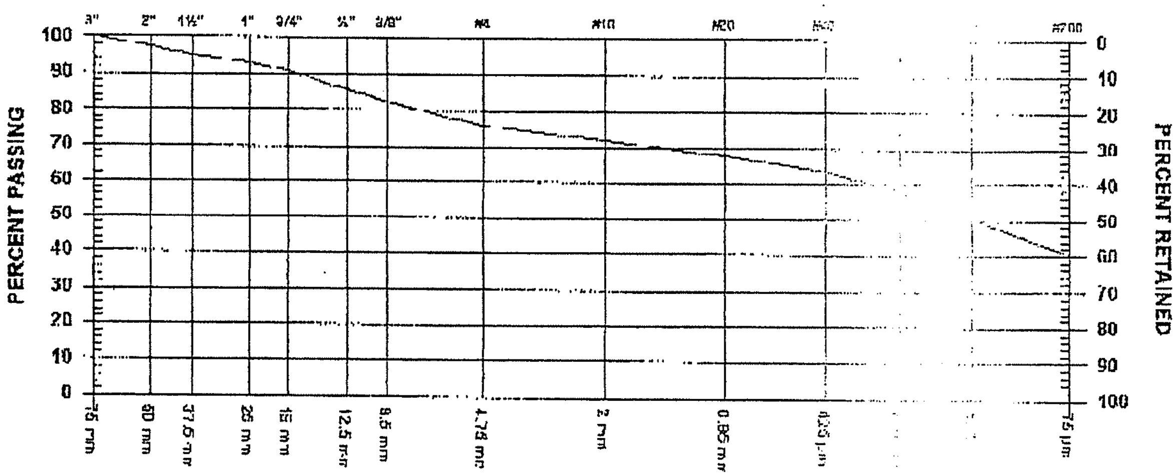
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 4 DATE RECEIVED 2004.Sep.07 DATE TESTED 2004.Sep DATE SAMPLED 2004.Sep.02

SUPPLIER
SOURCE C-ZS-4
SPECIFICATION
MATERIAL TYPE BULK TILL

SAMPLED BY /LJG
TESTED BY LDS
TEST METHOD WASHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm	100.0	
2"	50	mm	97.4	
1 1/2"	37.5	mm	94.9	
1"	25	mm	92.9	
3/4"	19	mm	90.8	
1/2"	12.5	mm	85.6	
3/8"	9.5	mm	82.2	

SAND SIZES AND FINES		PERCENT PASSING	GRADATION LIMITS
No. 4	4.75 mm	75.6	
No. 10	2.00 mm	72.0	
No. 20	[illegible]	67.6	
No. 40	[illegible]	63.6	
No. 60	[illegible]	57.9	
No. 100	[illegible]	50.3	
No. 200	75 µm	40.3	

COMMENTS
LOCATION = TP-04-BAZ-10
CHAINAGE = ALONG ROAD b/w BAZ AND OLD BA

A-16

GeoNorth Engineering

Test Designation: ASTM D-422

Hydrometer Analysis

Client:Mount Polley Attn: Knight Piesold			Date:Sept 14,2004
Project Name:Construction Program Mount Polley			Project #:K-1587
Source/Location:C-ZS-4			Type:Bulk Till
Sample #:	Test #:4	Hole #:	Depth:
Sampled By:Client	Tested By:NDS		Checked By:
Date Sampled:09.02.04	Date Received:09.07.04		Date Tested 09.13.04

Time:

Starting Wt. (g)	% -#10	Elapsed Time (min)	Reading R	Temp (0C)	K	Corr. Reading R'	Zr (cm)	SQRT(Zr)/t (min)	D (mm)	N (%)	N[illegible]
40.0	0.720	0.5	26.0	18.0	0.01401	19.65	14.241	5.337	0.075	49.1	35.4
40.0	0.720	1	24.5	18.0	0.01401	18.15	14.488	3.806	0.053	45.4	32.7
40.0	0.720	2	23.0	18.0	0.01401	16.65	14.735	2.714	0.038	41.6	30.0
40.0	0.720	4	22.0	18.0	0.01401	15.65	13.767	1.855	0.026	39.1	28.2
40.0	0.720	8	20.5	18.0	0.01401	14.15	14.014	1.324	0.019	35.4	25.5
40.0	0.720	15	20.0	18.0	0.01401	13.65	14.096	0.969	0.014	34.1	24.6
40.0	0.720	30	18.5	18.0	0.01401	12.15	14.342	0.691	0.010	30.4	21.9
40.0	0.720	60	17.0	18.0	0.01401	10.65	14.588	0.493	0.007	26.6	19.2
40.0	0.720	120	16.0	18.0	0.01401	9.65	14.752	0.351	0.005	24.1	17.4
40.0	0.720	240	15.0	18.0	0.01401	8.65	14.917	0.249	0.003	21.6	15.6
40.0	0.720	480	14.0	18.0	0.01401	7.65	15.081	0.177	0.002	19.1	13.8
40.0	0.720	1440	0.0	0.0	0.00000	0	16.337	0.107	0.000	0.0	0.0

Hydrometer #: Graduate #: Dispersing Agent: Amount:

Density of Solids:

Description of Sample:

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =	Wt. Passing #200 =			

Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

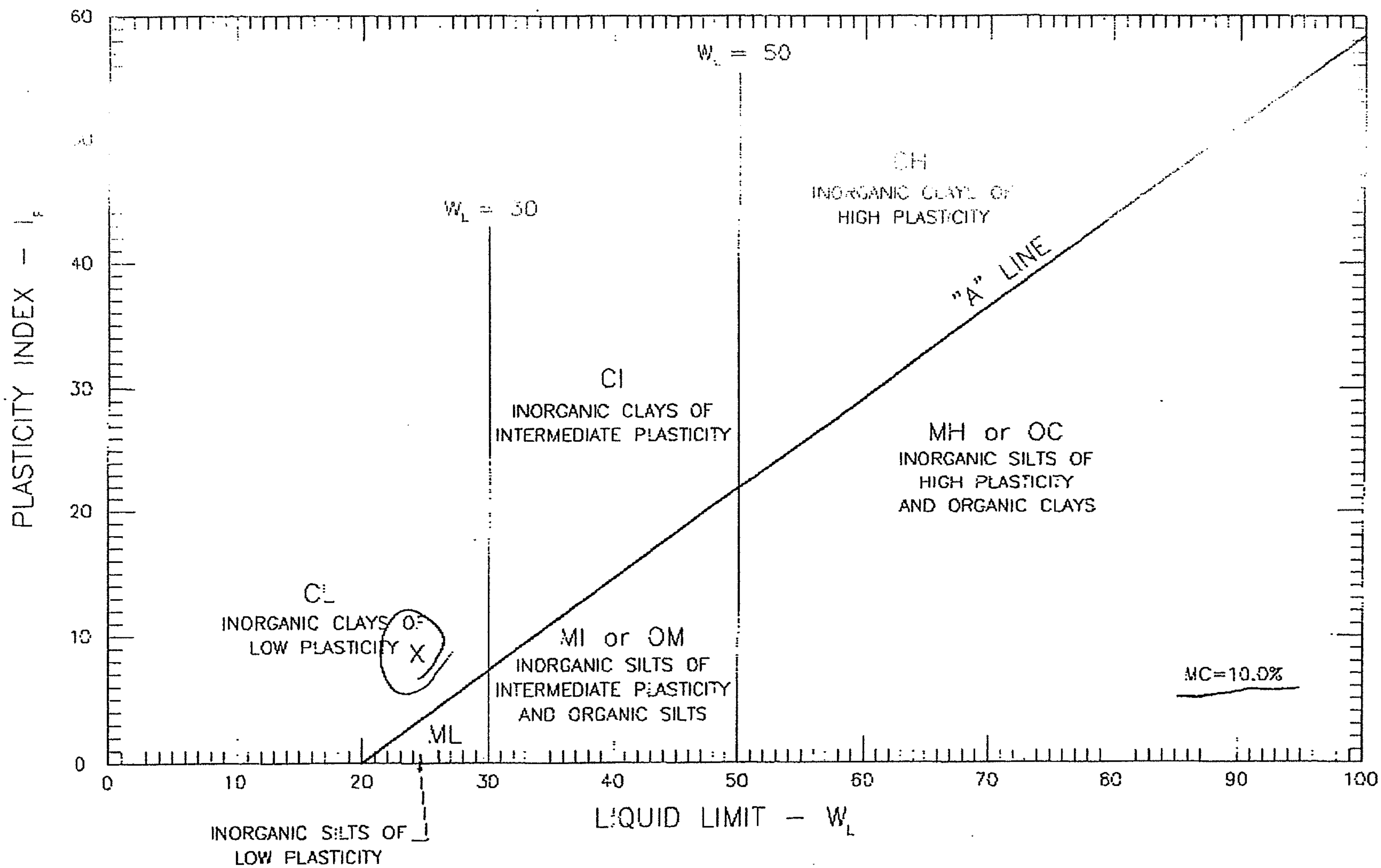
Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%

Dry Wt. of Sample from Initial Moisture

=(100xWet Soil Wt.)/(100 + Initial Moisture) =

A-17



A-18

GEONORTH ENGINEERING LTD.
1301 Kelliher Road, Tel. (250) 564-4304
Prince George, B.C., V2L 5S8, Fax (250) 564-9323

MOUNT POLLEY MINE
ATTN: KNIGHT PIESOLD
ATTERBERG LIMITS OF C-ZS 4

SCALE: N.T.S.	DATE: 2004/09/14
PROJECT NO: K-1587	DRAWING NO. 1587-B4

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 158
CLIENT Mount [illegible] Mine Attn: Knight
C.C. Knight [illegible]

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

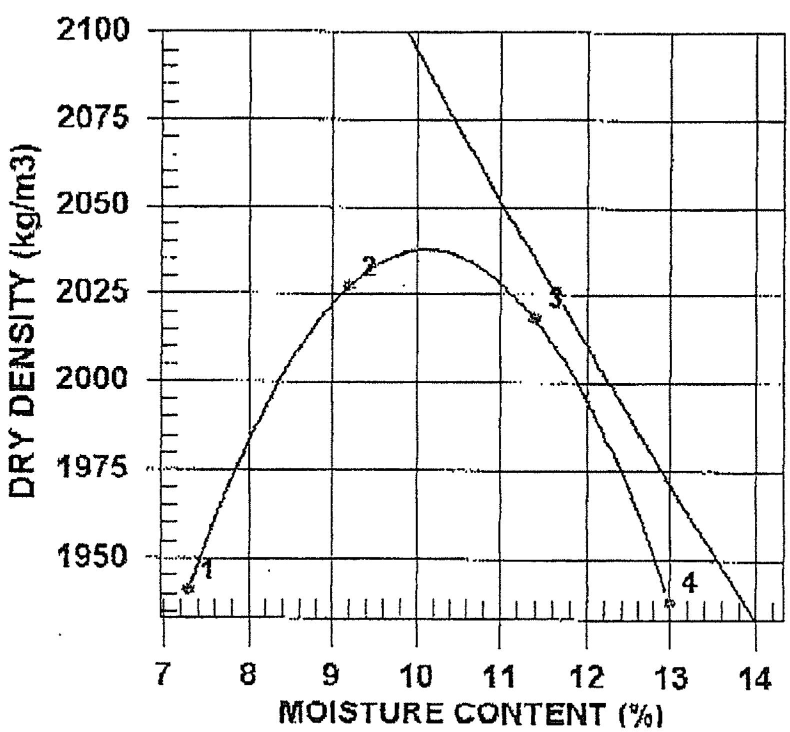
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 5 NO. OF TRIALS 4 DATE RECEIVED 2004.Se[illegible] SAMPLED 2004.Sep.02

INSITU MOISTURE N/A %
SAMPLED BY MW/LJG
TESTED BY NDS
SUPPLIER
SOURCE C-ZS-5
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION SILTY
ROCK TYPE

COMPACTION STANDARD [illegible]dard Proctor, [illegible] 0698
COMPACTION PROCEDURE [illegible].6mm Mold, [illegible]ing 4.75mm
RAMMER TYPE
PREPARATION
OVERSIZE CORRECTION METHOD [illegible]/18
RETAINED 4.75mm SCREEN
OVERSIZE SPECIFIC GRAVITY



TRIAL NUMBER	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	1941	7.3
2	2027	9.2
3	2018	11.4
4	1938	13.0

ZERO AIR VO[illegible] FOR ESTIMA[illegible] SPECIFIC G[illegible] OF 2.65	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATE[illegible]	2040	10.0
OVERSIZE C[illegible]	2107	8.7

COMMENTS
SPECIFIC GRAVITY = 2.597

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1NO

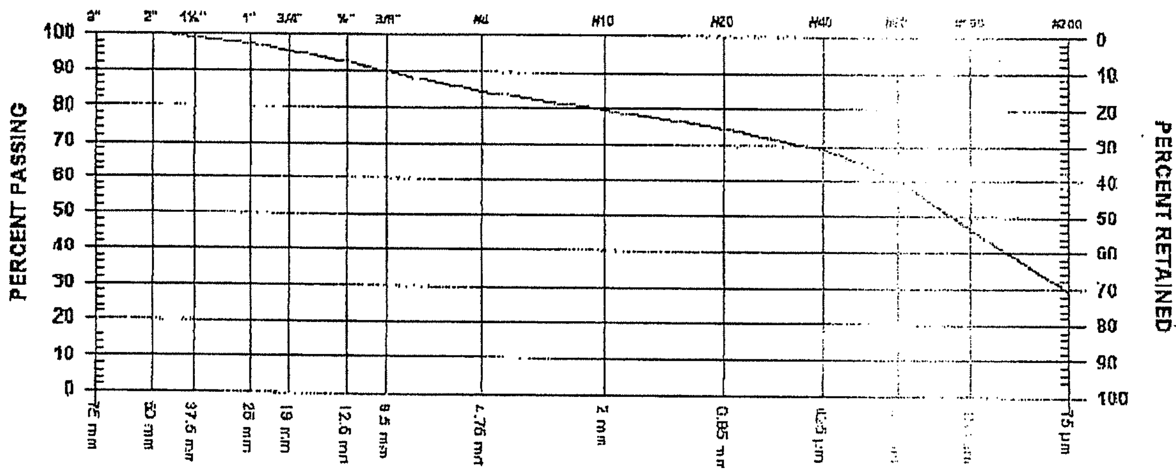
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 5 DATE RECEIVED 2004.Sep.07 DATE TESTED 2004.Sep DATE SAMPLED 2004.Sep.02

SUPPLIER
SOURCE C-ZS-5
SPECIFICATION
MATERIAL TYPE BULK TILL

SAMPLED BY MW/LJG
TESTED BY ADS
TEST METHOD WASHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm		
2"	50	mm	100.0	
1 1/2"	37.5	mm	98.9	
1"	25	mm	97.4	
3/4"	19	mm	95.4	
1/2"	12.5	mm	92.4	
3/8"	9.5	mm	90.0	

SAND SIZES AND FINES		PERCENT PASSING	GRADATION LIMITS
No. 4	4.75 mm	84.3	
No. 10	2.0 mm	79.6	
No. 20	850 µm	74.5	
No. 40	425 µm	69.0	
No. 60	250 µm	60.3	
No. 100	150 µm	46.6	
No. 200	75 µm	29.3	

COMMENTS
LOCATION = TP-04-BAZ-12
CHAINAGE = ALONG ROAD b/w OLD BA AND BAZ

A-20

GeoNorth Engineering

Hydrometer Analysis

Test Designation: ASTM D-422

Client:Mount Polley Attn: Knight Piesold				Date:Sept 14,2004
Project Name:Construction Program Mount Polley				Project #:K-1587
Source/Location:C-ZS-5				Type:Bulk Till
Sample #:	Test #:5	Hole #:	Depth:	Time:
Sampled By:Client	Tested By:NDS			Checked By:
Date Sampled:09.02.04	Date Received:09.07.04			Date Tested:09.13.04

Starting Wt. (g)	[illegible]	Elapsed Time (min)	Reading R	Temp (0C)	K	Corr. Reading R'	Zr (cm)	SQRT(Zr/t) (min)	D (mm)	N (%)	N' %-#10)
40.0	0.796	0.5	20.0	19.0	0.01384	14	15.171	5.508	0.076	35.0	27.9
40.0	0.796	1	17.5	19.0	0.01384	11.5	15.583	3.948	0.055	28.8	22.9
40.0	0.796	2	15.5	19.0	0.01384	9.5	15.912	2.821	0.039	23.8	18.9
40.0	0.796	4	15.0	19.0	0.01384	9	14.859	1.927	0.027	22.5	17.9
40.0	0.796	8	14.0	19.0	0.01384	8	15.023	1.370	0.019	20.0	15.9
40.0	0.796	15	13.5	19.0	0.01384	7.5	15.106	1.004	0.014	18.8	14.9
40.0	0.796	30	12.5	19.0	0.01384	6.5	15.270	0.713	0.010	16.3	12.9
40.0	0.796	60	12.0	19.0	0.01384	6	15.352	0.506	0.007	15.0	11.9
40.0	0.796	120	11.5	19.0	0.01384	5.5	15.434	0.359	0.005	13.8	10.9
40.0	0.796	240	11.0	19.0	0.01384	5	15.516	0.254	0.004	12.5	10.0
40.0	0.796	480	10.0	19.0	0.01384	4	15.680	0.181	0.003	10.0	8.0
0.0	0.000	1440	0.0	0.0	0.00000	0	0.000	0.000	0.000	#DIV/0!	#DIV/0!

Hydrometer #:	Graduate #:	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =	Wt. Passing #200 =			

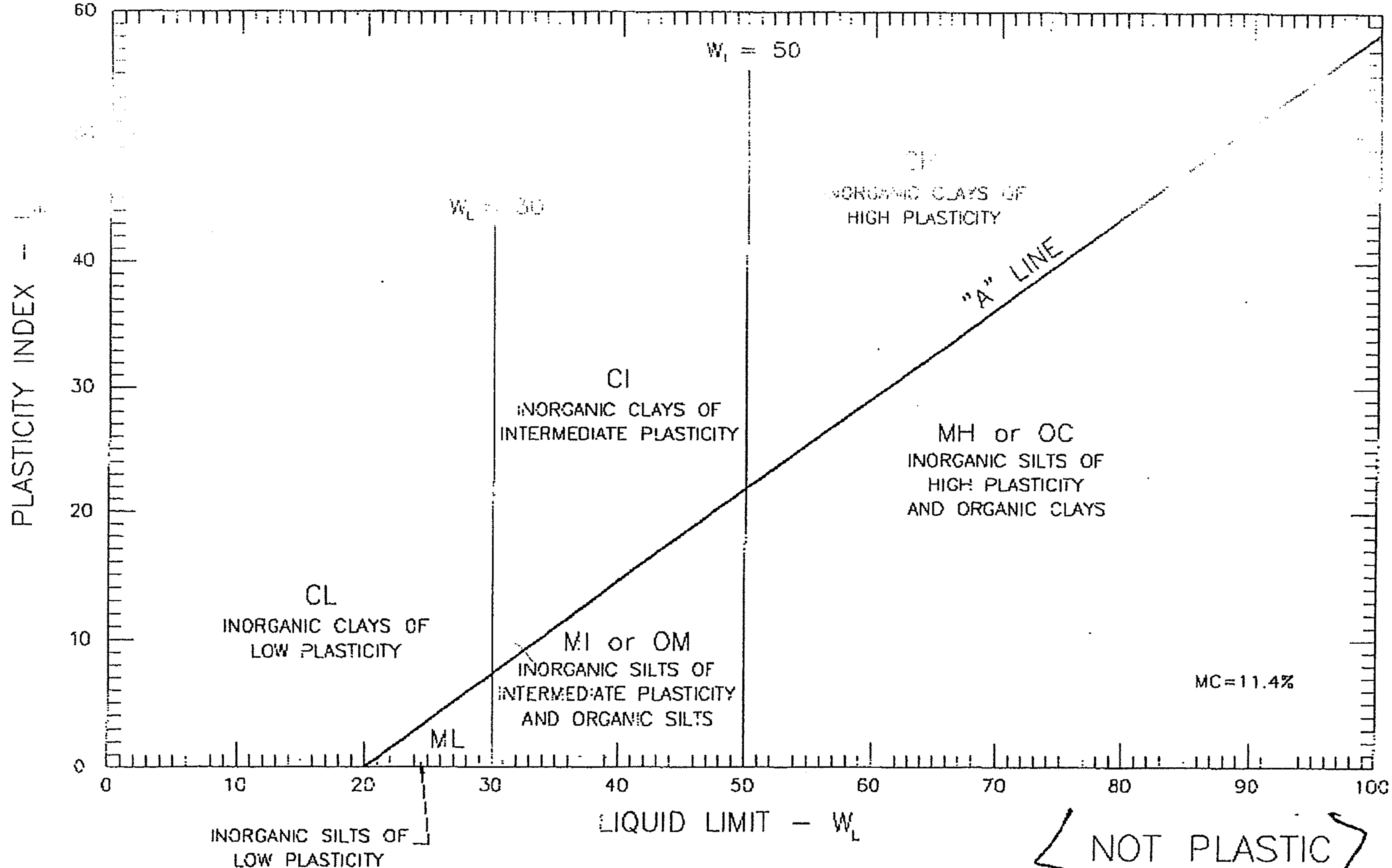
Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-21



NOT PLASTIC

GEONORTH ENGINEERING LTD. 1301 Keilher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF C-ZS 5	SCALE: N.T.S. PROJECT NO: K-1587	DATE: 2004/09/14 DRAWING NO. 1587-B5

GeoNorth Engineering Ltd.
1301 Kellihar Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
V0L -1N0

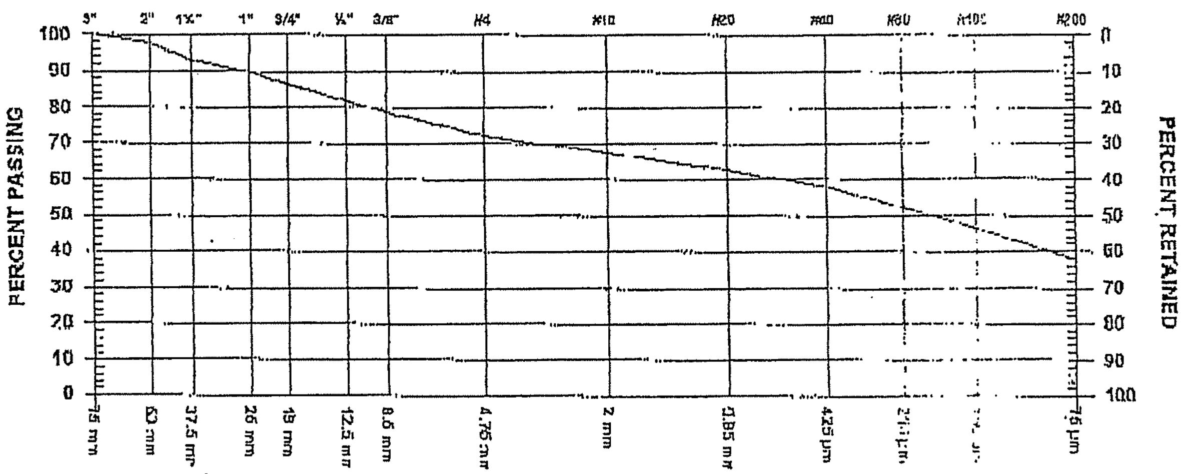
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 6 DATE RECEIVED 2004.Sep.09 DATE TESTED 2004.Sep.15 DATE SAMPLED 2004.Sep.02

SUPPLIER
SOURCE C-ZS-6
SPECIFICATION
MATERIAL TYPE BULK TILL

SAMPLED BY ../LJG
TESTED BY ..
TEST METHOD WASHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm	100.0	
2"	50	mm	98.1	
1 1/2"	37.5	mm	92.8	
1"	25	mm	89.7	
3/4"	19	mm	86.3	
1/2"	12.5	mm	81.7	
3/8"	9.5	mm	78.7	

SAND SIZES AND FINES			PERCENT PASSING	GRADATION LIMITS
No. 4	4.75	mm	72.1	
No. 10	2.00	mm	67.1	
No. 20	850	µm	62.6	
No. 40	425	µm	58.0	
No. 60	250	µm	52.2	
No. 100	150	µm	46.5	
No. 200	75	µm	37.8	

COMMENTS
LOCATION:TP-04-BAZ-07

GeoNorth Engineering

Hydrometer Analysis

Test Designation: ASTM D-422

Client:Mount Polley Attn:Knight Piesold				Date:Sept 17,2004
Project Name:Construction Program				Project #:K-1587
Source/Location:C-ZS-6				Type:
Sample #:	Test #:6	Hole #:	Depth:	Time:
Sampled By:MW	Tested By:NDS			Checked By:
Date Sampled:[illegible] 02.04	Date Received:09.09.[illegible]			Date Tested:[illegible].16.04

Starting Wt. (g)	[illegible]	Elapsed Time (min)	Reading R	Temp (oC)	K	[illegible] Reading [illegible]	Zr (cm)	SQRT(Zr/t) (min)	D (mm)	P (%)	N*(%<#10)
40.0	0.671	0.5	26.0	19.0	0.01384	20	14.183	5.326	0.074	50.0	33.6
40.0	0.671	1	24.0	19.0	0.01384	18	14.512	3.810	0.053	45.0	30.2
40.0	0.671	2	22.0	19.0	0.01384	16	14.842	2.724	0.038	40.0	26.8
40.0	0.671	4	21.0	19.0	0.01384	15	13.874	1.862	0.026	37.5	25.2
40.0	0.671	8	20.0	19.0	0.01384	14	14.038	1.325	0.018	35.0	23.5
40.0	0.671	15	19.0	19.0	0.01384	13	14.202	0.973	0.013	32.5	21.8
40.0	0.671	30	17.0	19.0	0.01384	11	14.531	0.696	0.010	27.5	18.5
40.0	0.671	60	16.0	19.0	0.01384	10	14.695	0.495	0.007	25.0	16.8
40.0	0.671	120	15.0	19.0	0.01384	9	14.859	0.352	0.005	22.5	15.1
40.0	0.671	240	14.0	19.0	0.01384	8	15.023	0.250	0.003	20.0	13.4
40.0	0.671	1462	13.0	19.0	0.01384	7	15.188	0.102	0.001	17.5	11.7
40.0	0.671		0.0	0.0	0.00000			#DIV/0!	#DIV/0!	0.0	0.0

Hydrometer #:	Graduate #:	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =		Wt. Passing #200 =		

Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-24

Sep.27. 2004 9:35AM GeoNorth Engineering 564 9323 ..1939 P. 7

GeoNorth Engineering Ltd.
1301 Kelliher Road P. .e George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSI.
.ELATIONSHIP REPOR

PROJECT NO. K 1587
CLIENT Mount P. . Mine Attn: Knight
C.C. Knigh-

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
V0L -1N0

ATTN: Art Frye @ 250-790-2268

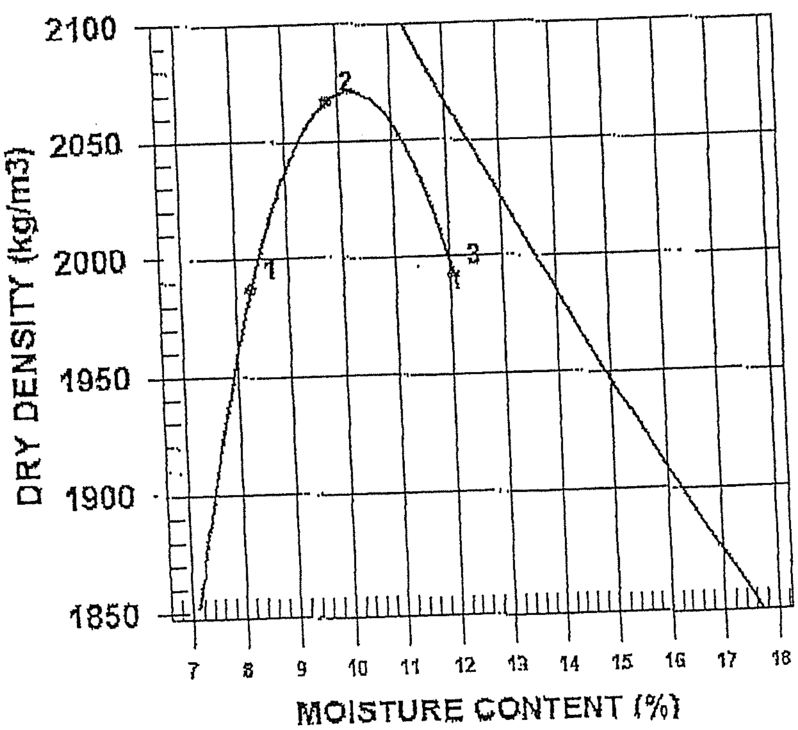
PROJECT Construction Program - Mount Polley Mine
Testing Services

CONTRACTOR

PROCTOR NO. 6 NO. OF TRIALS 3 DATE RECEIVED 2004.Sep. . .ATE SAMPLED 2004.Sep.02

INSITU MOISTURE N/A %
SAMPLED BY MW/LJG
TESTED BY
SUPPLIER
SOURCE C-ZS-6
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION SILTY
ROCK TYPE

COMPACTION STANDARD Standard Proctor, ASTM D698
COMPACTION PROCEDURE . .1.6mm Mold, . . ng 4.75mm
RAMMER TYPE
PREPARATION
OVERSIZE CORRECTION METHOD AS . . 4718
RETAINED 4.75mm SCREEN 27.5 %
OVERSIZE SPECIFIC GRAVITY 2.65

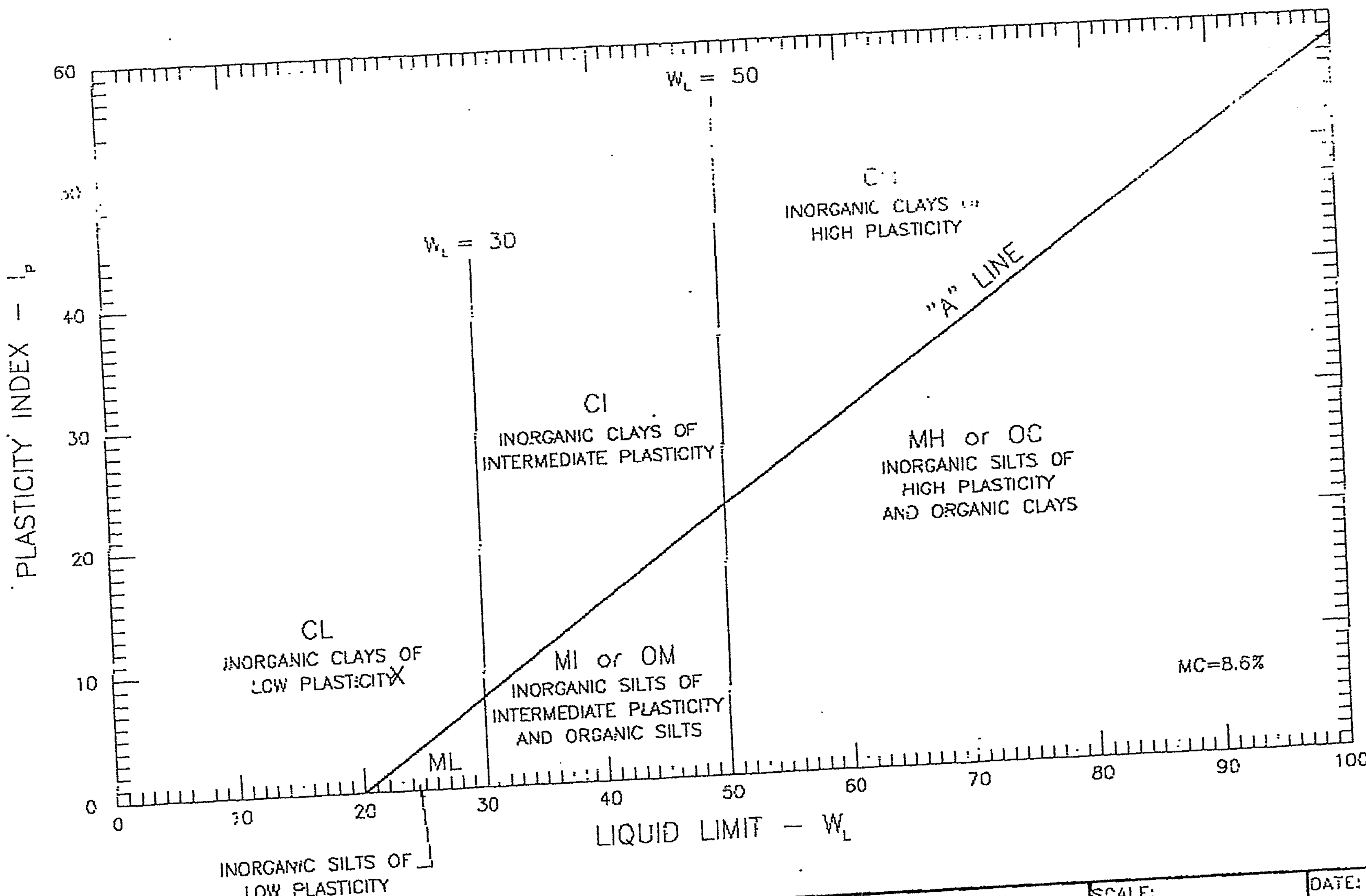


TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	2152	1987	8.3
2	[illegible]	2067	9.8
3	[illegible]	1992	12.1

ZERO AIR VOIDS FOR ESTIMATED SPECIFIC GRAVITY OF 2.75	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	2080	10.5
OVERSIZE CORRECTED	2212	7.9

COMMENTS

A-25



A-26

GEONORTH ENGINEERING LTD.
1301 Kalliher Road, Tel. (250) 564-4304
Prince George, B.C., V2L 5S8, Fax (250) 564-9323

MOUNT POLLEY MINE
ATTN: KNIGHT PIESOLD
ATTERBERG LIMITS OF C-ZS 6

SCALE: N.T.S.	DATE: 2004/09/17
PROJECT NO: K-1587	DRAWING NO. 1587-B6

GeoNorth Engineering Ltd.
1301 Kelliher Road P... .e George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
.. 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount ...... Mine Attn: Knight
C.C. Knight ... ...

TO
Mount Polley Mine Attn: Knight
Picsold
P.O Box 12
Likely, BC
VOL -1NO

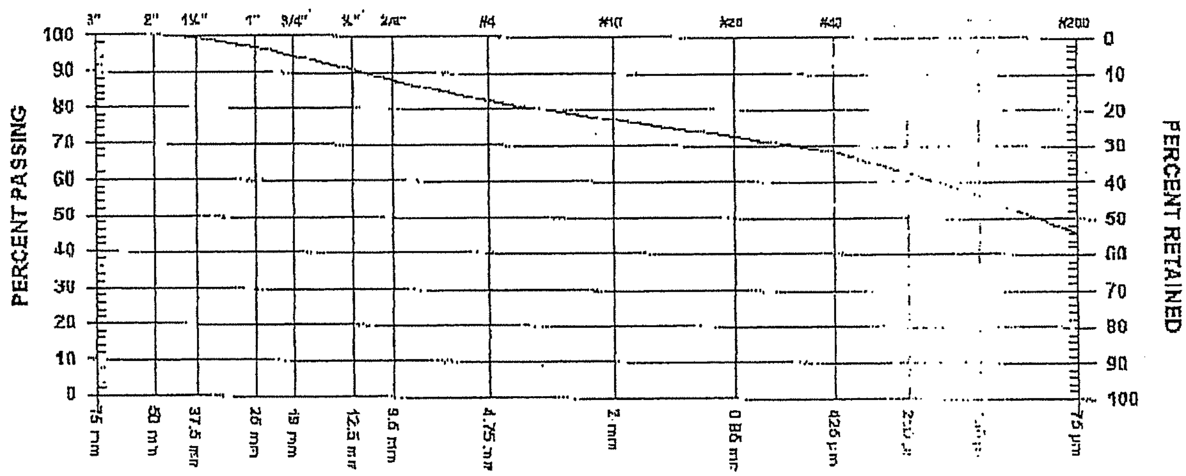
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 7 DATE RECEIVED 2004.Sep.09 DATE TESTED 2004.Sep.15 DATE SAMPLED 2004.Sep.02

SUPPLIER
SOURCE C-ZS-7
SPECIFICATION
MATERIAL TYPE BULK TILL

SAMPLED BY MW
TESTED ..
TEST METHOD WASHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm		
2"	50	mm	100.0	
1 1/2"	37.5	mm	99.3	
1"	25	mm	96.9	
3/4"	19	mm	94.7	
1/2"	12.5	mm	90.8	
3/8"	9.5	mm	87.8	

SAND SIZES AND FINES			PERCENT PASSING	GRADATION LIMITS
No. 4	4.75	mm	82.1	
No. 10	2.00	mm	77.0	
No. 20	850	µm	72.3	
No. 40	425	µm	68.1	
No. 60	250	µm	62.5	
No. 100	150	µm	56.2	
No. 200	75	µm	45.9	

COMMENTS
LOCATION:TP-04-BAX-15

GeoNorth Engineering

Hydrometer Analysis

Test Designation: ASTM D-422

Client:Mount Polley Attn: Knight Piesold			Date:Sept,17,2004
Project Name:Construction Program			Project #:K-1587
Source/Location:C-ZS-7			Type:
Sample #:	Test #:7	Hole #: Depth:	Time:
Sampled By:MW	Tested By:NDS		Checked By:
Date Sampled:[illegible] 07.04	Date Received:[illegible] 19.04		[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	R [illegible]	[illegible]	(min)	[illegible]	N (%)	[illegible]
40.0	0.770	[illegible]	27.0	19.0	0.01384	21	14.018	5.295	0.073	52.5	40.4
40.0	0.770	1	25.0	19.0	0.01384	19	14.348	3.788	0.052	47.5	36.6
40.0	0.770	2	23.0	19.0	0.01384	17	14.677	2.709	0.037	42.5	32.7
40.0	0.770	4	22.0	19.0	0.01384	16	13.710	1.851	0.026	40.0	30.8
40.0	0.770	8	21.0	19.0	0.01384	15	13.874	1.317	0.018	37.5	28.9
40.0	0.770	15	20.0	19.0	0.01384	14	14.038	0.967	0.013	35.0	27.0
40.0	0.770	30	19.0	19.0	0.01384	13	14.202	0.688	0.010	32.5	25.0
40.0	0.770	60	17.0	19.0	0.01384	11	14.531	0.492	0.007	27.5	21.2
40.0	0.770	120	16.0	19.0	0.01384	10	14.695	0.350	0.005	25.0	19.3
40.0	0.770	240	15.0	19.0	0.01384	9	14.859	0.249	0.003	22.5	17.3
40.0	0.770	1448	14.0	19.0	0.01384	8	15.023	0.102	0.001	20.0	15.4
40.0	0.770		0.0	0.0	0.00000			#DIV/0!	#DIV/0!	0.0	0.0

Hydrometer #:	Graduate #:	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =		Wt. Passing #200 =		

Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-28

GeoNorth Engineering Ltd.
1301 Kelliher Road Pi ..e George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight [illegible]

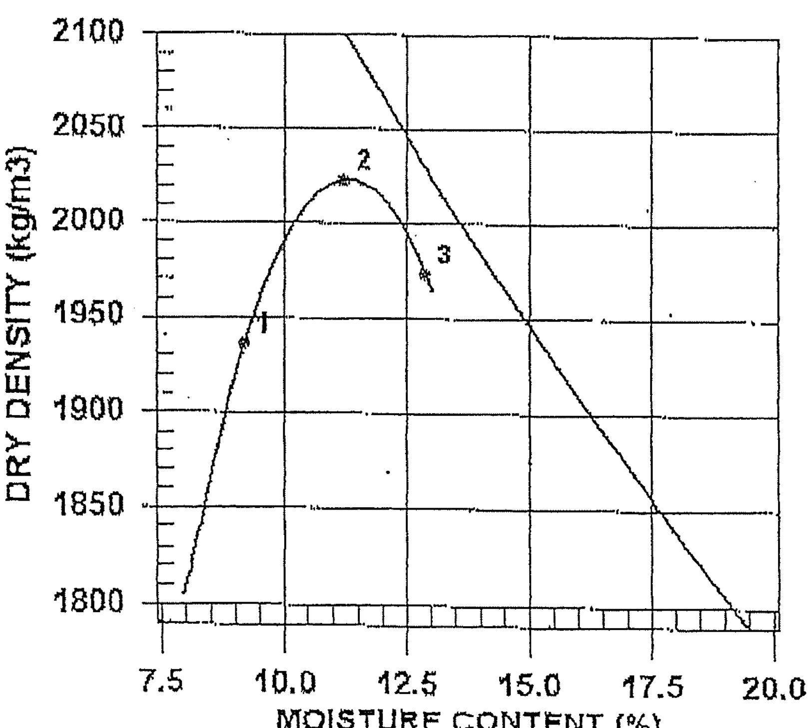
TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 7 NO. OF TRIALS 3 DATE RECEIVED 2004.Sep.[illegible] DATE SAMPLED 2004.Sep.07

INSITU MOISTURE	N/A %	COMPACTION STANDARD	Standard Proctor, ASTM D698
SAMPLED BY	MW	COMPACTION PROCEDURE	[illegible] 101.6mm Mold, Passing 4.75mm
TESTED BY	NDS		
SUPPLIER		RAMMER TYPE	[illegible]
SOURCE	C-ZS-7	PREPARATION	[illegible]
MATERIAL IDENTIFICATION		OVERSIZE CORRECTION METHOD	AS[illegible] 4718
MAJOR COMPONENT	TILL	RETAINED 4.75mm SCREEN	[illegible] %
SIZE		OVERSIZE SPECIFIC GRAVITY	2.65
DESCRIPTION	SILTY		
ROCK TYPE			



TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	[illegible]	1936	9.2
2	[illegible]	2023	11.2
3	[illegible]	1973	12.9

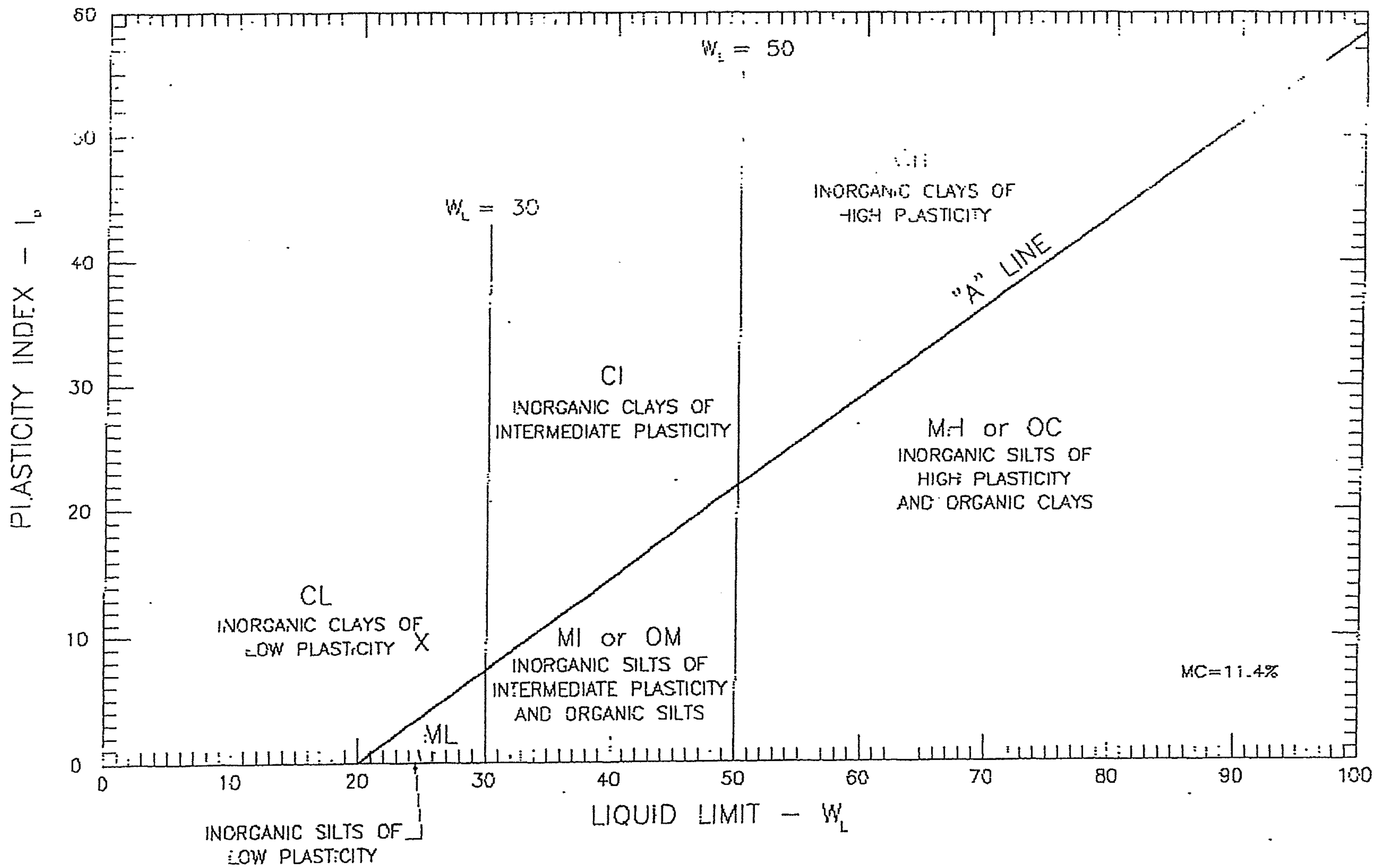
ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.75	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	2030	11.5
OVERSIZE CORRECTED	2119	9.6

COMMENTS

 2004.Sep.17 GeoNorth Engineering Ltd. PER. [signature]

A-29

A-30



GEONORTH ENGINEERING LTD.
1301 Keillher Road, Tel. (250) 564-4304
Prince George, B.C., V2L 5S8, Fax (250) 564-9323

MOUNT POLLEY MINE
ATTN: KNIGHT PIESOLD
ATTERBERG LIMITS OF C-ZS 7

SCALE: N.T.S.	DATE: 2004/09/17
PROJECT NO: K-1587	DRAWING NO. 1587-B7

GeoNorth Engineering Ltd.
1301 Kellihер Road Pr. .e George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold .
P.O Box 12
Likely, BC
VOL -1NO

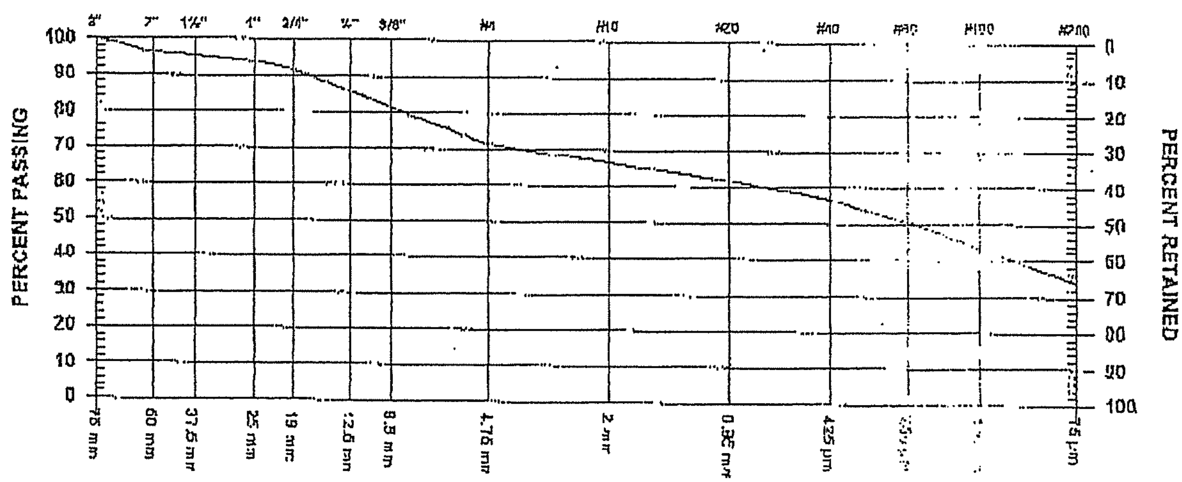
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 8 DATE RECEIVED 2004.Sep.09 DATE TESTED 2004.Sep.15 DATE SAMPLED 2004.Sep.02

SUPPLIER
SOURCE C-ZS-8
SPECIFICATION
MATERIAL TYPE BULK TILL

SAMPLED BY
TESTED BY DS
TEST METHOD WASHED



GRAVEL SIZES		PERCENT PASSING	GRADATION LIMITS
3"	75 mm	100.0	
2"	50 mm	96.4	
1 1/2"	37.5 mm	95.3	
1"	25 mm	93.7	
3/4"	19 mm	91.4	
1/2"	12.5 mm	85.7	
3/8"	9.5 mm	81.1	

SAND SIZES AND FINES		PERCENT PASSING	GRADATION LIMITS
No. 4	4.75 mm	70.9	
No. 10	2.00 mm	66.3	
No. 20	850 µm	61.6	
No. 40	425 µm	56.8	
No. 60	250 µm	50.6	
No. 100	150 µm	43.5	
No. 200	75 µm	34.0	

COMMENTS
LOCATION:TP-04-BAZ-16

 2004.Sep.17 GeoNorth Engineering Ltd. PER. [illegible]

GeoNorth Engineering

Hydrometer Analysis

Test Designation: ASTM D-422

Client:Mount Polley Attn:Knight Piesold			Date:Sept,17,2004
Project Name:Construction Program			Project #:K-1587
Source/Location:C-ZS-8			Type:
Sample #:	Test #:8	Hole #: Depth:	Time:
Sampled By:MW	Tested By:NDS		Checked By:
Date Sampled:09.07.04	Date Received:09.09 04		Date Tested:09.16.04

Starting Wt. (g)	% - #10	Elapsed Time (min)	Reading R	Temp (0C)	K	Corr. Reading R'	Zr (cm)	SQRT(Zr)/T (min)	D (mm)	N (%)	N' (% -#10)
40.0	0.663	0.5	25.0	19.0	0.01384	19	14.348	5.357	0.074	47.5	31.5
40.0	0.663	1	23.0	19.0	0.01384	17	14.677	3.831	0.053	42.5	28.2
40.0	0.663	2	21.0	19.0	0.01384	15	15.007	2.739	0.038	37.5	24.9
40.0	0.663	4	20.0	19.0	0.01384	14	14.038	1.873	0.026	35.0	23.2
40.0	0.663	8	19.0	19.0	0.01384	13	14.202	1.332	0.018	32.5	21.5
40.0	0.663	15	18.0	19.0	0.01384	12	14.367	0.979	0.014	30.0	19.9
40.0	0.663	30	16.5	19.0	0.01384	10.5	14.613	0.698	0.010	26.3	17.4
40.0	0.663	60	15.5	19.0	0.01384	9.5	14.777	0.496	0.007	23.8	15.7
40.0	0.663	120	14.5	19.0	0.01384	8.5	14.941	0.353	0.005	21.3	14.1
40.0	0.663	240	14.0	19.0	0.01384	8	15.023	0.250	0.003	20.0	13.3
40.0	0.663	1431	13.0	19.0	0.01384	7	15.188	0.103	0.001	17.5	11.6
40.0	0.663		0.0	0.0	0.00000			#DIV/0!	#DIV/0!	0.0	0.0

Hydrometer #:	Graduate #:	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Selve No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =		Wt. Passing #200 =		

Sieve Analysis

Selve No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-32

GeoNorth Engineering Ltd.
1301 Kelliher Road Pr[illegible]e George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

ATTN: Art Frye @ 250-790-2268

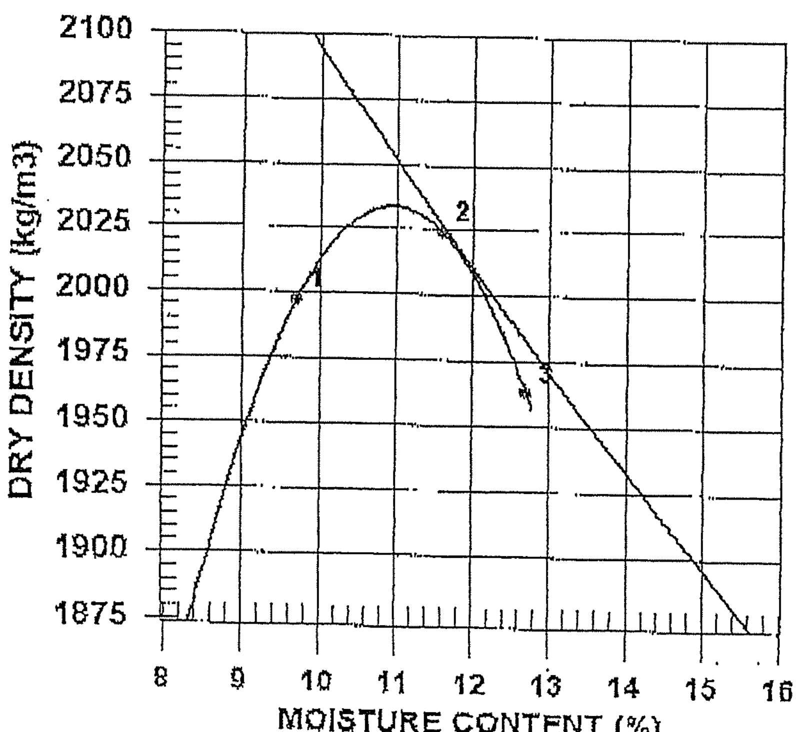
PROJECT NO. K 1587
CLIENT Mount [illegible] Mine Attn: Knight
C.C. Knight [illegible]

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 8 NO. OF TRIALS 3 DATE RECEIVED 2004.Sep.09 DATE SAMPLED 2004.Sep.07

INSITU MOISTURE N/A %
SAMPLED BY MW
TESTED BY NDS
SUPPLIER
SOURCE C-ZS-8
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION SILTY
ROCK TYPE

COMPACTION STANDARD [illegible]ard Proctor, [illegible] D698
COMPACTION PROCEDURE [illegible].6mm Mold, [illegible] 4.75mm
RAMMER TYPE Manual
PREPARATION Moist
OVERSIZE CORRECTION METHOD ASTM 4718
RETAINED 4.75mm SCREEN [illegible] %
OVERSIZE SPECIFIC GRAVITY

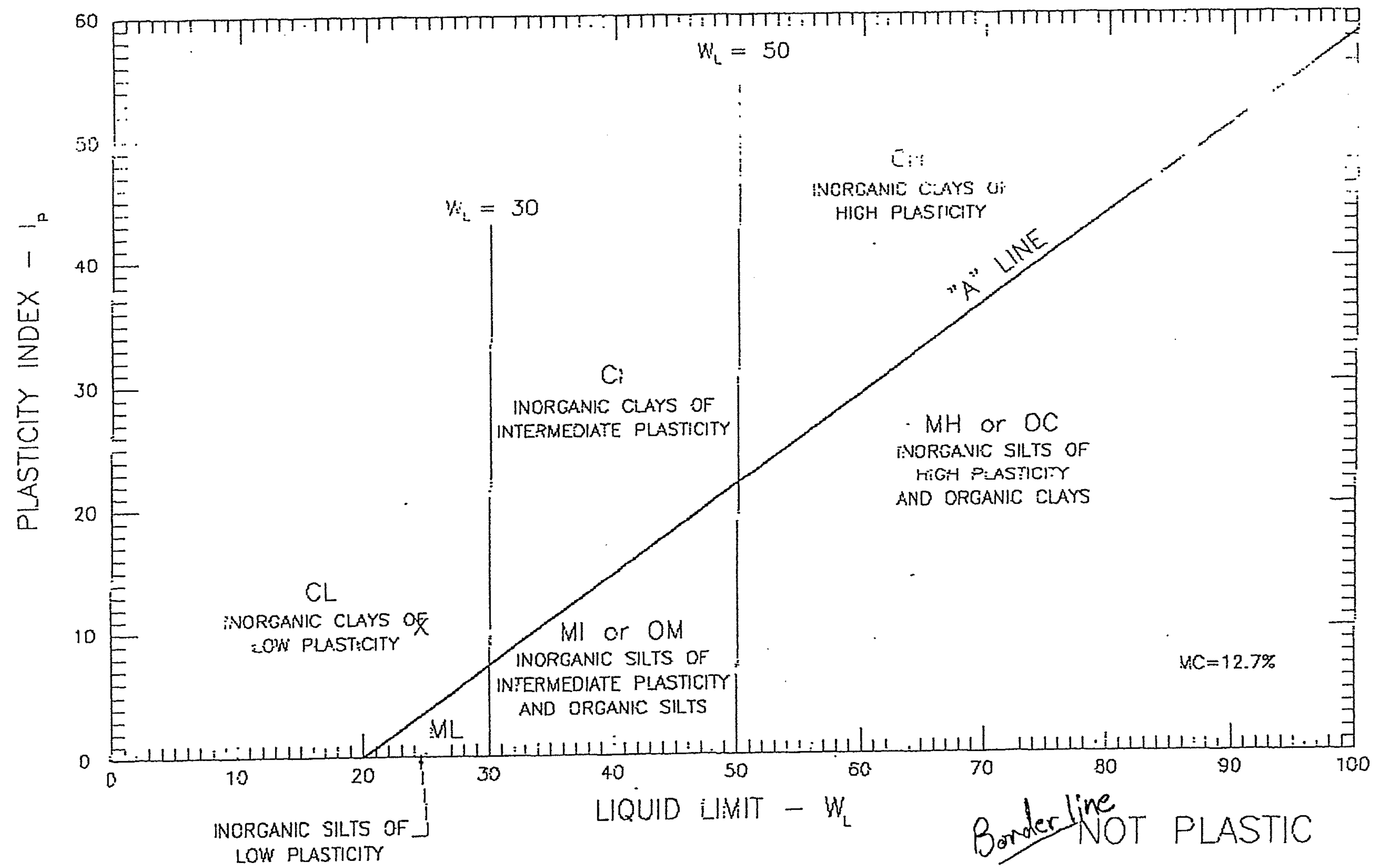


TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	[illegible]	1997	9.7
2		2024	11.6
3	2212	1963	12.7

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.65	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	2030	11.0
OVERSIZE CO[illegible]	2112	9.4

COMMENTS

 2004.Sep.17 GeoNorth Engineering Ltd. PER. [signature]



GEONORTH ENGINEERING LTD. 1301 Kellher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF C-ZS 8	SCALE: N.T.S.	DATE: 2004/09/17
		PROJECT NO: K-1587	DRAWING NO. 1587-38

A-34

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

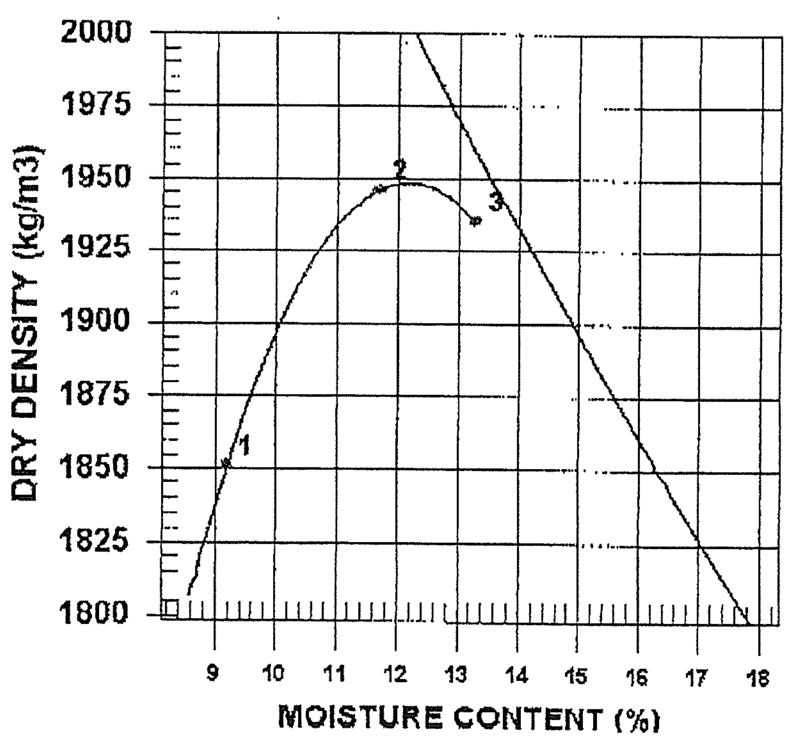
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine Testing Services
CONTRACTOR

PROCTOR NO. 9   NO. OF TRIALS 3   DATE RECEIVED 2004.Sep [illegible]   DATE SAMPLED 2004.Sep.20

INSITU MOISTURE N/A %
SAMPLED BY MW
TESTED BY NDS
SUPPLIER
SOURCE C-ZS-9
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION
ROCK TYPE

COMPACTION STANDARD Standard Proctor, ASTM D698
COMPACTION PROCEDURE [illegible]1.6mm Mold, Passing 4.75mm
RAMMER TYPE Manual
PREPARATION Moist
OVERSIZE CORRECTION METHOD ASTM 4718
RETAINED 4.75mm SCREEN [illegible] %
OVERSIZE SPECIFIC GRAVITY 2.[illegible]



TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	2021	1851	9.2
2	[illegible]	1946	11.7
3	[illegible]	1935	13.3

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.65	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	1950	12.5
OVERSIZE CORRECTED	1967	12.1

COMMENTS
SPECIFIC GRAVITY - 2.62

    2004.Sep.30   GeoNorth Engineering Ltd.   PER. [illegible]

A-35

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1NO

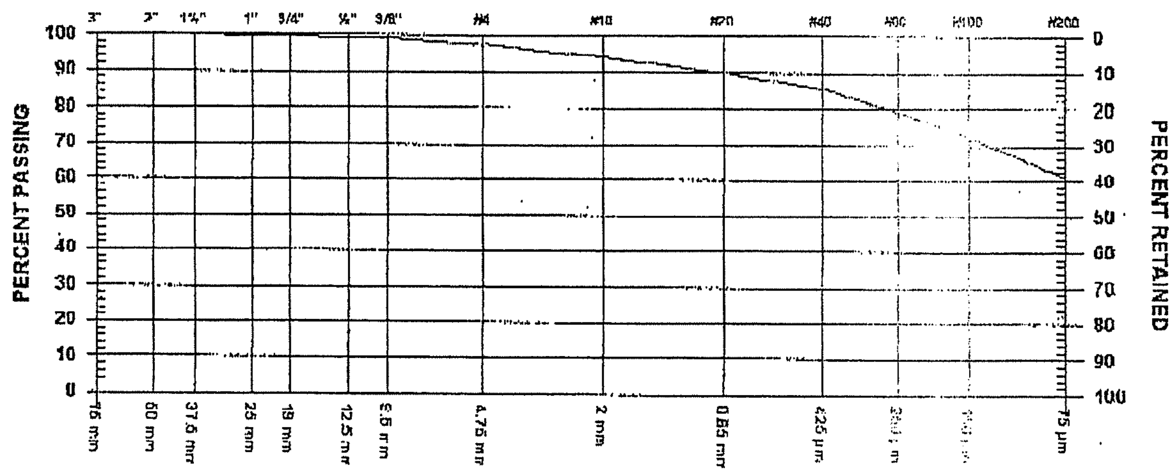
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 9 DATE RECEIVED 2004.Sep.22 DATE TESTED 2004.Sep.28 DATE SAMPLED 2004.Sep.20

SUPPLIER
SOURCE C-ZS-9
SPECIFICATION
MATERIAL TYPE TILL

SAMPLED BY MW
TESTED BY DJ
TEST METHOD WASHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm		
2"	50	mm		
1 1/2"	37.5	mm	100.0	
1"	25	mm	99.7	
3/4"	19	mm	99.6	
1/2"	12.5	mm	99.2	
3/8"	9.5	mm	99.0	

SAND SIZES AND FINES			PERCENT PASSING	GRADATION LIMITS
No. 4	4.75	mm	97.4	
No. 10	2.00	mm	94.0	
No. 20	850	µm	90.0	
No. 40	425	µm	85.4	
No. 60	250	µm	79.3	
No. 100	150	µm	72.4	
No. 200	75	µm	61.0	

COMMENTS
LOCATION:TP-04-BA4-1 CHAINAGE:BORROW AREA 4

A-36

GeoNorth Engineering

Hydrometer Analysis

Test Designation: ASTM D-422

Client:Mount Polley Attn:knight Piesold			Date:Sept 30,2004
Project Name:Mount Polley Construction Program			Project #:K-1587
Source/Location:C-ZS-9			Type:
Sample #:	Test #:9	Hole #: Depth:	Time:
Sampled By:MW		Tested By:NDS	Checked By:
Date Sampled:09.20.04		Date Received:09.22.04	Date Tested:09.29.04

Starting Wt. (g)	% - #10	Elapsed Time (min)	Reading R	Temp (0C)	K	Corr. Reading R`	Zr (cm)	SQRT(Zr)/T (min)	D (mm)	N (%)	N*(%-#10)
40.0	0.940	0.5	31.0	20.0	0.01367	25.35	13.302	5.158	0.071	63.4	59.6
40.0	0.940	1	28.5	20.0	0.01367	22.85	13.714	3.703	0.051	57.1	53.7
40.0	0.940	2	26.0	20.0	0.01367	20.35	14.125	2.658	0.036	50.9	47.8
40.0	0.940	4	25.0	20.0	0.01367	19.35	13.160	1.814	0.025	48.4	45.5
40.0	0.940	8	23.0	20.0	0.01367	17.35	13.488	1.298	0.018	43.4	40.8
40.0	0.940	15	21.0	20.0	0.01367	15.35	13.817	0.960	0.013	38.4	36.1
40.0	0.940	30	19.0	20.0	0.01367	13.35	14.145	0.687	0.009	33.4	31.4
40.0	0.940	60	17.5	20.0	0.01367	11.85	14.391	0.490	0.007	29.6	27.8
40.0	0.940	120	16.5	19.0	0.01384	10.5	14.613	0.349	0.005	26.3	24.7
40.0	0.940	240	16.0	19.0	0.01384	10	14.695	0.247	0.003	25.0	23.5
40.0	0.940	480	15.0	19.0	0.01384	9	14.859	0.176	0.002	22.5	21.2
			0.0	0.0	0.00000		#VALUE!	#VALUE!	#VALUE!		

Hydrometer #:	Graduate # 2	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =		Wt. Passing #200 =		

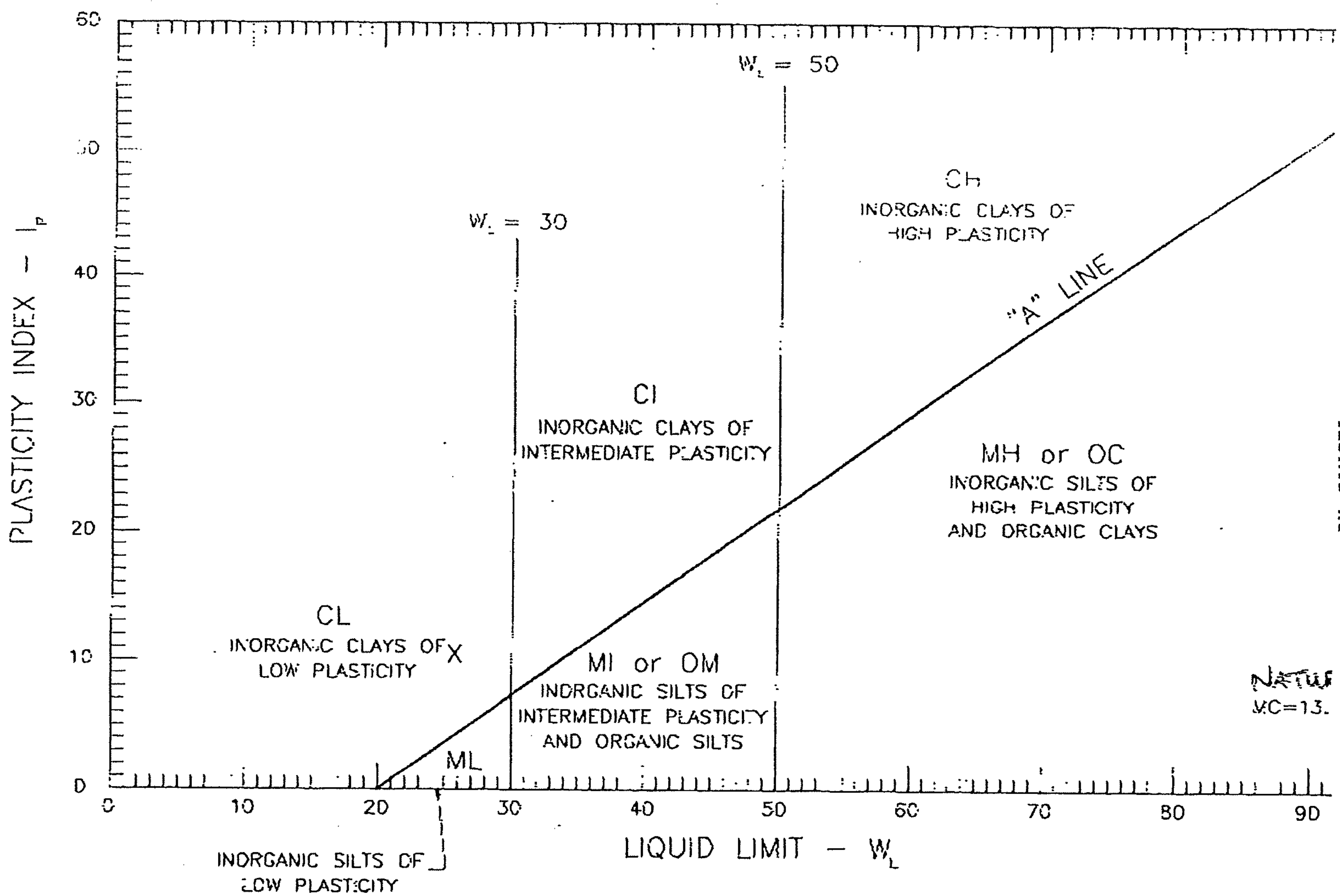
Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

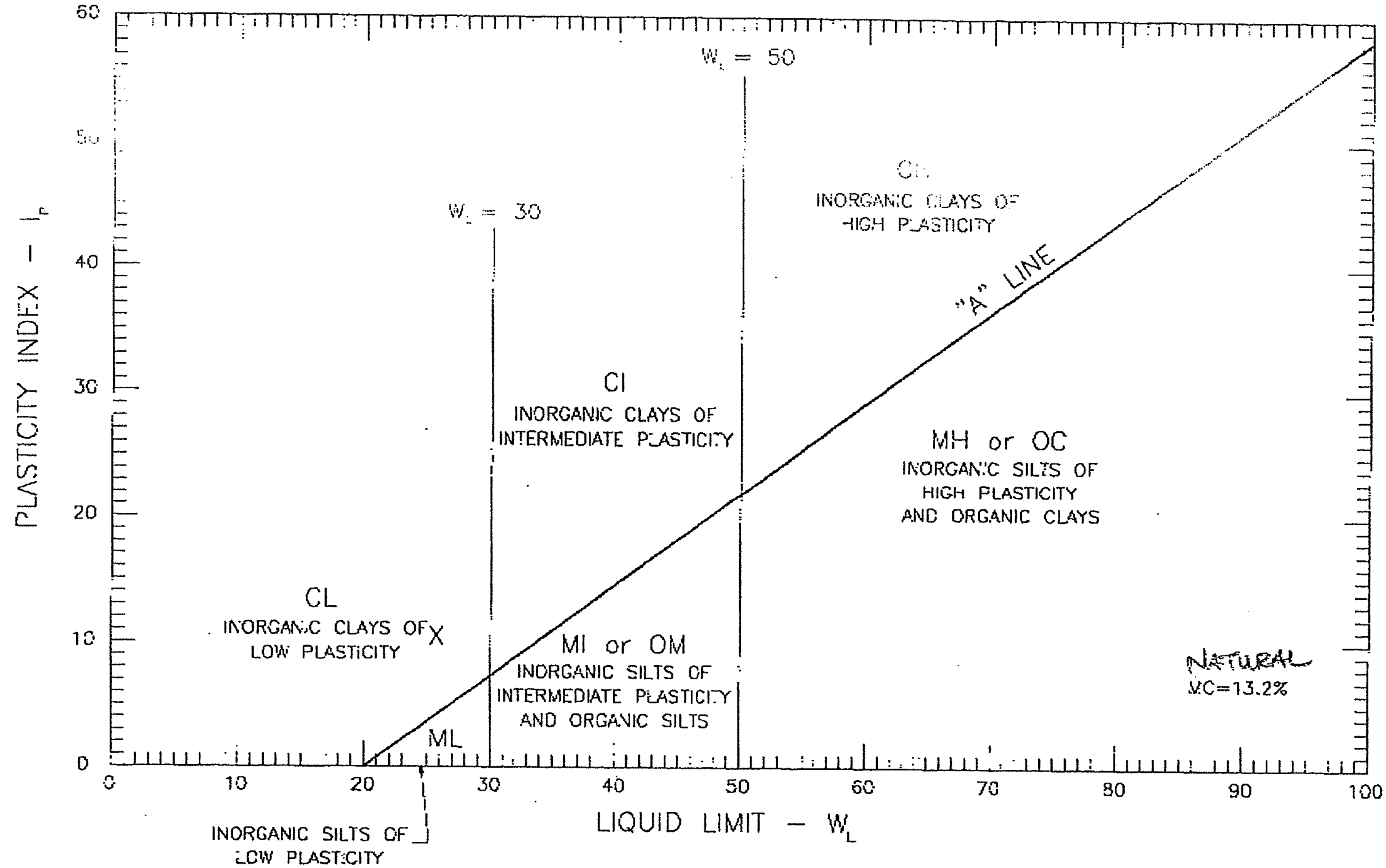
Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-37



GEONORTH ENGINEERING LTD. 1301 Kelliher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF C-ZS 9	SCALE: N.T.S. PROJECT NO: K-1587



GEONORTH ENGINEERING LTD.
1301 Kelliher Road, Tel. (250) 564-4304
Prince George, B.C., V2L 5S8, Fax (250) 564-9323

MOUNT POLLEY MINE
ATTN: KNIGHT PIESOLD
ATTERBERG LIMITS OF C-ZS 9

SCALE:	DATE:
N.T.S.	2004/10/01
PROJECT NO:	DRAWING NO.
K-1587	1587-B9

A-39

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1NO

ATTN: Art Frye @ 250-790-2268

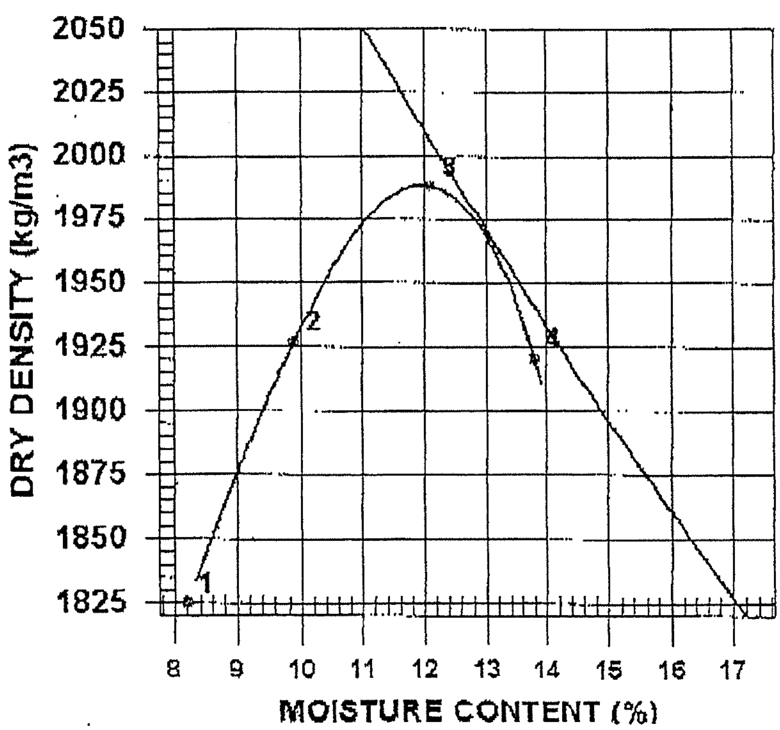
PROJECT Construction Program - Mount Polley Mine
Testing Services

CONTRACTOR

PROCTOR NO. 10 NO. OF TRIALS 4 DATE RECEIVED 2004.Sep. DATE SAMPLED 2004.Sep.20

INSITU MOISTURE N/A %
SAMPLED BY MW
TESTED BY NDS
SUPPLIER
SOURCE C-ZS-10
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION
ROCK TYPE

COMPACTION STANDARD Standard Proctor, D698
COMPACTION PROCEDURE 101.6mm Mold, Passing 4.75mm
RAMMER TYPE
PREPARATION
OVERSIZE CORRECTION METHOD 4718
RETAINED 4.75mm SCREEN 17.9 %
OVERSIZE SPECIFIC GRAVITY



TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	[illegible]	1825	8.2
2	[illegible]	1927	9.9
3	[illegible]	1988	12.1
4	[illegible]	1920	13.8

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.65	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	1990	12.0
OVERSIZE CORR.	2081	10.0

COMMENTS
SPECIFIC GRAVITY = 2.63

A-40

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

ATTN: Art Frye @ 250-790-2268

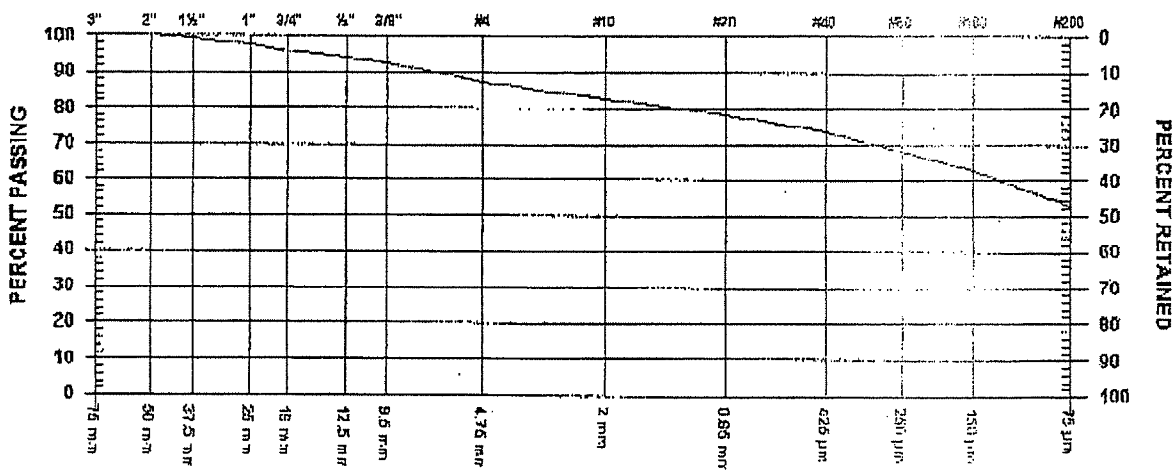
PROJECT Construction Program - Mount Polley Mine
Testing Services

CONTRACTOR

SIEVE TEST NO. 10 DATE RECEIVED 2004.Sep.22 DATE TESTED 2004.Sep.28 DATE SAMPLED 2004.Sep.20

SUPPLIER
SOURCE C-%S-10
SPECIFICATION
MATERIAL TYPE

SAMPLED BY MW
TESTED BY DJ
TEST METHOD WASHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm		
2"	50	mm	100.0	
1 1/2"	37.5	mm	99.1	
1"	25	mm	97.3	
3/4"	19	mm	96.0	
1/2"	12.5	mm	94.2	
3/8"	9.5	mm	92.6	

SAND SIZES AND FINES			PERCENT PASSING	GRADATION LIMITS
No. 4	4.75	mm	87.3	
No. 10	2.00		82.6	
No. 20	850	µm	78.2	
No. 40	425	µm	73.8	
No. 60	250	µm	68.3	
No. 100	150	µm	62.4	
No. 200	75	µm	52.7	

COMMENTS
LOCATION:TP-04-BA4-3 CHAINAGE:BORROW AREA 4

GeoNorth Engineering

Test Designation: ASTM D-422

Hydrometer Analysis

Client:Mount Polley Attn:Knight Piesold			Date:Sept 30,2004
Project Name:Mount Polley Construction Program			Project #:K-1587
Source/Location:C-ZS-10			Type:
Sample #:	Test #:10	Hole #: Depth:	Time:
Sampled By:MW	Tested By:NDS		Checked By:
Date Sampled.09.20.04	Date Received.09.22.04		Date Tested.09.29.04

Starting Wt. (g)	% -#10	Elapsed Time (min)	Reading R	Temp (0C)	K	Corr. Reading R	Zr (cm)	SQRT(Zr/t) (min)	D (mm)	N (%)	N*(%-#10)
40.0	0.826	0.5	30.0	20.0	0.01367	24.35	13.467	5.190	0.071	60.9	50.3
40.0	0.826	1	28.0	20.0	0.01367	22.35	13.796	3.714	0.051	55.9	46.2
40.0	0.826	2	26.0	20.0	0.01367	20.35	14.125	2.658	0.036	50.9	42.0
40.0	0.826	4	25.0	20.0	0.01367	19.35	13.160	1.814	0.025	48.4	40.0
40.0	0.826	8	23.0	20.0	0.01367	17.35	13.488	1.298	0.018	43.4	35.8
40.0	0.826	15	20.0	20.0	0.01367	14.35	13.981	0.965	0.013	35.9	29.6
40.0	0.826	30	18.0	20.0	0.01367	12.35	14.309	0.691	0.009	30.9	25.5
40.0	0.826	60	17.5	20.0	0.01367	11.85	14.391	0.490	0.007	29.6	24.5
40.0	0.826	120	16.5	19.0	0.01384	10.5	14.613	0.349	0.005	26.3	21.7
40.0	0.826	240	15.0	19.0	0.01384	9	14.859	0.249	0.003	22.5	18.6
40.0	0.826	480	14.0	19.0	0.01384	8	15.023	0.177	0.002	20.0	16.5
40.0	0.826	1440	0.0	0.0	0.00000			0.000	0.000	0.0	0.0

Hydrometer #:	Graduate #:	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =	Wt. Passing #200 =			

Sieve Analysis

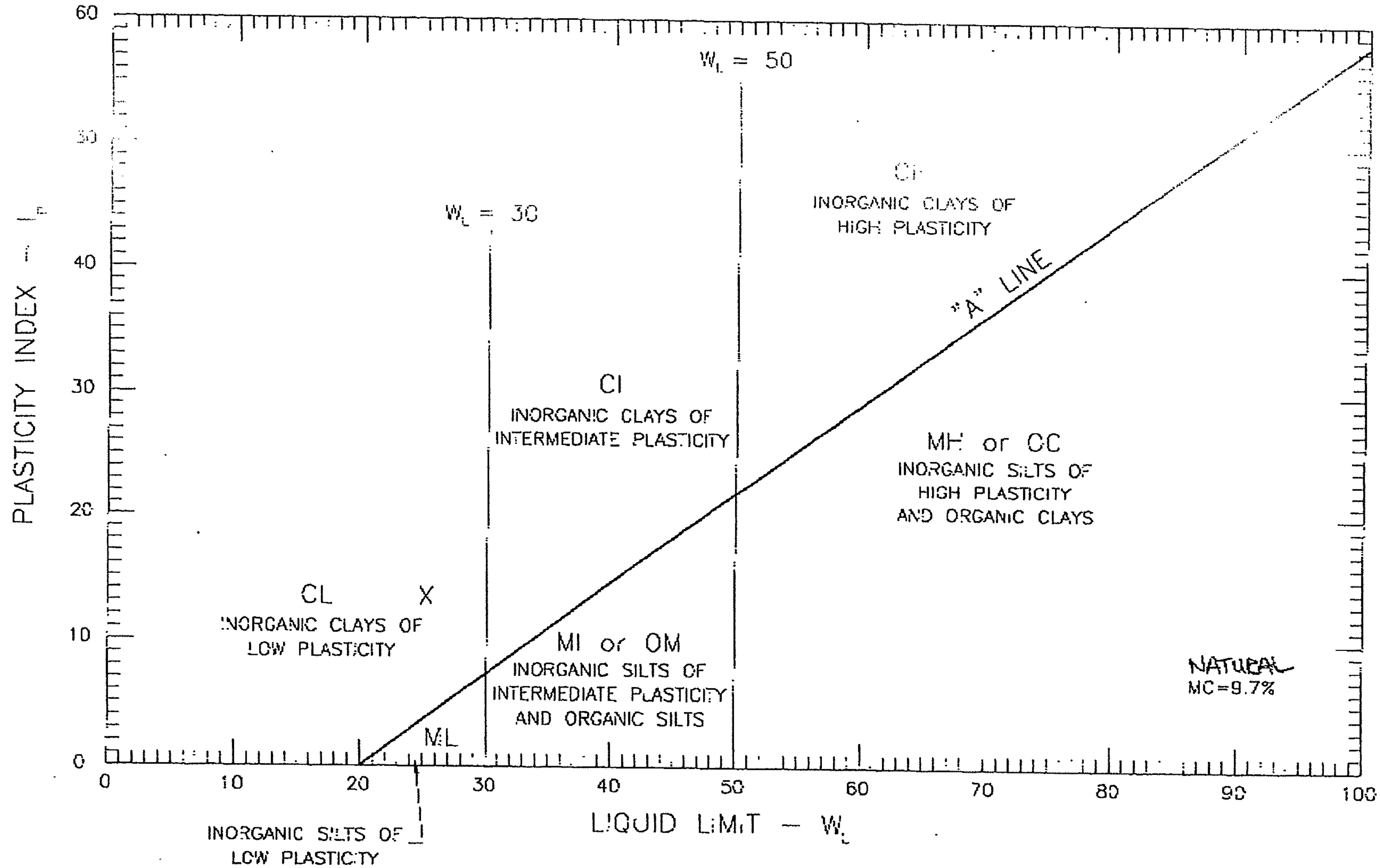
Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-42

A-43



GEONORTH ENGINEERING LTD.
1301 Kelliher Road, Tel. (250) 564-4304
Prince George, B.C., V2L 5S8, Fax (250) 564-9323

MOUNT POLLEY MINE
ATTN: KNIGHT PIESOLD
ATTERBERG LIMITS OF C-ZS 10

SCALE: N.T.S.	DATE: 2004/10/01
PROJECT NO: K-1587	DRAWING NO. 1587-310

GeoNorth Engineering Ltd.
1301 Kellihar Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

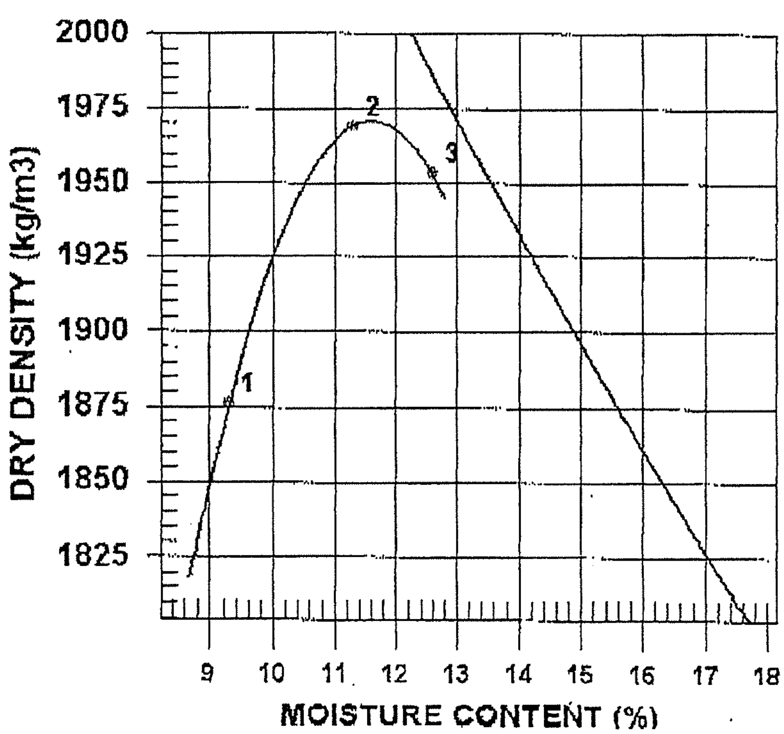
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 11   NO. OF TRIALS 3   DATE RECEIVED 2004.Sep.[illegible]   DATE SAMPLED 2004.Sep.20

INSITU MOISTURE N/A %
SAMPLED BY MW
TESTED BY NDS
SUPPLIER
SOURCE C-ZS-11
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION
ROCK TYPE

COMPACTION STANDARD Standard Proctor, ASTM D698
COMPACTION PROCEDURE A: 101.6mm Mold, Passing 4.75mm
RAMMER TYPE Manual
PREPARATION Moist
OVERSIZE CORRECTION METHOD ASTM 4718
RETAINED 4.75mm SCREEN [illegible] %
OVERSIZE SPECIFIC GRAVITY 2.66



TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	[illegible]	1876	9.3
2	[illegible]	1969	11.3
3	2199	1953	12.6

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.65	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	1970	12.0
OVERSIZE CORRECTED	2097	9.4

COMMENTS
SPECIFIC GRAVITY = 2.66

 2004.Sep.30 GeoNorth Engineering Ltd. PER. [signature]

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

ATTN: Art Frye @ 250-790-2268

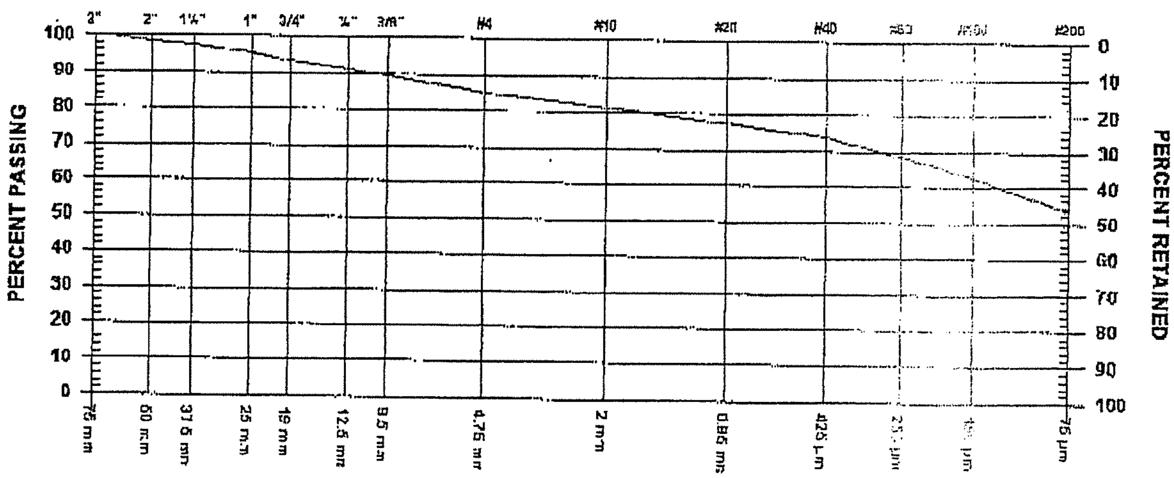
PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 11 DATE RECEIVED 2004.Sep.22 DATE TESTED 2004.Sep.28 DATE SAMPLED 2004.Sep.20

SUPPLIER
SOURCE C-ZS-11
SPECIFICATION
MATERIAL TYPE

SAMPLED BY MW
TESTED BY DJ
TEST METHOD WASHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm	100.0	
2"	50	mm	98.4	
1 1/2"	37.5	mm	97.3	
1"	25	mm	95.2	
3/4"	19	mm	93.3	
1/2"	12.5	mm	91.0	
3/8"	9.5	mm	89.6	

SAND SIZES AND FINES			PERCENT PASSING	GRADATION LIMITS
No. 4	4.75	mm	85.3	
No. 10	2.00	mm	81.3	
No. 20	850	µm	77.5	
No. 40	425	µm	73.7	
No. 60	250	µm	68.5	
No. 100	150	µm	62.7	
No. 200	75	µm	53.1	

COMMENTS
LOCATION:TP-04-BA4-5 CHAINAGE:BORROW AREA 4

A-45

GeoNorth Engineering

Test Designation: ASTM D-422

Hydrometer Analysis

Client:Mount Polley Attn:Knight Piesold			Date:Sept 30,2004
Project Name:Mount Polley Construction Progam			Project #:K-1587
Source/Location:C-ZS-11			Type:
Sample #:	Test #:11	Hole #:	Depth:	Time:
Sampled By:MW	Tested By:NDS		Checked By:
Date Sampled:09.20.04	Date Received:09.22.04		Date Tested:09.29.04

Starting Wt. (g)	% - #10	Elapsed Time (min)	Reading R	Temp (oC)	K	Corr. Reading R'	Zr (cm)	SQRT(Zr/T) (min)	D (mm)	N (%)	N*(%-#10)
40.0	0.813	0.5	31.5	20.0	0.01367	25.85	13.220	5.142	0.070	64.6	52.5
40.0	0.813	1	29.0	20.0	0.01367	23.35	13.631	3.692	0.050	58.4	47.5
40.0	0.813	2	27.0	20.0	0.01367	21.35	13.961	2.642	0.036	53.4	43.4
40.0	0.813	4	25.5	20.0	0.01367	19.85	13.078	1.808	0.025	49.6	40.3
40.0	0.813	8	23.0	20.0	0.01367	17.35	13.488	1.298	0.018	43.4	35.3
40.0	0.813	15	21.5	20.0	0.01367	15.85	13.734	0.957	0.013	39.6	32.2
40.0	0.813	30	20.0	20.0	0.01367	14.35	13.981	0.683	0.009	35.9	29.2
40.0	0.813	60	18.0	20.0	0.01367	12.35	14.309	0.488	0.007	30.9	25.1
40.0	0.813	120	17.0	19.0	0.01384	11	14.531	0.348	0.005	27.5	22.4
40.0	0.813	240	15.5	19.0	0.01384	9.5	14.777	0.248	0.003	23.8	19.3
40.0	0.813	1492	14.0	19.0	0.01384	8	15.023	0.100	0.001	20.0	16.3
			0.0	0.0	0.00000			#VALUE!	#VALUE!	#VALUE!	#VALUE!

Hydrometer #:	Graduate #:	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =		Wt. Passing #200 =		

Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

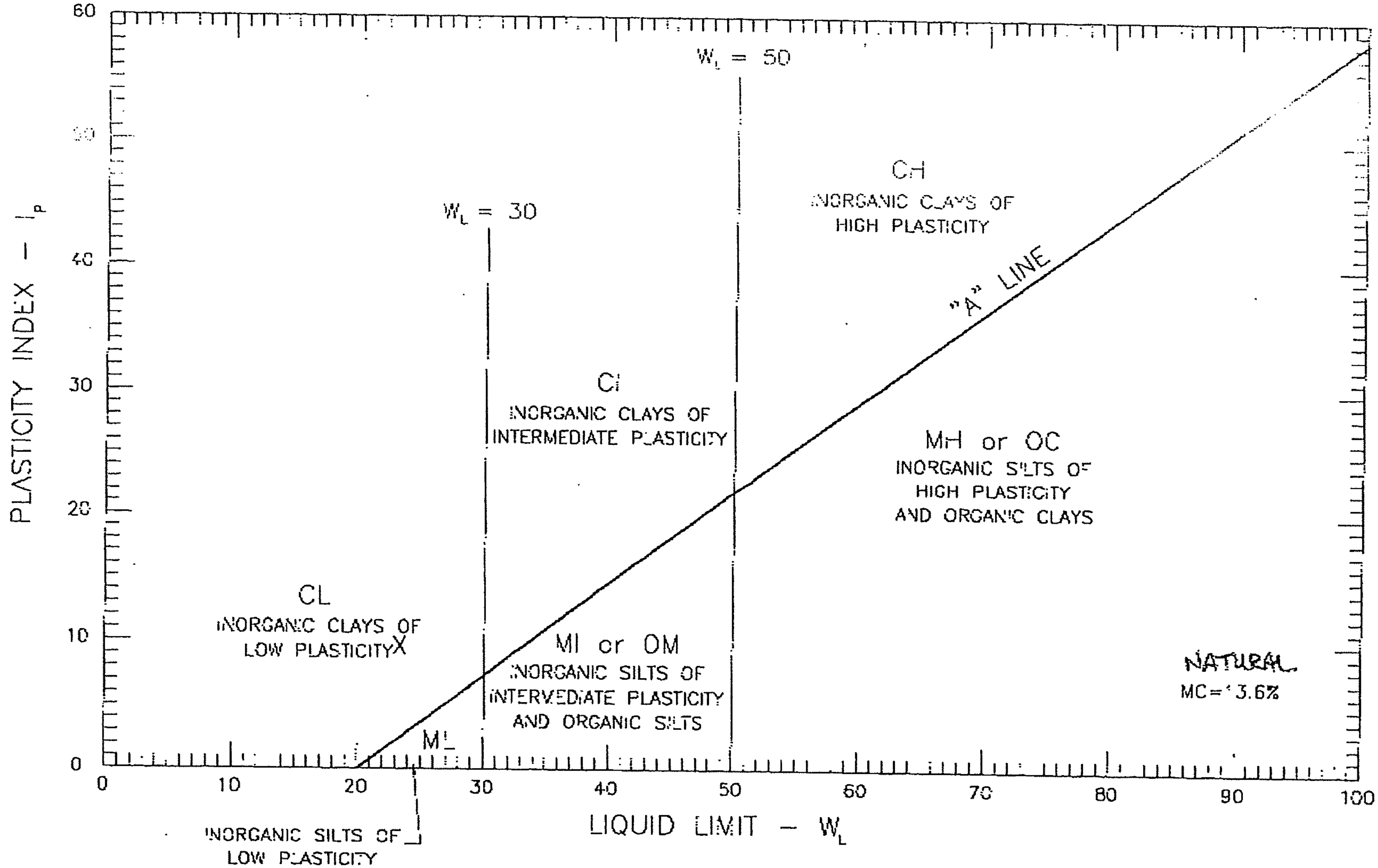
Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%

Dry Wt. of Sample from Initial Moisture

=(100xWet Soil Wt.)/(100 + Initial Moisture) =

A-46



GEONORTH ENGINEERING LTD. 1301 Kelliher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF C-ZS 11	SCALE: N.T.S. PROJECT NO: K-1587	DATE: 2004/10/01 DRAWING NO. 1587-B11

A-47

GeoNorth Engineering Ltd.
1301 Kellihar Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1NO

ATTN: Art Frye @ 250-790-2268

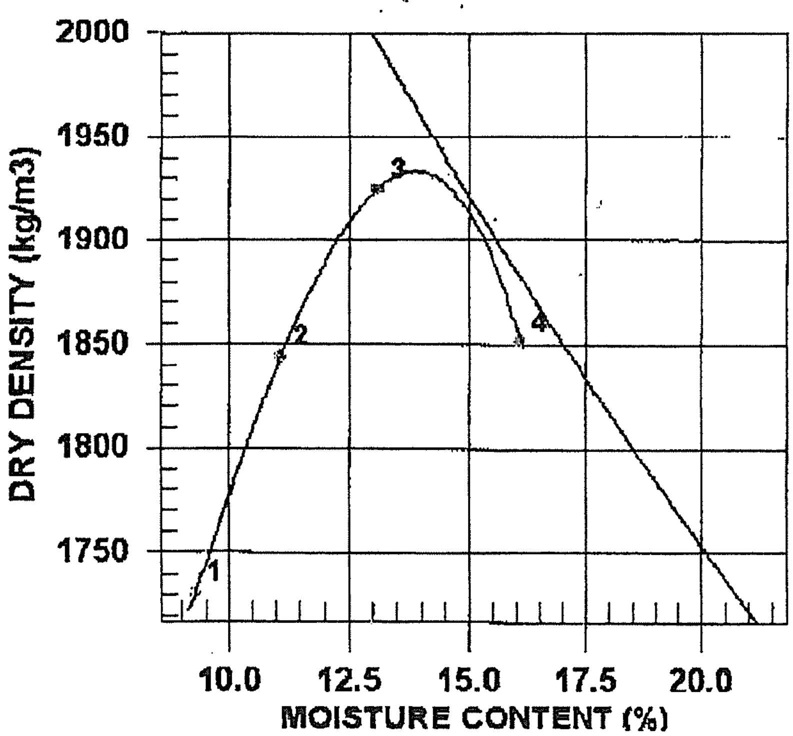
PROJECT Construction Program - Mount Polley Mine Testing Services

CONTRACTOR

PROCTOR NO. 12 NO. OF TRIALS 4 DATE RECEIVED 2004.Oct.20 DATE SAMPLED 2004.Oct.19

INSITU MOISTURE N/A %
SAMPLED BY AT
TESTED BY NDS
SUPPLIER
SOURCE R-ZS-1
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION SILTY/DIRTY
ROCK TYPE

COMPACTION STANDARD Standard Proctor, ASTM D698
COMPACTION PROCEDURE A: 101.6mm Mold, Passing 4.75mm
RAMMER TYPE Manual
PREPARATION Moist
OVERSIZE CORRECTION METHOD ASTM 4718
RETAINED 4.75mm SCREEN 3.4 %
OVERSIZE SPECIFIC GRAVITY 2.65



TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	1892	1731	9.3
2	2049	1844	11.1
3	2177	1925	13.1
4	2149	1851	16.1

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.70	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	1930	14.0
OVERSIZE CORRECTED	1948	13.6

COMMENTS

A-48

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

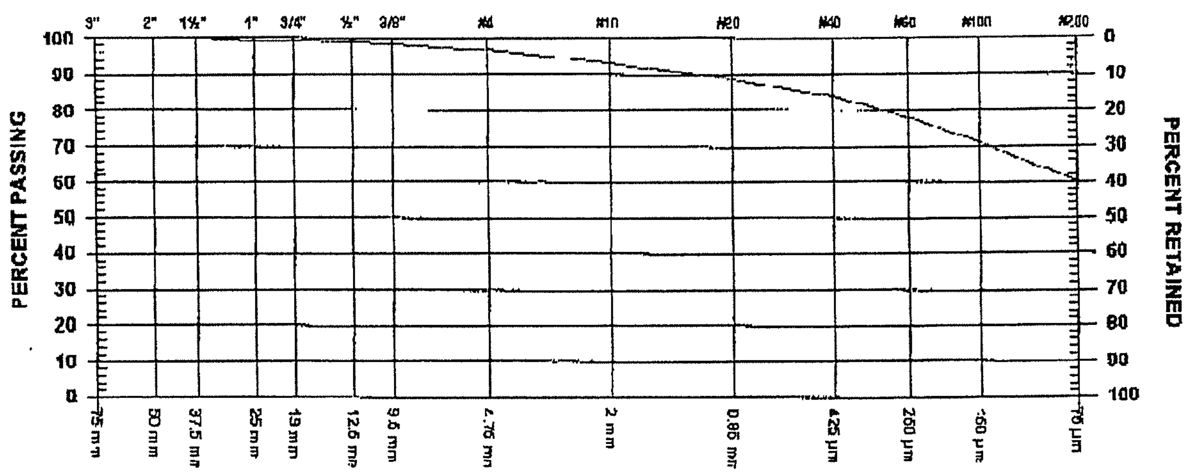
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 12 DATE RECEIVED 2004.Oct.20 DATE TESTED 2004.Oct.22 DATE SAMPLED 2004.Oct.19

SUPPLIER
SOURCE R-ZS-1
SPECIFICATION
MATERIAL TYPE TILL (SOUTH EMBANKMENT)

SAMPLED BY AT
TESTED BY NDS
TEST METHOD WASHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm		
2"	50	mm		
1 1/2"	37.5	mm	100.0	
1"	25	mm	99.2	
3/4"	19	mm	99.1	
1/2"	12.5	mm	98.8	
3/8"	9.5	mm	98.4	

SAND SIZES AND FINES			PERCENT PASSING	GRADATION LIMITS
No. 4	4.75	mm	96.7	
No. 10	2.00	mm	93.1	
No. 20	850	µm	88.6	
No. 40	425	µm	83.9	
No. 60	250	µm	77.9	
No. 100	150	µm	70.9	
No. 200	75	µm	59.9	

9+60

COMMENTS
CHAINAGE : CH 9 + 60
ELEVATION : 942.5m @ c/l

Page 1 of 1 2004.Oct.22 GeoNorth Engineering Ltd. PER.

GeoNorth Engineering

Test Designation: ASTM D-422

Hydrometer Analysis

Client:Mount Polley Attn:Knight Piesold			Date:October 25,2004
Project Name:Mount Polley Construction Program			Project #:K-1587
Source/Location:R-ZS-1			Type:Till
Sample #:12	Test #:12	Hole #: Depth:	Time:
Sampled By:AT		Tested By:NDS	Checked By:
Date Sampled:10.19.04		Date Received:10.20.04	Date Tested:10.25.04

Starting Wt. (g)	% - #10	Elapsed Time (min)	Reading R	Temp (0C)	K	Corr. Reading R`	Zr (cm)	SQRT(Zr)/T (min)	D (mm)	N (%)	N*(%-#10)
30.0	0.599	0.5	33.0	18.0	0.01401	26.65	13.088	5.116	0.072	88.8	53.2
30.0	0.599	1	31.0	18.0	0.01401	24.65	13.417	3.663	0.051	82.2	49.2
30.0	0.599	2	29.0	18.0	0.01401	22.65	13.747	2.622	0.037	75.5	45.2
30.0	0.599	4	28.0	18.0	0.01401	21.65	12.782	1.788	0.025	72.2	43.2
30.0	0.599	8	26.0	18.0	0.01401	19.65	13.110	1.280	0.018	65.5	39.2
30.0	0.599	15	24.0	18.0	0.01401	17.65	13.439	0.947	0.013	58.8	35.2
30.0	0.599	30	23.0	18.0	0.01401	16.65	13.603	0.673	0.009	55.5	33.2
30.0	0.599	60	21.5	18.0	0.01401	15.15	13.849	0.480	0.007	50.5	30.2
30.0	0.599	120	20.0	18.0	0.01401	13.65	14.096	0.343	0.005	45.5	27.3
30.0	0.599	287	18.0	18.0	0.01401	11.65	14.424	0.224	0.003	38.8	23.3
30.0	0.599	480	17.0	18.0	0.01401	10.65	14.588	0.174	0.002	35.5	21.3
30.0	0.599		0.0		0.00000			#DIV/0!	#DIV/0!	0.0	0.0

Hydrometer #:97832	Graduate #:3	Dispersing Agent:	Amount:
Density of Solids:			
Description of Sample:			

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =		Wt. Passing #200 =		

Sieve Analysis

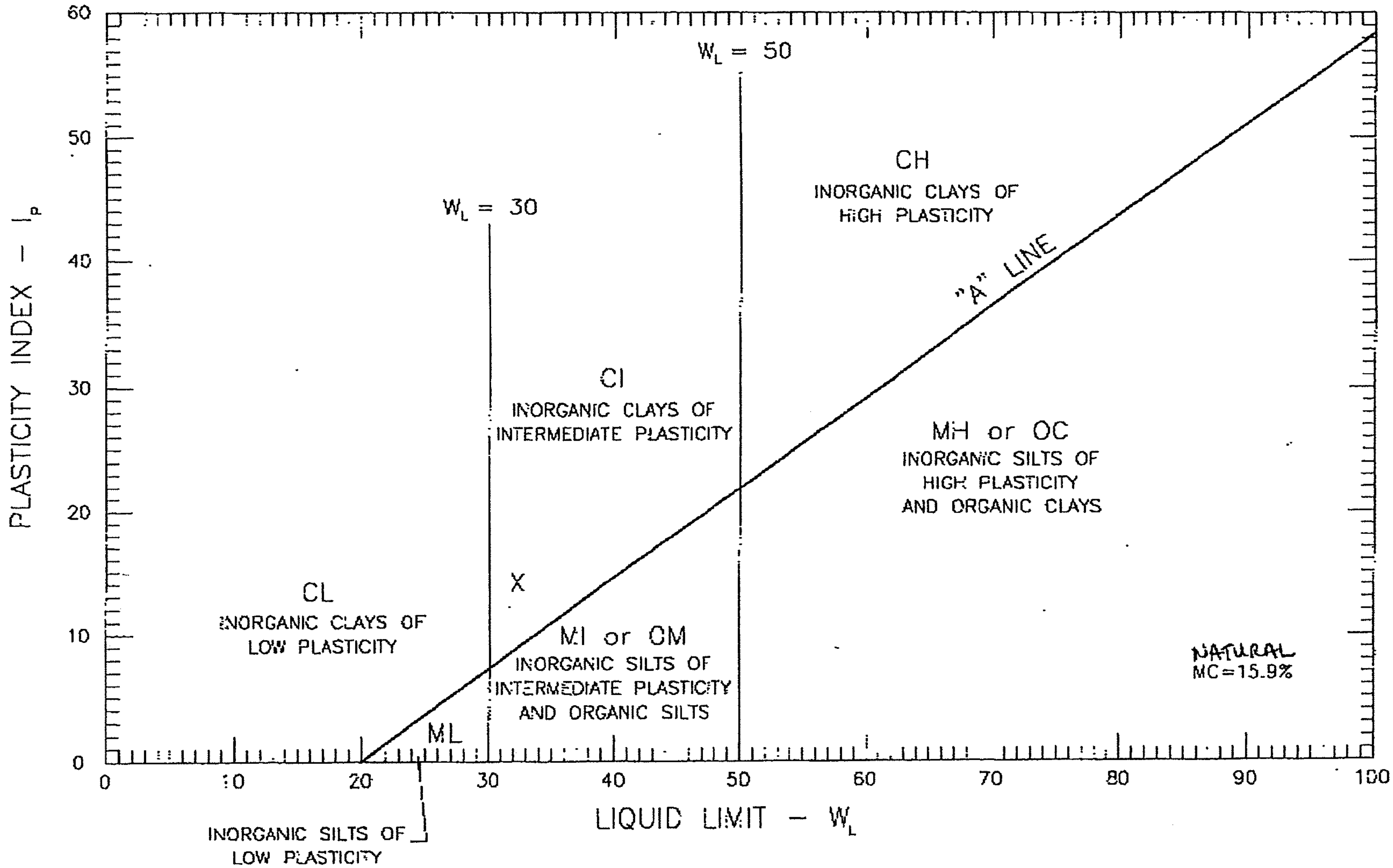
Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-50

A-51



GEONORTH ENGINEERING LTD.
130 Kellihar Road, Tel. (250) 564-4304
Prince George, B.C., V2L 5S8. Fax (250) 564-9323

MOUNT POLLEY MINE
ATTN: KNIGHT PIESOLD
ATTERBERG LIMITS OF R-ZS-1

SCALE: N.T.S.	DATE: 2004/10/25
PROJECT NO: K-1587	DRAWING NO. 1587-312

1301 Kellihar Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

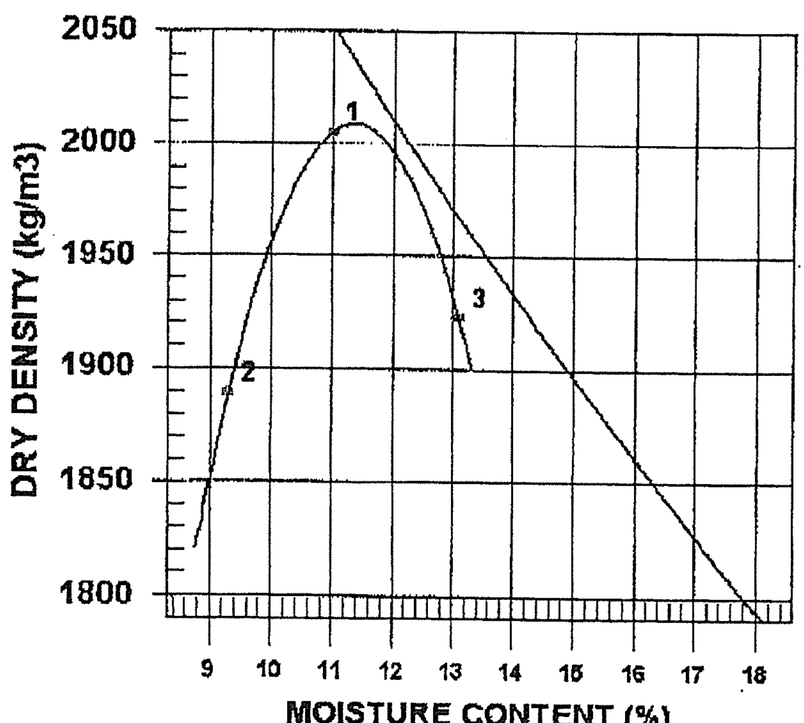
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 13 NO. OF TRIALS 3 DATE RECEIVED 2004.Nov.26 DATE SAMPLED 2004.Nov.18

INSITU MOISTURE N/A %
SAMPLED BY MW
TESTED BY NDS
SUPPLIER Perimeter Embankment
SOURCE R-ZS-02
MATERIAL IDENTIFICATION
MAJOR COMPONENT GLACIAL TILL
SIZE
DESCRIPTION SILTY
ROCK TYPE

COMPACTION STANDARD Standard Proctor, ASTM D698
COMPACTION PROCEDURE A: 101.6mm Mold, Passing 4.75mm
RAMMER TYPE Automatic
PREPARATION Moist
OVERSIZE CORRECTION METHOD ASTM 4718
RETAINED 4.75mm SCREEN 5.1 %
OVERSIZE SPECIFIC GRAVITY 2.65



TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	2226	2005	11.0
2	2065	1889	9.3
3	2174	1922	13.1

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.65	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	2010	11.5
OVERSIZE CORRECTED	2035	11.0

COMMENTS

 2004.Dec.02 GeoNorth Engineering Ltd. PER. NDS

A-52

GeoNorth
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

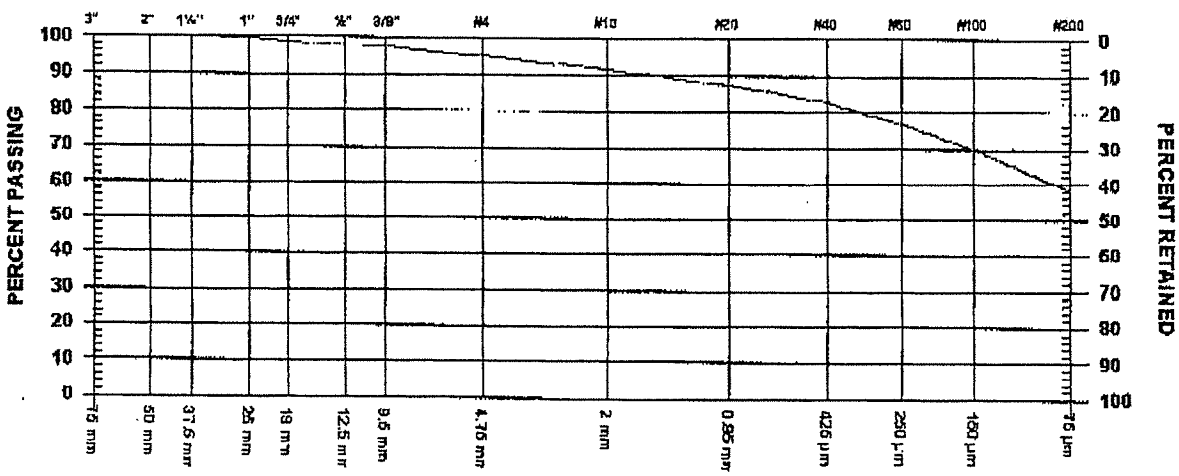
ATTN: Art Frye @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 13 DATE RECEIVED 2004.Nov.26 DATE TESTED 2004.Nov.30 DATE SAMPLED 2004.Nov.18

SUPPLIER Perimeter Embankment
SOURCE R-ZS-02
SPECIFICATION
MATERIAL TYPE Glacial Till

SAMPLED BY MW
TESTED BY NDS
TEST METHOD WASHED

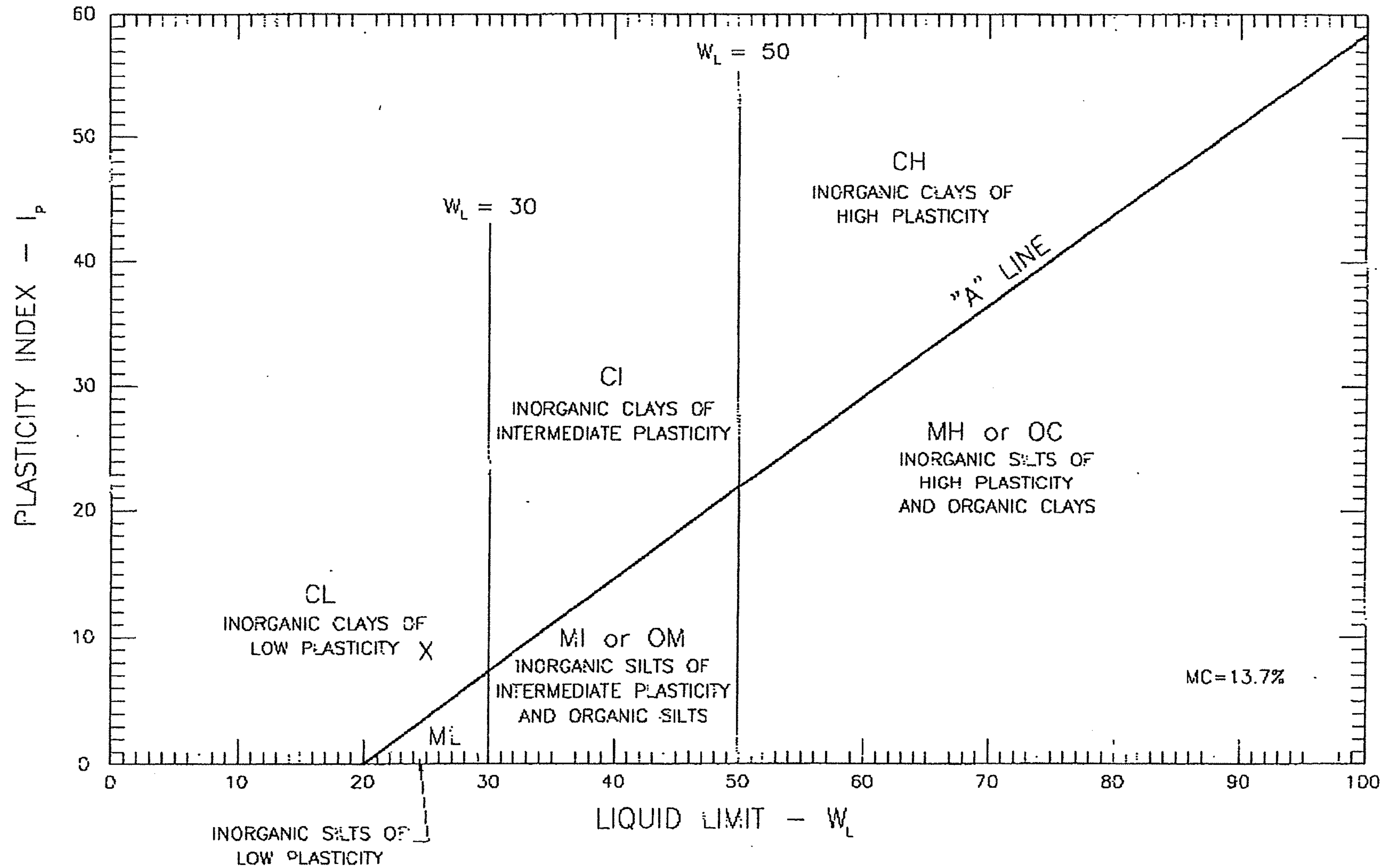


GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm		
2"	50	mm		
1 1/2"	37.5	mm	100.0	
1"	25	mm	99.6	
3/4"	19	mm	98.9	
1/2"	12.5	mm	98.1	
3/8"	9.5	mm	97.4	

SAND SIZES AND FINES			PERCENT PASSING	GRADATION LIMITS
No. 4	4.75	mm	94.9	
No. 10	2.00	mm	91.6	
No. 20	850	µm	87.3	
No. 40	425	µm	82.7	
No. 60	250	µm	76.7	
No. 100	150	µm	69.8	
No. 200	75	µm	58.4	

COMMENTS

Page 1 of 1 2004.Dec.02 GeoNorth Engineering Ltd. PER. NDS



GEONORTH ENGINEERING LTD. 1301 Kelliher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF R-ZS-2	SCALE: N.T.S. PROJECT NO: K-1587	DATE: 2004/12/02 DRAWING NO. 1587-B13

GeoNorth Engineering Ltd.
1301 Kelliher Road Pri George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

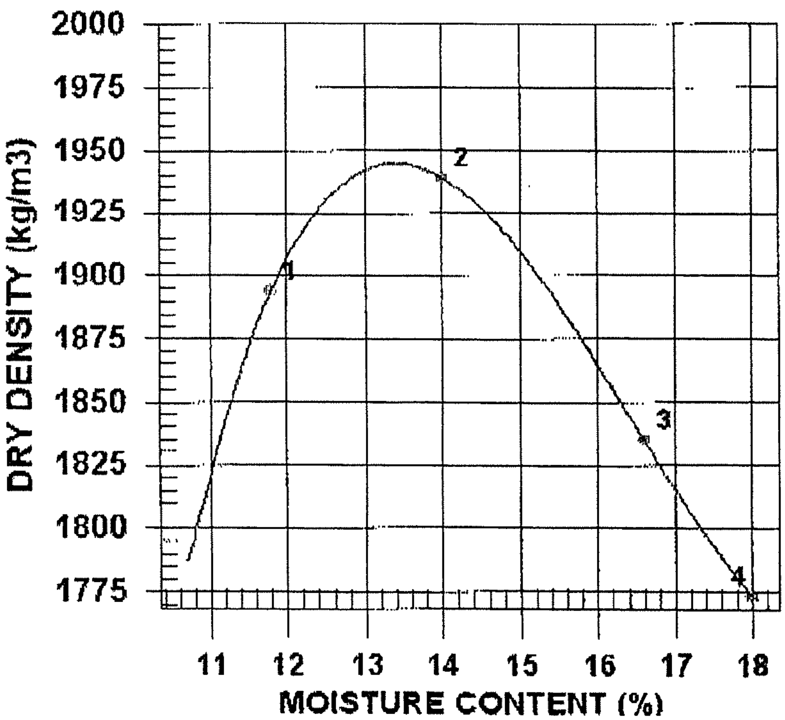
ATTN: TERRY ISAAKS @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine Testing Services
CONTRACTOR

PROCTOR NO. 14 NO. OF TRIALS 4 DATE RECEIVED 2004.Dec.02 DATE SAMPLED 2004.Nov.29

INSITU MOISTURE N/A %
SAMPLED BY AT
TESTED BY NDS
SUPPLIER
SOURCE R-ZS-01 / Zone S
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION SANDY
ROCK TYPE

COMPACTION STANDARD Standard Proctor, ASTM D698
COMPACTION PROCEDURE A: 101.6mm Mold, Passing 4.75mm
RAMMER TYPE Automatic
PREPARATION Moist
OVERSIZE CORRECTION METHOD ASTM 4718
RETAINED 4.75mm SCREEN 12.8 %
OVERSIZE SPECIFIC GRAVITY 2.65



TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	2117	1894	11.8
2	2211	1939	14.0
3	2140	1835	16.6
4	2092	1773	18.0

	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	1950	13.5
OVERSIZE CORRECTED	2018	11.9

COMMENTS

 2004.Dec.07 GeoNorth Engineering Ltd. PER. [signature]

A-55

GeoNorth Engineering

Test Designation: ASTM D-422

Hydrometer Analysis

Client:Mount Polley Mines Attn: Knight Piesold	Date:December 8, 2004
Project Name:Mount Polley Construction Program	Project #:K-1587
Source/Location:R-ZS-03 / Zone S	Type:Till
Sample #:14 / Test #:14 / Hole #: — / Depth:	Time:
Sampled By:AT / Tested By:NDS	Checked By:
Date Sampled:11.29.04 / Date Received:12.02.04	Date Tested:12.07.04

Starting Wt. (g)	% - #10	Elapsed Time (min)	Reading R	Temp (0C)	K	Corr. Reading R`	Zr (cm)	SQRT(Zr)/T (min)	D (mm)	N (%)	N*(%-#10)
40.0	0.471	0.5	26.0	19.0	0.01384	20	14.183	5.326	0.074	50.0	23.6
40.0	0.471	1	25.0	19.0	0.01384	19	14.348	3.788	0.052	47.5	22.4
40.0	0.471	2	24.0	19.0	0.01384	18	14.512	2.694	0.037	45.0	21.2
40.0	0.471	4	23.0	19.0	0.01384	17	13.546	1.840	0.025	42.5	20.0
40.0	0.471	8	22.0	19.0	0.01384	16	13.710	1.309	0.018	40.0	18.8
40.0	0.471	15	20.5	19.0	0.01384	14.5	13.956	0.965	0.013	36.3	17.1
40.0	0.471	37	19.0	19.0	0.01384	13	14.202	0.620	0.009	32.5	15.3
40.0	0.471	60	18.0	19.0	0.01384	12	14.367	0.489	0.007	30.0	14.1
40.0	0.471	120	17.0	19.0	0.01384	11	14.531	0.348	0.005	27.5	13.0
40.0	0.471	240	16.0	18.0	0.01401	9.65	14.752	0.248	0.003	24.1	11.4
40.0	0.471	480	15.0	18.0	0.01401	8.65	14.917	0.176	0.002	21.6	10.2
0.0			0.0	0.0	0.00000			#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Hydrometer #:97832 | Graduate #:4 | Dispersing Agent:Sodium Hex | Amount:125ml

Density of Solids:

Description of Sample: Sandy

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =		Wt. Passing #200 =		

Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%

Dry Wt. of Sample from Initial Moisture

=(100xWet Soil Wt.)/(100 + Initial Moisture) =

NOELCO

A-56

GeoNorth Engineering Ltd.
1301 Kelliher Road P... George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

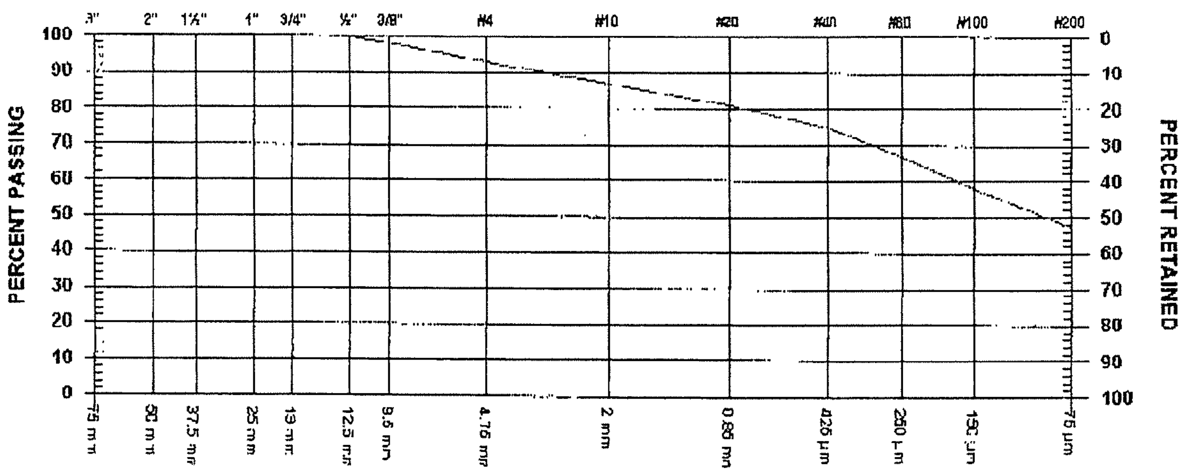
ATTN: TERRY ISAACS @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 14 DATE RECEIVED 2004.Dec.02 DATE TESTED 2004.Dec.07 DATE SAMPLED 2004.Nov.29

SUPPLIER
SOURCE R-ZS-03 / Zone S
SPECIFICATION
MATERIAL TYPE TILL

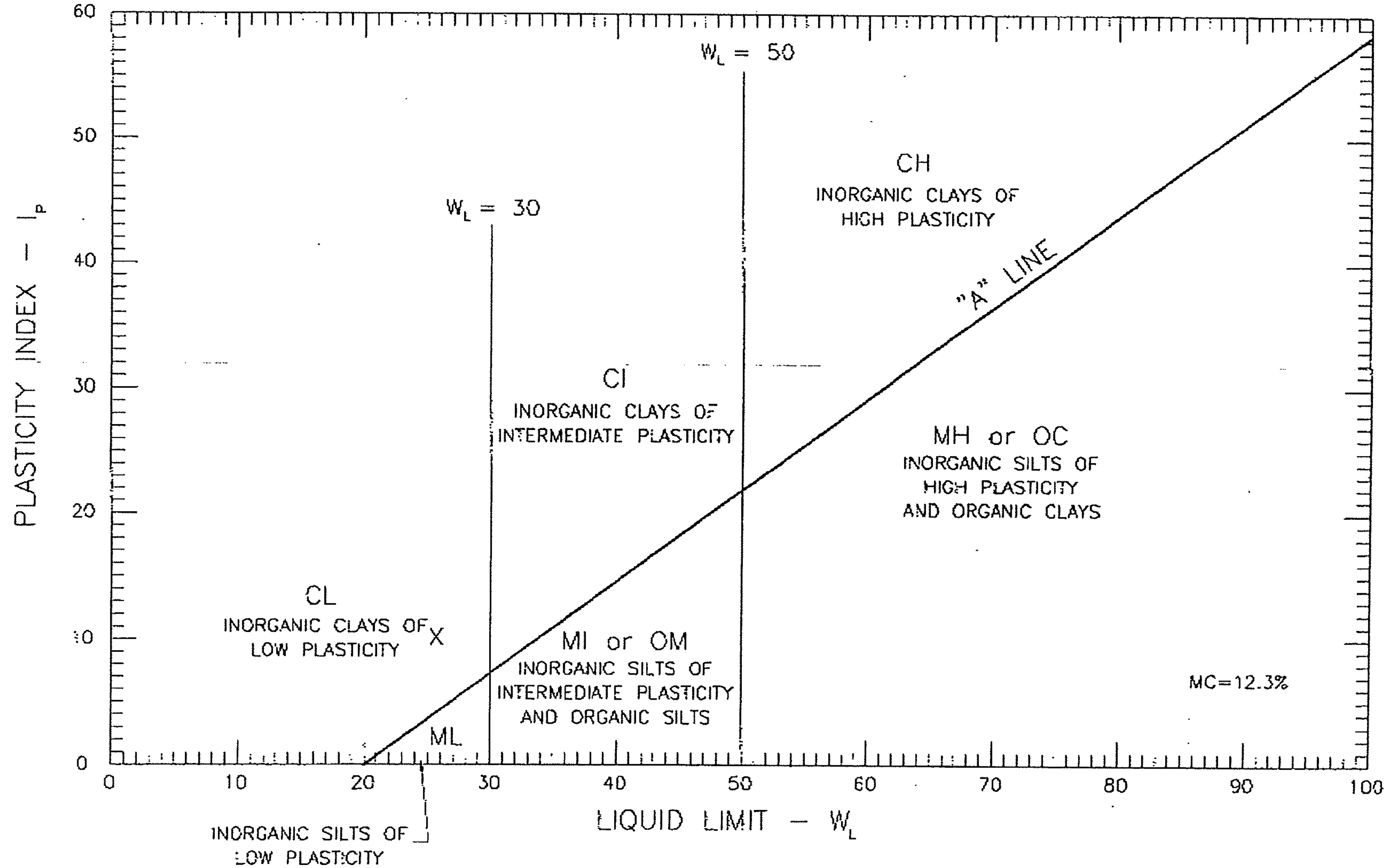
SAMPLED BY BT
TESTED BY NDS
TEST METHOD WASHED



GRAVEL SIZES		PERCENT PASSING	GRADATION LIMITS
3"	75 mm	100.0	
2"	50 mm	104.7	
1 1/2"	37.5 mm	102.7	
1"	25 mm	102.1	
3/4"	19 mm	101.5	
1/2"	12.5 mm	99.7	
3/8"	9.5 mm	98.0	

SAND SIZES AND FINES		PERCENT PASSING	GRADATION LIMITS
No. 4	4.75 mm	92.8	
No. 10	2.00 mm	87.0	
No. 20	850 µm	80.8	
No. 40	425 µm	74.8	
No. 60	250 µm	67.0	
No. 100	150 µm	57.8	
No. 200	75 µm	47.1	

COMMENTS



GEONORTH ENGINEERING LTD.
1301 Kelliher Road, Tel. (250) 564-4304
Prince George, B.C., V2L 5S8, Fax (250) 564-9323

MOUNT POLLEY MINE
ATTN: KNIGHT PIESOLD
ATTERBERG LIMITS OF R-ZS-03

SCALE: N.T.S.	DATE: 2004/12/08
PROJECT NO: K-1587	DRAWING NO. 1587-B14

1301 Kelliher Road P... George, BC V2L5S8
Phone (250)564-43..; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

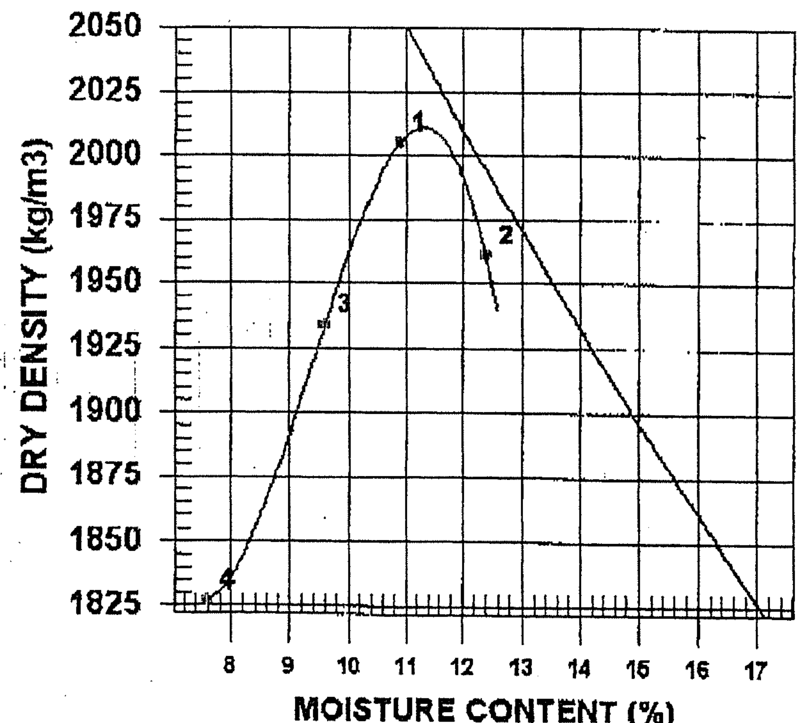
TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

ATTN: Terry Tessmer @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 15 NO. OF TRIALS 4 DATE RECEIVED 2004.Dec.17 DATE SAMPLED 2004.Dec.14

INSITU MOISTURE	N/A %	COMPACTION STANDARD	Standard Proctor, ASTM D698
SAMPLED BY	AT	COMPACTION PROCEDURE	A: 101.6mm Mold, Passing 4.75mm
TESTED BY	B. Tessmer	RAMMER TYPE	Manual
SUPPLIER		PREPARATION	Moist
SOURCE	R-ZS-04	OVERSIZE CORRECTION METHOD	ASTM 4718
MATERIAL IDENTIFICATION		RETAINED 4.75mm SCREEN	15.8 %
MAJOR COMPONENT	TILL	OVERSIZE SPECIFIC GRAVITY	2.65
SIZE			
DESCRIPTION	SILTY		
ROCK TYPE			



TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	2224	2005	10.9
2	2204	1961	12.4
3	2120	1934	9.6
4	1966	1827	7.6

ZERO AIR VOIDS CURVE FOR ESTIMATED SPECIFIC GRAVITY OF 2.65	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	2012	11.3
OVERSIZE CORRECTED	2092	9.7

COMMENTS
LOCATION: MAIN DAM; CHAINAGE: 1+700; ELEVATION: 943.1; OFFSET: U/S.

1301 Kelliher Road P   George, BC V2L5S8
Phone (250)564-43..; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
c.c. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

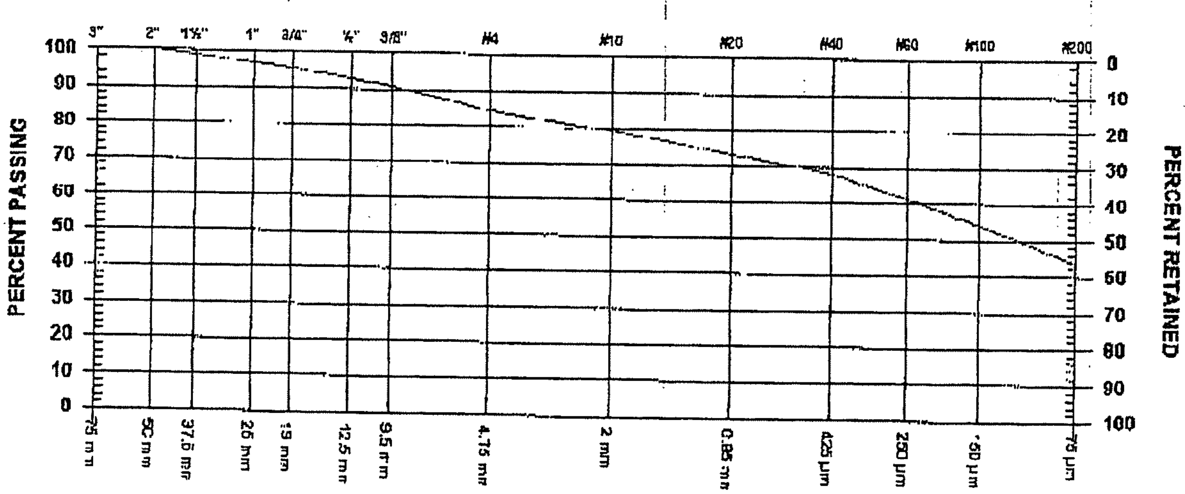
ATTN: TERRY ISAACS @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine Testing Services
CONTRACTOR

SIEVE TEST NO. 15 DATE RECEIVED 2004.Dec.17 DATE TESTED 2004.Dec.21 DATE SAMPLED 2004.Dec.14

SUPPLIER
SOURCE R-ZS-04
SPECIFICATION
MATERIAL TYPE TILL

SAMPLED BY AT
TESTED BY NDS
TEST METHOD WASHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm		
2"	50	mm	100.0	
1 1/2"	37.5	mm	98.7	
1"	25	mm	96.5	
3/4"	19	mm	95.2	
1/2"	12.5	mm	93.0	
3/8"	9.5	mm	90.5	

SAND SIZES AND FINES			PERCENT PASSING	GRADATION LIMITS
No. 4	4.75	mm	84.1	
No. 10	2.00	mm	79.2	
No. 20	850	µm	73.4	
No. 40	425	µm	68.0	
No. 60	250	µm	61.3	
No. 100	150	µm	54.1	
No. 200	75	µm	43.9	

COMMENTS
LOCATION: MAIN DAM; CHAINAGE: 1+700; ELEVATION: 943.1; OFFSET: U/S.

 2004.Dec.22 GeoNorth Engineering Ltd. PER. [signature]

A-60

GeoNorth Engineering

Test Designation: ASTM D-422

Hydrometer Analysis

Client: Mount Polley Mine Attn: Knight Piesold
Date: December 22, 2004
Project Name: Mount Polley Construction Program
Project #: k-1587
Source/Location: R-ZS-04
Type: Till
Sample #: 15 | Test #: 15 | Hole #: | Depth: | Time:
Sampled By: AT | Tested By: NDS | Checked By:
Date Sampled: 12.14.04 | Date Received: 12.17.04 | Date Tested: 12.21.04

Starting Wt. (g)	% - #10	Elapsed Time (min)	Reading R	Temp (0C)	K	Corr. Reading R`	Zr (cm)	SQRT(Zr)/T (min)	D (mm)	N (%)	N*(%-#10)
54.4	0.792	0.5	35.0	17.0	0.01420	28.3	12.816	5.063	0.072	52.0	41.2
54.4	0.792	1	32.0	17.0	0.01420	25.3	13.310	3.648	0.052	46.5	36.8
54.4	0.792	2	30.0	17.0	0.01420	23.3	13.639	2.611	0.037	42.8	33.9
54.4	0.792	4	28.0	17.0	0.01420	21.3	12.840	1.792	0.025	39.2	31.0
54.4	0.792	8	26.5	17.0	0.01420	19.8	13.086	1.279	0.018	36.4	28.8
54.4	0.792	15	25.0	18.0	0.01401	18.65	13.275	0.941	0.013	34.3	27.2
54.4	0.792	30	23.5	18.0	0.01401	17.15	13.521	0.671	0.009	31.5	25.0
54.4	0.792	60	21.5	18.0	0.01401	15.15	13.849	0.480	0.007	27.8	22.1
54.4	0.792	120	20.0	18.0	0.01401	13.65	14.096	0.343	0.005	25.1	19.9
54.4	0.792	250	19.0	17.0	0.01420	12.3	14.317	0.239	0.003	22.6	17.9
54.4	0.792	480	18.0	17.0	0.01420	11.3	14.482	0.174	0.002	20.8	16.5
54.4	0.792	1440	17.0	17.0	0.01420	10.3	14.646	0.101	0.001	18.9	15.0

Hydrometer #: 97832 | Graduate #: 3 | Dispersing Agent: Sodium Hex | Amount: 125ml

Density of Solids:

Description of Sample:

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10				
20				
40				
60				
100				
200				
Pan				
Total				
Unwashed Wt. =				
Tare =	Wt. Passing #200 =			

Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75			
10			
Total =			

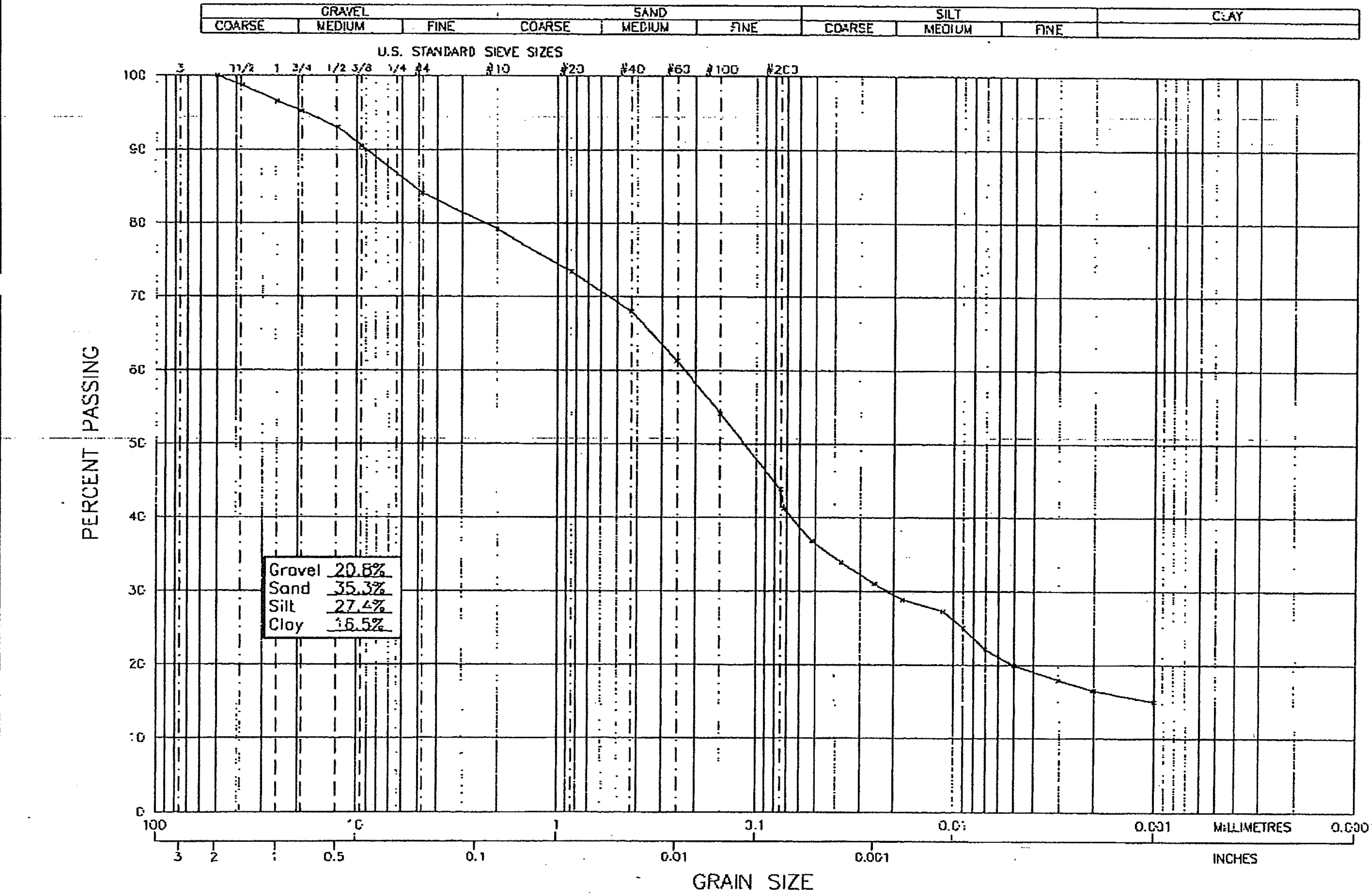
Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%

Dry Wt. of Sample from Initial Moisture

=(100xWet Soil Wt.)/(100 + Initial Moisture) =

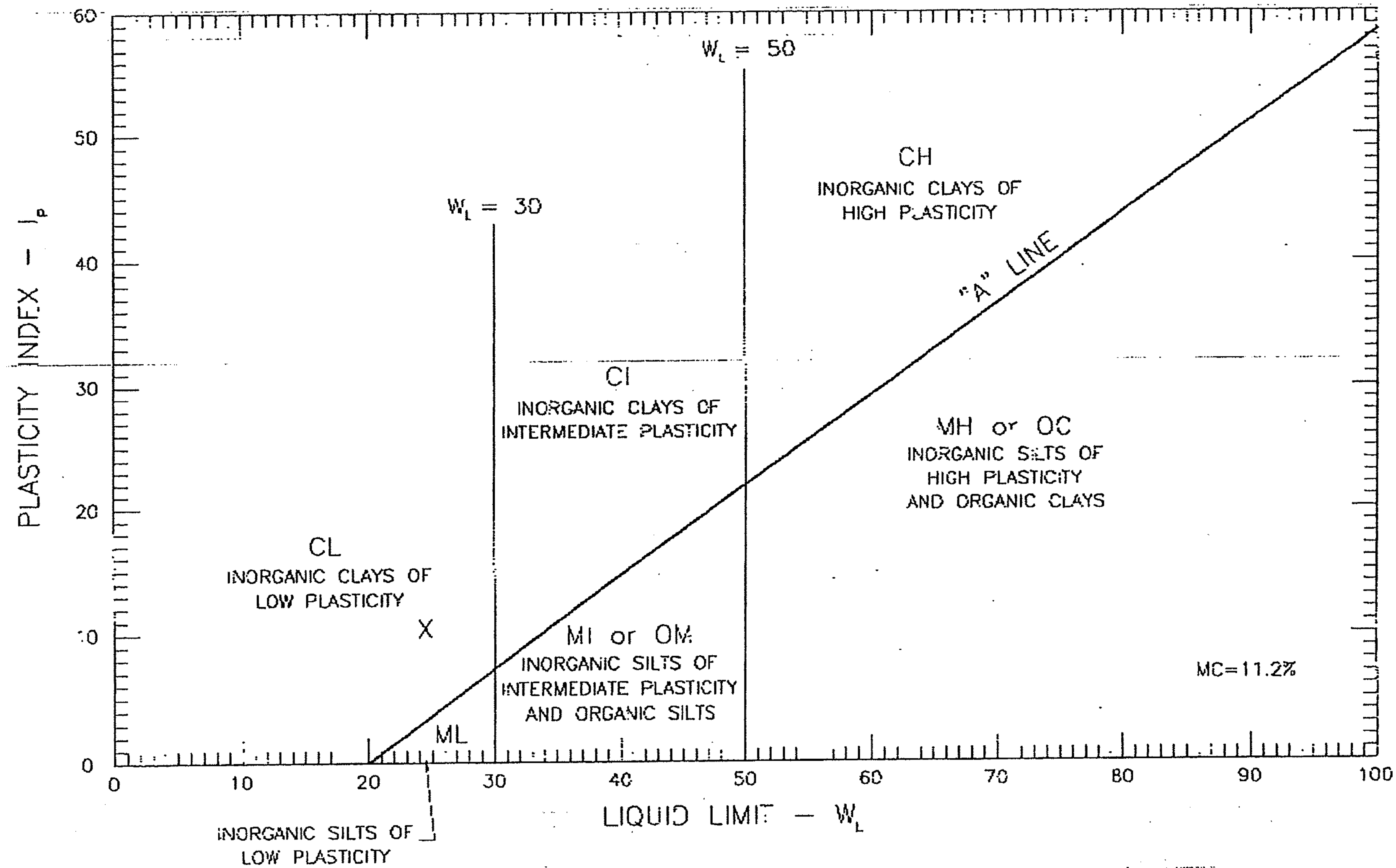
A-61



A-62

GEONORTH ENGINEERING LTD. 1301 Kelliher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD HYDROMETER ANALYSIS OF R-ZS-04	SCALE: N.T.S.	DATE: 2004/12/22
		PROJECT NO: K-1587	DRAWING NO. 1587-B15

A-63



GEONORTH ENGINEERING LTD. 1301 Kelliher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF R-ZS-04	SCALE: N.T.S.	DATE: 2005/01/04
		PROJECT NO: K-1587	DRAWING NO. 1587-B'6

1301 Kellher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

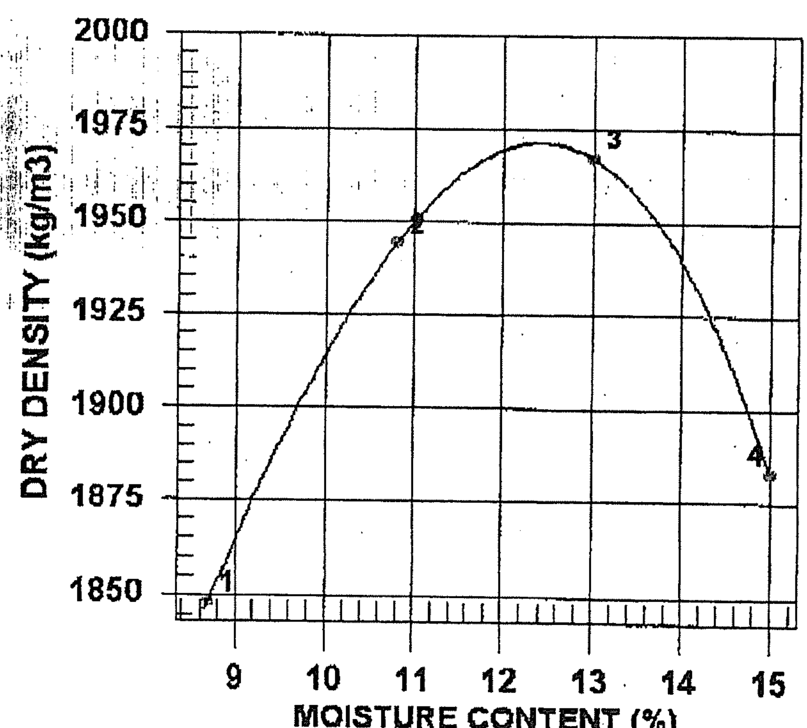
ATTN: Terry Isaacs @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 16 NO. OF TRIALS 4 DATE RECEIVED 2005.Jan.28 DATE SAMPLED 2005.Jan.27

INSITU MOISTURE N/A %
SAMPLED BY FE - Client
TESTED BY B. Tessmer
SUPPLIER
SOURCE R-SZ-04 → 5
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION SILTY
ROCK TYPE

COMPACTION STANDARD Standard Proctor, ASTM D698
COMPACTION PROCEDURE A: 101.6mm Mold, Passing 4.75mm
RAMMER TYPE Manual
PREPARATION Moist
OVERSIZE CORRECTION METHOD ASTM 4718
RETAINED 4.75mm SCREEN 16.8 %
OVERSIZE SPECIFIC GRAVITY 2.65

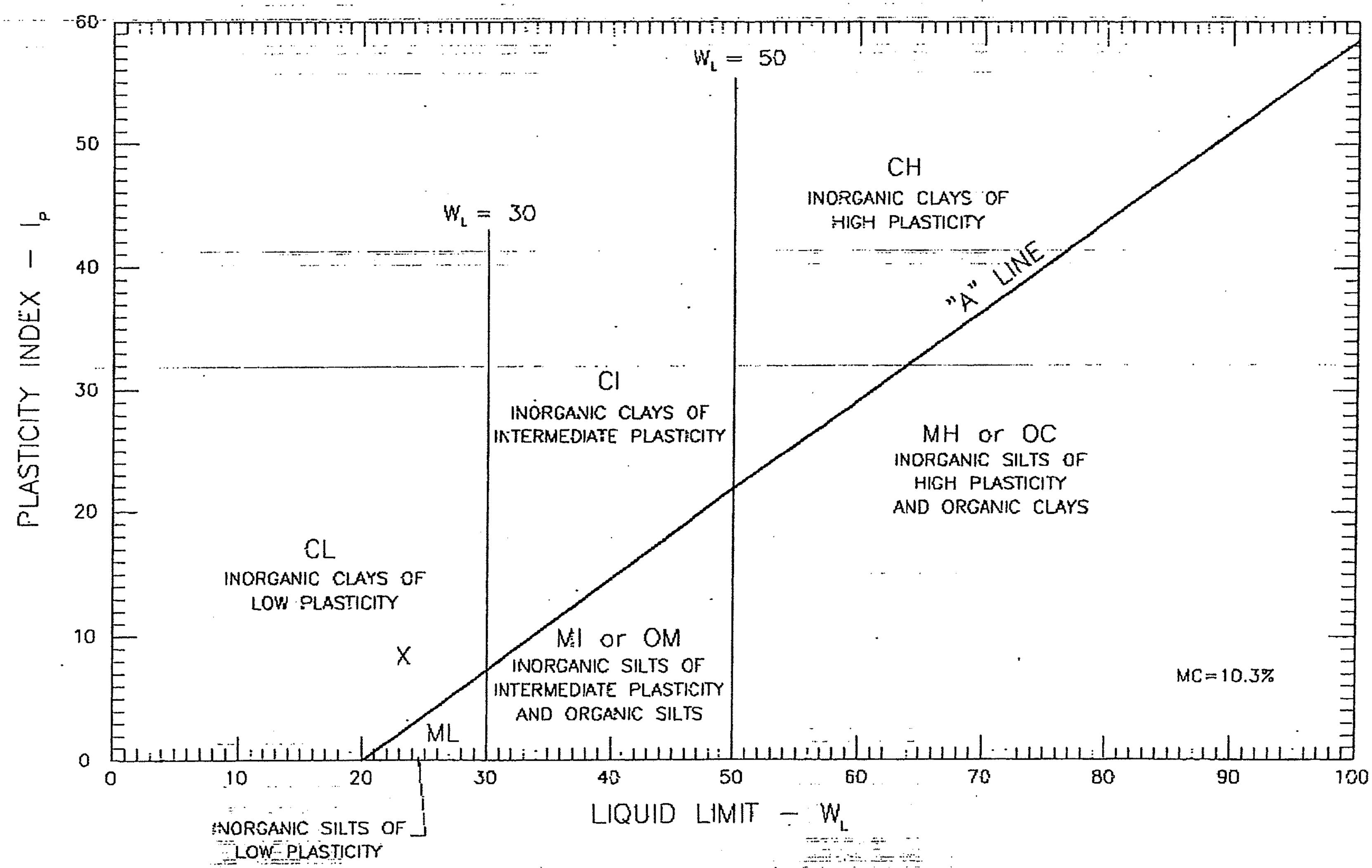


TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	2009	1848	8.7
2	2154	1944	10.8
3	2223	1967	13.0
4	2166	1883	15.0

	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	1970	12.5
OVERSIZE CORRECTED	2059	10.6

COMMENTS
LOCATION: SOUTH/MAIN EMBANKMENT; CHAINAGE: 1+575; ELEVATION: 943.3 N.

A-65



GEONORTH ENGINEERING LTD. 1301 Kelliher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF R-ZS-045	SCALE: N.T.S. PROJECT NO: K-1587	DATE: 2005/02/08 DRAWING NO: 1587-B18

GeoNorth Engineering Ltd.
1301 Kelliher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1NO

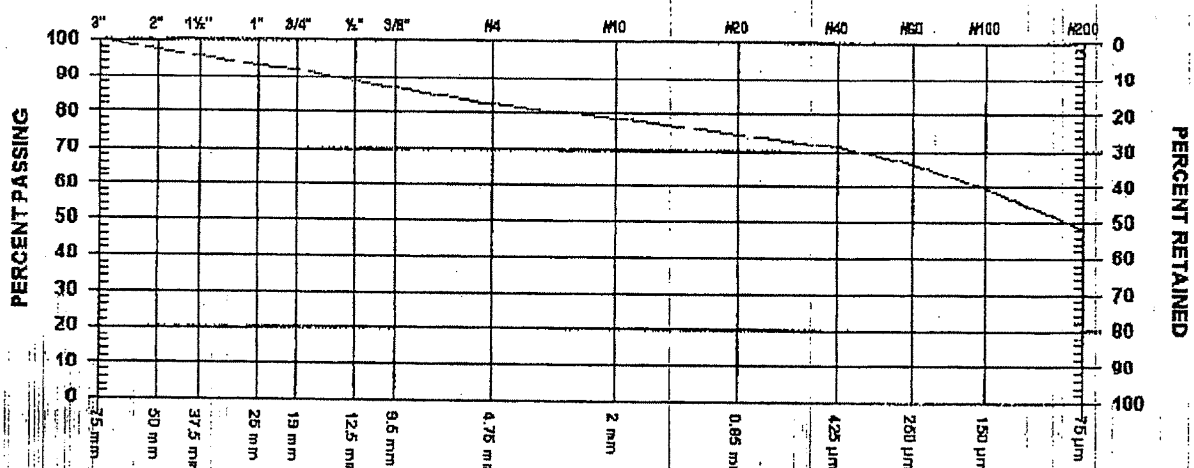
ATTN: Terry Isaacs @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO 16 DATE RECEIVED 2005.Jan.28 DATE TESTED 2005.Feb.02 DATE SAMPLED 2005.Jan.27

SUPPLIER
SOURCE R- ZS-025
SPECIFICATION
MATERIAL TYPE TILL (clayey silt with sand)

SAMPLED BY FE - Client
TESTED BY BT
TEST METHOD WASHED



GRAVEL SIZES		PERCENT PASSING	GRADATION LIMITS
3"	75 mm	100.0	
2"	50 mm	97.1	
1 1/2"	37.5 mm	95.3	
1"	25 mm	92.8	
3/4"	19 mm	91.9	
1/2"	12.5 mm	88.5	
3/8"	9.5 mm	86.7	

SAND SIZES AND FINES		PERCENT PASSING	GRADATION LIMITS
No. 4	4.75 mm	82.5	
No. 10	2.00 mm	78.6	
No. 20	850 µm	74.7	
No. 40	425 µm	71.2	
No. 60	250 µm	66.5	
No. 100	150 µm	59.5	
No. 200	75 µm	48.1	

COMMENTS
LOCATION: SOUTH/MAIN EMBANKMENT; CHAINAGE: 1 + 575; ELEVATION: 943.3 N.

 2005.Feb.07 GeoNorth Engineering Ltd. PER.

GeoNorth Engineering

Test Designation: ASTM D-422

Hydrometer Analysis

Client: Mount Polley Mine Attn. Knight Piesold			Date:February 4, 2005
Project Name: Mount Polley Construction Program			Project #:K-1587
Source/Location: R ZS-025			Type: TILL
Sample #:16	Test #:16	Hole #: Depth:	Time:
Sampled By:FE	Tested By:NDS		Checked By:
Date Sampled:01.27.05	Date Received:01.28.05		Date Tested:02.03.05

Starting Wt. (g)	% - #10	Elapsed Time (min)	Reading R	Temp (0C)	K	Corr. Reading R`	Zr (cm)	SQRT(Zr)/T (min)	D (mm)	N (%)	N*(%-#10)
40.0	0.902	0.5	28.0	19.0	0.01384	22	13.854	5.264	0.073	55.0	49.6
40.0	0.902	1	25.0	19.0	0.01384	19	14.348	3.788	0.052	47.5	42.8
40.0	0.902	2	24.0	19.0	0.01384	18	14.512	2.694	0.037	45.0	40.6
40.0	0.902	4	23.0	19.0	0.01384	17	13.546	1.840	0.025	42.5	38.3
40.0	0.902	8	21.5	19.0	0.01384	15.5	13.792	1.313	0.018	38.8	35.0
40.0	0.902	15	20.5	19.0	0.01384	14.5	13.956	0.965	0.013	36.3	32.7
40.0	0.902	30	19.0	19.0	0.01384	13	14.202	0.688	0.010	32.5	29.3
40.0	0.902	60	18.0	19.0	0.01384	12	14.367	0.489	0.007	30.0	27.1
40.0	0.902	120	16.5	19.0	0.01384	10.5	14.613	0.349	0.005	26.3	23.7
40.0	0.902	240	15.0	18.0	0.01401	8.65	14.917	0.249	0.003	21.6	19.5
40.0	0.902	400	14.5	17.0	0.01420	7.8	15.056	0.194	0.002	19.5	17.6
40.0	0.902	1429	14.0	17.0	0.01420	7.3	15.138	0.103	0.001	18.3	16.5

Hydrometer #:97832 Graduate #:2 Dispersing Agent: Sodium Hex Amount: 125ml

Density of Solids:

Description of Sample:

Hydrometer Sieve Analysis

Seive No.	Weight Retained	Total Wt. Finer Than	% Finer Than	% Finer Than Orig Samp.
10		40.0	100.0	90.2 (74.4)
20	1.7		95.8	86.4 (71.3)
40	1.8		91.2	82.3 (67.9)
60	2.3		85.5	77.1 (63.6)
100	3.2		77.5	69.9 (57.6)
200	5.8		63.0	56.8 (46.8)
Pan	25.2			
Total	40			
Unwashed Wt. =				
Tare =		Wt. Passing #200 =		

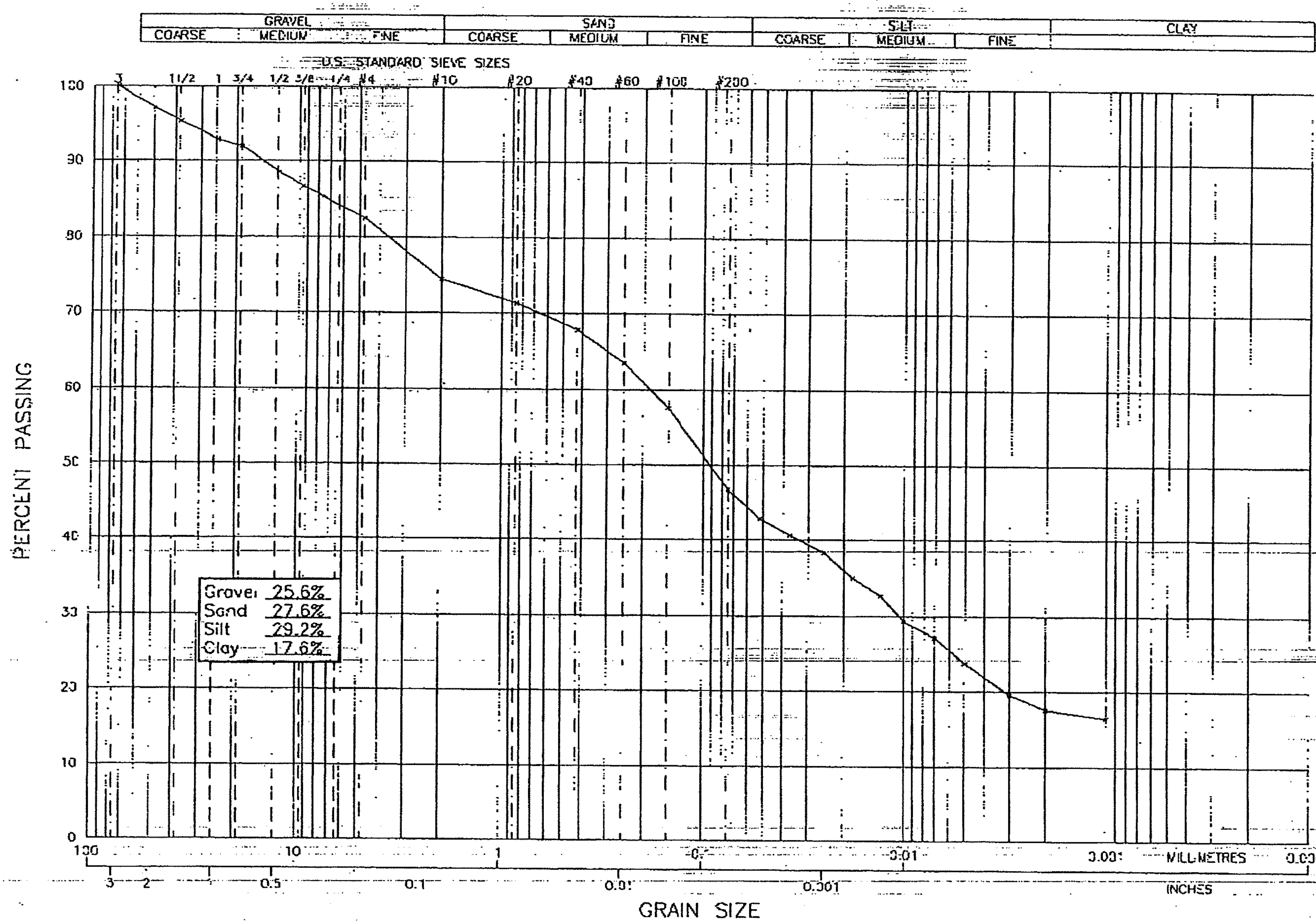
Sieve Analysis

Seive No.	Weight Retained	Total Wt. Passing	% Finer Than Orig. Samp.
38.1			
25.4			
19.0			
12.5			
9.5			
4.75		321.7	100.0
10	31.5		90.2
Total =			

Initial Moisture Content

Tare No.	
Wet Wt. & Tare	
Dry Wt. & Tare	
Water Wt.	
Tare Wt.	
Wt. of Dry Soil	=W
Moisture Content	%
Dry Wt. of Sample from Initial Moisture	
=(100xWet Soil Wt.)/(100 + Initial Moisture) =	

A-67



GEONORTH ENGINEERING LTD. 1301 Kellner Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD HYDROMETER ANALYSIS OF R-ZS-0~~4~~5	SCALE: N.T.S. PROJECT NO: K-1587	DATE: 2005/02/04 DRAWING NO: 1587-B17

A-68

GeoNorth
1301 Kellher Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

MOISTURE - DENSITY RELATIONSHIP REPORT

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL -1N0

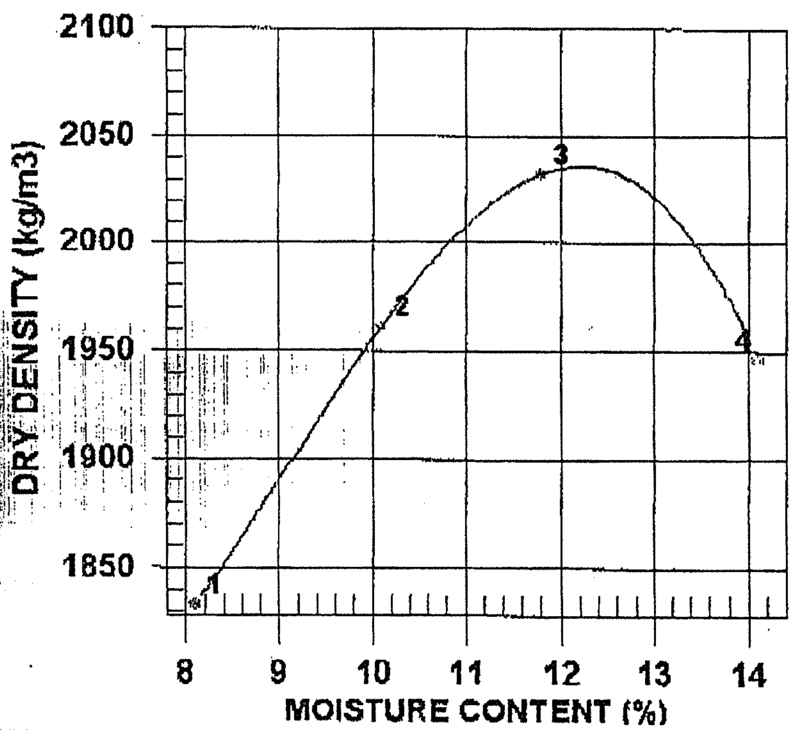
ATTN: Terry Isaacs @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

PROCTOR NO. 17 NO. OF TRIALS 4 DATE RECEIVED 2005.Feb.02 DATE SAMPLED 2005.Jan.31

INSITU MOISTURE N/A %
SAMPLED BY MW
TESTED BY NDS
SUPPLIER
SOURCE R-ZS-06
MATERIAL IDENTIFICATION
MAJOR COMPONENT TILL
SIZE
DESCRIPTION
ROCK TYPE

COMPACTION STANDARD Standard Proctor, ASTM D698
COMPACTION PROCEDURE A: 101.6mm Mold, Passing 4.75mm
RAMMER TYPE Manual
PREPARATION Moist
OVERSIZE CORRECTION METHOD ASTM 4718
RETAINED 4.75mm SCREEN 9.4 %
OVERSIZE SPECIFIC GRAVITY 2.65



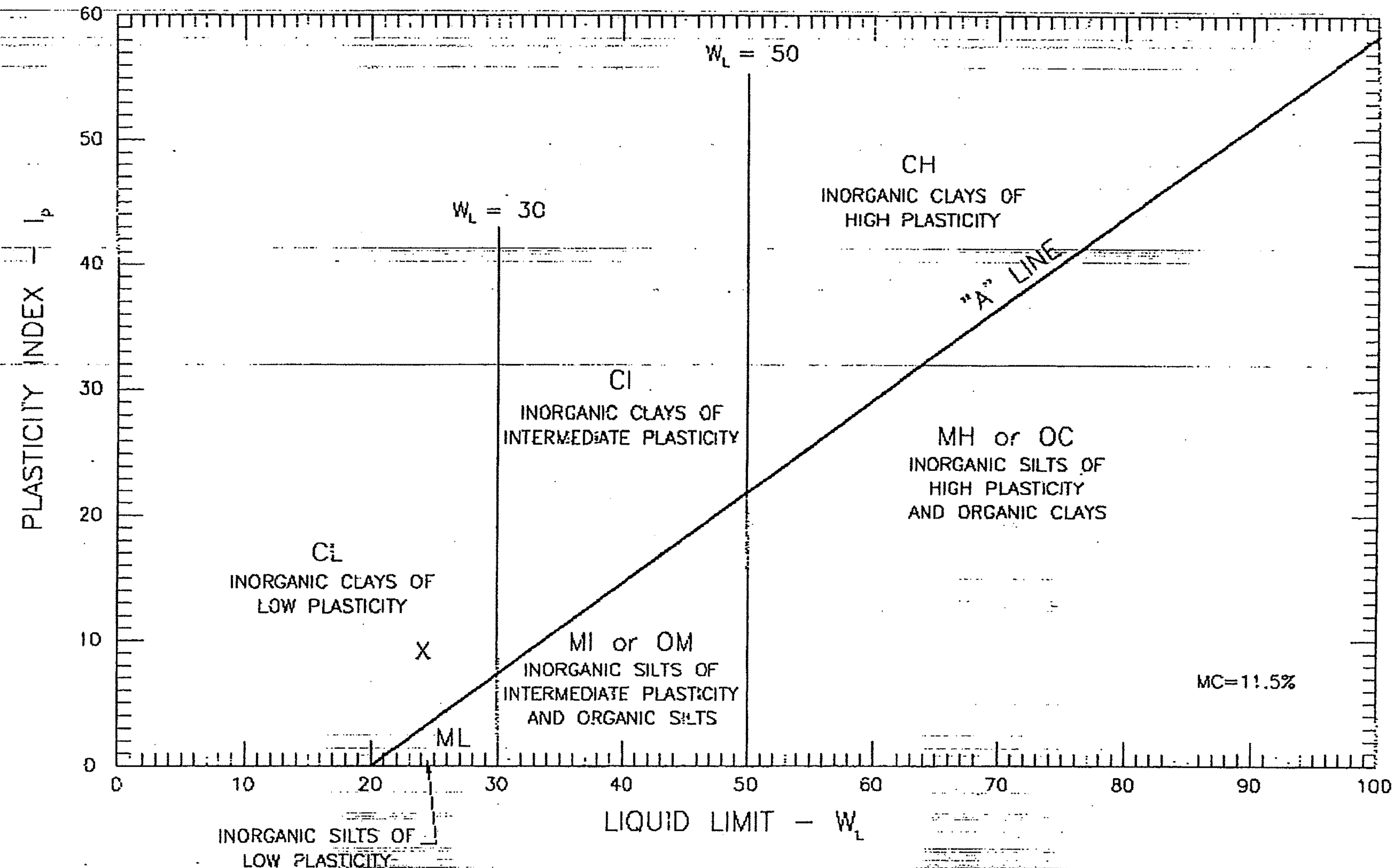
TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1	1982	1833	8.1
2	2159	1961	10.1
3	2272	2032	11.8
4	2220	1946	14.1

	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	2040	12.0
OVERSIZE CORRECTED	2085	11.0

COMMENTS

Feb. 9. 2005 11:04AM GeoNorth Engineering 564 9323 No.3976 P.17

A-70



GEONORTH ENGINEERING LTD. 1301 Keilher Road, Tel. (250) 564-4304 Prince George, B.C., V2L 5S8, Fax (250) 564-9323	MOUNT POLLEY MINE ATTN: KNIGHT PIESOLD ATTERBERG LIMITS OF R-ZS-06	SCALE: N.T.S.	DATE: 2005/02/08
		PROJECT NO: K-1587	DRAWING NO. 1587-B:9

1301 Kellihar Road Prince George, BC V2L5S8
Phone (250)564-4304; fax (250)564-9323

SIEVE ANALYSIS REPORT
10 20 40 60 SERIES

PROJECT NO. K 1587
CLIENT Mount Polley Mine Attn: Knight
C.C. Knight Piesold

TO
Mount Polley Mine Attn: Knight
Piesold
P.O Box 12
Likely, BC
VOL 1N0

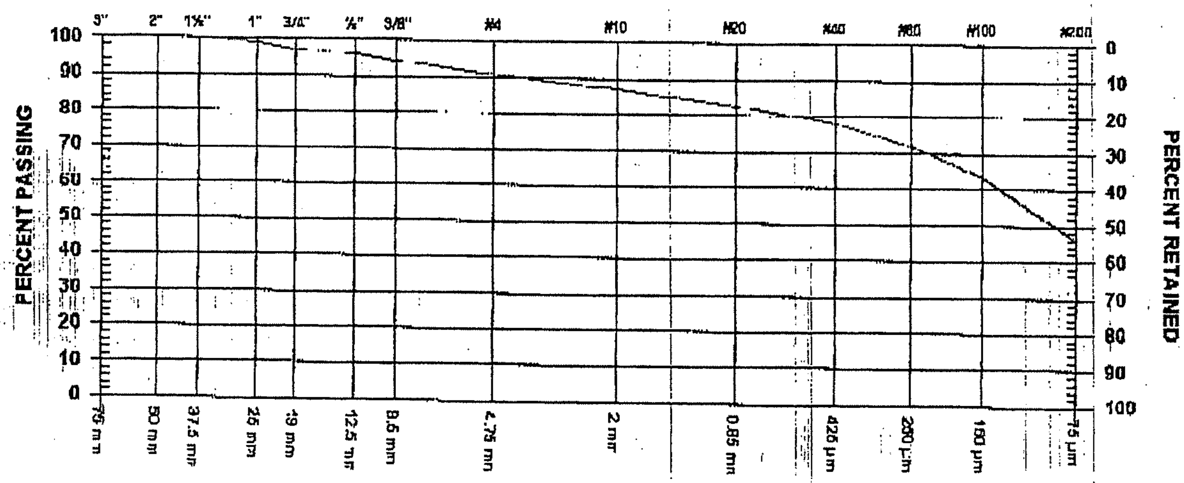
ATTN: Terry Isaacs @ 250-790-2268

PROJECT Construction Program - Mount Polley Mine
Testing Services
CONTRACTOR

SIEVE TEST NO. 17 DATE RECEIVED 2005.Feb.02 DATE TESTED 2005.Feb.07 DATE SAMPLED 2005.Jan.31

SUPPLIER
SOURCE R-ZS-06
SPECIFICATION
MATERIAL TYPE Till

SAMPLED BY MW - Client
TESTED BY NDS
TEST METHOD WASHED



GRAVEL SIZES			PERCENT PASSING	GRADATION LIMITS
3"	75	mm		
2"	50	mm		
1 1/2"	37.5	mm	100.0	
1"	25	mm	98.6	
3/4"	19	mm	97.2	
1/2"	12.5	mm	95.6	
3/8"	9.5	mm	94.2	

SAND SIZES AND FINES			PERCENT PASSING	GRADATION LIMITS
No. 4	4.75	mm	90.5	
No. 10	2.00	mm	86.7	
No. 20	850	µm	82.4	
No. 40	425	µm	78.0	
No. 60	250	µm	71.8	
No. 100	150	µm	63.6	
No. 200	75	µm	45.9	

COMMENTS

 2005.Feb.08 GeoNorth Engineering Ltd. PER.

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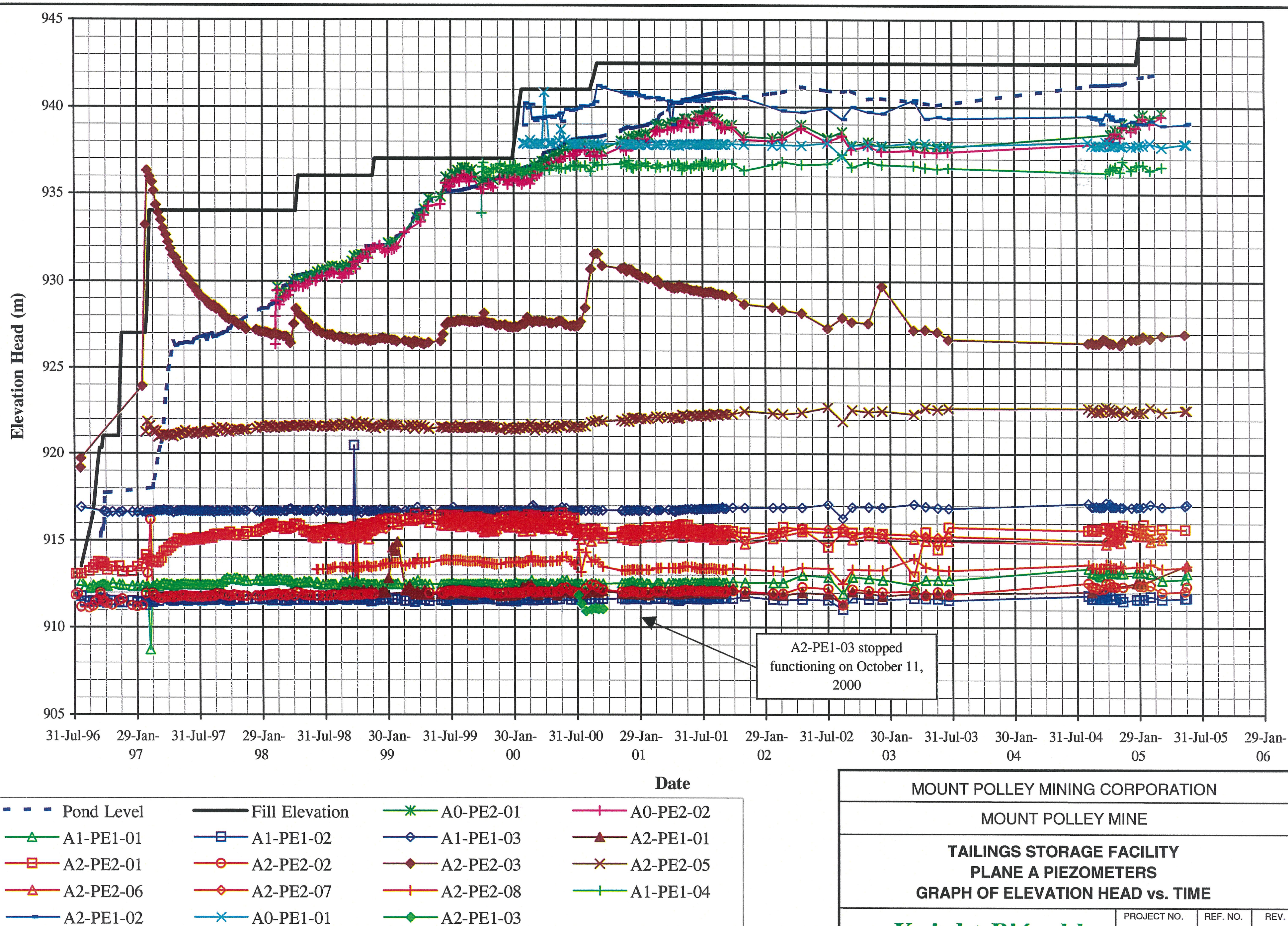
CONSULTING

APPENDIX B

INSTRUMENTATION

M:\1\01\00001\05\A\Report\Report 2_Stage 3C Construction\Appendices\Appendix B - Instrumentation\Plane A.xls All Piezos 9/22/2005



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MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
PLANE A PIEZOMETERS
GRAPH OF ELEVATION HEAD vs. TIME

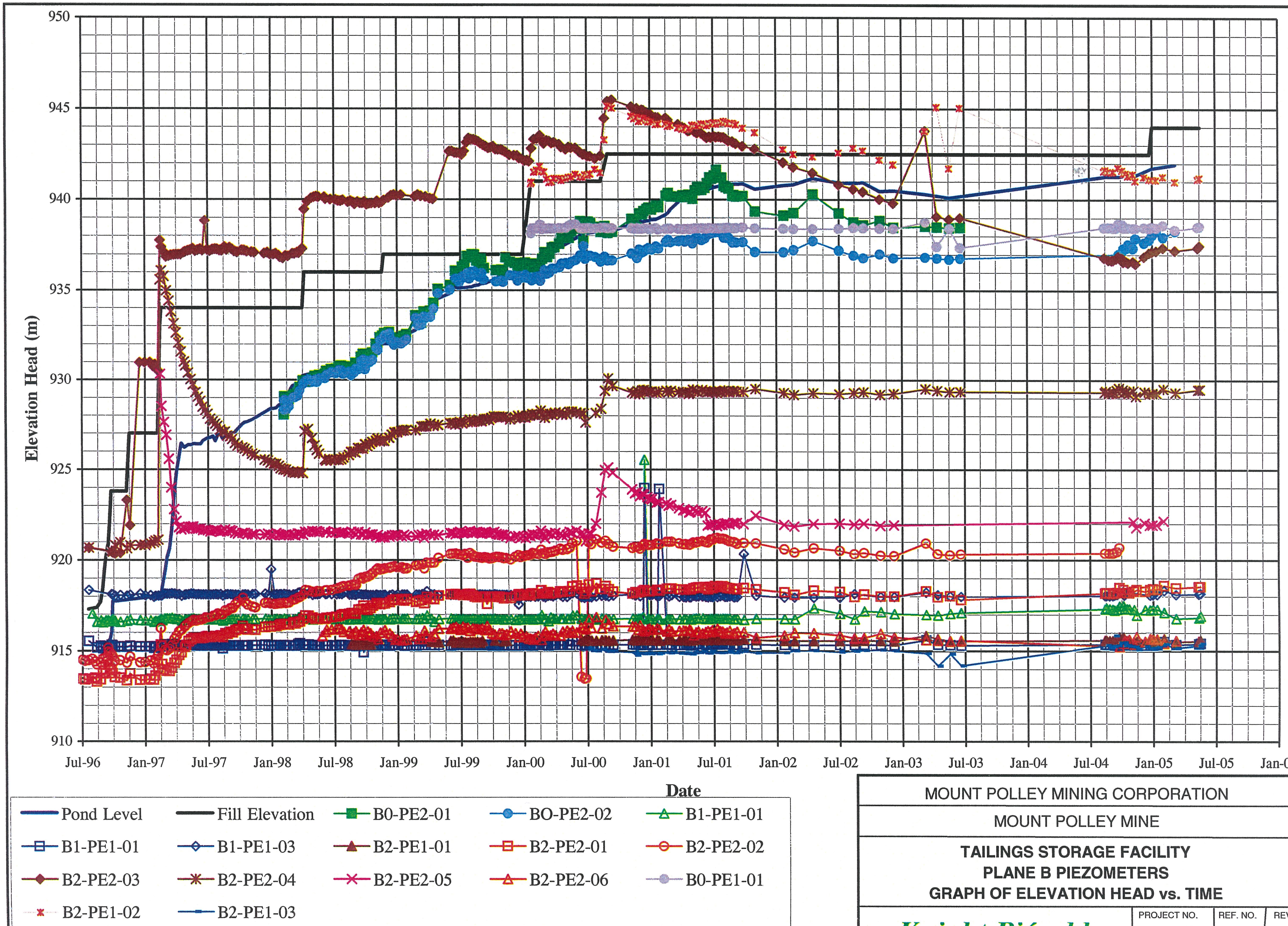
Knight Piésold CONSULTING

PROJECT NO.	REF. NO.	REV.
VA101-1/5	2	0

FIGURE B1-1

M:\1\01\00001\05\A\Report\Report Stage 3C Construction\Appendices\Appendix B - Instrumentation\Plane B.xls All Piezos

9/22/2005



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MOUNT POLLEY MINING CORPORATION

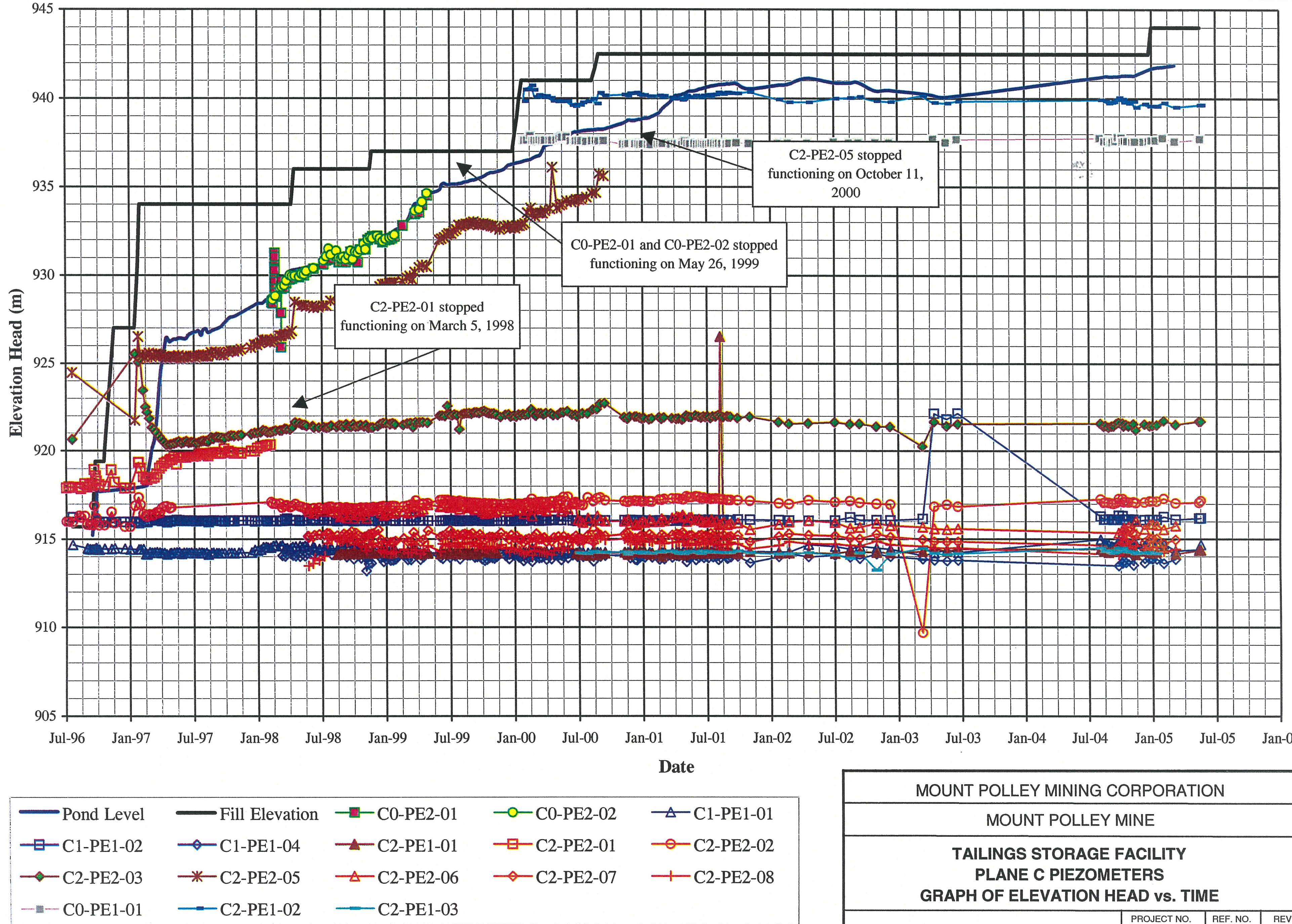
MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
PLANE B PIEZOMETERS
GRAPH OF ELEVATION HEAD vs. TIME

Knight Piésold
CONSULTING

PROJECT NO.	REF. NO.	REV.
VA 101-1/5	2	0

FIGURE B1-2



MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
TAILINGS STORAGE FACILITY PLANE C PIEZOMETERS GRAPH OF ELEVATION HEAD vs. TIME		
PROJECT NO.	REF. NO.	REV.
VA101-1/5	2	0
FIGURE B1-3		

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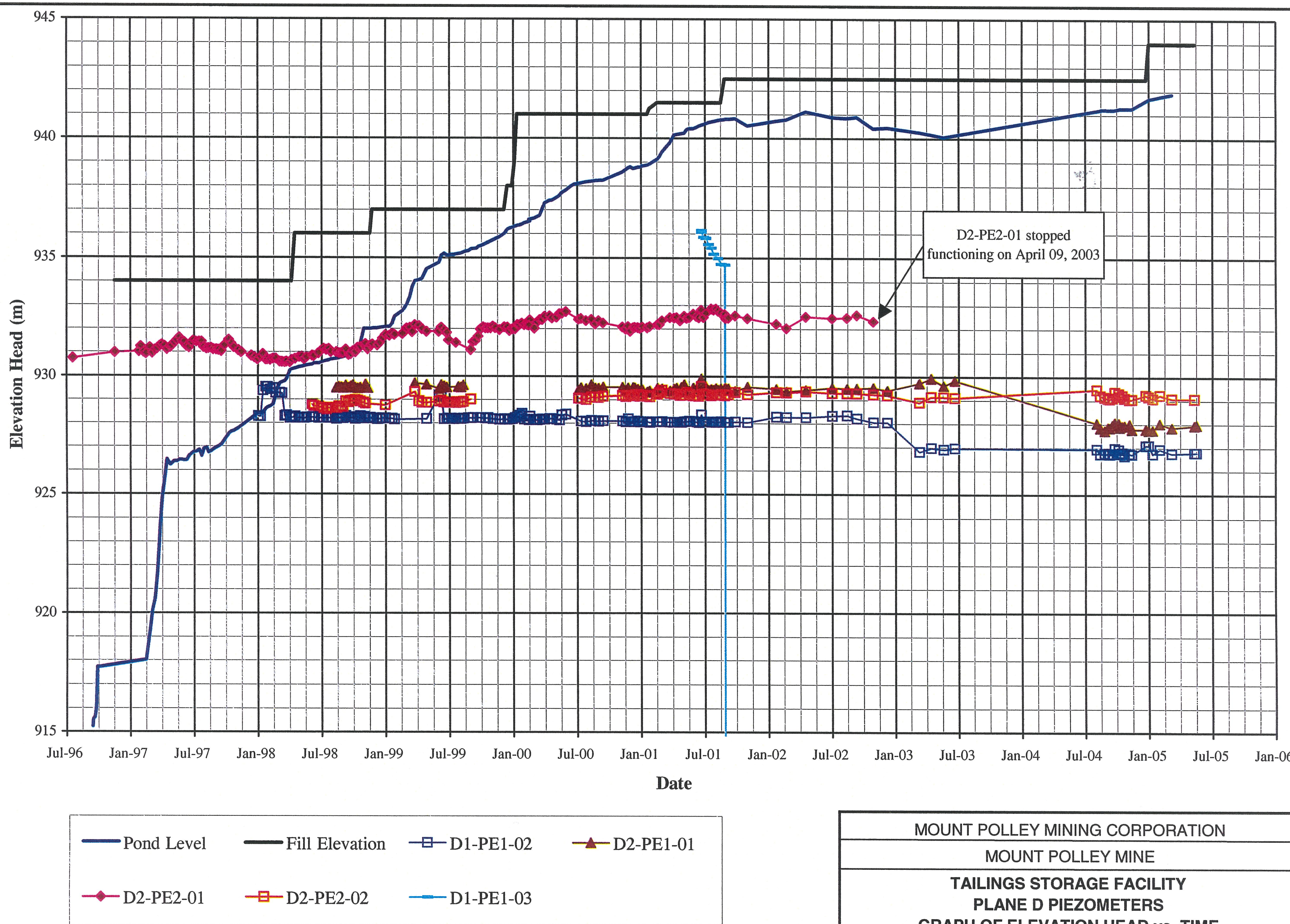

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
PLANE D PIEZOMETERS
GRAPH OF ELEVATION HEAD vs. TIME

Knight Piésold CONSULTING

PROJECT NO.	REF. NO.	REV.
VA101-1/5	2	0

FIGURE B1-4

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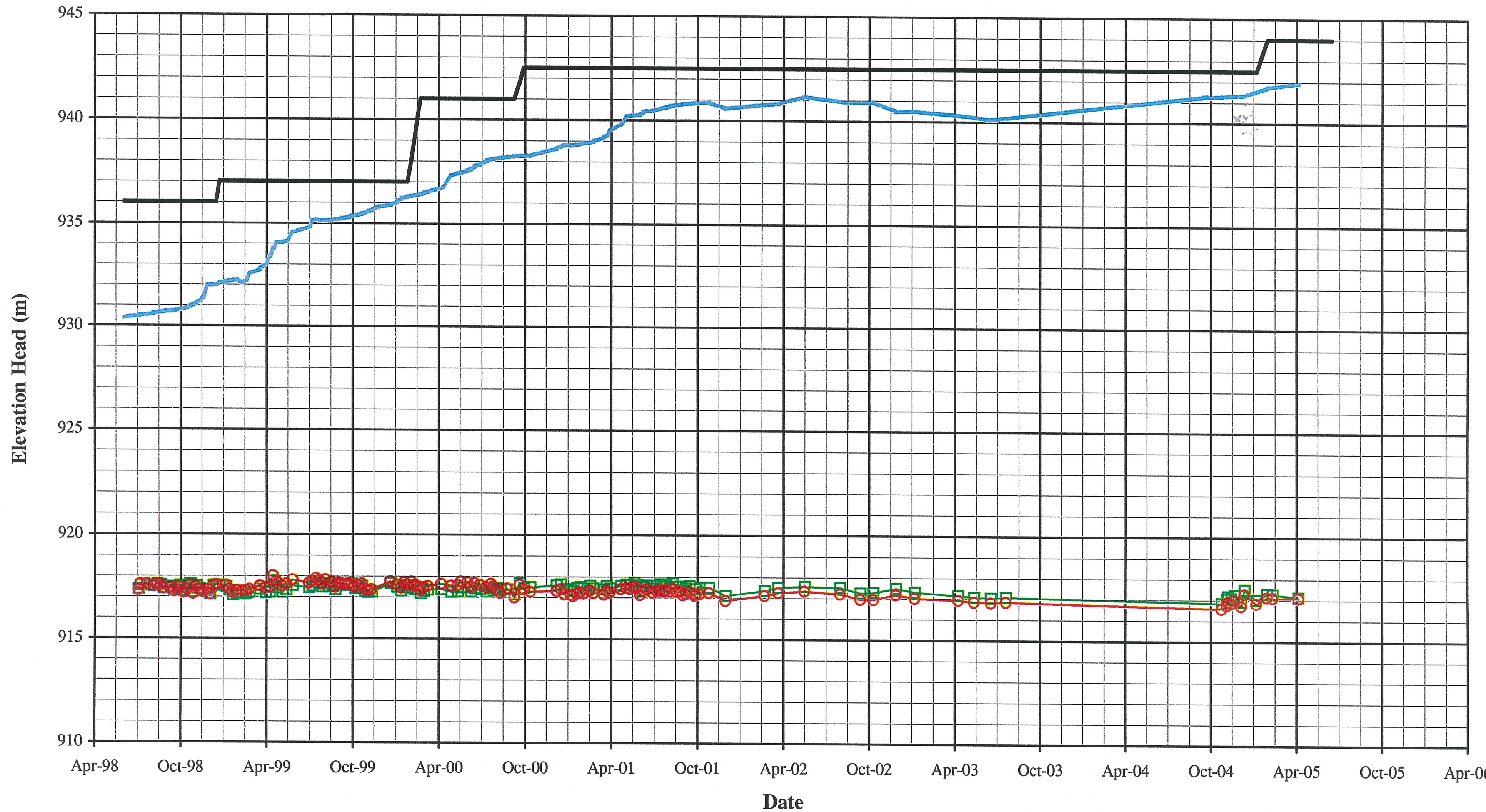

MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
TAILINGS STORAGE FACILITY PLANE E PIEZOMETERS GRAPH OF ELEVATION HEAD vs. TIME		
Knight Piésold CONSULTING	PROJECT NO. VA101 - 1/5	REF. NO. 2 / REV 0
	FIGURE B1-5	

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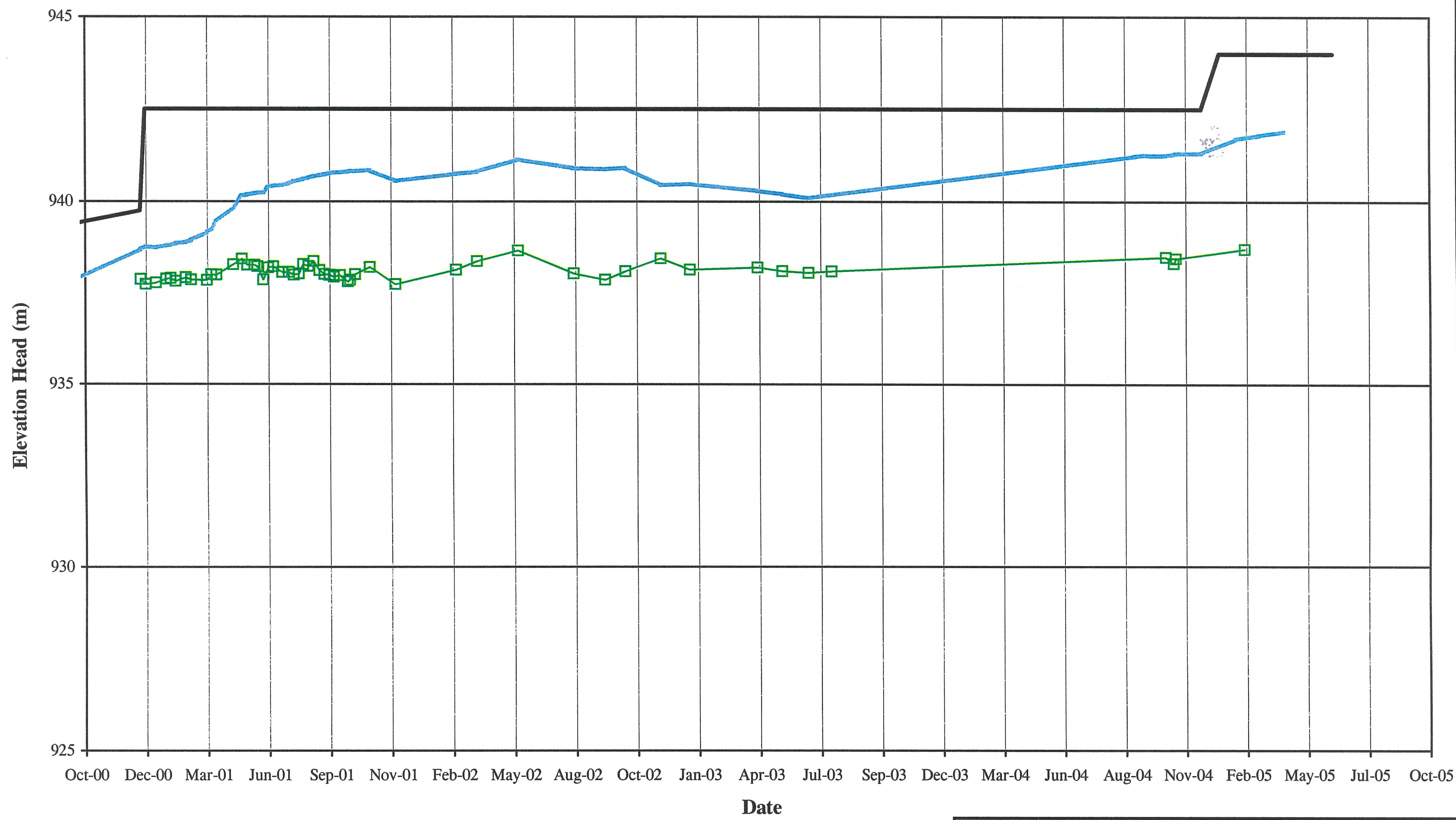
9/22/2005



MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
TAILINGS STORAGE FACILITY **PLANE F PIEZOMETERS** **GRAPH OF ELEVATION HEAD vs. TIME**		
PROJECT NO.	REF. NO.	REV.
VA101 - 1/5	2	0
FIGURE B1-6		

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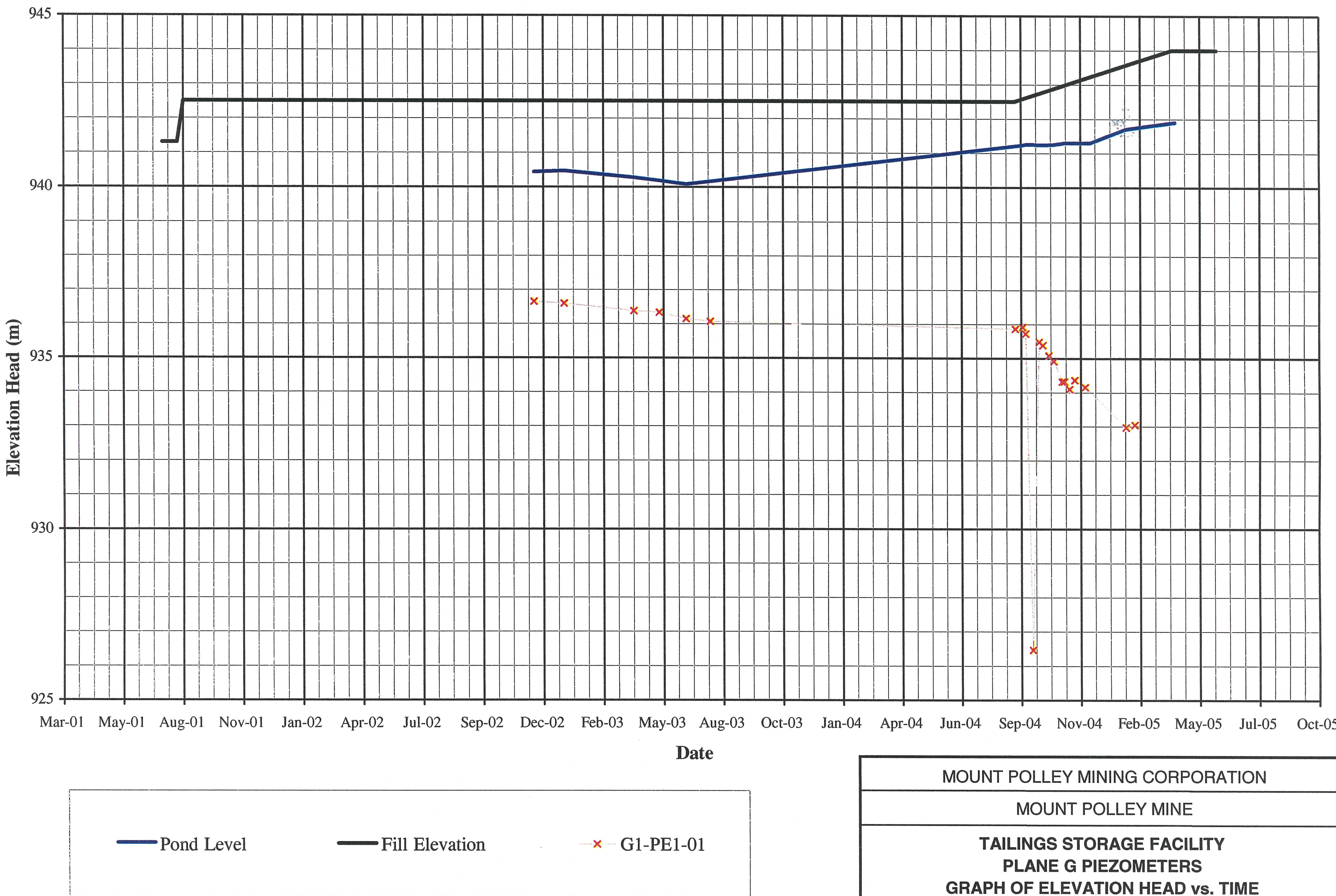

MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
TAILINGS STORAGE FACILITY PLANE G PIEZOMETERS GRAPH OF ELEVATION HEAD vs. TIME		
PROJECT NO. VA101 - 1/5	REF. NO. 2	REV. 0
FIGURE B1-7		

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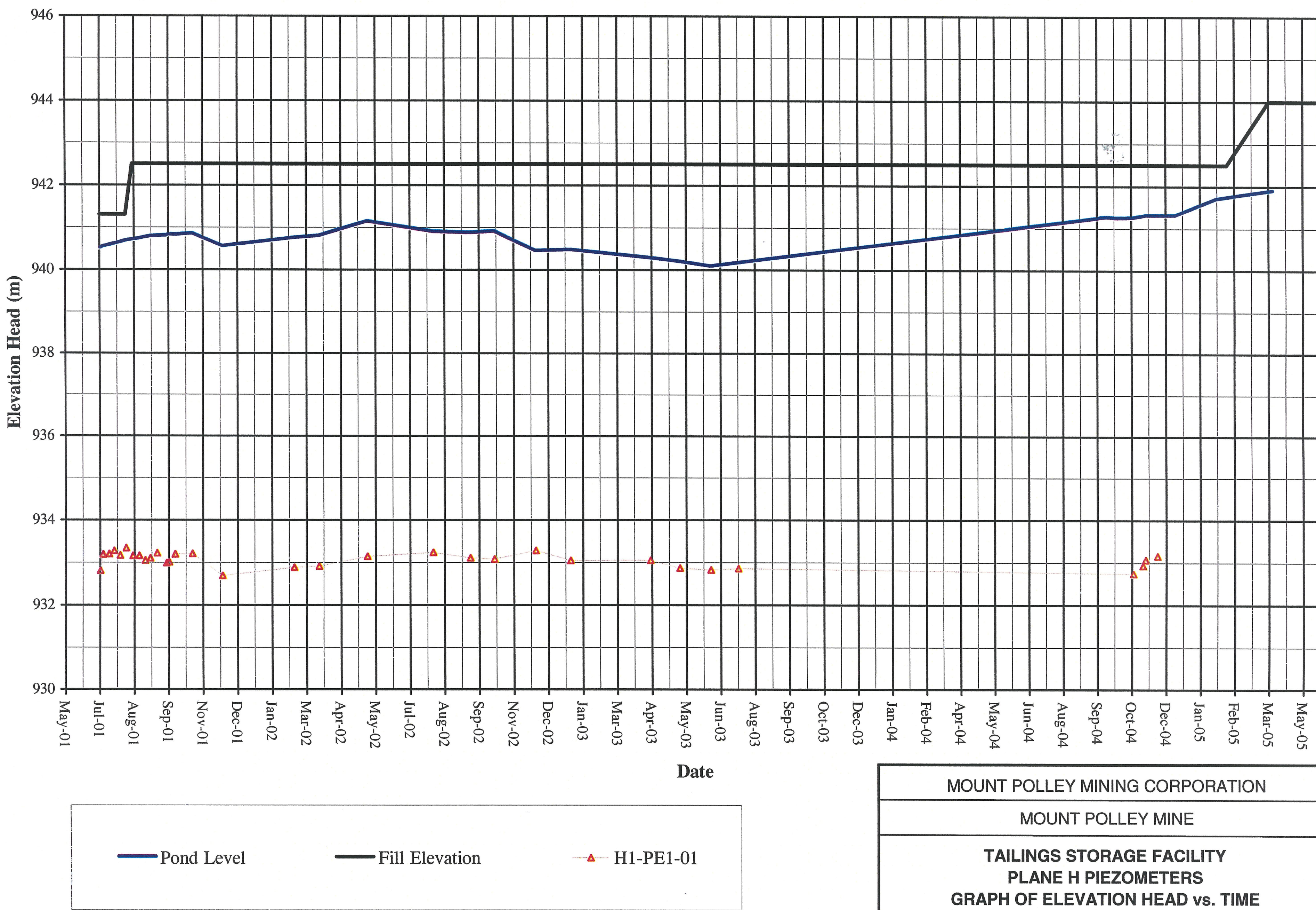
9/22/2005



MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

TAILINGS STORAGE FACILITY
PLANE H PIEZOMETERS
GRAPH OF ELEVATION HEAD vs. TIME

Knight Piésold CONSULTING

PROJECT NO.	REF. NO.	REV.
VA101-1/5	2	0

FIGURE B1-8

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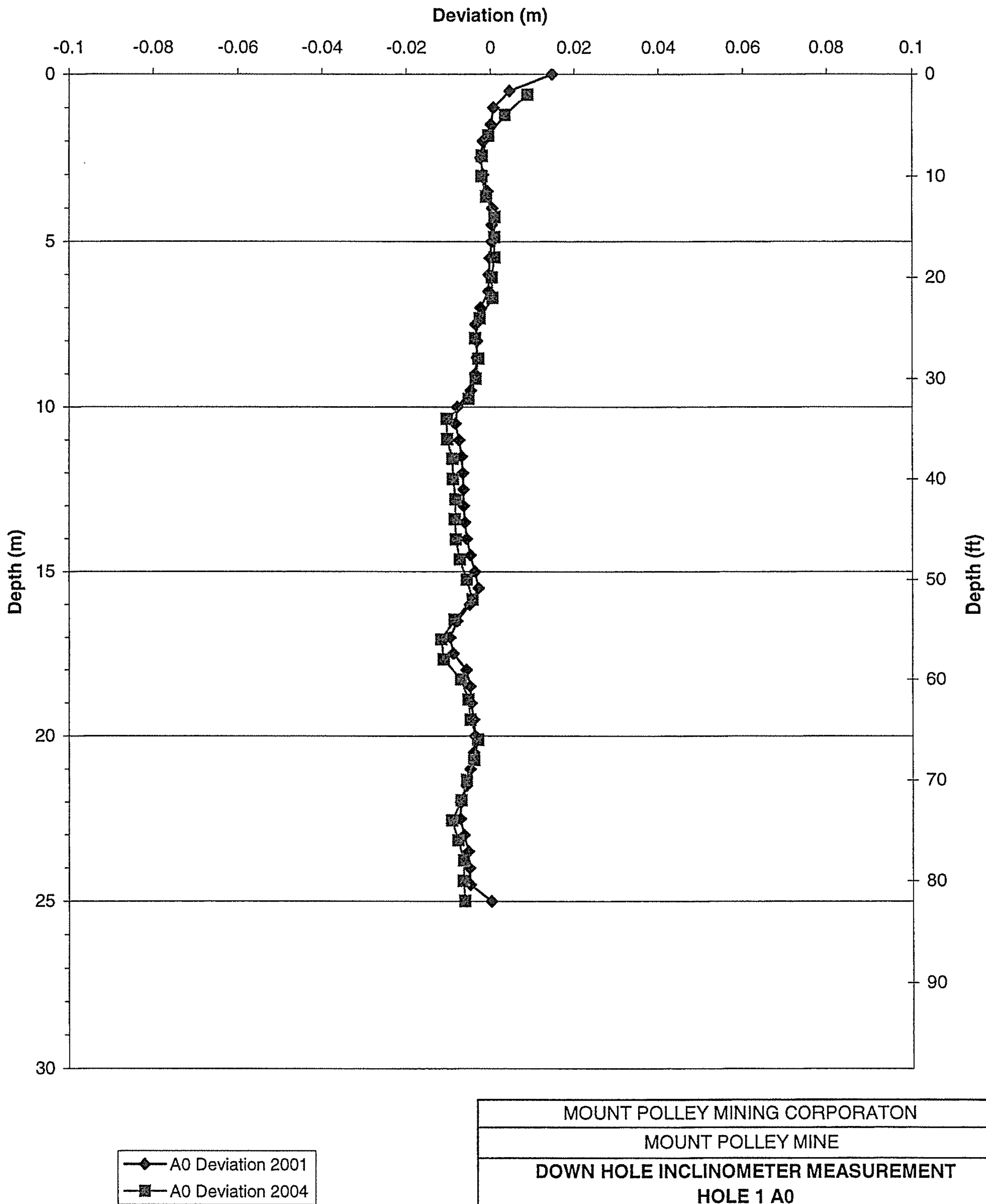

MOUNT POLLEY MINING CORPORATON		
MOUNT POLLEY MINE		
DOWN HOLE INCLINOMETER MEASUREMENT HOLE 1 A0 2001 DATA VS. 2004 DATA		
PROJECT / ASSIGNMENT NO. VA101-1/5	REF NO. 2	REV. 0

Knight Piésold CONSULTING

FIGURE B2-1

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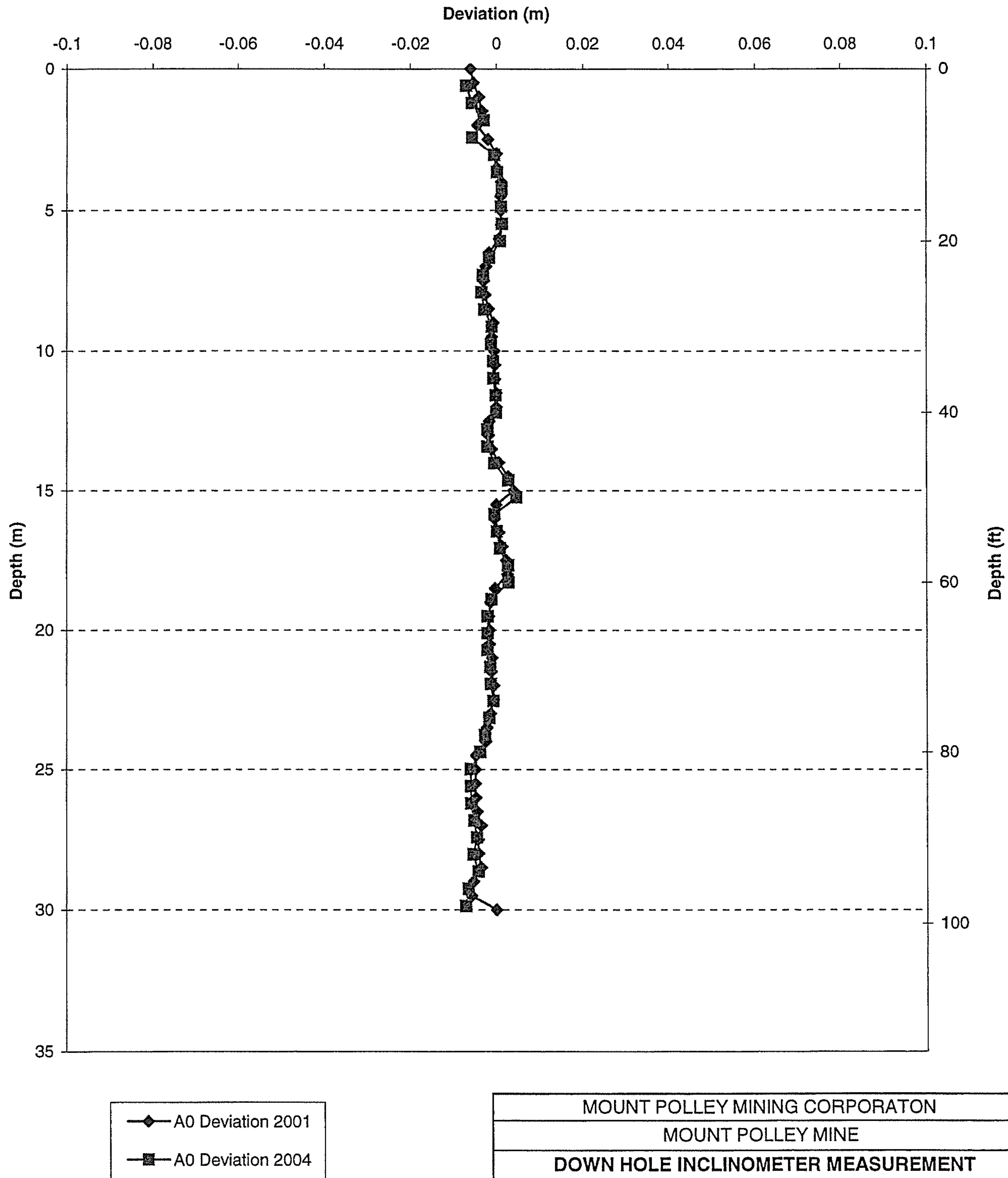

MOUNT POLLEY MINING CORPORATON		
MOUNT POLLEY MINE		
DOWN HOLE INCLINOMETER MEASUREMENT HOLE 2 A0 2001 DATA VS. 2004 DATA		
PROJECT / ASSIGNMENT NO. VA101-1/5	REF NO. 2	REV. 0

Knight Piésold CONSULTING

FIGURE B2-2

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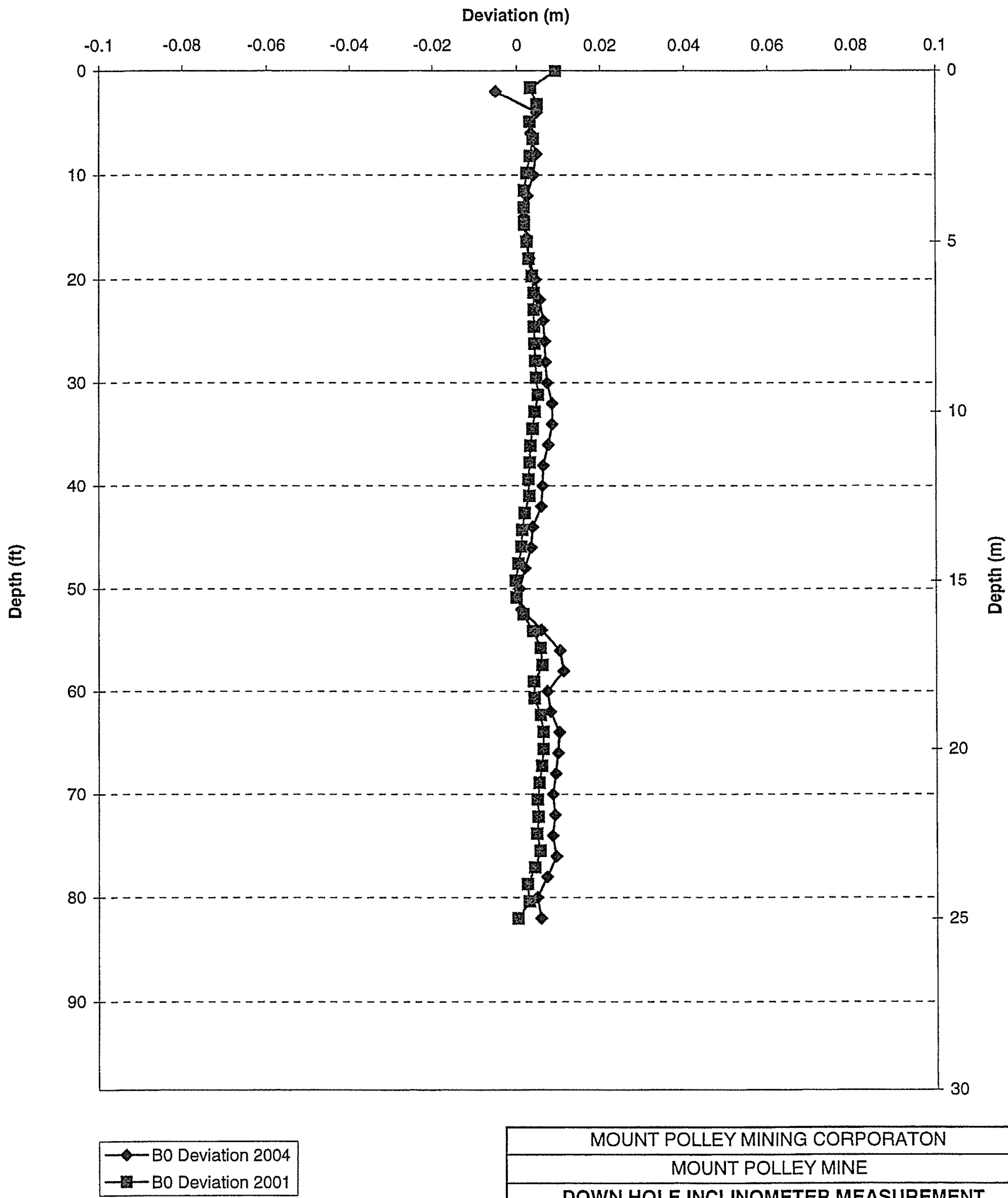
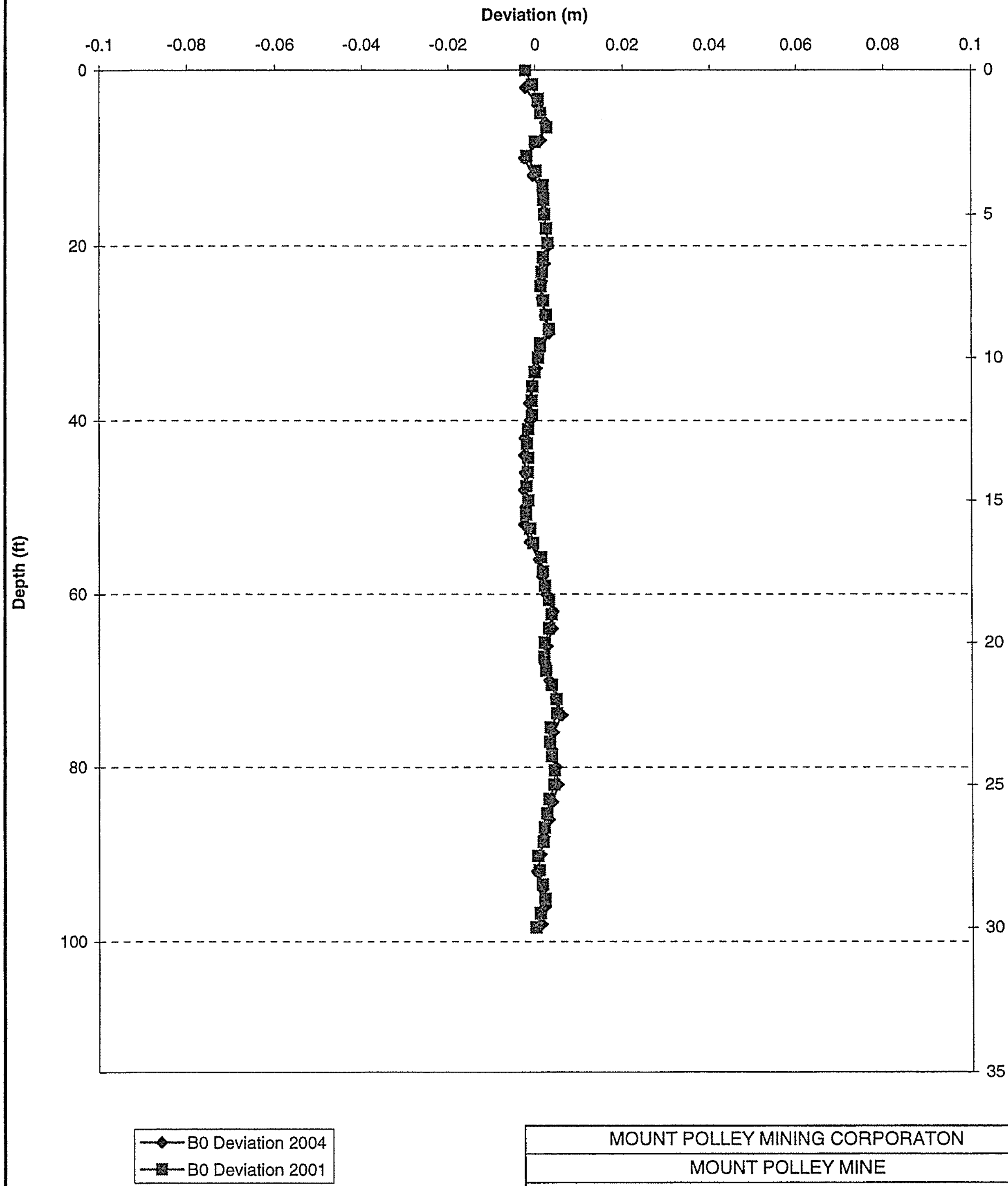


MOUNT POLLEY MINING CORPORATON		
MOUNT POLLEY MINE		
DOWN HOLE INCLINOMETER MEASUREMENT HOLE 1 B0 2001 DATA VS. 2004 DATA		
Knight Piésold CONSULTING	PROJECT / ASSIGNMENT VA101-1/5	REF NO. 2	REV. 0
	FIGURE B2-3		

Rev. 0. - Issued for Report



MOUNT POLLEY MINING CORPORATON

MOUNT POLLEY MINE

DOWN HOLE INCLINOMETER MEASUREMENT
HOLE 2 B0
2001 DATA VS. 2004 DATA

Knight Piésold CONSULTING

PROJECT / ASSIGNMENT	REF NO.	REV.
VA101-1/5	2	0

FIGURE B2-4

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APPENDIX C

NUCLEAR DENSOMETER RESULTS

(Pages C-1 to C-7)

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FIELD COMPACTION TESTS (Metric)
NUCLEAR GAUGE

PROJECT NO.: 101-01/05
DATE:

TEST NO.	LOCATION		Elevation (m)	Test Depth (m)	LABORATORY		FIELD DESIGN				
					Max. Dry Density (kg/m^3)	Optimum Moisture (%)	Dry Density (kg/m^3)	Moisture Content (%)	Compaction (%)	Compaction Specification (%)	Pass or Fail
1	d/s	South Embankment Ch. 0+900	942.8	0.2	1890.0	14.3	1994.0	12.8	105.5	95.0	Pass
2	d/s	South Embankment Ch. 0+880	942.8	0.2	1890.0	14.3	1843	12.5	97.5	95.0	Pass
3	c	South Embankment Ch. 0+820	942.8	0.2	1890.0	14.3	1964.0	12.8	103.9	95.0	Pass
4	u/s	South Embankment Ch. 0+760	942.8	0.2	1890.0	14.3	1990.0	12.4	105.3	95.0	Pass
5	u/s	South Embankment Ch. 0+910	942.8	0.2	1890.0	14.3	1956	13.3	103.5	95.0	Pass
6	u/s	South Embankment Ch. 0+980	943.1	0.2	1890.0	14.3	1953.0	12.2	103.3	95.0	Pass
7	c	South Embankment Ch. 0+900	943.1	0.2	1890.0	14.3	1957	12.1	103.5	95.0	Pass
8	d/s	South Embankment Ch. 0+820	943.1	0.2	1890.0	14.3	2051.0	11.7	108.5	95.0	Pass
9	c	South Embankment Ch. 0+740	943.1	0.2	1890.0	14.3	1967.0	13.4	104.1	95.0	Pass
10	u/s	South Embankment Ch. 0+660	943.1	0.2	1890.0	14.3	1959.0	11.4	103.7	95.0	Pass
11	d/s	South Embankment Ch. 0+980	943.4	0.2	1890.0	14.3	1908.0	14.0	101.0	95.0	Pass
12	d/s	South Embankment Ch. 0+940	943.4	0.2	1890.0	14.3	1945.0	13.2	102.9	95.0	Pass
13	c	South Embankment Ch. 0+840	943.4	0.2	1890.0	14.3	1912.0	13.0	101.2	95.0	Pass
14	c	South Embankment Ch. 0+720	943.4	0.2	1890.0	14.3	2019.0	13.0	106.8	95.0	Pass
15	c	Perimeter Dam Ch. 4+350	942.8	0.2	2024.0	11.1	2043.0	11.3	100.9	95.0	Pass
16	u/s	Perimeter Dam Ch. 4+400	942.8	0.2	2024.0	11.1	1988.0	11.8	98.2	95.0	Pass
17	d/s	Perimeter Dam Ch. 4+450	942.8	0.2	2024.0	11.1	2025.0	11.4	100.0	95.0	Pass
18	c	Perimeter Dam Ch. 4+350	943.1	0.2	2024.0	11.1	2016.0	11.2	99.6	95.0	Pass
19	u/s	Perimeter Dam Ch. 4+400	943.1	0.2	2024.0	11.1	2016.0	10.6	99.6	95.0	Pass
20	u/s	Perimeter Dam Ch. 4+440	943.1	0.2	2024.0	11.1	1949.0	12.8	96.3	95.0	Pass
21	d/s	Perimeter Dam Ch. 4+470	943.4	0.2	2024.0	11.1	2034.0	11.2	100.5	95.0	Pass
22	d/s	Perimeter Dam Ch. 4+420	943.4	0.2	2024.0	11.1	1978.0	12.5	97.7	95.0	Pass
23	d/s	Perimeter Dam Ch. 4+360	943.4	0.2	2024.0	11.1	2002.0	11.3	98.9	95.0	Pass
24	u/s	Perimeter Dam Ch. 4+220	942.8	0.2	2024.0	11.1	2099.0	10.1	103.7	95.0	Pass
25	u/s	Perimeter Dam Ch. 4+300	942.8	0.2	2024.0	11.1	1979.0	10.8	97.8	95.0	Pass
26	d/s	Perimeter Dam Ch. 4+180	942.8	0.2	2024.0	11.1	2028.0	10.6	100.2	95.0	Pass
27	d/s	Perimeter Dam Ch. 4+280	943.1	0.2	2024.0	11.1	1998.0	11.8	98.7	95.0	Pass
28	d/s	Perimeter Dam Ch. 4+320	943.1	0.2	2024.0	11.1	2019.0	11.5	99.8	95.0	Pass
29	c	Perimeter Dam Ch. 4+240	943.1	0.2	2024.0	11.1	2037.0	11.0	100.6	95.0	Pass
30	u/s	Perimeter Dam Ch. 4+200	943.1	0.2	2024.0	11.1	1982.0	11.3	97.9	95.0	Pass
31	d/s	Perimeter Dam Ch. 4+320	943.4	0.2	2024.0	11.1	1927.0	13.4	95.2	95.0	Pass
32	d/s	Perimeter Dam Ch. 4+270	943.4	0.2	2024.0	11.1	1988.0	11.7	98.2	95.0	Pass
33	d/s	Perimeter Dam Ch. 4+160	942.8	0.2	2024.0	11.1	1961.0	11.9	96.9	95.0	Pass
34	d/s	Perimeter Dam Ch. 4+110	942.8	0.2	2024.0	11.1	1973.0	12.1	97.5	95.0	Pass
35	c	Perimeter Dam Ch 4+165	943.1	0.2	2024.0	11.1	1985.0	12.1	98.1	95.0	Pass
36	c	Perimeter Dam Ch. 4+100	943.1	0.2	2024.0	11.1	2009.0	12.0	99.3	95.0	Pass
37	d/s	Perimeter Dam Ch. 4+175	943.4	0.2	2024.0	11.1	1951.0	12.2	96.4	95.0	Pass
38	d/s	Perimeter Dam Ch. 4+140	943.4	0.2	2024.0	11.1	1946.0	12.2	96.1	95.0	Pass
39	u/s	Perimeter Dam Ch. 4+90	943.4	0.2	2024.0	11.1	2008.0	11.7	99.2	95.0	Pass
40	d/s	Perimeter Dam Ch. 3+550	942.8	0.1	2024.0	11.1	1975.0	12.5	97.6	95.0	Pass
41	d/s	Perimeter Dam Ch. 3+500	942.8	0.2	2024.0	11.1	2067.0	10.5	102.1	95.0	Pass
42	c	Perimeter Dam Ch. 3+440	942.8	0.2	2024.0	11.1	1981.0	12.6	97.9	95.0	Pass
43	c	Perimeter Dam Ch. 3+360	942.8	0.16	2024.0	11.1	1993.0	12.0	98.5	95.0	Pass
44		Perimeter Dam Ch. 3+560	943.1	0.2	2024.0	11.1	1958.0	11.9	96.7	95.0	Pass
45		Perimeter Dam Ch. 3+500	943.1	0.2	2024.0	11.1	1983.0	12.8	98.0	95.0	Pass
46		Perimeter Dam Ch. 3+400	943.1	0.2	2024.0	11.1	1949.0	12.4	96.3	95.0	Pass
47		Perimeter Dam Ch. 3+320	943.1	0.2	2024.0	11.1	1979.0	12.5	97.8	95.0	Pass
48		Perimeter Dam Ch. 3+560	943.4	0.2	2024.0	11.1	1940.0	13.6	95.8	95.0	Pass
49		Perimeter Dam Ch. 3+480	943.4	0.2	2024.0	11.1	1935.0	14.2	95.6	95.0	Pass
50		Perimeter Dam Ch. 4+390	943.4	0.2	2024.0	11.1	2071.0	11.7	102.3	95.0	Pass
51	d/s	Perimeter Dam Ch. 4+330	943.5	0.2	1967.0	12.1	1853.0	13.3	94.2	95.0	Pass
52	u/s	Perimeter Dam Ch. 4+330	943.5	0.2	1967.0	12.1	1771.0	12.6	90.0	95.0	Pass
53	d/s	Perimeter Dam Ch. 4+340	943.5	0.2	1967.0	12.1	1897.0	12.9	96.4	95.0	Pass
54	u/s	Perimeter Dam Ch. 4+340	943.5	0.2	1967.0	12.1	1887.0	13.9	95.9	95.0	Pass
55	u/s	Perimeter Dam.Ch. 4+360	943.5	0.2	1967.0	12.1	1972.0	12.2	100.3	95.0	Pass
56	u/s	Perimeter Dam Ch. 4+310	934.5	0.2	1967.0	12.1	1941.0	13.0	98.7	95.0	Pass
57	c	Perimeter Dam Ch. 4+320	943.5	0.2	1967.0	12.1	1928.0	12.0	98.0	95.0	Pass
58	c	Perimeter Dam Ch. 4+330	943.5	0.2	1967.0	12.1	1918.0	12.0	97.5	95.0	Pass

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FIELD COMPACTION TESTS (Metric)
NUCLEAR GAUGE

PROJECT NO.: 101-01/05
DATE:

TEST NO.	LOCATION		Elevation (m)	Test Depth (m)	LABORATORY Max. Dry Density (kg/m³)	LABORATORY Optimum Moisture (%)	FIELD DESIGN Dry Density (kg/m³)	FIELD DESIGN Moisture Content (%)	FIELD DESIGN Compaction (%)	FIELD DESIGN Compaction Specification (%)	FIELD DESIGN Pass or Fail
59	u/s	Perimeter Dam Ch. 4+300	943.5	0.2	1967.0	12.1	1932.0	12.9	98.2	95.0	Pass
60	u/s	Perimeter Dam Ch. 4+280	943.5	0.2	1967.0	12.1	1938.0	13.9	98.5	95.0	Pass
61	d/s	Perimeter Dam Ch. 4+260	943.5	0.2	1967.0	12.1	1935.0	13.4	98.4	95.0	Pass
62	d/s	Perimeter Dam h. 4+240	943.5	0.2	1967.0	12.1	1966.0	12.4	99.9	95.0	Pass
63	c	Perimeter Dam Ch. 4+220	943.5	0.2	1967.0	12.1	1865.0	9.9	94.8	95.0	Pass
64	c	Perimeter Dam Ch. 4+200	943.5	0.2	1967.0	12.1	1988.0	11.6	101.1	95.0	Pass
65	d/s	Perimeter Dam Ch. 4+180	943.5	0.2	1892.0	14.0	1921.0	11.4	101.5	95.0	Pass
66	c	Perimeter Dam Ch. 4+160	943.5	0.2	1892.0	14.0	1895.0	12.3	100.2	95.0	Pass
67	c	Perimeter Dam Ch. 4+140	943.5	0.2	1892.0	14.0	1944.0	13.0	102.7	95.0	Pass
68	c	Perimeter Dam Ch. 4+120	943.5	0.2	1892.0	14.0	1674.0	13.5	88.5	95.0	Pass
69	c	Perimeter Dam Ch. 2+830	942.8	0.2	1892.0	14.0	1938.0	12.2	102.4	95.0	Pass
70	c	Perimeter Dam Ch. 2+900	942.8	0.2	1892.0	14.0	2002.0	11.9	105.8	95.0	Pass
71	c	Perimeter Dam Ch. 2+980	942.8	0.2	1892.0	14.0	1920.0	13.2	101.5	95.0	Pass
72	d/s	Perimeter Dam Ch. 2+825	942.8	0.2	2107.0	8.7	1996.0	9.5	94.7	95.0	Pass
73	d/s	Perimeter Dam Ch. 2+845	942.8	0.2	2107.0	8.7	2059.0	9.7	97.7	95.0	Pass
74	d/s	Perimeter Dam Ch. 2+915	942.8	0.2	2107.0	8.7	2070.0	8.7	98.2	95.0	Pass
75	d/s	Perimeter Dam Ch. 2+800	943.1	0.2	2107.0	8.7	2061.0	9.5	97.8	95.0	Pass
76	d/s	Perimeter Dam Ch. 2+825	943.1	0.2	2107.0	8.7	1993.0	10.3	94.6	95.0	Pass
77	d/s	Perimeter Dam Ch. 2+850	943.1	0.2	2107.0	8.7	2069.0	9.3	98.2	95.0	Pass
78	d/s	Perimeter Dam Ch. 2+875	943.1	0.2	2107.0	8.7	2012.0	9.5	95.5	95.0	Pass
79	d/s	Perimeter Dam Ch. 2+900	943.1	0.2	2107.0	8.7	2152.0	8.7	102.1	95.0	Pass
80	d/s	Perimeter Dam Ch. 2+925	943.1	0.2	2107.0	8.7	2081.0	9.1	98.8	95.0	Pass
81	d/s	Perimeter Dam Ch. 2+950	943.1	0.2	2107.0	8.7	2085.0	8.6	99.0	95.0	Pass
82	d/s	Perimeter Dam Ch. 2+995	943.1	0.2	2107.0	8.7	2091.0	9.0	99.2	95.0	Pass
83	d/s	Perimeter Dam Ch. 3+025	943.1	0.2	2107.0	8.7	2091.0	9.2	99.2	95.0	Pass
84	d/s	Perimeter Dam Ch. 3+050	943.1	0.2	2107.0	8.7	2105.0	8.9	99.9	95.0	Pass
85	d/s	Perimeter Dam Ch. 3+075	943.1	0.2	2107.0	8.7	2118.0	8.9	100.5	95.0	Pass
86	d/s	Perimeter Dam Ch. 2+950	943.1	0.2	2107.0	8.7	2190.0	7.2	103.9	95.0	Pass
87	d/s	Perimeter Dam Ch. 2+975	943.1	0.2	2107.0	8.7	2126.0	8.3	100.9	95.0	Pass
88	d/s	Perimeter Dam Ch. 3+000	943.1	0.2	2107.0	8.7	2125.0	8.7	100.9	95.0	Pass
89	d/s	Perimeter Dam Ch. 3+025	943.1	0.2	2107.0	8.7	2021.0	9.8	95.9	95.0	Pass
90	d/s	Perimeter Dam Ch. 3+050	943.1	0.2	2107.0	8.7	2099.0	9.2	99.6	95.0	Pass
91	c	Perimeter Dam Ch. 2+800	943.4	0.2	2107.0	8.7	2104.0	9.2	99.9	95.0	Pass
92	c	Perimeter Dam Ch. 2+825	943.4	0.2	2107.0	8.7	2136.0	9.2	101.4	95.0	Pass
93	c	Perimeter Dam Ch. 2+850	943.4	0.2	2107.0	8.7	2048.0	9.5	97.2	95.0	Pass
94	c	Perimeter Dam Ch. 2+800	943.4	0.2	2107.0	8.7	2100.0	8.9	99.7	95.0	Pass
95	c	Perimeter Dam Ch. 2+825	943.4	0.2	2107.0	8.7	2066.0	9.9	98.1	95.0	Pass
96	c	Perimeter Dam Ch. 2+850	943.4	0.2	2107.0	8.7	2070.0	9.5	98.2	95.0	Pass
97	u/s	Main Dam Ch 2+700	943.4	0.2	2107.0	8.7	2067.0	10.6	98.1	95.0	Pass
98	d/s	Main Dam Ch 2+675	943.4	0.2	2107.0	8.7	2016.0	10.5	95.7	95.0	Pass
99	u/s	Main Dam Ch 2+650	943.4	0.2	2107.0	8.7	2047.0	10.8	97.2	95.0	Pass
100	c	Main Dam Ch 2+600	943.1	0.2	2107.0	8.7	2011.0	12.2	95.4	95.0	Pass
101	c	Main Dam Ch 2+575	943.1	0.2	2107.0	8.7	2066.0	10.5	98.1	95.0	Pass
102	c	Main Dam Ch 2+550	943.1	0.2	2107.0	8.7	2070.0	10.6	98.2	95.0	Pass
103	c	Main Dam Ch. 2+525	943.1	0.2	2107.0	8.7	2081.0	10.4	98.8	95.0	Pass
104	u/s	Main Dam Ch. 2+475	943.8	0.2	2107.0	8.7	2077.0	10.7	98.6	95.0	Pass
105	u/s	Main Dam Ch. 2+450	942.8	0.2	2107.0	8.7	2019.0	9.7	95.8	95.0	Pass
106	u/s	Main Dam Ch. 2+420	942.8	0.2	2107.0	8.7	1998.0	10.9	94.8	95.0	Pass
107	u/s	Main Dam Ch. 2+400	942.8	0.2	2107.0	8.7	2045.0	10.2	97.1	95.0	Pass
108	u/s	Main Dam Ch. 2+300	942.8	0.2	2107.0	8.7	2095.0	9.7	99.4	95.0	Pass
109	d/s	Main Dam Ch. 2+340	943.1	0.2	2107.0	8.7	2005.0	10.6	95.2	95.0	Pass
110	c	Main Dam Ch. 2+390	943.3	0.2	2107.0	8.7	2065.0	11.1	98.0	95.0	Pass
111	d/s	Main Dam Ch. 2+420	943.3	0.2	2107.0	8.7	2050.0	11.5	97.3	95.0	Pass
112	c	Main Dam Ch. 2+225	942.8	0.2	2107.0	8.7	2076.0	11.1	98.5	95.0	Pass
113	c	Main Dam Ch. 2+150	942.8	0.2	2107.0	8.7	2033.0	11.5	96.5	95.0	Pass
114	d/s	Main Dam Ch. 2+325	943.1	0.2	2107.0	8.7	2012.0	12.5	95.5	95.0	Pass
115	d/s	Main Dam Ch. 2+350	943.2	0.2	2107.0	8.7	2098.0	11.2	99.6	95.0	Pass
116	d/s	Main Dam Ch. 2+375	943.5	0.2	2107.0	8.7	2058.0	12.0	97.7	95.0	Pass

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FIELD COMPACTION TESTS (Metric)
NUCLEAR GAUGE

PROJECT NO.: 101-01/05
DATE:

TEST NO.	LOCATION		Elevation (m)	Test Depth (m)	LABORATORY Max. Dry Density (kg/m³)	LABORATORY Optimum Moisture (%)	FIELD DESIGN Dry Density (kg/m³)	FIELD DESIGN Moisture Content (%)	FIELD DESIGN Compaction (%)	FIELD DESIGN Compaction Specification (%)	FIELD DESIGN Pass or Fail
117	d/s	Main Dam Ch. 2+400	943.8	0.2	2107.0	8.7	2056.0	11.4	97.6	95.0	Pass
118	d/s	Main Dam Ch. 2+425	943.8	0.2	2107.0	8.7	2105.0	10.2	99.9	95.0	Pass
119	d/s	Main Dam Ch. 2+450	943.8	0.2	2107.0	8.7	2046.0	11.4	97.1	95.0	Pass
120	u/s	Main Dam Ch. 2+240	943.1	0.2	2107.0	8.7	2070.0	9.6	98.2	95.0	Pass
121	cl	Main Dam Ch. 2+275	943.1	0.2	2107.0	8.7	2111.0	10.8	100.2	95.0	Pass
122	ds	Main Dam Ch. 2+276	943.1	0.2	2107.0	8.7	2030.0	10.7	96.3	95.0	Pass
123	us	Main Dam Ch. 2+325	943.1	0.2	2107.0	8.7	2056.0	11.1	97.6	95.0	Pass
124	us	Main Dam Ch. 2+135	943.1	0.2	2107.0	8.7	2076.0	10.5	98.5	95.0	Pass
125	us	Main Dam Ch. 2+185	943.1	0.2	2107.0	8.7	2063.0	11.3	97.9	95.0	Pass
126	ds	Main Dam Ch. 2+200	943.1	0.2	2107.0	8.7	2052.0	10.5	97.4	95.0	Pass
127	us	Main Dam Ch. 2+225	943.1	0.2	2107.0	8.7	2191.0	8.9	104.0	95.0	Pass
128	c	Main Dam Ch. 2+315	943.4	0.2	2107.0	8.7	1999.0	10.6	94.9	95.0	Pass
129	us	Main Dam Ch. 2+285	943.4	0.2	2107.0	8.7	2094.0	9.7	99.4	95.0	Pass
130	cl	Main Dam Ch. 2+250	943.4	0.2	2107.0	8.7	2122.0	10.3	100.7	95.0	Pass
131	u/s	Main Dam Ch. 2+225	942.8	0.2	2107.0	8.7	2006.0	10.6	95.2	95.0	Pass
132	us	Main Dam Ch 2+200	943.5	0.2	2107.0	8.7	2056.0	10.9	97.6	95.0	Pass
133	cl	Main Dam Ch 2+150	943.4	0.2	2107.0	8.7	2085.0	11.1	99.0	95.0	Pass
134	c	Main Dam Ch. 2+200	943.8	0.2	2107.0	8.7	2066.0	9.9	98.1	95.0	Pass
135	c	Main Dam Ch. 2+150	942.8	0.2	2107.0	8.7	2160.0	10.3	102.5	95.0	Pass
136	d/s	Main Dam Ch. 2+000	942.8	0.2	2107.0	8.7	2017.0	9.2	95.7	95.0	Pass
137	u/s	Main Dam Ch. 1+950	942.8	0.2	2107.0	8.7	2055.0	9.6	97.5	95.0	Pass
138	ds	Main Dam Ch. 2+300	943.5	0.2	2107.0	8.7	2058.0	10.2	97.7	95.0	Pass
139	cl	Main Dam Ch. 2+285	943.5	0.2	2107.0	8.7	2102.0	9.9	99.8	95.0	Pass
140	us	Main Dam Ch. 2+256	943.5	0.2	2107.0	8.7	2070.0	10.1	98.2	95.0	Pass
141	cl	Main Dam Ch. 2+225	943.5	0.2	2107.0	8.7	2008.0	10.2	95.3	95.0	Pass
142	ds	Main Dam Ch. 2+190	943.5	0.2	2107.0	8.7	2039.0	9.2	96.8	95.0	Pass
143	cl	Main Dam Ch. 2+140	943.5	0.2	2107.0	8.7	2072.0	10.2	98.3	95.0	Pass
144	us	Main Dam Ch. 2+120	943.5	0.2	2107.0	8.7	2106.0	9.9	100.0	95.0	Pass
145	us	Main Dam Ch. 2+090	943.5	0.2	2107.0	8.7	2012.0	11.1	95.5	95.0	Pass
146	c	Main Dam Ch. 2+700	944	0.2	2107.0	8.7	2099.0	10.0	99.6	95.0	Pass
147	c	Main Dam Ch. 2+600	944	0.2	2107.0	8.7	2058.0	9.9	97.7	95.0	Pass
148	u/s	Main Dam Ch. 2+500	944	0.2	2107.0	8.7	2083.0	10.7	98.9	95.0	Pass
149	c	Main Dam Ch. 2+400	944	0.2	2107.0	8.7	2140.0	8.6	101.6	95.0	Pass
150	c	Main Dam Ch. 2+325	943.8	0.2	2107.0	8.7	2125.0	8.6	100.9	95.0	Pass
151	c	Main Dam Ch. 2+300	943.7	0.2	2107.0	8.7	2064.0	10.1	98.0	95.0	Pass
152	us	Main Dam Ch. 2+245	943.7	0.2	2107.0	8.7	2009.0	11.0	95.3	95.0	Pass
153	ds	Main Dam Ch. 2+200	943.7	0.2	2107.0	8.7	2094.0	9.5	99.4	95.0	Pass
154	us	Main Dam Ch. 2+100	943.7	0.2	2107.0	8.7	2060.0	10.0	97.8	95.0	Pass
155	ds	Main Dam Ch. 2+030	943.7	0.2	2107.0	8.7	2012.0	10.6	95.5	95.0	Pass
156	c	Main Dam Ch. 2+005	943.7	0.2	2107.0	8.7	2110.0	10.3	100.1	95.0	Pass
157	c	Main Dam Ch. 2+315	943.4	0.2	2107.0	8.7	1999.0	10.6	94.9	95.0	OK
158	us	Main Dam Ch. 2+285	943.4	0.2	2107.0	8.7	2094.0	9.7	99.4	95.0	Pass
159	c	Main Dam Ch. 2+250	943.4	0.2	2107.0	8.7	2122.0	10.1	100.7	95.0	Pass
160	ds	Main Dam Ch. 2+200	943.4	0.2	2107.0	8.7	2056.0	10.9	97.6	95.0	Pass
161	us	Main Dam Ch. 2+150	943.4	0.2	2107.0	8.7	2086.0	11.1	99.0	95.0	Pass
162	us	Main Dam Ch. 2+575	944	0.2	2107.0	8.7	2086.0	11.2	99.0	96.0	Pass
163	c	Main Dam Ch. 2+545	944	0.2	2107.0	8.7	2073.0	10.2	98.4	97.0	Pass
164	us	Main Dam Ch. 2+470	944	0.2	2107.0	8.7	2106.0	10.6	100.0	98.0	Pass
165	ds	Main Dam Ch. 2+420	944	0.2	2107.0	8.7	2035.0	11.7	96.6	95.0	Pass
166	c	Main Dam Ch. 2+325	943.4	0.2	2107.0	8.7	2026.0	11.5	96.2	95.0	Pass
167	c	Main Dam Ch. 2+300	944	0.2	2107.0	8.7	1999.0	9.9	94.9	95.0	Pass
168	us	Main Dam Ch. 2+250	944	0.2	2107.0	8.7	2041.0	10.3	96.9	95.0	Pass
169	ds	Main Dam Ch. 2+165	944	0.2	2107.0	8.7	1999.0	9.6	94.9	95.0	Pass
170	c	Main Dam Ch. 2+145	944	0.2	2107.0	8.7	2008.0	10.1	95.3	95.0	Pass
171	c	Main Dam Ch. 1+923	943.1	0.2	2107.0	8.7	1952.0	10.8	92.6	95.0	Pass
172	c	Main Dam Ch. 1+875	942.8	0.2	2107.0	8.7	2018.0	10.8	95.8	95.0	Pass
173	c	Main Dam Ch. 1+825	942.8	0.2	2107.0	8.7	2069.0	10.7	98.2	95.0	Pass
174	c	Main Dam Ch. 1+775	942.8	0.2	2107.0	8.7	2016.0	10.5	95.7	95.0	Pass

Knight Piésold CONSULTING

FIELD COMPACTION TESTS (Metric) NUCLEAR GAUGE

PROJECT NO.: 101-01/05
DATE:

TEST NO.	LOCATION	Elevation (m)	Test Depth (m)	LABORATORY Max. Dry Density (kg/m³)	LABORATORY Optimum Moisture (%)	FIELD DESIGN Dry Density (kg/m³)	FIELD DESIGN Moisture Content (%)	FIELD DESIGN Compaction (%)	FIELD DESIGN Compaction Specification (%)	FIELD DESIGN Pass or Fail
175	c Main Dam Ch. 1+725	942.8	0.2	2107.0	8.7	2053.0	11.2	97.4	95.0	Pass
176	d/s Main Dam Ch. 1+700	942.8	0.2	2107.0	8.7	2063.0	10.7	97.9	95.0	Pass
177	d/s Main Dam Ch. 1+625	942.8	0.2	2107.0	8.7	2074.0	10.6	98.4	95.0	Pass
178	c Main Dam Ch. 1+900	943.1	0.2	2107.0	8.7	2126.0	9.9	100.9	95.0	Pass
179	c Main Dam Ch. 1+850	943.1	0.2	2107.0	8.7	2115.0	10.0	100.4	95.0	Pass
180	c Main Dam Ch. 1+800	943.1	0.2	2107.0	8.7	2086.0	10.3	99.0	95.0	Pass
181	c Main Dam Ch. 1+750	943.1	0.2	2107.0	8.7	2087.0	10.6	99.1	95.0	Pass
182	ds Main Dam Ch. 1+660	943.1	0.2	2010.0	11.5	1984.0	12.8	98.7	95.0	Pass
183	us Main Dam Ch. 1+660	943.1	0.2	2010.0	11.5	2045.0	11.8	101.7	95.0	Pass
184	c Main Dam Ch. 1+690	943.1	0.2	2010.0	11.5	2000.0	12.3	99.5	95.0	Pass
185	us Main Dam Ch. 1+590	943.1	0.2	2010.0	11.5	2006.0	12.0	99.8	95.0	Pass
186	c Main Dam Ch. 1+620	943.1	0.2	2010.0	11.5	2064.0	11.8	102.7	95.0	Pass
187	c Main Dam Ch. 1+600	943.1	0.2	2010.0	11.5	2032.0	12.3	101.1	95.0	Pass
188	us Main Dam Ch. 1+610	943.1	0.2	2010.0	11.5	1997.0	11.9	99.4	95.0	Pass
189	us Main Dam Ch. 1+625	943.1	0.2	2010.0	11.5	2051.0	11.4	102.0	95.0	Pass
190	ds Main Dam Ch. 1+700	943.1	0.2	2010.0	11.5	2028.0	11.6	100.9	95.0	Pass
191	ds Main Dam Ch. 1+910	943.1	0.2	2010.0	11.5	2036.0	11.3	101.3	95.0	Pass
192	us Main Dam Ch. 1+570	942.6	0.2	2010.0	11.5	1988.0	11.0	98.9	95.0	Pass
193	ds Main Dam Ch. 1+560	942.6	0.2	2010.0	11.5	2028.0	10.9	100.9	95.0	Pass
194	us Main Dam Ch. 1+535	942.6	0.2	2010.0	11.5	2043.0	11.6	101.6	95.0	Pass
195	c Main Dam Ch. 1+520	942.6	0.2	2010.0	11.5	2003.0	10.5	99.7	95.0	Pass
196	ds Main Dam Ch. 1+570	942.9	0.2	2010.0	11.5	2073.0	9.3	103.1	95.0	Pass
197	ds Main Dam Ch. 1+550	942.9	0.2	2010.0	11.5	2030.0	10.2	101.0	95.0	Pass
198	us Main Dam Ch. 1+500	942.6	0.2	2010.0	11.5	2045.0	9.6	101.7	95.0	Pass
199	cl Main Dam Ch. 1+510	943.2	0.2	2010.0	11.5	2055.0	9.6	102.2	95.0	Pass
200	us Main Dam Ch. 1+545	943.2	0.2	2010.0	11.5	2056.0	9.9	102.3	95.0	Pass
201	C Perimeter Ch 3+170	943.7	0.2	2010.0	11.1	2063.0	11.1	102.6	95.0	Pass
202	us Perimeter Ch 3+120	943.7	0.2	2010.0	11.1	2063.0	11.3	102.6	95.0	Pass
203	ds Perimeter Ch 3+060	943.7	0.2	2010.0	11.1	2072.0	11.6	103.1	95.0	Pass
204	us Perimeter Ch 3+600	943.1	0.2	2010.0	11.1	1995.0	12.4	99.3	95.0	Pass
205	cl Perimeter Ch 3+555	943.1	0.2	2010.0	11.1	2144.0	10.7	106.7	95.0	Pass
206	ds Perimeter Ch 3+525	943.1	0.2	2010.0	11.1	2085.0	10.9	103.7	95.0	Pass
207	cl Perimeter Ch 3+490	943.1	0.2	2010.0	11.1	2030.0	11.7	101.0	95.0	Pass
208	c Main Dam Ch. 1+775	943.5	0.2	2010.0	11.1	1981.0	10.3	98.6	95.0	Pass
209	d/s Main Dam Ch. 1+625	943.5	0.2	2010.0	11.1	1962.0	12.5	97.6	95.0	Pass
210	d/s Perimeter Dam Ch. 3+600	943.1	0.2	2010.0	11.1	2042.0	11.0	101.6	95.0	Pass
211	d/s Perimeter Dam Ch. 3+500	943.1	0.2	2010.0	11.1	2041.0	11.2	101.5	95.0	Pass
212	d/s Perimeter Dam Ch. 3+400	943.1	0.2	2010.0	11.1	2077.0	11.2	103.3	95.0	Pass
213	d/s Perimeter Dam Ch. 3+300	943.1	0.2	2010.0	11.1	1980.0	11.7	98.5	95.0	Pass
214	cl Perimeter Dam Ch. 3+475	943.6	0.2	2010.0	11.1	2036.0	11.6	101.3	95.0	Pass
215	ds Perimeter Dam Ch. 3+425	943.6	0.2	2010.0	11.1	2049.0	11.8	101.9	95.0	Pass
216	d/s Perimeter Dam Ch. 3+375	943.6	0.2	2010.0	11.1	1998.0	12.7	99.4	95.0	Pass
217	us Perimeter Dam Ch. 3+350	943.8	0.2	2010.0	11.1	1976.0	12.6	98.3	95.0	Pass
218	us Perimeter Dam Ch. 3+305	943.6	0.2	2010.0	11.1	2005.0	11.6	99.8	95.0	Pass
219	Cl Perimeter Dam Ch. 3+265	943.6	0.2	2010.0	11.1	2024.0	11.2	100.7	95.0	Pass
220	us Perimeter Dam Ch. 3+246	943.8	0.2	2010.0	11.1	1960.0	12.1	97.5	95.0	Pass
221	Cl Perimeter Dam Ch. 3+258	943.8	0.2	2010.0	11.1	2055.0	11.7	102.2	95.0	Pass
222	ds Perimeter Dam Ch. 3+300	943.8	0.2	2010.0	11.1	2031.0	10.9	101.0	95.0	Pass
223	us Perimeter Dam Ch. 3+470	944	0.2	2010.0	11.1	1924.0	12.1	95.7	95.0	Pass
224	cl Perimeter Dam Ch. 3+445	944	0.2	2010.0	11.1	2014.0	11.9	100.2	95.0	Pass
225	ds Perimeter Dam Ch. 3+400	944	0.2	2010.0	11.1	2003.0	12.0	99.7	95.0	Pass
226	us Perimeter Dam Ch. 3+348	944	0.2	2010.0	11.1	1997.0	12.8	99.4	95.0	Pass
222	cl Perimeter Dam Ch. 3+320	944	0.2	2010.0	11.1	2034.0	11.2	101.2	95.0	Pass
223	ds Perimeter Dam Ch. 3+260	944	0.2	2010.0	11.1	2023.0	10.6	100.6	95.0	Pass
224	cl Perimeter Dam Ch. 3+240	944	0.2	2010.0	11.1	2069.0	10.8	102.9	95.0	Pass
225	u/s Perimater Dam Ch. 3+300	943.8	0.2	2010.0	11.1	2051.0	11.9	102.0	95.0	Pass
226	c Perimeter Dam Ch. 3+400	943.8	0.2	2010.0	11.1	1999.0	11.9	99.5	95.0	Pass
227	u/s Perimater Dam Ch. 3+700	942.8	0.2	2010.0	11.1	2071.0	11.2	103.0	95.0	Pass

Knight Piésold CONSULTING

FIELD COMPACTION TESTS (Metric)
NUCLEAR GAUGE

PROJECT NO.: 101-01/05
DATE:

TEST NO.	LOCATION		Elevation (m)	Test Depth (m)	LABORATORY Max. Dry Density (kg/m^3)	LABORATORY Optimum Moisture (%)	FIELD DESIGN Dry Density (kg/m^3)	FIELD DESIGN Moisture Content (%)	FIELD DESIGN Compaction (%)	FIELD DESIGN Compaction Specification (%)	FIELD DESIGN Pass or Fail
228	u/s	Perimeter Dam Ch. 3+775	942.8	0.2	2010.0	11.1	2091.0	11.5	104.0	95.0	Pass
229	u/s	Perimeter Dam Ch. 3+600	942.8	0.2	2010.0	11.1	2063.0	10.5	102.6	95.0	Pass
230	c	Perimeter Dam Ch. 3+400	943.7	0.2	2010.0	11.1	1906.0	12.0	94.8	95.0	Fail
231	c	Perimeter Dam Ch. 3+430	943.6	0.2	2010.0	11.1	2052.0	10.0	102.1	95.0	Pass
232	u/s	Perimeter Dam Ch. 3+460	943.7	0.2	2010.0	11.1	1787.0	11.3	88.9	95.0	Fail
233	c	Perimeter Dam Ch. 3+460	944.0	0.2	2010.0	11.1	1959.0	10.9	97.5	95.0	Pass
234	c	Perimeter Dam Ch. 3+480	944.0	0.2	2010.0	11.1	2023.0	9.6	100.6	95.0	Pass
235	u/s	Perimeter Dam Ch. 3+490	944.0	0.2	2010.0	11.1	2021.0	11.4	100.5	95.0	Pass
236	c	Perimeter Dam Ch. 3+520	944.0	0.2	2010.0	11.1	1968.0	10.8	97.9	95.0	Pass
237	d/s	Perimeter Dam Ch. 3+540	944.0	0.2	2010.0	11.1	1992.0	11.6	99.1	95.0	Pass
238	c	Perimeter Dam Ch. 3+570	944.0	0.2	2010.0	11.1	2060.0	10.2	102.5	95.0	Pass
239	d/s	Perimeter Dam Ch. 3+590	944.0	0.2	2010.0	11.1	2023.0	11.0	100.6	95.0	Pass
240	c	Perimeter Dam Ch. 3+590	944.0	0.2	2010.0	11.1	2043.0	11.4	101.6	95.0	Pass
241	u/s	Perimeter Dam Ch. 3+590	944.0	0.2	2010.0	11.1	1987.0	12.0	98.9	95.0	Pass
242	d/s	Perimeter Dam Ch. 3+750	942.8	0.15	2010.0	11.1	1997.0	11.8	99.4	95.0	Pass
243	c	Perimeter Dam Ch. 3+650	943.6	0.2	2010.0	11.1	2042.0	11.1	101.6	95.0	Pass
244	u/s	Perimeter Dam Ch. 3+625	943.5	0.2	2010.0	11.1	1996.0	11.8	99.3	95.0	Pass
245	d/s	Perimeter Dam Ch. 3+740	943.5	0.2	2010.0	11.1	1987.0	11.6	98.9	95.0	Pass
246	d/s	Perimeter Dam Ch. 3+480	944.0	0.2	2010.0	11.1	2086.0	11.1	103.8	95.0	Pass
247	c	Perimeter Dam Ch. 3+500	944.0	0.2	2010.0	11.1	2060.0	11.2	102.5	95.0	Pass
248	u/s	Perimeter Dam Ch. 3+515	944.0	0.15	2010.0	11.1	2001.0	10.2	99.6	95.0	Pass
249	d/s	Perimeter Dam Ch. 3+525	944.0	0.2	2010.0	11.1	2056.0	11.0	102.3	95.0	Pass
250	c	Perimeter Dam Ch. 3+550	944.0	0.2	2010.0	11.1	1961.0	11.5	97.6	95.0	Pass
251	d/s	Perimeter Dam Ch. 3+475	944.0	0.2	2010.0	11.1	1891.0	12.6	94.1	95.0	Fail
252	u/s	Perimeter Dam Ch. 3+570	944.0	0.1	2010.0	11.1	1968.0	10.7	97.9	95.0	Pass
253	c	Perimeter Dam Ch. 3+590	944.0	0.2	2010.0	11.1	1977.0	11.2	98.4	95.0	Pass
254	u/s	Perimeter Dam Ch. 3+600	944.0	0.15	2010.0	11.1	2015.0	10.8	100.2	95.0	Pass
255	d/s	Perimeter Dam Ch. 3+610	944.0	0.15	2010.0	11.1	2026.0	11.3	100.8	95.0	Pass
256	c	Perimeter Dam Ch. 3+525	944.0	0.2	2010.0	11.1	2100.0	10.7	104.5	95.0	Pass
257	u/s	Perimeter Dam Ch. 3+555	944.0	0.2	2010.0	11.1	2086.0	10.9	103.8	95.0	Pass
258	u/s	Perimeter Dam Ch. 3+500	944.0	0.2	2010.0	11.1	2035.0	10.9	101.2	95.0	Pass
259	u/s	Perimeter Dam Ch. 3+760	942.5	0.2	2010.0	11.1	2103.0	10.4	104.6	95.0	Pass
260	d/s	Perimeter Dam Ch. 3+502	944.0	0.2	2010.0	11.1	1976.0	12.4	98.3	95.0	Pass
261	d/s	Perimeter Dam Ch. 3+800	942.5	0.2	2010.0	11.1	1946.0	10.8	96.8	95.0	Pass
262	c	Perimeter Dam Ch. 3+675	944.0	0.2	2010.0	11.1	2068.0	11.1	102.9	95.0	Pass
263	u/s	Perimeter Dam Ch. 3+725	943.0	0.15	2010.0	11.1	1964.0	11.5	97.7	95.0	Pass
264	c	Perimeter Dam Ch. 3+775	942.8	0.2	2010.0	11.1	2032.0	10.9	101.1	95.0	Pass
265	d/s	Perimeter Dam Ch. 3+825	942.6	0.2	2010.0	11.1	2103.0	10.7	104.6	95.0	Pass
266	u/s	Perimeter Dam Ch. 3+830	942.9	0.2	2010.0	11.1	2153.0	8.4	107.1	95.0	Pass
267	c	Perimeter Dam Ch. 3+820	943.2	0.15	2010.0	11.1	1999.0	12.0	99.5	95.0	Pass
268	u/s	Perimeter Dam Ch. 3+790	943.2	0.2	2010.0	11.1	1930.0	12.7	96.0	95.0	Pass
269	u/s	Perimetre Dam Ch. 3+725	943.2	0.15	2010.0	11.1	2056.0	11.2	102.3	95.0	Pass
270	u/s	Perimeter Dam Ch. 3+510	943.2	0.2	2103.0	11.1	1919.0	11.7	91.3	95.0	Fail
271	c	Perimeter Dam Ch. 3+510	943.2	0.2	2212.0	7.9	2113.0	8.0	95.5	95.0	Pass
272	u/s	Perimeter Dam Ch. 3+515	943.2	0.2	2112.0	9.4	1968.0	9.4	93.2	95.0	Fail
273	u/s	Perimeter Dam Ch. 3+515	943.2	0.2	2010.0	11.1	2000.0	11.0	99.5	95.0	Pass
274	d/s	Perimeter Dam Ch. 3+550	943.2	0.2	2010.0	11.1	2049.0	11.0	101.9	95.0	Pass
275	d/s	Perimeter Dam Ch. 3+590	943.2	0.2	2010.0	11.1	1912.0	10.5	95.1	95.0	Pass
276	d/s	Perimeter Dam Ch. 3+510	943.6	0.2	2010.0	11.1	2091.0	10.8	104.0	95.0	Pass
277	d/s	Perimeter Dam Ch. 3+592	943.6	0.2	2010.0	11.1	2084.0	11.0	103.7	95.0	Pass
278	d/s	Perimeter Dam Ch. 3+800	943.2	0.15	2010.0	11.1	2041.0	10.4	101.5	95.0	Pass
279	d/s	Perimeter Dam Ch. 3+775	943.6	0.2	2010.0	11.1	2033.0	10.2	101.1	95.0	Pass
280	d/s	Perimeter Dam Ch. 3+595	943.6	0.2	2010.0	11.1	2056.0	9.6	102.3	95.0	Pass
281	d/s	Perimeter Dam Ch. 3+596	943.6	0.2	2010.0	11.1	2085.0	9.3	103.7	95.0	Pass
282	c	Perimeter Dam Ch. 3+860	942.5	0.2	2010.0	11.1	2004.0	10.2	99.7	95.0	Pass
283	c	Perimeter Dam Ch. 3+885	942.5	0.2	2010.0	11.1	1992.0	10.2	99.1	95.0	Pass
284	c	Perimetre Dam Ch. 3+920	942.8	0.2	2010.0	11.1	1856.0	11.6	92.3	95.0	Fail
285	c	Perimetre Dam Ch. 3+940	942.8	0.2	2010.0	11.1	2066.0	10.8	102.8	95.0	Pass

Knight Piésold CONSULTING

FIELD COMPACTION TESTS (Metric)
NUCLEAR GAUGE

PROJECT NO.: 101-01/05
DATE:

TEST NO.	LOCATION	Elevation (m)	Test Depth (m)	LABORATORY Max. Dry Density (kg/m³)	LABORATORY Optimum Moisture (%)	FIELD DESIGN Dry Density (kg/m³)	FIELD DESIGN Moisture Content (%)	FIELD DESIGN Compaction (%)	FIELD DESIGN Compaction Specification (%)	FIELD DESIGN Pass or Fail
286	d/s Perimetre Dam Ch. 3+920	942.8	0.2	2010.0	11.1	2044.0	10.7	101.7	95.0	Pass
287	c Perimetre Dam Ch. 3+950	943.1	0.2	2010.0	11.1	1785.0	13.6	88.8	95.0	Fail
288	d/s Perimetre Dam Ch. 3+950	943.1	0.2	2010.0	11.1	1864.0	12.0	92.7	95.0	Fail
289	d/s Perimetre Dam Ch. 3+960	943.1	0.2	2010.0	11.1	1804.0	12.3	89.8	95.0	Fail
290	u/s Perimetre Dam Ch. 3+970	943.1	0.2	2010.0	11.1	1790.0	13.0	89.1	95.0	Fail
291	u/s Perimetre Dam Ch. 3+970	943.1	0.2	2010.0	11.1	1835.0	11.7	91.3	95.0	Pass
292	c South Dam Ch. 1+490	943.5	0.15	2010.0	11.1	2020.0	11.6	100.5	95.0	Pass
293	c Perimetre Dam Ch. 3+865	943.1	0.2	2112.0	9.4	2165.0	9.3	102.5	95.0	Pass
294	c Perimetre Dam Ch. 3+990	943.1	0.2	2150.0	8.5	2125.0	8.6	98.8	95.0	Pass
295	u/s Perimetre Dam Ch. 3+850	943.4	0.2	2150.0	8.5	2038.0	8.4	94.8	95.0	Fail
296	c Perimetre Dam Ch. 3+850	943.4	0.2	2150.0	8.5	2111.0	9.0	98.2	95.0	Pass
297	c South Dam Ch. 1+500	944.0	0.2	2010.0	11.1	2021.0	11.5	100.5	95.0	Pass
298	c Main Dam Ch. 1+580	944.0	0.2	2010.0	11.1	2040.0	10.9	101.5	95.0	Pass
299	c Main Dam Ch. 1+660	944.0	0.2	2010.0	11.1	2029.0	11.0	100.9	95.0	Pass
300	c Main Dam Ch. 1+720	943.7	0.2	2010.0	11.1	1958.0	11.1	97.4	95.0	Pass
301	c Main Dam Ch. 1+780	943.7	0.2	2010.0	11.1	2057.0	11.3	102.3	95.0	Pass
302	c Main Dam Ch. 1+810	943.7	0.2	2010.0	11.1	2033.0	11.3	101.1	95.0	Pass
303	c Main Dam Ch. 1+810	943.7	0.1	2010.0	11.1	1979.0	11.6	98.5	95.0	Pass
304	c Main Dam Ch. 1+840	943.7	0.2	2010.0	11.1	2042.0	11.0	101.6	95.0	Pass
305	c Main Dam Ch. 1+840	943.7	0.1	2010.0	11.1	2043.0	11.3	101.6	95.0	Pass
306	c Main Dam Ch. 1+900	943.7	0.2	2010.0	11.1	2151.0	10.4	107.0	95.0	Pass
307	c Main Dam Ch. 1+900	943.7	0.1	2010.0	11.1	1996.0	11.5	99.3	95.0	Pass
308	c Main Dam Ch. 1+950	944.0	0.2	2010.0	11.1	1997.0	11.5	99.4	95.0	Pass
309	c Main Dam Ch. 1+950	944.0	0.1	2010.0	11.1	2006.0	11.8	99.8	95.0	Pass
310	c South dam Ch. 1+500	944.0	0.2	2010.0	11.1	1951.0	12.0	97.1	95.0	Pass
311	c South Dam Ch. 1+500	944.0	0.1	2010.0	11.1	1966.0	12.1	97.8	95.0	Pass
312	u/s South Dam Ch. 1+550	944.0	0.2	2010.0	11.1	2037.0	11.6	101.3	95.0	Pass
313	c perimeter Ch. 3+860	943.7	0.2	2010.0	11.1	2026.0	10.8	100.8	95.0	Pass
314	u/s perimeter Ch. 3+900	943.7	0.2	2010.0	11.1	2032.0	11.6	101.1	95.0	Pass
315	c perimeter Ch. 4+150	943.0	0.2	1892.0	11.1	1877.0	13.9	99.2	95.0	Pass
316	u/s perimeter Ch. 3+950	943.4	0.2	2010.0	11.1	2053.0	10.8	102.1	95.0	Pass
317	d/s perimeter Ch. 4+050	943.0	0.2	2010.0	11.1	2056.0	10.5	102.3	95.0	Pass
318	d/s perimeter Ch. 3+900	944.0	0.2	2010.0	11.1	2086.0	10.8	103.8	95.0	Pass
319	d/s perimeter Ch. 3+900	944.0	0.1	2010.0	11.1	2062.0	10.8	102.6	95.0	Pass
320	u/s perimeter Ch. 3+850	944.0	0.2	2010.0	11.1	2091.0	10.7	104.0	95.0	Pass
321	d/s perimeter Ch. 3+950	943.5	0.2	2010.0	11.1	2056.0	11.2	102.3	95.0	Pass
322	d/s perimeter Ch. 4+000	943.4	0.2	2010.0	11.1	2068.0	11.1	102.9	95.0	Pass
323	d/s perimeter Ch. 4+050	943.5	0.2	2010.0	11.1	2051.0	11.0	102.0	95.0	Pass
324	c perimeter Ch. 4+300	943.2	0.2	1967.0	12.1	1911.0	13.8	97.2	95.0	Pass
325	c perimeter Ch. 4+300	943.2	0.1	1967.0	12.1	1875.0	15.2	95.3	95.0	Pass
326	d/s perimeter Ch. 4+300	943.2	0.2	1967.0	12.1	1944.0	14.0	98.8	95.0	Pass
327	u/s perimeter Ch. 4+250	943.5	0.2	2010.0	11.1	2002.0	12.6	99.6	95.0	Pass
328	c perimeter Ch. 4+200	944.0	0.2	2010.0	11.1	2019.0	11.8	100.4	95.0	Pass
329	u/s perimeter Ch. 4+150	944.0	0.2	2010.0	11.1	2004.0	12.2	99.7	95.0	Pass
330	d/s perimeter Ch. 4+100	944.0	0.2	2010.0	11.1	2093.0	11.5	104.1	95.0	Pass
331	u/s perimeter Ch. 4+075	943.7	0.2	2010.0	11.1	1967.0	10.0	97.9	95.0	Pass
332	c perimeter Ch. 4+075	943.7	0.2	2010.0	11.1	2042.0	10.8	101.6	95.0	Pass
333	u/s perimeter Ch. 4+150	943.7	0.2	2010.0	11.1	1994.0	11.7	99.2	95.0	Pass
334	d/s perimeter Ch. 4+100	944.0	0.2	2010.0	11.1	2001.0	11.6	99.6	95.0	Pass
335	d/s perimeter Ch. 4+140	944.0	0.2	2010.0	11.1	2048.0	10.6	101.9	95.0	Pass
336	c perimeter Ch. 4+500	943.0	0.2	1870.0	14.5	1710.0	15.5	91.4	95.0	Fail
337	c perimeter Ch. 4+500	943.0	0.1	1870.0	14.5	1711.0	15.5	91.5	95.0	Fail
338	d/s perimeter Ch. 4+500	943.0	0.2	1870.0	14.5	1773.0	15.6	94.8	95.0	Fail
339	d/s perimeter Ch. 4+500	943.0	0.1	1870.0	14.5	1778.0	15.7	95.1	95.0	Fail
340	c perimeter Ch. 4+500	943.0	0.2	1870.0	14.5	1790.0	12.1	95.7	95.0	Pass
341	u/s perimeter Ch. 4+500	943.3	0.2	2010.0	11.1	2011.0	13.0	100.0	95.0	Pass
342	d/s perimeter Ch. 4+500	943.3	0.2	2010.0	11.1	2042.0	12.3	101.6	95.0	Pass
343	u/s perimeter Ch. 4+475	943.7	0.2	2010.0	11.1	1999.0	11.9	99.5	95.0	Pass

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FIELD COMPACTION TESTS (Metric)
NUCLEAR GAUGE

PROJECT NO.: 101-01/05
DATE:

TEST NO.	LOCATION		Elevation (m)	Test Depth (m)	LABORATORY Max. Dry Density (kg/m^3)	LABORATORY Optimum Moisture (%)	FIELD DESIGN Dry Density (kg/m^3)	FIELD DESIGN Moisture Content (%)	FIELD DESIGN Compaction (%)	FIELD DESIGN Compaction Specification (%)	FIELD DESIGN Pass or Fail
344	d/s	perimeter Ch. 4+440	944.0	0.2	2010.0	11.1	2066.0	11.0	102.8	95.0	Pass
345	u/s	perimeter Ch. 4+450	944.0	0.2	2010.0	11.1	2059.0	11.7	102.4	95.0	Pass
346	g	perimeter Ch. 4+475	944.0	0.2	2010.0	11.1	2010.0	11.5	100.0	95.0	Pass
347	d/s	perimeter Ch. 2+800	944.0	0.2	2010.0	11.1	2048.0	11.5	101.9	95.0	Pass
348	c	perimeter Ch. 2+780	943.7	0.2	2010.0	11.1	2023.0	11.2	100.6	95.0	Pass
349	d/s	Main Ch. 1+650	944.0	0.2	2010.0	11.1	1945.0	12.4	96.8	95.0	Pass
350	d/s	Main Ch. 1+800	944.0	0.2	2010.0	11.1	2036.0	10.7	101.3	95.0	Pass
351	c	perimeter Ch. 4+500	943.7	0.2	2010.0	11.1	2026.0	11.7	100.8	95.0	Pass
352	d/s	perimeter Ch. 4+450	944.0	0.2	2152.0	9.1	2121.0	9.7	98.6	95.0	Pass
353	d/s	perimeter Ch. 4+350	944.0	0.2	2152.0	9.1	2078.0	8.3	96.6	95.0	Pass
354	c	perimeter Ch. 4+275	944.0	0.2	2152.0	9.1	2112.0	10.3	98.1	95.0	Pass
		Min			1870.0	7.9	1674.0	7.2	88.5		
		Max			2212.0	14.5	2191.0	15.7	108.5		
		Median			2010.0	11.1	2029.0	11.1	99.5		
		Std Dev.			64.2	1.6	76.5	1.3	2.9		

Comments:	Proctor No.:	Proctor Description: Kg/m^3	M.C.	95%
1.	1. TP-04-05	1892	14	1797
2.	2. TP-04-07	1895	13.2	1800
3.	3. TP-04-BA2-08	2152	9.1	2044
4.	4. TP-04-BA2-10	2103	9.3	1998
5.	5. TP-04-BA2-12	2107	8.7	2002
6.	6. TP-04-BA2-07	2212	7.9	2101
7.	7. TP-04-BA2-15	2119	9.6	2013
8.	8. TP-04-BA2-16	2112	9.4	2006

Technician: MW   DS: ______   MS: ______   Gauge No: ______   Daily Rep.# ______

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APPENDIX D

PHOTOGRAPHS

PHOTO 1 – Hauling rockfill to the south embankment by a 777 Cat Truck.

PHOTO 2 – Dumping rockfill at the south embankment.

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PHOTO 3 – Rockfill and Zone T placement with Hitachi Excavator.

PHOTO 4 – Loading of 777 Cat Truck with loader at rock borrow area.

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PHOTO 5 – Mount Polley personnel reading inclinometer.

PHOTO 6 – Spreading Zone T material with excavator at Main Embankment.

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PHOTO 7 – Spreading rockfill/Zone T material with excavator.

PHOTO 8 – Moisture and percent compaction control with nuclear gauge instrument by the Site Engineer.

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PHOTO 9 – Geotextile placement at the perimeter embankment.

PHOTO 10 – Spreading Zone T material.

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PHOTO 11 – Compaction of Zone F material with a 10 tonnes smooth drum vibrating compactor.

PHOTO 12 – Rockfill placement and spreading using excavator at the south embankment.

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PHOTO 13 – Construction of Zone S material at the perimeter embankment and quality control test by nuclear gauge instrument.

PHOTO 14 – Dumping Zone S material with a Terex dump truck with heated bucket during the cold weather.

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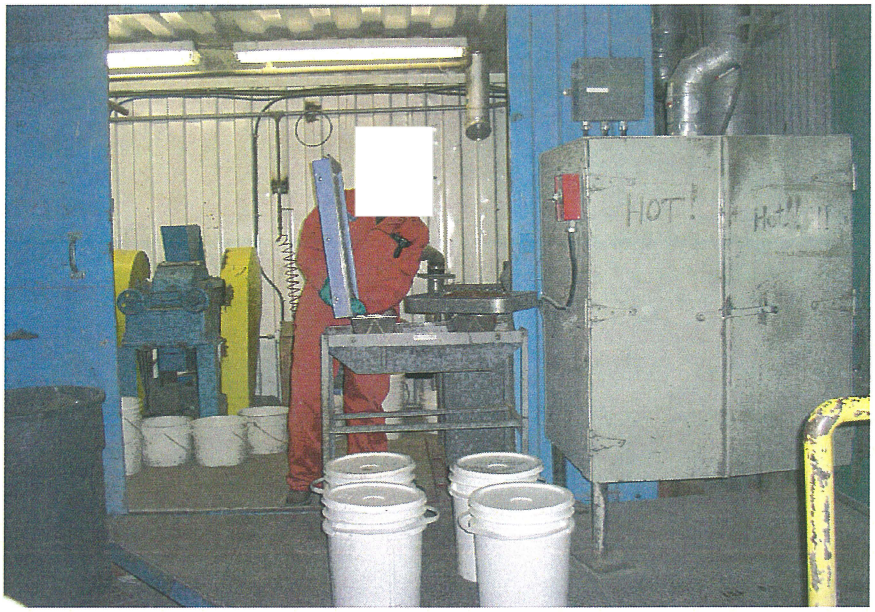

PHOTO 15 – MPMC laboratory. The MPMC lab tested the Zone F material for particle size distribution.

PHOTO 16 – Scraping the fill surface during winter with a excavator as part of the foundation preparation procedure.

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PHOTO 17 – Compaction of the Zone F material with hand-operated vibrating compactors a 10 tonnes vibrating compactor.

PHOTO 18 – Placement and compaction of Zone F material.

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PHOTO 19 – Dumping Zone S material from a Moxy Truck with heated bucket during cold weather.

PHOTO 20 –. Spreading Zone S material with a Cat dozer.

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PHOTO 21 – Spreading and compaction of Zone S material during cold weather.

PHOTO 22 – Maintenance of construction machinery.

PHOTO 23 – Foundation preparation/snow removal using excavator before placing next Zone S lift.

PHOTO 24 – Surveying for Zone F trench by surveying crew before excavating.

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PHOTO 25 – Trenching for Zone F material at the perimeter embankment.

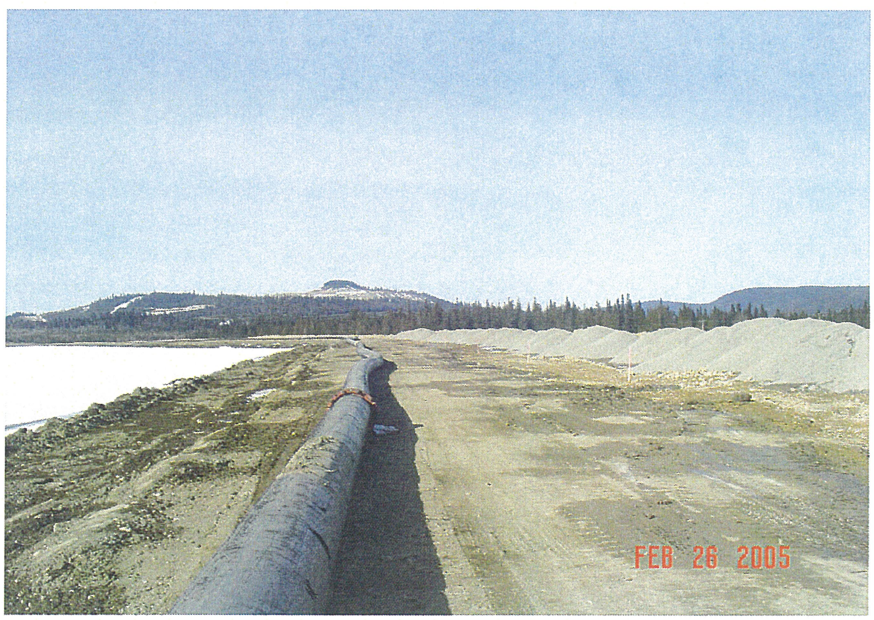

PHOTO 26 – Filter material dumped over the perimeter embankment before trenching for Zone F material.

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PHOTO 27 – Ripping hard ground with a Cat dozer to facilitate trenching with backhoe excavator.

PHOTO 28 – Trenching for Zone F material and compaction of intermediate layers with backhoe bucket.

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PHOTO 29 – Compacted Zone F materials using excavator.

PHOTO 30 – Trench excavation for Zone F material and consequent filter placement with a loader.

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