

MOUNT POLLEY MINING CORPORATION MOUNT POLLEY MINE

TEST HEAP LEACH PAD CONSTRUCTION REPORT (REF. NO. VA101-01/17-1)

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MOUNT POLLEY MINING CORPORATION MOUNT POLLEY MINE

TEST HEAP LEACH PAD CONSTRUCTION REPORT (REF. NO. VA101-01/17-1)

EXECUTIVE SUMMARY

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. MPMC is currently mining the Bell and Wight Pits with the tailings solids deposited as a slurry into a Tailings Storage Facility (TSF). Exploration at the Springer Zone has confirmed the presence of a significant body of copper-gold mineralization beneath the reserve outlined by previous drilling. The Springer Zone is fully permitted for mining and is expected to provide long term mill feed upon completion of mining at the Bell and Wight Pits. Near surface copper mineralization at the Springer Zone is highly oxidized and cannot be processed by conventional sulphide flotation methods using the existing mill circuit; therefore MPMC is planning on heap leaching this material and has constructed a Test Heap Leach Pad located on the 1150 platform on the East RDS in order to evaluate the leachability characteristics of the ore and confirm metallurgical processes. The Test Heap Leach Pad will contain approximately 200,000 tonnes of ore and will utilize inheap storage of process solutions.

The Test Heap Leach Pad has a high integrity low permeability double liner system constructed over the entire leach pad area. The double liner system for the pad area contains the following components from bottom to top:

- 150 mm Prepared Subgrade (Zone F);
- 500 mm Soil Liner (Zone S);
- 60-mil smooth HDPE Inner and Outer Liners with a Geonet between them;
- 100 mm diameter cpt pipe runs continuously in an East-West direction with a spacing of 6 metres between pipes and covered with a 1000 mm Protective/Drainage Layer;
- The Test Heap Leach Pad also contains a Leak Collection and Recovery System (LCRS).

The technical supervision and QA/QC program for the earthworks was completed by Knight Piésold. The technical supervision and QA/QC program for the geosynthetics was completed by Nilex Construction with third party observation by Knight Piésold. The technical supervision and QA/QC programs indicate that the Test Heap Leach Pad was constructed within the required specifications in accordance with the Test Heap Leach Pad design and technical specifications.

A 24-hour hydrostatic test was completed to evaluate the integrity of the inner liner. The results of the hydrostatic test indicate that the leakage rate through the inner liner is below a theoretical leakage rate which has been determined by conservatively assuming that one hole or defect is present per acre of liner area. The results of the hydrostatic test were reviewed by Knight Piésold and the test has been successfully completed.



The initial site grading for the Test Heap Leach Pad construction program at Mount Polley Mine commenced in August 2006 and the pad was fully lined with 60-mil HDPE by mid November 2006. The construction program was halted at this time due to winter conditions. Additional items to be completed in the spring at the Test Heap Leach Pad prior to loading the pad include the following:

- Visually inspecting the liner for damage once the pad is free of ice and snow.
- Completing a second hydrostatic test in the sump area to confirm that the inner liner has not been damaged from ice during the winter.
- Installing the drainage system consisting of 100 mm diameter cpt pipe, in the bottom of the leach pad.
- Placing the protective/drainage layer, consisting of plus 6 mm minus 19 mm drain gravel, on top of the drainage system at the bottom of the leach pad.
- Installation of the settlement monuments.

An addendum to the construction report will be issued once the additional work has been completed in the spring of 2007.



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MOUNT POLLEY MINING CORPORATION MOUNT POLLEY MINE

TEST HEAP LEACH PAD CONSTRUCTION REPORT (REF. NO. VA101-01/17-1)

SECTION 1.0 - INTRODUCTION

1.1 <u>GENERAL</u>

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. The location of Mount Polley Mine is shown on Figure 1.1. Mount Polley Mine started production in 1997 and had milled approximately 27.5 million tonnes of ore prior to temporarily suspending operations from October 2001 to March 2005. The mine was managed on a care and maintenance program between October 2001 and March 2005. MPMC is currently mining the Bell and Wight Pits with the tailings solids deposited as a slurry into the Tailings Storage Facility (TSF).

Exploration at the Springer Zone has confirmed the presence of a significant body of copper-gold mineralization beneath the reserve outlined by previous drilling. The Springer Zone is fully permitted for mining and is expected to provide long term mill feed upon completion of mining at the Bell and Wight Pits. Near surface copper mineralization at the Springer Zone is highly oxidized and cannot be processed by conventional sulphide flotation methods using the existing mill circuit; therefore MPMC is evaluating the potential for heap leaching the near surface copper mineralization from the Springer Pit.

1.2 <u>SCOPE OF REPORT</u>

This report documents the construction program for the Test Heap Leach Pad that will contain approximately 200,000 tonnes of ore and will utilize in-heap storage of process solutions. The report includes a discussion of the construction methods used to complete the work and the results of quality assurance tests on the earthworks and liner materials. The report also includes the results of the 24-hour hydrostatic test and a set of "As -Built" drawings corresponding to the Test Heap Leach Pad construction program.

1.3 <u>RELEVANT DOCUMENTS</u>

The following documents have been referred to or are relevant to this report and should be read in conjunction with this report:

- Test Heap Leach Facility Technical Specifications (Ref. No. VA101-00001/15-1).
- Report on Feasibility Design of Test Heap Leach Pad (Ref. No. VA101-00001/15-2).



SECTION 2.0 - TEST HEAP LEACH PAD CONSTRUCTION PROGRAM

2.1 <u>GENERAL</u>

The Test Heap Leach Pad construction program at Mount Polley Mine commenced in August 2006 and the trial pad was fully lined by mid November 2006. The Test Heap Leach Pad was constructed on top of the 1150 metre platform on the East RDS and covers an approximate area of 18,000 m². It provides storage for approximately 200,000 tonnes of leach ore at a bulk density of 1.8 tonnes/m³. The total storage volume of the completed Test Heap Leach Pad below elevation 1150.8 m is approximately 51,500 m³.

The general arrangement of the Test Heap Leach Pad is shown on Drawing 100 with sections and details provided on Drawing 200. The instrumentation details are shown on Drawing 300. The material specifications are shown on Drawing 300.

A high integrity low permeability double liner system was constructed over the entire leach pad area. The double liner system for the pad area is shown on Drawing 200 and contains the following components from bottom to top:

- 150 mm Prepared Subgrade (Zone F);
- 500 mm Soil Liner (Zone S);
- 60-mil smooth HDPE Outer Liner;
- LCRS Geonet;
- 60-mil smooth HDPE Inner Liner;
- 500 mm Protective/Drainage Layer.

The liner system for the sump area is shown on Drawing 200 and contains the following components:

- 150 mm Prepared Subgrade (Zone F);
- 500 mm Soil Liner (Zone S);
- 60-mil smooth HDPE Outer Liner;
- 1000 mm LCRS Gravel Layer wrapped in geotextile on top of geonet;
- 60-mil smooth HDPE Inner Liner;
- 500 mm Protective/Drainage Layer;
- Drain Rock surround to cover the riser pipe.

The Test Heap Leach Pad contains a Leak Collection and Recovery System (LCRS) which consists of the following components:

- A geonet drainage layer located between the inner and outer liners;
- A sump that has LCRS gravel between the inner and outer liners;
- A mechanical pump solution removal system.

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2.2 CONSTRUCTION ACTIVITIES

The Test Heap Leach Pad construction program consisted of the following activities:

- Stripping organic material and moving large boulders from the footprint of the work area.
- Surveying the area to provide proper excavation and grading.
- Excavating and shaping the sub-grade to the designated lines and grades shown on the Drawings.
- Placing the Zone F subgrade in a 150 mm thick lift. The material was compacted using a 10-tonne smooth drum vibratory roller.
- Placing low permeability soil liner material on top of the prepared sub-grade surface. The soil liner material was sourced from borrow area #3, which is located to the south of the Tailings Storage Facility. The soil liner was placed in two 300 mm thick lifts to ensure a minimum thickness of 500 mm. Each layer was compacted with a 10-tonne smooth drum vibratory roller.
- Construction of the anchor trench surrounding the perimeter of the leach pad.
- Placement of the 60-mil HDPE outer liner on top of the soil liner material. NILEX Construction Inc. from Edmonton, Alberta was contracted by MPMC to supply and install the synthetic liner. All panels were extended a minimum of one meter in the anchor trench surrounding the facility.
- Placement of geonet and geotextile in the sump area. A 10-oz. non-woven geotextile was placed on the geonet in the sump area in preparation for the LCRS gravel.
- Placement of a 200 mm PVC riser pipe in the northwest corner of the sump. The bottom 2 m of the riser pipe were perforated with 200 slots, approximately 10 mm wide by 100 mm long. The perforated area was wrapped with a 10-oz. non-woven geotextile prior to being placed in the LCRS sump.
- Placement of five 100 mm slotted CPT pipes in the LCRS sump to enhance drainage towards the riser pipe.
- Placement of the LCRS gravel layer in the sump area. The LCRS gravel layer was then wrapped with the geotextile and the geotextile was fused together.
- Placement of Geonet on top of the outer HDPE 60-mil liner. The geonet was extended a minimum of one meter in the anchor trench surrounding the facility.
- Placement of the inner HDPE 60-mil liner on top of the geonet. All panels were extended a minimum of one meter in the anchor trench surrounding the facility.
- Placement of material in the anchor trench surrounding the facility. Zone S material was placed and compacted in the anchor trench in 300 mm thick lifts on the West and South sides of the facility. Waste rock was used to backfill the anchor trenches on the East and North sides of the facility. All material placed in the anchor trench was at least one meter in depth.

Select photographs for the construction program are included in Appendix D.

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2.3 OUTSTANDING ITEMS TO COMPLETE

The following outstanding work items that need to be completed at the Test Heap Leach Pad include the following:

- Visual inspection of the inner liner for damage once the pad is free of ice and snow.
- Completing a second hydrostatic test within the sump area to confirm that the inner liner has not been damaged from ice during the winter.
- Installing the pipe drainage system on the floor of the leach pad.
- Placing the protective/drainage layer on top of the drainage system on the floor of the leach pad.
- Placing the drain rock around the base of the riser pipe in the sump.
- Installing the settlement monuments.

The outstanding items are scheduled to be completed in the spring of 2007.



SECTION 3.0 - QA/QC - EARTHWORKS

3.1 <u>GENERAL</u>

Knight Piésold provided the design for the Test Heap Leach Pad, prepared the Technical Specifications, provided technical assistance and performed quality assurance/quality control (QA/QC) testing during the earthworks 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 density and moisture content.
- Collection and testing of Control and Record samples.

Knight Piésold worked under the overall management and administration of MPMC. MPMC completed the earthworks construction. 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. Nuclear Densometer tests were performed to determine the density and moisture content of the compacted Zone S soil liner. The Control and Record test results are presented in Appendix C.

The earthworks for the Test Heap Leach Pad construction program comprised the following zones and materials:

- Zone F Prepared subgrade material processed gravel and sand.
- Zone S Soil liner material -fine grained glacial till.
- LCRS Leak Collection and Recovery System processed gravel and sand.

The material specifications for the fill materials are shown on Drawing 400. The fill materials are discussed in the following sections.

3.2 <u>ZONE F – PREPARED SUBGRADE</u>

Zone F material was produced from the crusher at the mine site. Waste rock from the mining operation was used to produce crushed material within the material specifications. The Zone F material used for the prepared subgrade for the Test Heap Leach Pad was the same specification as the Zone F material used in the Tailings Storage Facility Embankments. The Zone F material was prepared using the mine crusher and three Control samples (KP06-ZF-01C to 03C) were collected for particle size analyses testing. The results of the Control test particle size analyses on the Zone F material are shown on Figure 3.1. The Control test particle size analyses confirmed that the Zone F material was suitable for use in the work.



The Zone F material was placed in a single 150 mm thick lift covering the entire leach pad and sump area and was compacted with a minimum four passes of a 10-tonne vibratory roller. The placement of Zone F was inspected by the site engineer.

Three Zone F Record samples (KP06-ZF-01R to 03R) were collected by the Site Engineer and sent to the MPMC lab for Particle Size Analyses testing. The results of the Record test particle size analyses on the Zone F material are shown on Figure 3.2.

All of the Zone F Record samples were within the design specification for this material.

3.3 <u>SOIL LINER</u>

The Soil Liner material was sourced from borrow area #3, which is located to the south of the Tailings Storage Facility and is an existing borrow area for the Zone S material for the tailings dam construction. The soil liner material gradation limits are the same specification as the Zone S material used as the core zone material in the Tailings Storage Facility Embankments. Six Soil Liner Control samples (KP06-ZS-01C to 06C) were collected and sent to GeoNorth in Prince George for lab testing. Laboratory test work on the samples included: natural moisture content, grain size distribution, laboratory compaction, and Atterberg limits. The Control test results are summarized on Table 3.1. The results of the Control test particle size analyses on the Soil Liner material are shown on Figure 3.3. Control testing confirmed that the material was suitable for use as Soil Liner Material.

Two Record samples (KP06-ZS-01R to 02R) were collected and tested in a soils laboratory. The Record test results indicate that the well graded Soil Liner material is typically comprised of silty sand with some gravel and some clay. The Record test results for the Soil Liner material are presented in Appendix A and summarized on Table 3.2. The gradation curves of the Soil Liner Record Tests are shown on Figure 3.4. The moisture content of the Record Samples ranged from 10.3 to 12.0 percent, with an average of 11.2 percent. The Standard Proctor Maximum Dry Density ranged from 2,100 to 2,120 kg/m³, with an average of 2,110 kg/m³. The plastic limits ranged from 14.0 to 14.7 percent, with an average of 14.4 percent. The liquid limits ranged from 22.1 to 22.5 percent, with an average of 22.3 percent. All of the Soil Liner Record test results were within the specified limits for the material.

A total of 89 field density and moisture content tests were performed on the Soil Liner material using a nuclear densometer to assess the compacted density and moisture content. Compacted materials that failed to meet the compaction requirements were re-compacted until the minimum compaction requirements were met or the material was removed from the leach pad. The compacted dry density ranged from 1,986 to 2,203 kg/m³, with an average of 2,089 kg/m³. The compacted dry density histogram is shown on Figure 3.5. The compacted moisture content histogram is shown on Figure 3.6. The percent compaction as compared to the Standard Proctor maximum dry density ranged from 95.0 to 105.4%, with an average of 100%. The percent compaction results are shown on Figure 3.7. The deviation from the Standard Proctor optimum moisture



content ranged from -0.9% to 3.2%, with an average of 1.1%. The deviation from the Standard Proctor optimum moisture content histogram is shown on Figure 3.8.

The field density tests indicate that all of the soil liner material was placed and compacted within the required material specifications and was in accordance with the design of the Test Heap Leach Pad. The nuclear densometer results are provided in Appendix B.

The soil liner surface was visually inspected by the Site Engineer for rock extrusions and wet areas. Areas with high moisture content were marked and the material was removed. New material was placed and compacted. Rock extrusions were also removed to provide a smooth surface for the 60-mil HDPE liner.

3.4 LCRS GRAVEL LAYER

LCRS gravel material was placed in the sump to provide a high capacity collection area for potential leakage through the inner liner. The LCRS drainage material obtained was round, clean drain rock ranging from minus $1\frac{1}{2}$ " to plus $\frac{1}{2}$ ".

One record sample (KP06-LCRS-01R) was collected for particle size testing during the placement of the LCRS material. The results of the Record test particle size analyses on the LCRS material are shown on Figure 3.6.

3.5 ANCHOR TRENCHES

The anchor trenches around the perimeter of the leach pad were backfilled with material following the installation of the 60-mil HDPE liner and the geonet. Zone S material was placed and compacted in 150 mm layers on the North and East sides of the leach pad. Excavated trench material was backfilled into the trench on the South and West sides.

3.6 INSTRUMENTATION

Instrumentation for the Test Heap Leach Pad consists of Surface Movement Monuments. Three Surface Movement Monuments will be installed in the spring of 2007. The monuments will be monitored by MPMC on a quarterly basis, with the results forwarded to the design Engineer.



SECTION 4.0 - QA/QC - 60 MIL HDPE LINER

4.1 <u>GENERAL</u>

The 60-mil smooth HDPE liner used to cover the leach pad area was supplied and installed by NILEX Construction in full accordance with the requirements of the technical specifications and in accordance with generally accepted industry standards. All certificates of manufacturing of the liner rolls were registered together with roll numbers and the installed panel numbers on deployment records. The registration enables each roll to be traced from manufacture and delivery to its final location in the facility. The deployment records also include details concerning the equipment used to weld seams, the repairs made, the destructive seam testing of samples for peel and shear strength. The as-built panel layouts for the outer and inner liners, test logs, daily records, certificates and inspection sheets for the 60-mil smooth HDPE synthetic liner are included in Appendix C.

4.2 HDPE INSTALLATION

Deployment of the rolls of the synthetic liner was carried out using a front end loader with a spreader bar as well as a custom designed trailer with a roll bar attached. These two pieces of equipment allowed Nilex to unroll each panel onto the prepared surface. Each panel was then ballasted in place with sand bags. The rolls were oriented parallel to the slope direction to minimize stress on the seams as much as possible. The panel layouts are included in Appendix C.

The seams were welded using the double-wedge fusion welding process. The equipment used was constantly tested by welding trial sample seams which were destructively tested for peel and shear strength to ensure that the equipment was operating correctly. Malfunctioning equipment was repaired, re-tested, or replaced.

All field seams were pre-cleaned and dried prior to welding and no "bubbling" or "fish mouths" were permitted during installation of the synthetic liner.

4.3 HDPE LINER QUALITY CONTROL

During manufacture of the synthetic liner, random samples of liner material were collected and tested for the following:

- Thickness;
- Density;
- Tensile properties;
- Tear resistance;
- Puncture resistance;
- Carbon black content.



The test results were included on the roll certification verifying that each roll to be used had been manufactured in accordance with the requirements of the technical specifications. The roll certifications are included in Appendix C.

4.4 FIELD SEAM TESTING

A comprehensive program for field quality control which involved field seam sampling and testing was carried out by Nilex, with third party observation by Knight Piésold. The field seam testing included the following:

- Visual observations;
- Non-destructive testing;
- Destructive strength testing.

Visual observations of field seams were routinely made to inspect the seam for squeeze-out, footprint, melt, over grind where applicable, and overlap. Defects were marked and repaired in accordance with the industry standard repair procedures.

Non-destructive testing on all seams, patches, and extruded beads was carried out to ensure water tight uniform seams. The general testing procedure completed by Nilex was as follows:

- Test wedge welded seams with inter-seam pressure.
- Test extrusion welded seams and beads with vacuum box.

All failures were isolated and repaired in accordance with applicable repair procedures.

Destructive strength tests were carried out on random samples removed from every 150 m length of seam. Samples that were taken from inside the leach pad were repaired and tested using a vacuum box, while the samples tested in the anchor trench were left without a patch. The samples were tested on site for peel and sheer strength using a field tensiometer.

The results of the technical supervision and QA/QC testwork indicate that the geosynthetics, including the 10-oz non-woven geotextile in the sump and the geonet LCRS between the outer and inner liners, were installed in accordance with the design and technical specifications of the Test Heap Leach Pad. The results of the QA/QC testwork for the liner installation are included in Appendix C.



SECTION 5.0 - HYDROSTATIC TEST

5.1 <u>GENERAL</u>

A hydrostatic test was completed at the Test Heap Leach Pad to evaluate the integrity of the liner by comparing the actual leakage rate to the theoretical leakage rate based on using empirical equations proposed by Bonaparte et al. (1989). The equations assumed that one hole per acre $(4,047 \text{ m}^2)$, with an effective area of 10 mm², would have the potential to exist for a geomembrane liner placed with a high level of quality control. The resulting predicted leakage rate in no way reflects the expected operational levels, but represents worst case conditions for assessment of environmental impact.

5.2 <u>METHODOLOGY</u>

Mount Polley Mine started filling the Test Heap Leach Pad on December 8th, 2006 at 1:30 p.m. The water was pumped from the Cariboo Pit with a 375 hp pump. The pad was filled to an elevation of 1150.2 m (average 4.7 m hydraulic head) on December 10th at 8:00 a.m. This elevation was maintained for 24-hours for the hydrostatic test.

The LCRS flow was measured every hour and recorded. Once the hydraulic test was deemed complete and acceptable by Knight Piésold, MPMC removed the water with 2 - 58 hp pumps and piped it back to the Cariboo pit.

5.3 RESULTS OF HYDROSTATIC TEST

The formula for calculating the maximum allowable leakage rate through the inner liner of the leach pad was Bernoulli's free flow through an orifice equation, which is based on the area of the hole and the hydraulic head. The formula is as follows:

Q (I/min) =
$$C_{Ba} (2gh)^{0.5} \times 60 \times 1000$$

where $C_B = 0.6$ $a = area ext{ of the hole } (m^2)$ $g = acceleration ext{ due to gravity}$ h = hydraulic head on top of the geomembrane (m)

The results of the 24-hour hydraulic test indicate that the leakage through the inner liner of the leach pad, with an average depth of water of 4.5 m, was approximately 12.3 l/min, which was less than the theoretical allowable leakage rate for the leach pad, which was calculated to be 16.9 l/min. The specified maximum allowable leakage rate for the leach pad assumed one hole or defect per acre, for a total of five holes. The results of the hydrostatic test are shown on Figure 5.1. The results of the hydrostatic test were reviewed by Knight Piésold and the test was deemed to have been successfully completed on December 18, 2006. The leakage rate and head criteria for the hydrostatic test were satisfied and met the design objectives.



SECTION 6.0 - 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. Vancouver Office for review and evaluation.

The design modifications implemented during the Test Heap Leach Pad construction program were as follows:

- The herringbone configuration of the solution drainage pipes on the inner liner was modified to run parallel to the 2% slope of the leach pad.
- Adding 100 mm CPT pipes in the LCRS gravel. The LCRS gravel in the LCRS sump is sufficient to route any flows towards the TCRS riser pipe. The inclusion of the 100 mm CPT pipes in the LSCR gravel was requested by MPMC, but was not a design requirement. Knight Piésold did not have any objections for adding the extra pipe.
- The geotextile in the sump did not completely surround the LCRS gravel. This design change involved completely wrapping the LCRS gravel as well as the end of the 200 m riser pipe.
- The side slopes of the Test Heap Leach Pad were flattened to 3H:1V (from 2H:1V) to simplify the construction and liner placement.
- The sump was reduced in size and relocated to the northwest corner of the leach pad.
- The coarse limit of the LCRS gravel was modified to allow for coarser matter to be used.

All of the design modifications were requested of MPMC and reviewed by Knight Piésold prior to approval.



SECTION 7.0 - SUMMARY AND RECOMMENDATIONS

The Test Heap Leach Pad construction program at Mount Polley Mine commenced in August 2006 with the site grading and was fully lined by mid November 2006. The earthworks construction program involved preparing the sub grade, placing the low permeability Soil Liner material and placing the LCRS gravel material in the sump. The geosynthetics construction program involved installing an outer and inner 60-mill smooth HDPE geomembrane, with a LCRS geonet installed between the liners.

The technical supervision and QA/QC program for the earthworks was completed by Knight Piésold. The technical supervision and QA/QC program for the geosynthetics was completed by Nilex Construction with third party observation by Knight Piésold. The technical supervision and QA/QC programs indicate that the Test Heap Leach Pad was constructed in accordance with the Test Heap Leach Pad design and technical specifications.

The results of the hydrostatic test indicate that the leakage rate through the inner liner is below the maximum specified calculated leakage rate which assumes one hole or defect per acre. The results of the hydrostatic test were reviewed by Knight Piésold and the test was successfully completed.

Additional work to be completed at the Test Heap Leach Pad include the following:

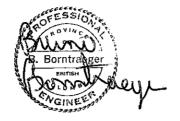
- Visual inspection of the inner liner for damage once the pad is free of ice and snow.
- Completing a second hydrostatic test within the sump area to confirm that the inner liner had not been damaged from ice during the winter.
- Installing the drainage piping system in the bottom of the leach pad.
- Placing the protective/drainage layer on top of the drainage piping system at the bottom of the leach pad.
- Installation of the settlement monuments.

An addendum to the construction report will be issued once the additional work has been completed in the spring of 2007.



SECTION 8.0 - CERTIFICATION

This report was prepared and approved by the undersigned.



March 12,2007

Prepared by:

Bruno Borntraeger, P.Eng. Senior Project Manager

Approved by:

mon Mar 14, 2007

Ken J. Brouwer, P.Eng. Managing Director

This report was prepared by Knight Piésold Ltd. for the account of Mount Polley Mining Corporation. The material in it reflects Knight Piésold's best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. Knight Piésold Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions, based on this report. This numbered report is a controlled document. Any reproductions of this report are uncontrolled and may not be the most recent revision.



TABLE 3.1

MOUNT POLLEY MINING CORPORATION MOUNT POLLEY MINE TEST HEAP LEACH PAD CONSTRUCTION PROGRAM

SOIL LINER CONTROL SAMPLES - SUMMARY

M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Tables\[Lab Test Summary.xls]Control

Atterberg Limits MC Grain Size Analysis MC Standard Proctor Sample Silt Uncorrected Corrected No. Gravel Sand Clav Deviation from Max Opt. Max Opt. Optimum M.C. #4 to #200 #200 to .002 D.D. M.C. M.C. L.L. P.L. P.I. > #4 < .002 D.D. (%) (kg/m°) (kg/m°) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) KP06-ZS-01C 17.3 37.5 13.7 3.7 9.1 20.0 32.5 10.0 2000 9.0 2080 7.5 1.6 KP06-ZS-02C 17.6 -1.2 13.3 4.3 7.8 14.1 31.0 40.9 14.0 2000 10.0 2060 9.0 KP06-ZS-03C 18.6 15.2 3.4 9.8 9.5 8.5 1.3 17.6 30.6 37.4 14.4 2080 2140 KP06-ZS-04C 18.9 2.9 10.5 14.2 58.4 11.5 16.0 13.3 15.3 14.4 1980 2030 3.7 KP06-ZS-05C 23.5 11.2 2040 14.2 9.3 25.1 26.4 35.4 13.1 10.5 2140 8.5 2.7 KP06-ZS-06C 23.3 14.2 9.1 10.4 17.7 29.6 39.3 13.4 2020 10.5 2090 9.5 0.9 AVERAGE 19.9 14.4 5.5 10.4 18.0 27.6 41.5 13.2 2020 10 2090 8.9 1.5 MAXIMUM 23.5 16.0 9.3 14.2 25.1 32.5 58.4 14.4 2080 11.5 2140 10.5 3.7 17.3 13.3 2.9 7.8 13.3 15.3 35.4 1980 9.0 2030 7.5 -1.2 MINIMUM 10.0

Revised: 05-Feb-07

Knight Piésold

TABLE 3.2

MOUNT POLLEY MINING CORPORATION MOUNT POLLEY MINE TEST HEAP LEACH PAD CONSTRUCTION PROGRAM

SOIL LINER RECORD SAMPLES - SUMMARY

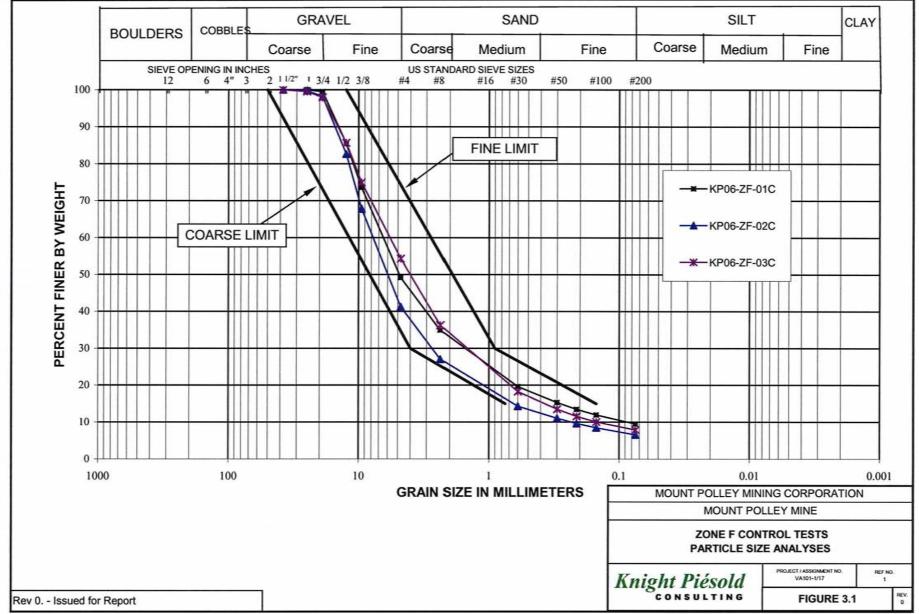
M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Tables\[Lab Test Summary.xls]Record

Sample	Atte	rberg Li	imits	MC	MC Grain Size Analysis			Standard Proctor			MC		
No.					Gravel	Sand	Silt	Clay	Uncor	rected	Corre	ected	Deviation from
									Max	Opt.	Max	Opt.	Deviation from Optimum
	L.L.	P.L.	P.I.	M.C.	> #4	#4 to #200	#200 to .002	< .002	D.D.	M.C.	D.D.	M.C.	(%)
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(kg/m^3)	(%)	(kg/m^3)	(%)	(,,,,)
KP06-ZS-01R	22.1	14.0	8.1	12.0	18	28	38	16	2030	9.5	2100	8.5	3.5
KP06-ZS-02R	22.5	14.7	7.8	10.3	20	27	36	17	2040	10.0	2120	8.5	1.8
AVERAGE	22.3	14.4	8.0	11.2	19	27	37	17	2035	9.8	2110	8.5	2.7
MAXIMUM	22.5	14.7	8.1	12.0	20	28	38	17	2040	10.0	2120	8.5	3.5
MINIMUM	22.1	14.0	7.8	10.3	18	27	36	16	2030	9.5	2100	8.5	1.8

Revised: 05-Feb-06

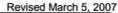
Print: 03/13/2007 9:54 AM

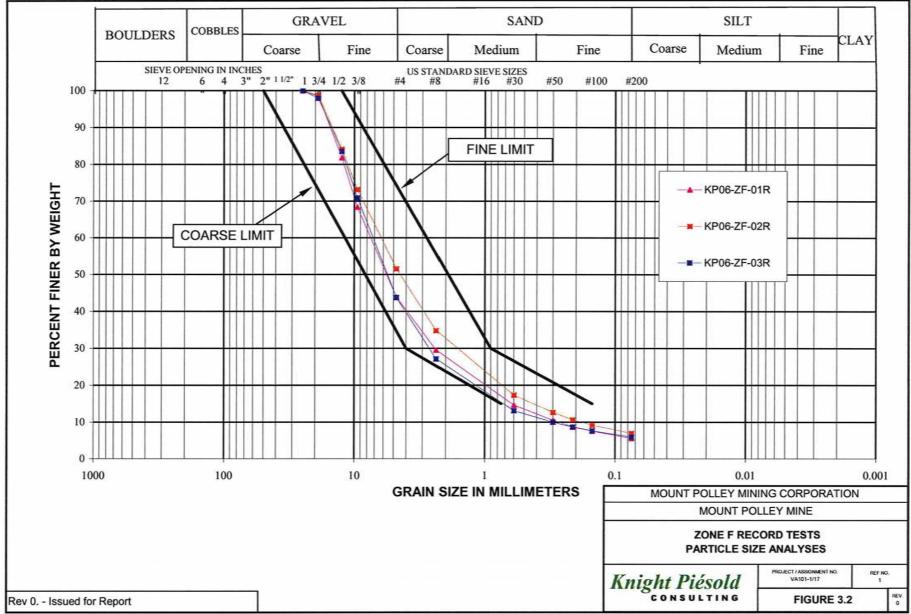
Revised March 5, 2007



M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Figs\[Zone F - PSA - control and record.xls]Control

Print: 03/13/2007 9:54 AM

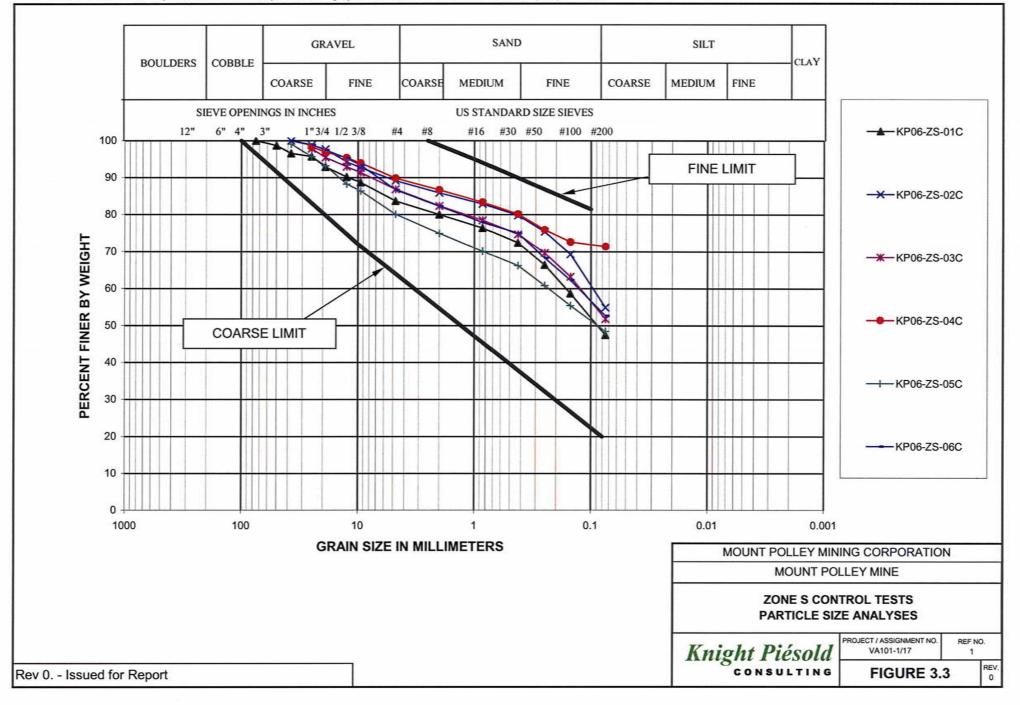




M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Figs\[Zone F - PSA - control and record.xls]Record

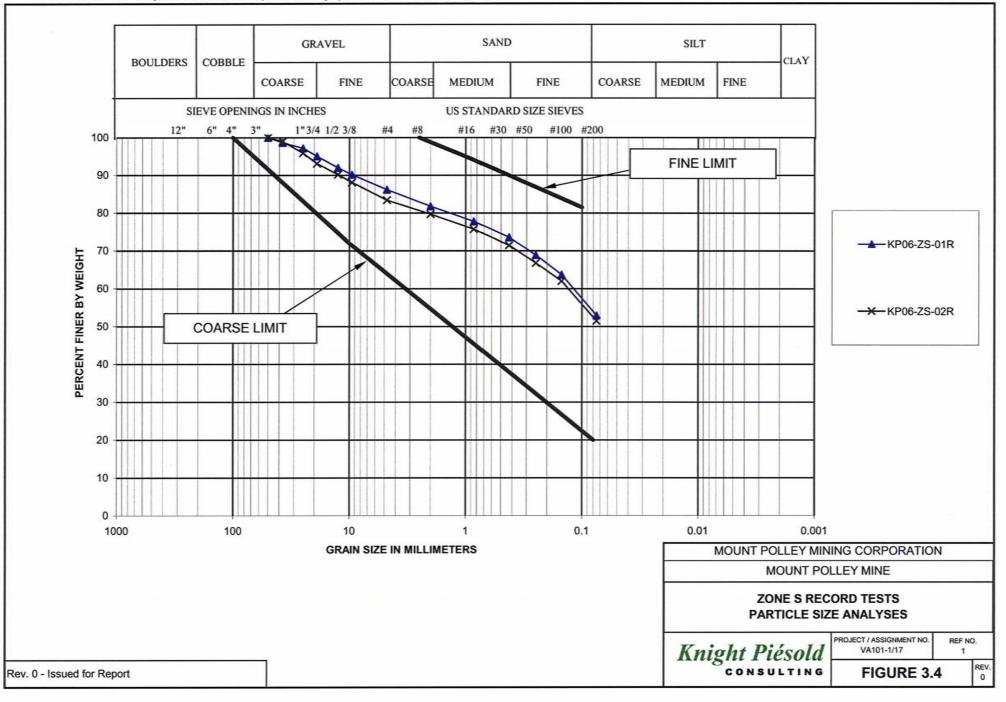
Print: 3/12/20073:46 PM Revised: March 5, 2007

M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Figs\[Zone S -June 21 Test Pits - control.xls]Graph - Control



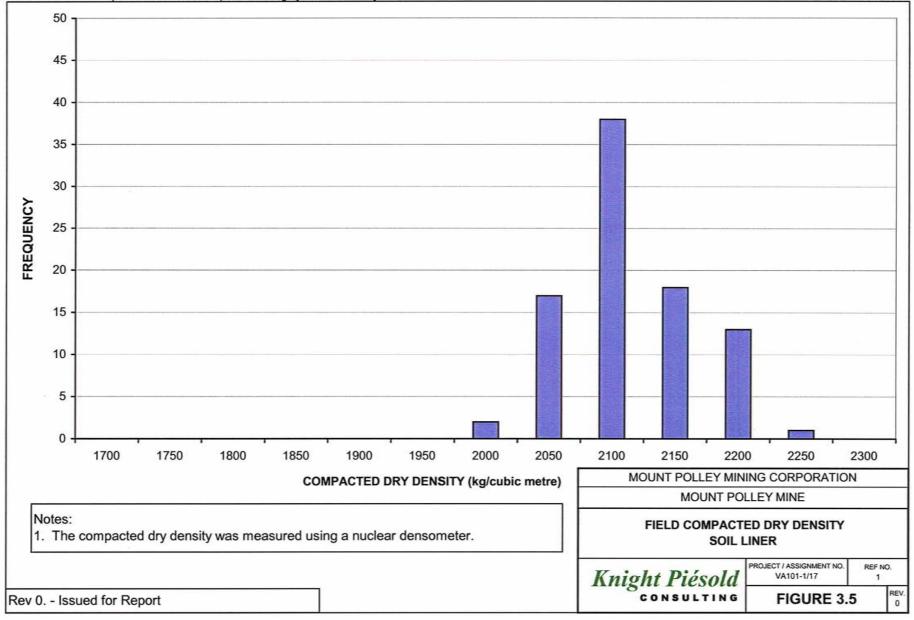
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M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Figs\[Zone S -Oct 2 records.xls]Graph

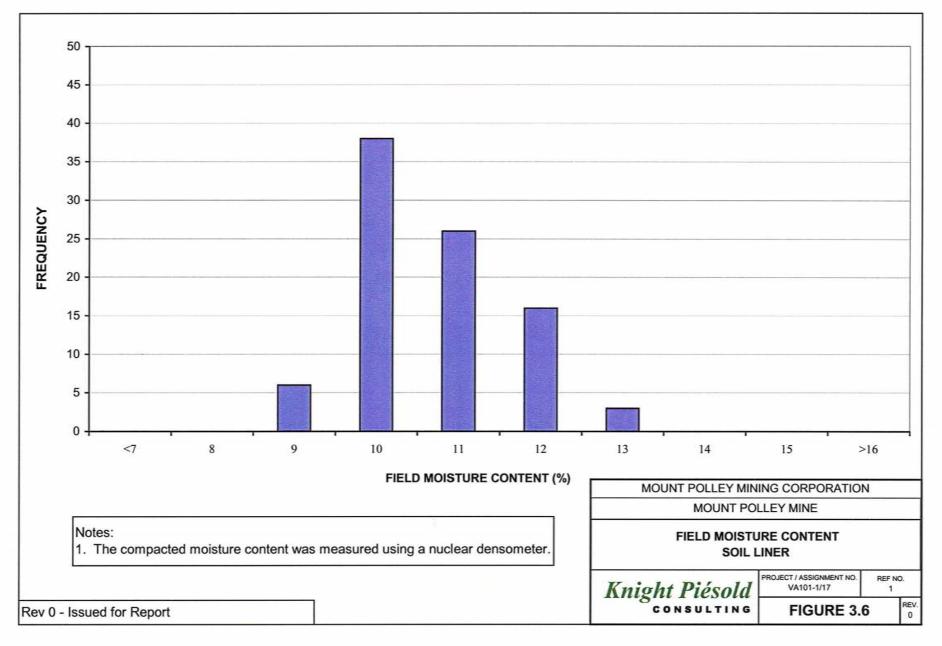


Print: 3/12/2007 4:16 PM Revised March 5, 2007

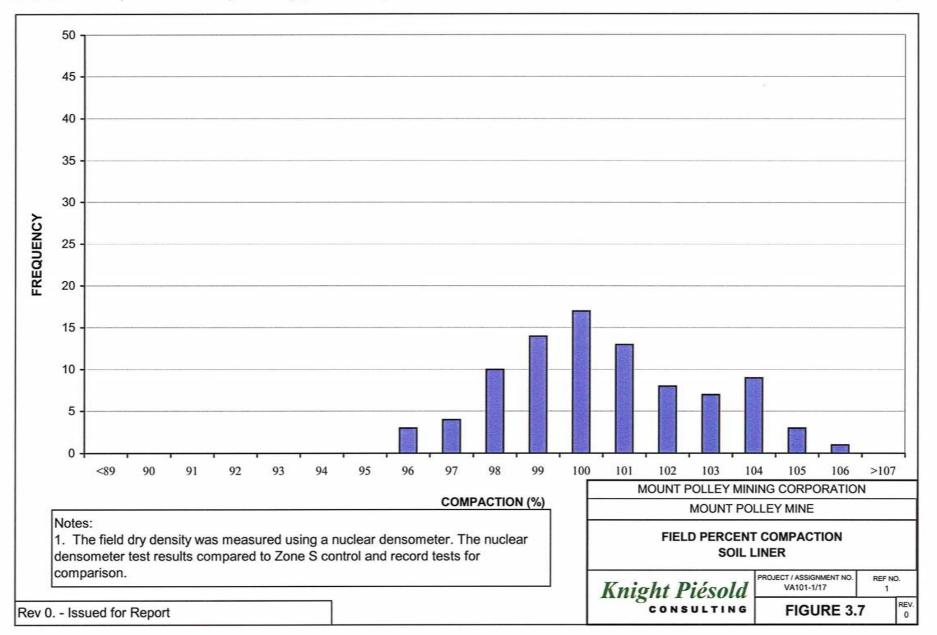
M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Figs\[Zone S data.xls]FIG 3.5



M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Figs\[Zone S data.xls]FIG 3.6



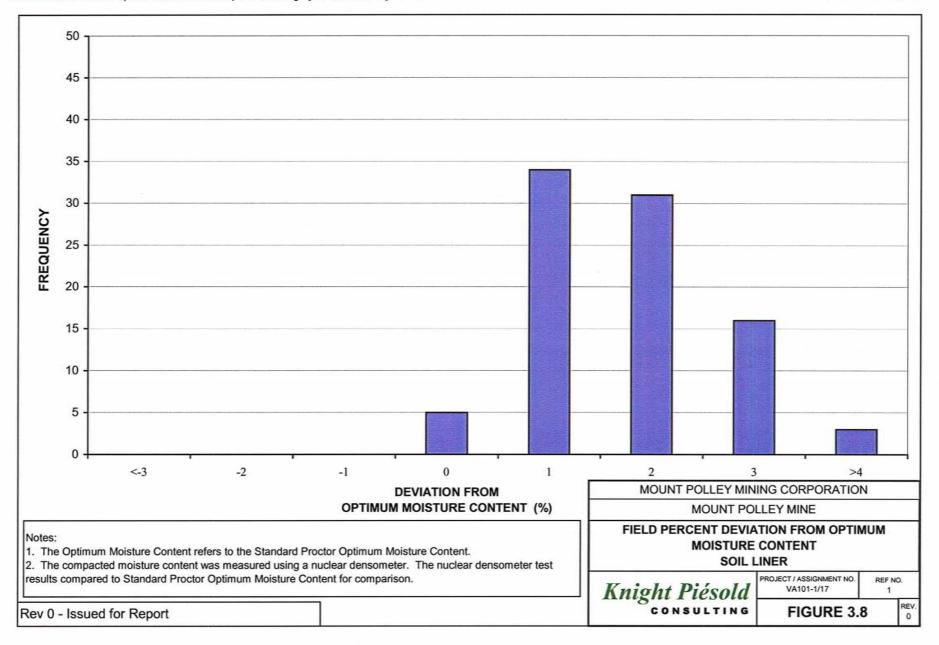
M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Figs\[Zone S data.xls]FIG 3.7



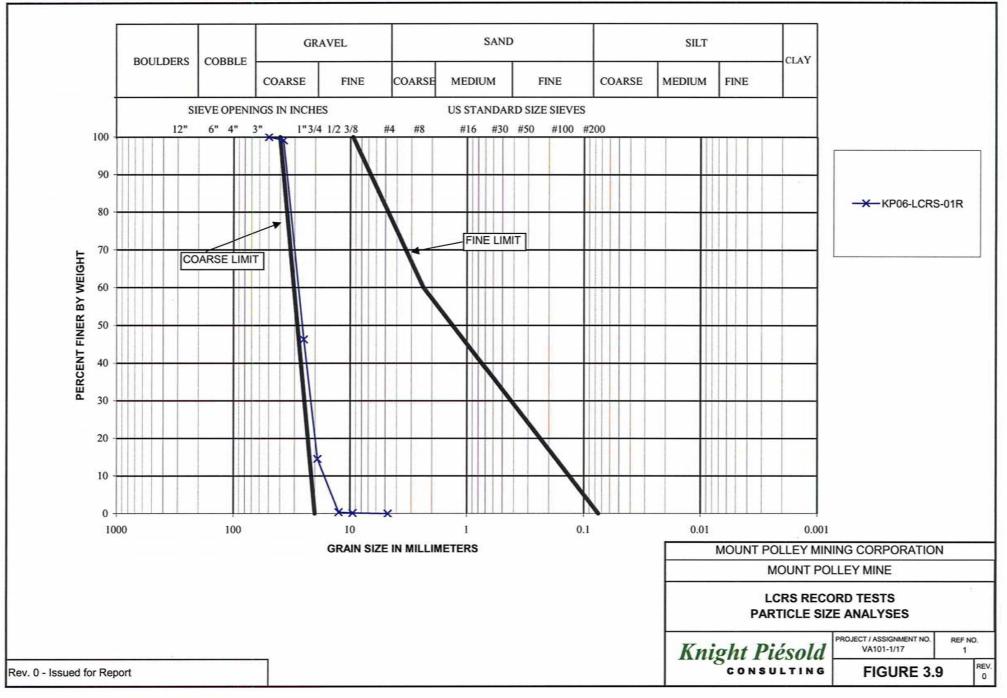
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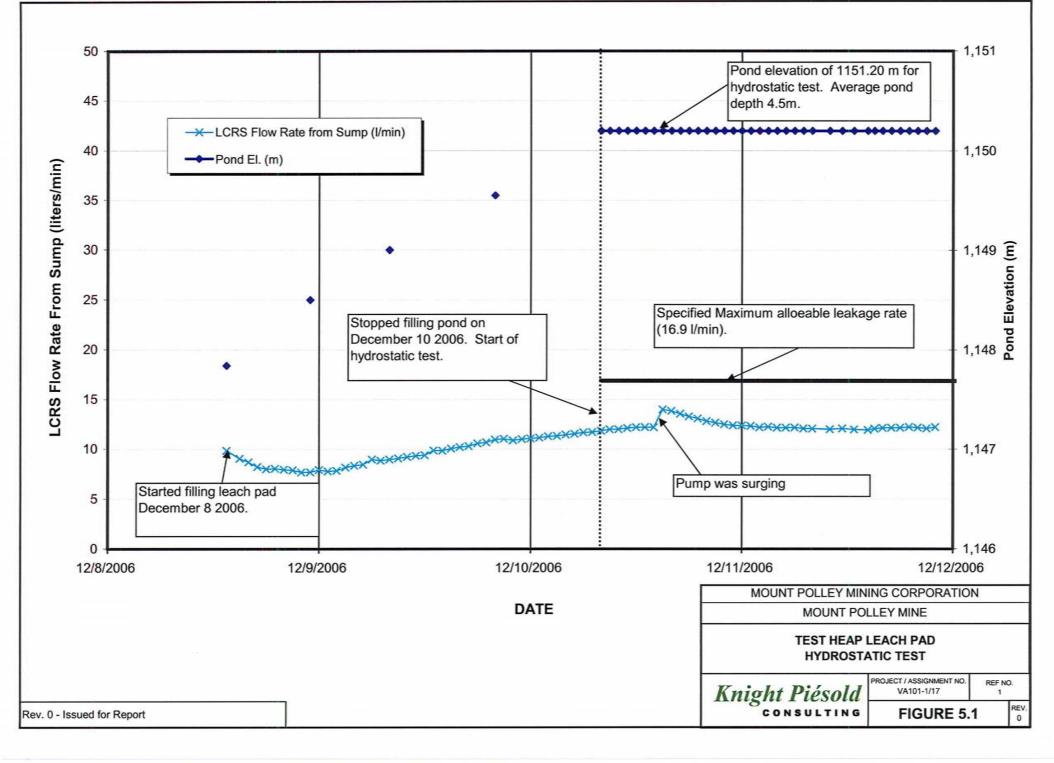
Print: 3/12/2007 4:20 PM Revised March 5, 2007

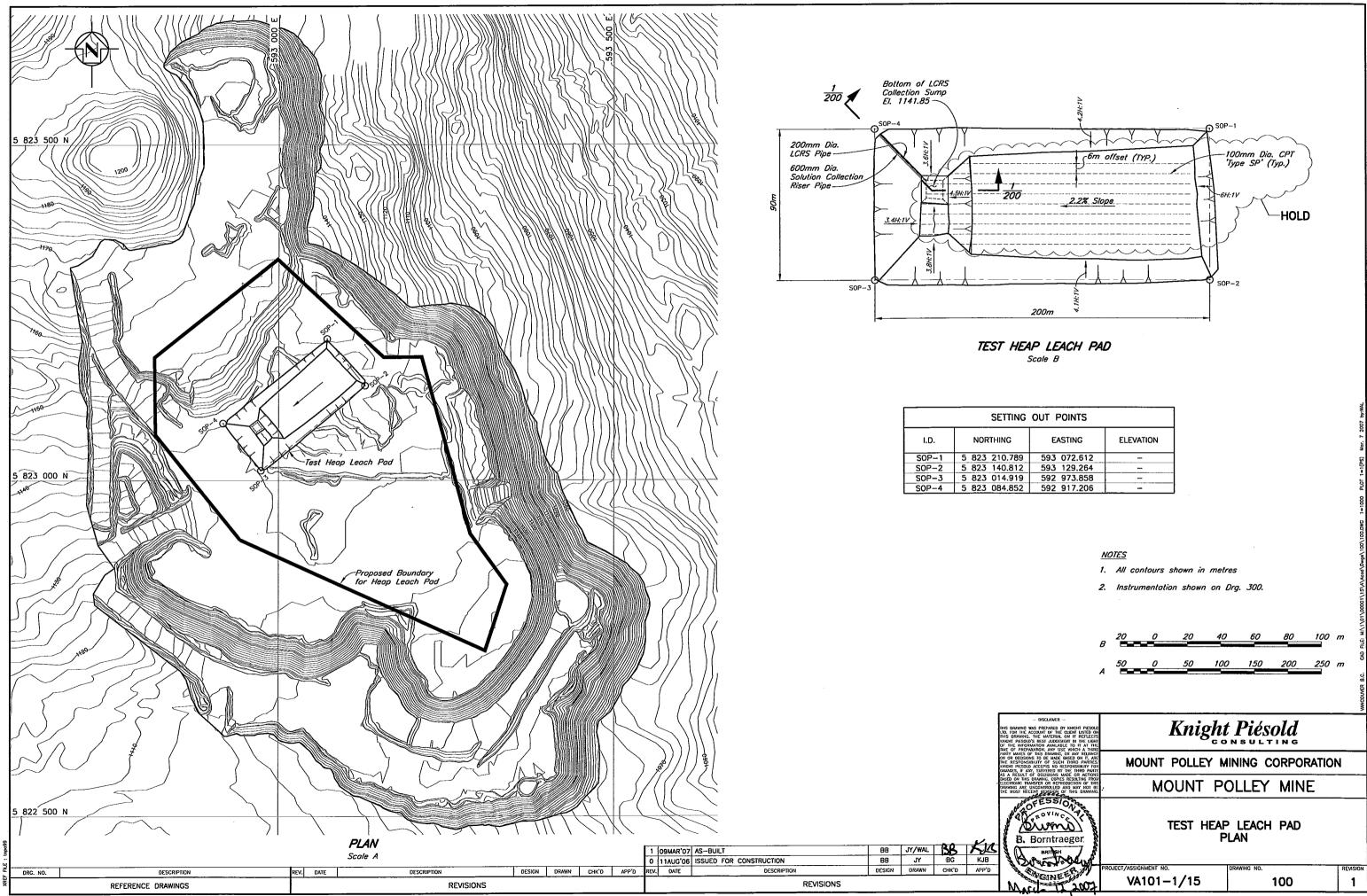
M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Figs\[Zone S data.xls]FIG 3.8



M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Figs\[LCRS.xls]Graph

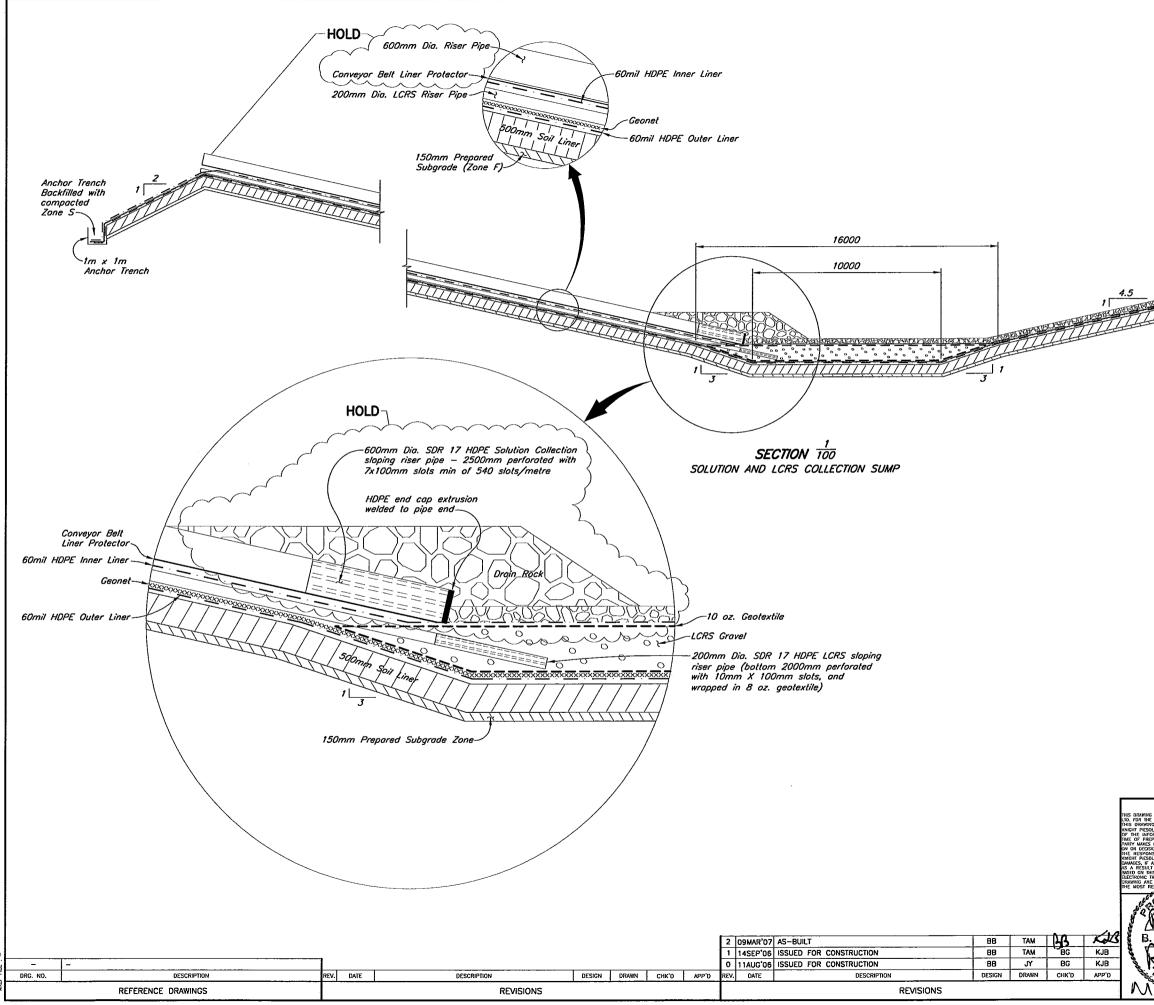




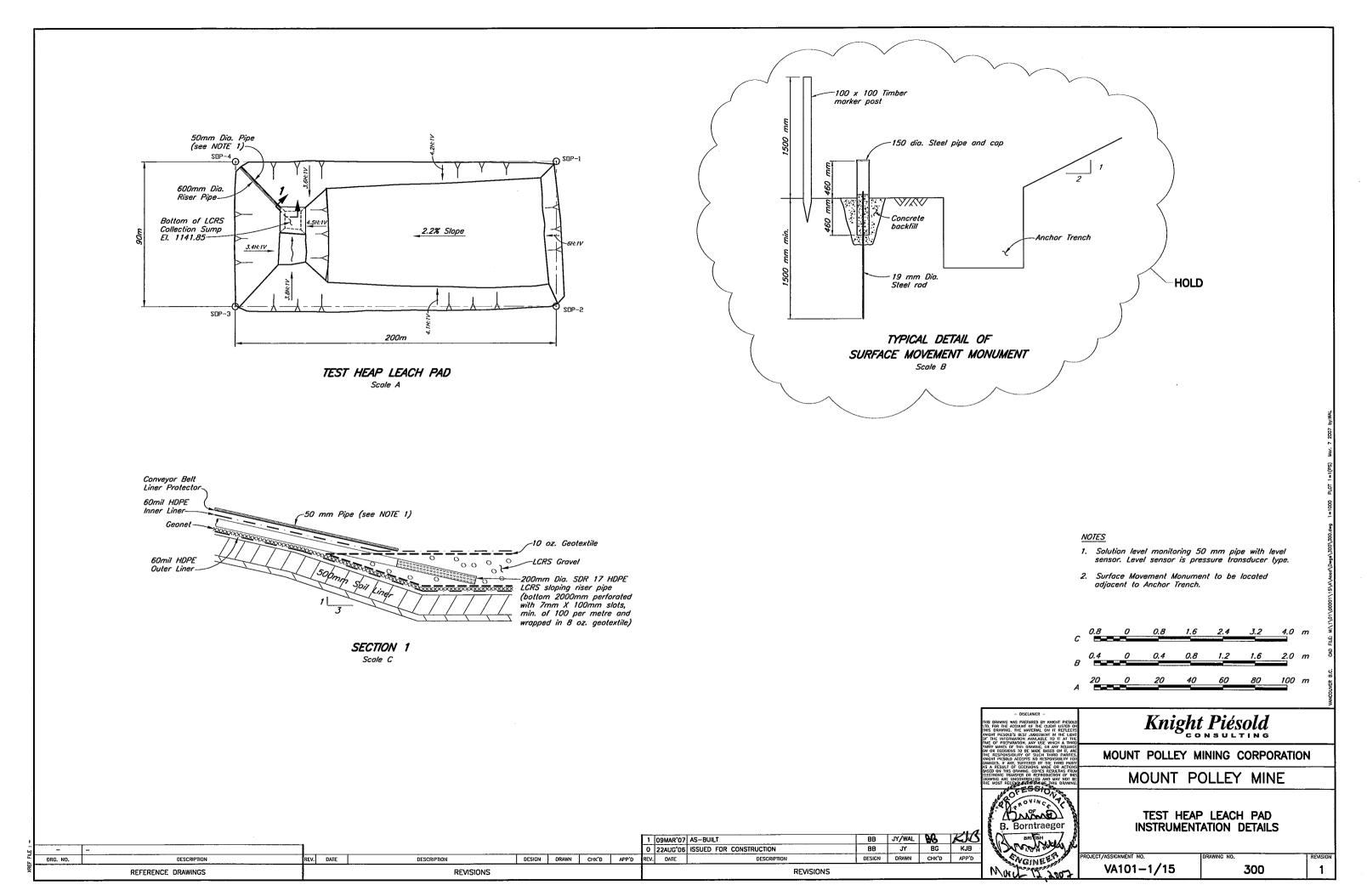


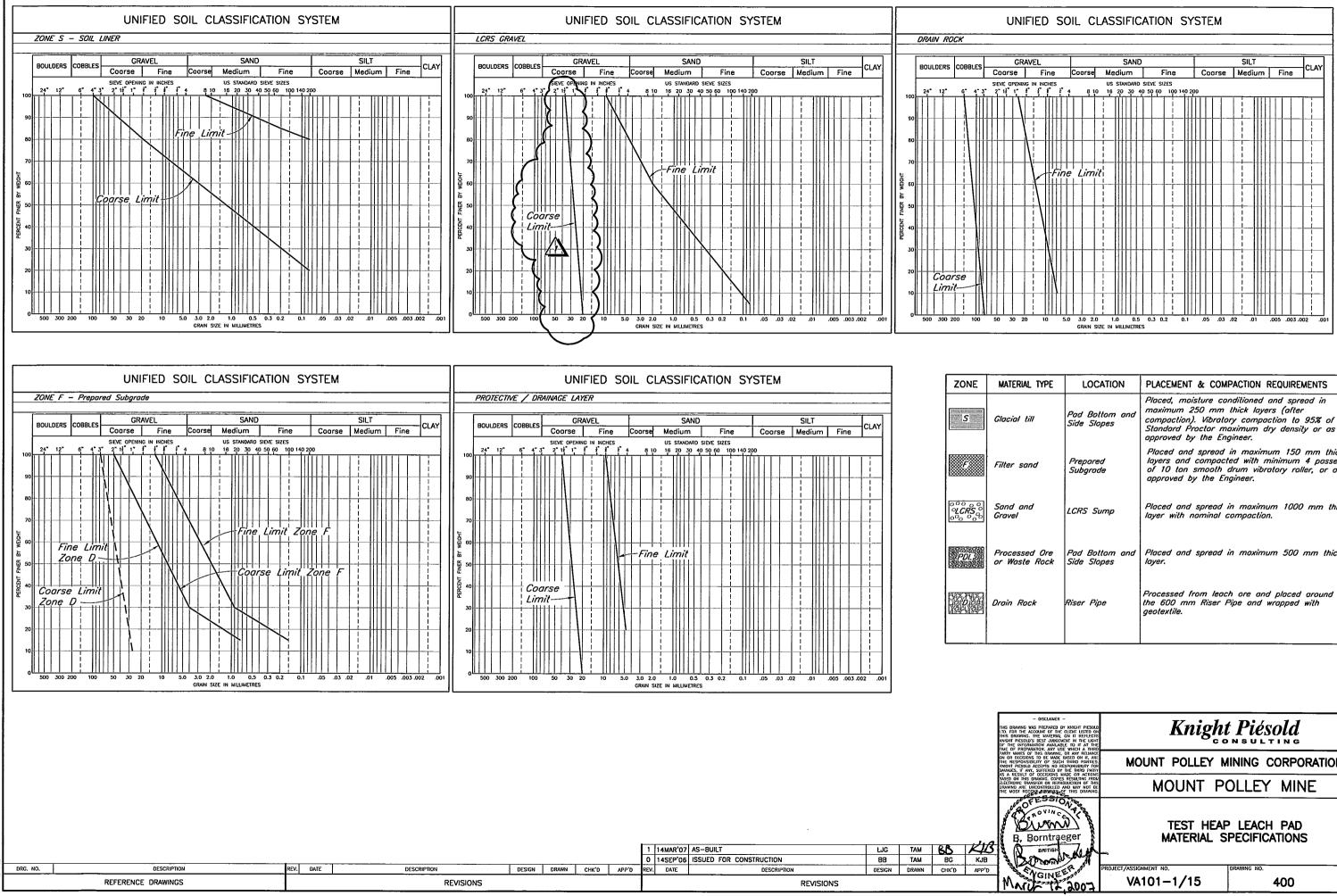
NG OUT POINTS					
	EASTING	ELEVATION			
39	593 072.612	_			
12	593 129,264	-			
19	592 973.858	-			
52	592 917.206	-			

and occure			
HEADER AV	PROJECT/ASSIGNMENT NO.	DRAWING NO.	REVISION
GINE 2001	VA101-1/15	100	1



HOLD -Protective/Drainage Layer 1895US 60mil HDPE Inner Liner enne 500mm Soil Liner -60mil HDPE Outer Liner -150mm Prepared Subgrade (Zone F) 2.2% Slope 10 m 8 Scale - DISCLAIMER Knight Piésold - DISCARDE -MERCARDE TO KINGHT PLESO IT THE ACCOUNT OF THE CLEAT LISTED O MATRIG. THE MATERIAL ON IT REFLECT PLESOL'S DEST JUDGENONT IN THE LIGH INFORMATION AVAILABLE TO IT AT TH PREPARATION, ANY USE WHICH A THUS SECSIONS TO BE WHICH A WHICH SECSIONS TO BE WHICH A WHICH A SECSIONS TO BE WHICH A SEC MOUNT POLLEY MINING CORPORATION IF ANY, SUFFERED DRAWING. MOUNT POLLEY MINE FESSION . ROVINC Buni TEST HEAP LEACH PAD B. Borntraeger SECTIONS AND DETAILS Berner VISIO VGINEE VA101-1/15 2 Marie 12 2007 200





erial type	LOCATION	PLACEMENT & COMPACTION REQUIREMENTS
al till	Pad Bottom and Side Slopes	Placed, moisture conditioned and spread in maximum 250 mm thick layers (after compaction). Vibratory compaction to 95% of Standard Proctor maximum dry density or as approved by the Engineer.
r sand	Prepared Subgrade	Placed and spread in maximum 150 mm thick layers and compacted with minimum 4 passes of 10 ton smooth drum vibrotory roller, or as approved by the Engineer.
l and sl	LCRS Sump	Placed and spread in maximum 1000 mm thick layer with nominal compaction.
essed Ore Yaste Rock	Pad Bottom and Side Slopes	Placed and spread in maximum 500 mm thick layer.
Rock	Riser Pipe	Processed from leach ore and placed around the 600 mm Riser Pipe and wrapped with geotextile.

MOUNT POLLEY MINING CORPORATION REVISION 1



APPENDIX A

LABORATORY TEST RESULTS

(Pages A1 to A40)

FEB-12-2007 11:32AM FROM-MOUNT POLLEY MINING CORP 4301 Kelliher Road Prince Geor ₃ , BC V2L5S8 Phone (250)564-4304; fax (250)564-9323	+1 250 790 2268 T-160 P 010 F-988 TU 2U 4U 6U SCRIES
Mount Polley Mining Corp. Attn: Knight Piesold P.O Box 12 Likely, BC VOL -1NO ATTN: Ron Martel @ 250-790-2268	PROJECT NO. K 2036 CLIENT Mount Polley Mining Corp, Attn: c.c. Knight Piesold Consulting
PROJECT M.P. Construction Program Stage Materials Testing CONTRACTOR	Likely
SIEVE TEST NO. 3 DATE RECEIVED 2006. Jun. 26 DA	ATE TESTED 2006. Jun. 29 DATE SAMPLED 2006. Jun. 21
SUPPLIER SOURCE KP06-ZS-01C, TP06-13 SPECIFICATION MATERIAL TYPE T11.1.	SAMPLED BY CLIENT TESTED BY BO TEST METHOD WASHED
3° 2° 100 100 100 100 100 90 100 100 100 100 100 90 100 100 100 100 90 100 100 100 100 90 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	MG R2R F40 ABD +0p R2R0 R 10 20 30 30 30 80 10 30 50 50 50 10 70 60 70 80 10 90 100 90 100 50 50 50 100 50 50 50 100 50 50 50 100 50 50 50 100 50 50 50 100 50 50 50 100 50 50 50 100 50 50 50 100 50 50 50 100 50 50 50
GRAVEL SIZES PERCENT GRADATION	SAND SIZES AND FINES PERCENT GRADATION PASSING LIMITS
PASSING LIMITS 3" 75 mm 100.0 2" 50 mm 98.7 1 1/2" 37.5 mm 96.6 1" 25 mm 95.7 3/4" 19 mm 92.9 1/2" 12.5 mm 90.2 3/8" 9.5 mm 88.7	No.4 4.75 mm 83.7 No.10 2.00 mm 80.0 No.20 850 µm 76.4 No.40 425 µm 72.4 No.60 250 µm 66.4 No.100 150 µm 58.7 No.200 75 µm 47.5
Page 1 of 1 2006.Jun.29 GeoNorth Eng	Ineering Ltd. PER. 1000

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GeoNorth Engineering Test Designation: ASTM D-422

Hydrometer Analysis

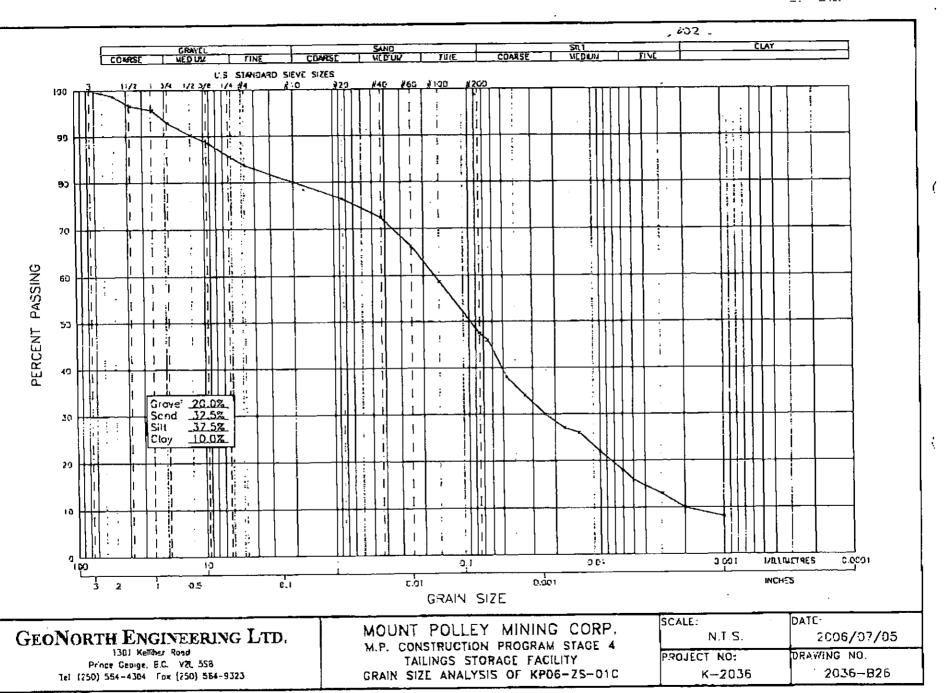
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40.0 0.800 1 19.0 24.0 0.01301 0.047 47.5 38. 40.0 0.800 2 17.0 24.0 0.01301 0.024 42.5 34. 40.0 0.800 4 15.0 24.0 0.01301 0.024 37.5 30. 40.0 0.800 8 13.5 24.0 0.01301 0.013 32.5 26. 40.0 0.800 15 13.0 24.0 0.01301 0.0099 27.5 22. 40.0 0.800 60 9.0 24.0 0.01301 0.0066 22.5 18. 40.0 0.800 120 8.0 24.0 0.01301 0.005 20.0 16.3 13. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10.		Hauon: ASI		n (Kajah)			· · · · · · · · · · · · · · · · ·			Date: July 6	2006	
Type: Till Sample #: Test #: Hole #: TP06-13 Depth: Time: Sample B: Tested By: DJ Checked By: NK Checked By: NK Jate Sampled: 06.21.06 Date Received: 06.26.06 Date Tested: 07.04.06 Starting Elapsed Tame Reading SQRT(Z:)/T V1 (g) % - #10 (mm) R (0C) K R* Zr (cm) D(mm) N (%) 40.0 0.800 0.5 23.0 24.0 0.01301 0.0471 47.5 38. 40.0 0.800 1 15.0 24.0 0.01301 0.0242 37.5 30. 40.0 0.800 15 15.0 24.0 0.01301 0.0024 37.5 30. 40.0 0.800 15 15.0 24.0 0.01301 0.0035 22.5 18. 40.0 0.800 16.0 24.0 0.01301 0.0005 22.0 18.3 40.0 0.800 128.0 <t< td=""><td></td><td></td><td></td><td>ib: [wuiðin</td><td>Flesolu j</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>				ib: [wuiðin	Flesolu j							
Sample #; Test #; Hole #; TP06-13 Depth; Time: Sampled By: Client Tested By: DJ Checked By: NK Date Received: 06.26.06 Date Received: 06.07.26.06 Date Received: 06.07.26.06 Date Received: 06.07.26.06 Date Received: 06.07.26.06 Date Received: 06.07.26.06											7-2030	
Sampled By: Client Tested By: DJ Checked By: NK Dale Sampled: D6.21 06 Dale Received: 06.25 06 Date Tested: 07.04.06 Starting Filtersed Tamp Corr. SQRT(Zr)/T D(nm) N (%) N*(%-#10) 40.0 0.800 0.5 23.0 24.0 0.01301 0.0455 57.6 46. 40.0 0.800 1 19.0 24.0 0.01301 0.0341 42.5 34. 40.0 0.800 4 15.0 24.0 0.01301 0.0241 37.5 30. 40.0 0.800 8 13.5 24.0 0.01301 0.0171 33.8 27. 40.0 0.800 15 13.0 24.0 0.01301 0.0013 32.5 26. 40.0 0.800 120 8.0 24.0 0.01301 0.0005 22.6 18. 40.0 0.800 140 0.24.0 0.01301 0.002 12.5 10. 40.0 0.800 <td></td> <td>CLUOII. KP</td> <td>00-20-010</td> <td>Tact #</td> <td></td> <td></td> <td>108.41</td> <td>Danth</td> <td></td> <td></td> <td></td> <td></td>		CLUOII. KP	00-20-010	Tact #			108.41	Danth				
Jaie Sampled: 06.21.06 Date Received: 06.26.08 Date Tested: 07.04.06 Starting W: (g) Elapsed Time % - #10 Temp (min) Temp (0C) Corr. K Reading Reading SQRT(Zr)/T (min) D (mm) D (mm) N*(%) N*(%-#10) 40.0 0.800 0.5 23.0 24.0 0.01301 0.0455 57.5 46. 40.0 0.800 2 17.0 24.0 0.01301 0.047 47.5 38. 40.0 0.800 2 17.0 24.0 0.01301 0.024 37.5 30. 40.0 0.800 41.15 24.0 0.01301 0.017 33.8 27. 40.0 0.800 30 11.0 24.0 0.01301 0.0017 32.5 26. 40.0 0.800 120 8.0 24.0 0.01301 0.0035 20.0 16. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. elsorightion of Sample: Total WL				1.05(#.	Tested By		10-13	[Deptit:				
Starting W1. (g) % - #10 W1. (g) Reading W- # Temp (OC) Corr. Reading W1. (g) SQRT(Zr)/r (min) D (mm) N (%) N*(%-#10) 40.0 0.800 0.5 23.0 24.0 0.01301 0.0055 57.5 45. 40.0 0.800 1 19.0 24.0 0.01301 0.0955 57.5 45. 40.0 0.800 2 17.0 24.0 0.01301 0.0947 47.5 38. 40.0 0.800 4 15.0 24.0 0.01301 0.0024 37.5 30. 40.0 0.800 13.0 24.0 0.01301 0.013 32.5 26. 40.0 0.800 10.1 24.0 0.01301 0.0066 22.5 18. 40.0 0.800 120 8.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0			16		Dele Base		<u></u>					
Starting Tims Reading Tamp K Rading Zr (cm) SQRT(Zr)/T (min) N (%) N*(%-#10) 40.0 0.800 0.5 23.0 24.0 0.01301 0.055 57.5 45. 40.0 0.800 1 18.0 24.0 0.01301 0.047 47.5 38. 40.0 0.800 2 17.0 24.0 0.01301 0.024 37.5 30. 40.0 0.800 4 15.0 24.0 0.01301 0.024 37.5 30. 40.0 0.800 8 13.5 24.0 0.01301 0.013 32.5 26. 40.0 0.800 30 11.0 24.0 0.01301 0.0005 20.0 16.3 13.3 40.0 0.800 420 5.0 24.0 0.01301 0.0005 20.0 16.3 13.3 40.0 0.800 440 4.0 24.0 0.01301 0.0002 12.5 <td< td=""><td></td><td></td><td></td><td></td><td>Dale Acce</td><td>1080.00.20</td><td></td><td></td><td></td><td></td><td>01.04.00</td><td><u></u></td></td<>					Dale Acce	1080.00.20					01.04.00	<u></u>
NI: (g) % - #10 (min) R (0C) K R' Zr (em) (min) D (mm) N (%) N*(%-#10) 40.0 0.800 0.5 23.0 24.0 0.01301 0.055 57.5 46. 40.0 0.800 1 19.0 24.0 0.01301 0.047 47.5 38. 40.0 0.800 4 15.0 24.0 0.01301 0.024 37.5 30. 40.0 0.800 4 15.0 24.0 0.01301 0.017 33.8 27. 40.0 0.800 15 13.0 24.0 0.01301 0.013 32.5 26. 40.0 0.800 60 9.0 24.0 0.01301 0.006 22.5 18. 40.0 0.800 120 8.0 24.0 0.01301 0.0005 20.0 15. 40.0 0.800 1440 4.0 24.0 0.01301 0.0002 12.5 10. <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td>					_					_		
40.0 0.800 0.5 23.0 24.0 0.01301 0.085 57.5 46. 40.0 0.800 1 19.0 24.0 0.01301 0.047 47.5 38. 40.0 0.800 2 17.0 24.0 0.01301 0.034 42.5 34. 40.0 0.800 4 15.0 24.0 0.01301 0.024 37.5 30. 40.0 0.800 8 13.5 24.0 0.01301 0.017 33.8 27. 40.0 0.800 30 11.0 24.0 0.01301 0.009 27.5 22. 40.0 0.800 60 9.0 24.0 0.01301 0.006 22.5 18. 40.0 0.800 24.0 0.01301 0.005 20.0 16. 13. 40.0 0.800 24.0 0.01301 0.0031 0.002 15. 13. 40.0 0.800 460 5.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440	-							1				
40.0 0.800 1 19.0 24.0 0.01301 0.047 47.5 38. 40.0 0.800 2 17.0 24.0 0.01301 0.034 42.5 34. 40.0 0.800 4 15.0 24.0 0.01301 0.024 37.5 30. 40.0 0.800 8 13.5 24.0 0.01301 0.017 33.8 27. 40.0 0.800 15 13.0 24.0 0.01301 0.0013 32.5 26. 40.0 0.800 60 9.0 24.0 0.01301 0.009 27.5 22. 40.0 0.800 120 8.0 24.0 0.01301 0.005 20.0 15. 40.0 0.800 120 8.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 16.3 13. Vedrome								Zr (cm)	(min)			
40.0 0.800 2 17.0 24.0 0.01301 0.034 42.5 34. 40.0 0.800 4 15.0 24.0 0.01301 0.024 37.5 30. 40.0 0.800 15 13.0 24.0 0.01301 0.017 33.8 27. 40.0 0.800 15 13.0 24.0 0.01301 0.0013 32.5 25. 40.0 0.800 60 9.0 24.0 0.01301 0.009 27.6 22. 40.0 0.800 60 9.0 24.0 0.01301 0.005 20.0 18. 40.0 0.800 24.0 0.01301 0.003 16.3 13. 40.0 0.800 24.0 0.01301 0.002 12.5 10. 40.0 0.800 480 5.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 480 5.0 24.0 0.01301 0.002 12.5 10. 9280 Graduale #:1 Dispersing Agent: Sodium Hex												46.0
40.0 0.800 4 15.0 24.0 0.01301 0.024 37.5 30. 40.0 0.800 8 13.5 24.0 0.01301 0.017 33.8 27. 40.0 0.800 15 13.0 24.0 0.01301 0.013 32.5 26. 40.0 0.800 15 13.0 24.0 0.01301 0.009 27.5 22. 40.0 0.800 120 8.0 24.0 0.01301 0.009 22.5 18. 40.0 0.800 120 8.0 24.0 0.01301 0.005 22.5 18. 40.0 0.800 24.0 6.5 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.001 10.0 10. 10.001 10.0 8. Verometer % 794968 Graduale #: 1 Dispersing Agent: Sodium Hex Amount: 125ml Amount: 1								<u> </u>	1		47.5	38.0
40.0 0.800 8 13.5 24.0 0.01301 0.017 33.8 27. 40.0 0.800 15 13.0 24.0 0.01301 0.013 32.5 26. 40.0 0.800 30 11.0 24.0 0.01301 0.009 27.5 22. 40.0 0.800 60 9.0 24.0 0.01301 0.009 27.5 18. 40.0 0.800 120 8.0 24.0 0.01301 0.005 20.0 16.3 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. Perstrip of Solids: Dispersing Agent: Sodium Hex Amount: 125ml Selve No.								1			42.5	34.0
40.0 0.800 15 13.0 24.0 0.01301 0.013 32.5 25. 40.0 0.800 30 11.0 24.0 0.01301 0.009 27.5 22. 40.0 0.800 60 9.0 24.0 0.01301 0.005 22.0 18. 40.0 0.800 120 8.0 24.0 0.01301 0.005 22.0 18. 40.0 0.800 120 8.0 24.0 0.01301 0.005 20.0 18. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 144.0 4.0 0.40.0 0.01301 0.001 10.0 8. Verometer #: 794968 Graduale #: 1 Dispersing Agent: Sodium Hex Amount: 125ml Description of Sample: Total Wi. Finer Than Orig Samp. Samp. Samp. 10 40.0 100.0 <												
40.0 0.800 30 11.0 24.0 0.01301 0.009 27.5 22. 40.0 0.800 60 9.0 24.0 0.01301 0.006 22.5 18. 40.0 0.800 120 8.0 24.0 0.01301 0.005 20.0 16. 40.0 0.800 240 6.5 24.0 0.01301 0.002 12.5 10. 40.0 0.800 480 5.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 480 5.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.0001 10.0 8. Paysing Agent: Sodium Hex Amount: 125ml Deskiy foolds: Paysing Solids: Deskiy foold: 10.0 80.0 38.1 Total WL. Than Orig. Samp.												
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40.0 0.800 120 8.0 24.0 0.01301 0.005 20.0 15. 40.0 0.800 240 6.5 24.0 0.01301 0.003 16.3 13. 40.0 0.800 460 5.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.001 10.0 8. 40.0 0.800 1440 4.0 24.0 0.01301 0.001 10.0 8. 40.0 0.800 1440 4.0 24.0 0.01301 10.0 8. Vadrometer #: 794968 Graduale #: 1 Dispersing Agent: Sodium Hex Amount: 125ml Amount: 125ml Description of Sample: Total Wt. Yeiner Than Orig Samp. Seive Analysis Initial Moisture Content 10 40.0 100.0 80.0 38.1 Total Wt. Tare No. Tare No. 1are No. 1are No. 1a										0.009	27.5	22.0
40.0 0.800 120 8.0 24.0 0.01301 0.005 20.0 16.3 13. 40.0 0.800 240 6.5 24.0 0.01301 0.002 12.5 10. 40.0 0.800 480 5.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.001 10.0 8. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. Veight Solids: Graduale #: 1 Dispersing Agent: Sodium Hex Amount: 125ml Density of Solids:	40.0		· · · · · · · · · · · · · · · · · · ·			0.01301				0.008	22.5	18.0
40.0 0.800 240 6.5 24.0 0.01301 0.003 16.3 13. 40.0 0.800 460 5.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.001 10.0 8. vgdrometer #: 794968 Graduale #: 1 Dispersing Agent: Sodium Hex Amount: 125ml Amount: 125ml Density of Solids:	40.0	0.800	120	0.8	24.0	_0.01301			T	0.005	20.D	16.0
40.0 0.800 480 5.0 24.0 0.01301 0.002 12.5 10. 40.0 0.800 1440 4.0 24.0 0.01301 0.001 10.0 8. iydrometer #: 794968 Graduale #: 1 Dispersing Agent: Sodium Hex Amount: 125ml Density of Solids:	40.0	0.800	240	6.5	24.0	D.01301			1	0.003	16.3	
40.0 0.800 1440 4.0 24.0 0.01301 0.001 10.0 E. Hydrometer #: 794968 Graduale #: 1 Dispersing Agent: Sodium Hex Amount: 125ml Density of Solids:								1		0.002		
Density of Solids: Sieve Analysis Initial Moisture Content Hydrometer Sieve Analysis % Finer % Finer % Finer Weight Finer % Finer % Finer % Finer 10 40.0 100.0 80.0 38.1 Total Wt. 20 1.7 95.8 76.6 25.4 Weight 40 2.0 90.8 72.6 19.0 Dry Wt. & Tare 60 3.0 83.3 66.5 12.5 Water Wt. 100 2.8 76.3 61.0 9.5 Tare Wt. 100 2.8 69.3 55.4 Wt. of Dry Soil =V 100 2.8 69.3 55.4 Wt. of Dry Soil =V 100 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V 100 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V 100 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V	40.0	0.800	1440	4.0	24.0	0.01301		1		0.001	10.D	8.0
Description of Sample: Hydrometer Sieve Analysis Sieve Analysis Initial Moisture Content Weight Total Wi. % Finer % Finer Than Orig % Finer Seive No. Retained Than Than Seive No. Retained Total Wi. % Finer 10 40.0 100.0 80.0 38.1 Tare No. Tare No. 20 1.7 95.8 76.6 25.4 Weight Dry Wi. & Tare 40 2.0 90.8 72.6 19.0 Dry Wi. & Tare Water Wi. 100 2.8 76.3 61.0 9.5 Tare Wi. Tare Wi. 200 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V 200 2.8 69.3 55.4 4.75 Wt. of Sample from Initial Moisture 201 2.77 10 SEE WASHED SIEVE RPT Moisture Content 5 201 2.8 69.3 55.4 4.75 =(100xWet Soil Wt.)/(100 + Initial Moisture) 201 <td></td> <td></td> <td></td> <td>Graduale #</td> <td><u>t: 1</u></td> <td></td> <td>Dispersin</td> <td>g Agent: So</td> <td>dium Hex</td> <td></td> <td>Amount: 12</td> <td>25ml</td>				Graduale #	<u>t: 1</u>		Dispersin	g Agent: So	dium Hex		Amount: 12	25ml
Hydrometer Sieve Analysis Sieve Analysis Initial Moisture Content Weight Finer % Finer Than Orig % Finer Seive No. Retained Than Than Seive No. Retained Than Than Orig Samp. Seive No. Retained Tare No. Tare No. 10 40.0 100.0 80.0 38.1 Tare No. Tare No. 20 1.7 95.8 76.6 25.4 Weight Tare No. 40 2.0 90.8 72.6 19.0 Dry Wt. & Tare Water Wt. 100 2.8 76.3 61.0 9.5 Tare WI. Tare WI. 200 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 9 Foal 40.0 10 SEE WASHED SIEVE RPT Moisture Content 9 Fram 27.7 10 SEE WASHED SIEVE RPT Moisture Content 9												
Total Wt. % Finer % Finer % Finer % Finer Seive No. Retained Than Than Samp. Seive No. Retained Than Orig. 10 40.0 100.0 80.0 38.1 Passing Samp. Samp. 20 1.7 95.8 76.6 25.4 Weight Tare No. 40 2.0 90.8 72.6 19.0 Dry Wt. & Tare 60 3.0 83.3 66.6 12.5 Water Wt. 100 2.8 76.3 61.0 9.5 Tare Wt. 200 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V 200 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V 201 2.7 10 SEE WASHED SIEVE RPT Moisture Content 7 201 2.8 69.3 55.4 4.75 Wt. of Sample from Initial Moisture 202 2.8 69.3 55.4 4.75 <td< td=""><td>Description</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Description											
Weight Seive No. Finer Retained Than Than Than Orig Samp. Weight Seive No. Total Wt. Than Orig Samp. Than Orig Samp. 10 40.0 100.0 80.0 38.1 Tare No. Tare No. 20 1.7 95.8 76.6 25.4 Wet Wt. & Tare Wet Wt. & Tare 40 2.0 90.8 72.6 19.0 Dry Wt. & Tare Dry Wt. & Tare 60 3.0 83.3 66.5 12.5 Water Wt. Tare Wt. 100 2.8 76.3 61.0 9.5 Tare Wt. Tare Wt. 200 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 7 Invashed Wt. =		Hydrom	eter Sieve	Analysis		·	Sieve	Analysis	·····		Initial Moist	ture Content
Seive No. Retained Than Than Samp. Seive No. Retained Passing Samp. Tare No. 10 40.0 100.0 80.0 38.1 Tare No. Tare No. 20 1.7 95.8 76.6 25.4 Wet Wit. & Tare 40 2.0 90.8 72.6 19.0 Dry Wt. & Tare 60 3.0 83.3 66.6 12.5 Water Wt. 100 2.8 76.3 61.0 9.5 Tare Wt. 200 2.8 69.3 55.4 4.75 WL of Dry Soil =V Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 5 Invashed Wt. = 10 SEE WASHED SIEVE RPT Moisture Content 5 Invashed Wt. = 10 10 SEE WASHED SIEVE RPT Moisture Content 5 Invashed Wt. = 10 10 SEE WASHED SIEVE RPT Moisture Content 5			Total WI.						% Finer			
10 40.0 100.0 80.0 38.1 Tare No. 20 1.7 95.8 76.6 25.4 Wet Wt. & Tare 40 2.0 90.8 72.6 19.0 Dry Wt. & Tare 60 3.0 83.3 66.6 12.5 Water Wt. 100 2.8 76.3 61.0 9.5 Tare Wt. 200 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 9 Inwashed Wt. =		Weight	Finer	% Finer	Than Orig		Weight	Total WL	Than Orig.			
10 40.0 100.0 80.0 38.1 Tare No. 20 1.7 95.8 76.6 25.4 Wel WI. & Tare 40 2.0 90.8 72.6 19.0 Dry WI. & Tare 60 3.0 83.3 66.6 12.5 Water Wt. 100 2.8 76.3 61.0 9.5 Tare WI. 200 2.8 69.3 55.4 4.75 WL of Dry Soil =V Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 9 Inwashed Wt. =	Seive No.	Retained	Than	Than	Samp.	Seive No.	Retained	Passing	Samp.			
40 2.0 90.8 72.6 19.0 Dry Wt. & Tare 60 3.0 83.3 66.5 12.5 Water Wt. 100 2.8 76.3 61.0 9.5 Tare Wt. 200 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 9 Total 40.0 Inwashed Wt. = Invashed Wt. = Invashed Wt. = Intervention of the soil Wt.)/(100 + Initial Moisture)	10		40.0	100.0	80.0					Tare No.		
40 2.0 90.8 72.6 19.0 Dry Wt. & Tare 60 3.0 83.3 66.6 12.5 Water Wt. 100 2.8 76.3 61.0 9.5 Tare Wt. 200 2.8 69.3 55.4 4.75 Wt. of Dry Soil =V Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 9 Total 40.0 Inwashed Wt. = Invashed Wt. = Invashed Wt. = Intervention Intervention Tere = Wt. Passing #200 = Total = Intervention Intervention Intervention	· _ 20	1.7		95.8	76.6	25.4	*	1	1	Wel WL &	l'are	
60 3.0 83.3 66.6 12.5 Water Wt. 100 2.8 76.3 61.0 9.5 Tare Wt. 200 2.8 69.3 55.4 4.75 WL of Dry Soil =V Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 9 Total 40.0 0 0 0 9 9 Inwashed Wt. = 7 10 SEE WASHED SIEVE RPT Moisture Content 9 Inwashed Wt. = 7 10 SEE WASHED SIEVE RPT 10 9 10 9 Inwashed Wt. = 7 10 SEE WASHED SIEVE RPT 10 9 10 10 9 10	40	2.0		90.8	72.6	19.0	1	1	1			
100 2.8 76.3 61.0 9.5 Tare WI. 200 2.8 69.3 55.4 4.75 WL of Dry Soil =V Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 7 Total 40.0 0 0 0 0 10 SEE WASHED SIEVE RPT Moisture Content 7 Inwashed Wt. = 10 10 SEE WASHED SIEVE RPT Moisture Content 7 7 Inwashed Wt. = 10 10 SEE WASHED SIEVE RPT Moisture 10 <	60	3.0		83.3	66.6	12.5		-				
200 2.8 69.3 55.4 4.75 WL of Dry Soil =V Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 5 Total 40.0 0 0 0 0 0 9 Inwashed Wt. = 10 Total = 10	100	2.8						1				
Pan 27.7 10 SEE WASHED SIEVE RPT Moisture Content 9 Total 40.0 Dry Wt. of Sample from Initial Moisture 9 Inwashed Wt. =						the second se	A CONTRACTOR OF A CONTRACTOR O	1	<u> </u>		Soil	=W
Jnwashed Wt. = = = = = = = = = = = = = = = = = = =	Pan							ASHED SIE	VE RPT			%
Jnwashed Wt. = = = = = = = = = = = = = = = = = = =	Total	40.0	· · · · · · · · · · · · · · · · · · ·			_]	1	1	Dry WL of Se	mple from I	nitial Moisture
Tere = Wt. Passing #200 = Total = = = (100xWel Soil Wt.)/(100 + Initial Moisture) =	Unwashed	Wt. =	1				<u>†</u>	1				
			WI. Passin	g #200 =		Total =			·	=(100xWel S	oii wt.)/(100	+ Initial Moisture) =
					,				<u> </u>			Norust

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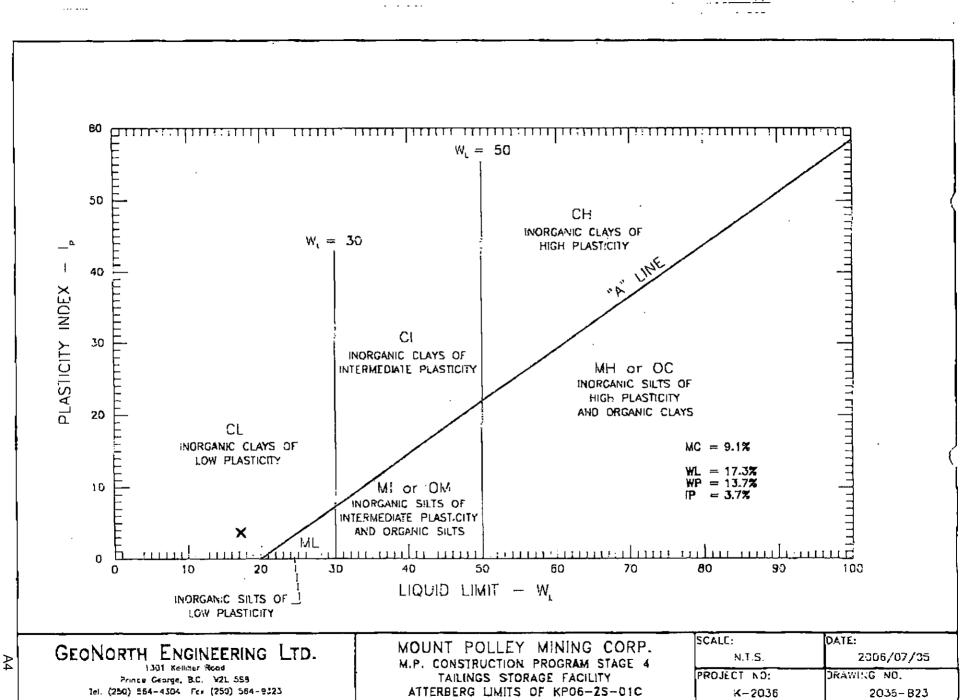
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F-988



T-160 ₽ 013/024

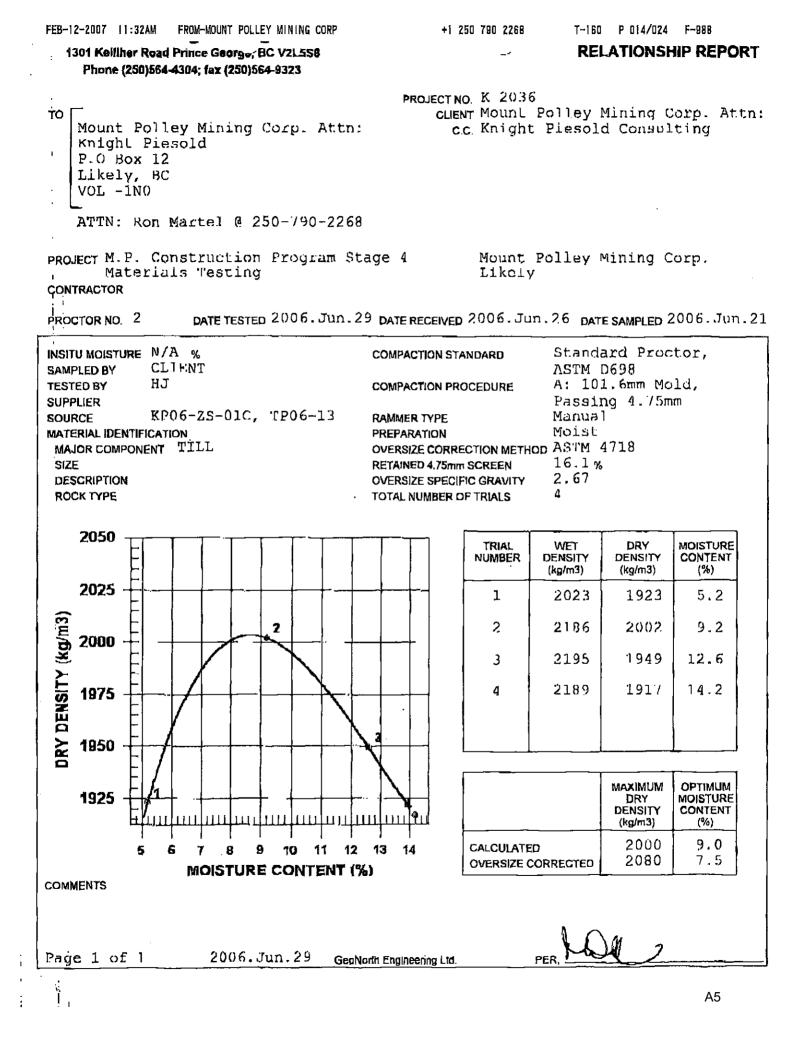
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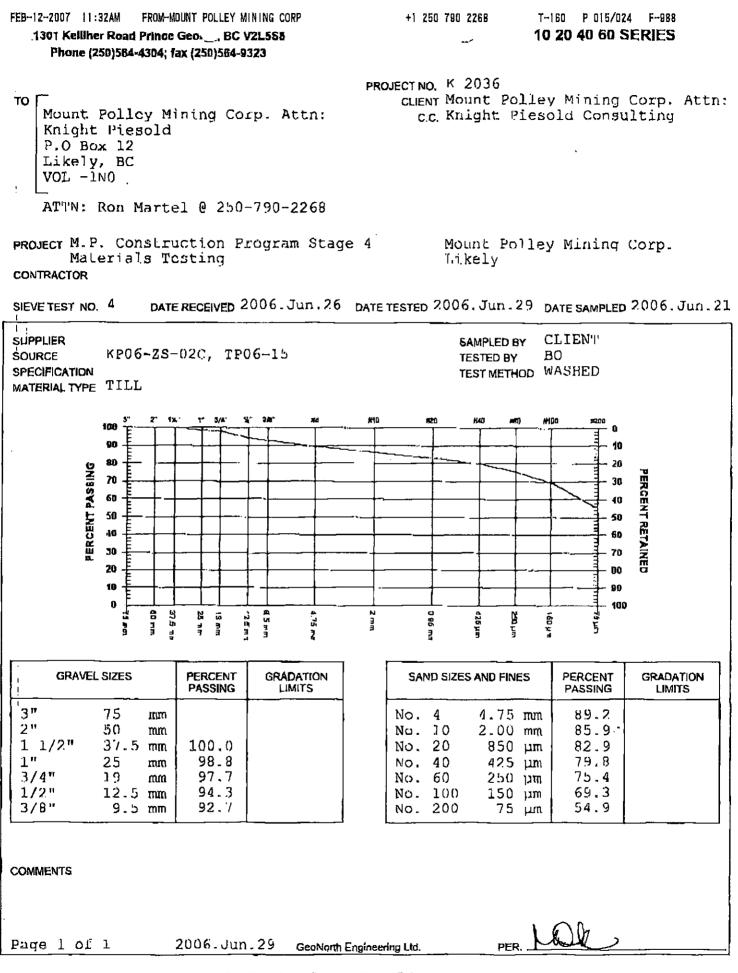
250 790 2268

FEB-12-2007 11:32AM

FROM-MOUNT POLLEY MINING CORP

024 F-988





GeoNorth Engineering

Cllent: Mount Polley Mining Corp. (Knight Piesold)

Test Designation: ASTM D-422

Project Name: MPCP - Stage 4

Source/Location: KP06-ZS-02C

% - #10

3.4

29.5

40.0

73.8

WI. Passing #200 =

63.4

4.75

Tolal =

10

Samole #:

Starting

Wt.(g)

Sampled By: Client Date Sampled: 06.21.06

40.0

40.0

40.0

40.0

40.0

40.0

40.0

40.0

40.0

40.0

40.0

40.D

Density of Solids:

Hydrometer #: 794968

Description of Sample:

Serve No. Relained

10

20

40

60

100

200

Unwashed WL =

Pan

Total

Tare =

Weight

Hydrometer Analysis

Date: July 5, 2006

Project #: K-2036

Type: Till

Wt. of Dry Soil

Moisture Content

Dry Wt. of Sample from Initial Moisture

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

nan ni	de Lo VEO							liyhe, im				
		Tesl#:	-	Hole #: TP	06-15	Depth:		Time:				
Client			Tested By:	DJ		Checked By: NK						
d: 06.21.(06		Date Rece	ived: 06.26.	.06		Date Tested: 07.04.06					
% - #10	Elapsed Time (min)	Reading R	Temp (DC)	K	Corr. Reading R'	Zr (cm)	SQRT(Zr)/T (min)	D (mm)	N (%)	N*(%-#10)		
0.859				0.01301				0.064	62.5	5		
0.859	1	20.0	24.0	0.01301				0.047	50.0			
0.859		18.0		0.01301				0.034	45.0	3		
0 <u>.85</u> 9		16.0	24.0	0.01301				0.024	40.0			
<u>0.85</u> 9		14.0	24.0	0.01301]		0.017	35.0	3		
0,859	15	13.0	24.0	0.01301		1		0.013	32.5			
0.859		11.5	24.0	0.01301]	1	0.009	28.8	2		
0.859			24.0	0.01301		1		0.006	27.5	2		
0,859			24.0	0.01301			1	0.005	21.3	1		
0.859				0.01301				0.003	20.0	1		
0.859		6.5						0.002	16.3	1		
0.859	A			0.01301				0.001	12.5	1		
i: 794 <u>968</u>	J	Graduate #	£2		Dispersing	g Agent: So	dium Hex		Amount: 12	25ml		
līds: f Sample	<u></u> ن									·		
Hydron	neler Sieve	Analysis			Sieve	Analysis			Initial Mois	lure Content		
_	Total Wr.		% Finer				% Finer	<u></u>				
leight	Finer	% Finer	Than Orig		Weight	Total WL	Than Orig.	1				
elained	Than	Than	Samp.	Seive No.	Retained	Passing	Samp.					
	40.0	100.0	85.9	38.1				Tare No.				
1.3		96.8	83.2	25.4			1	Wet Wi. & T	Tare			
1.6		92.8			_			Dry Wt. & T	are			
1.8		88.3	75.8	12.5				Water Wt.				
2.4		82.3	70.7	9.5		1		Tare Wt.				
	1		1			1	1					

SEE WASHED SIEVE RPT

FEB-12-2007 11:32AM FROM-MOUNT POLLEY MINING CORP

53.7

43.0

38,7

34.4

30.1

27.9

24.7

23.6

18.3

17.2

14.0

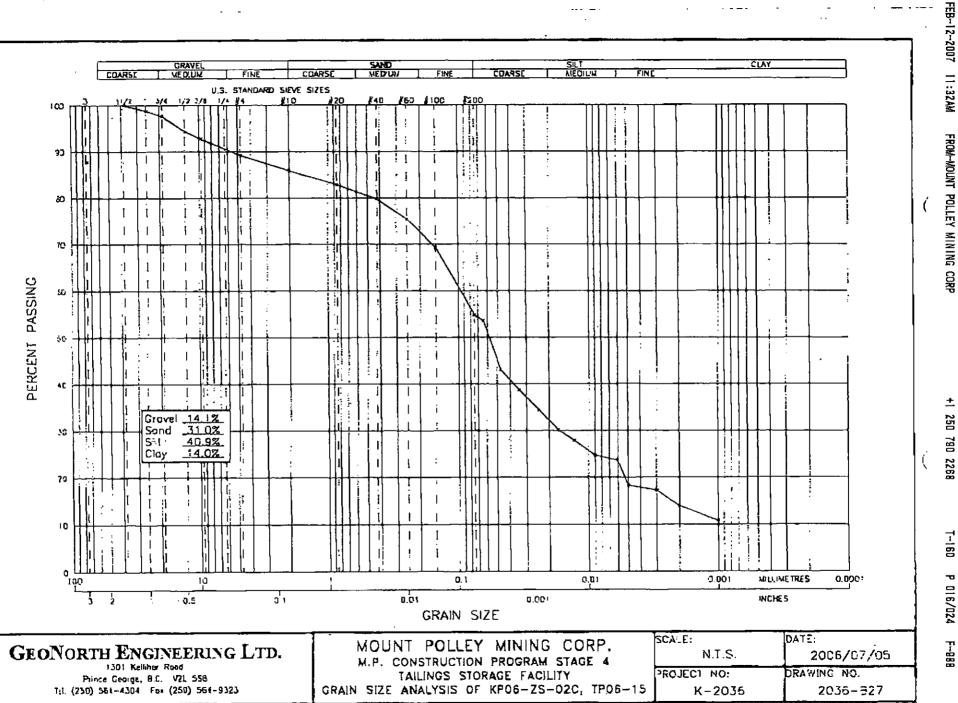
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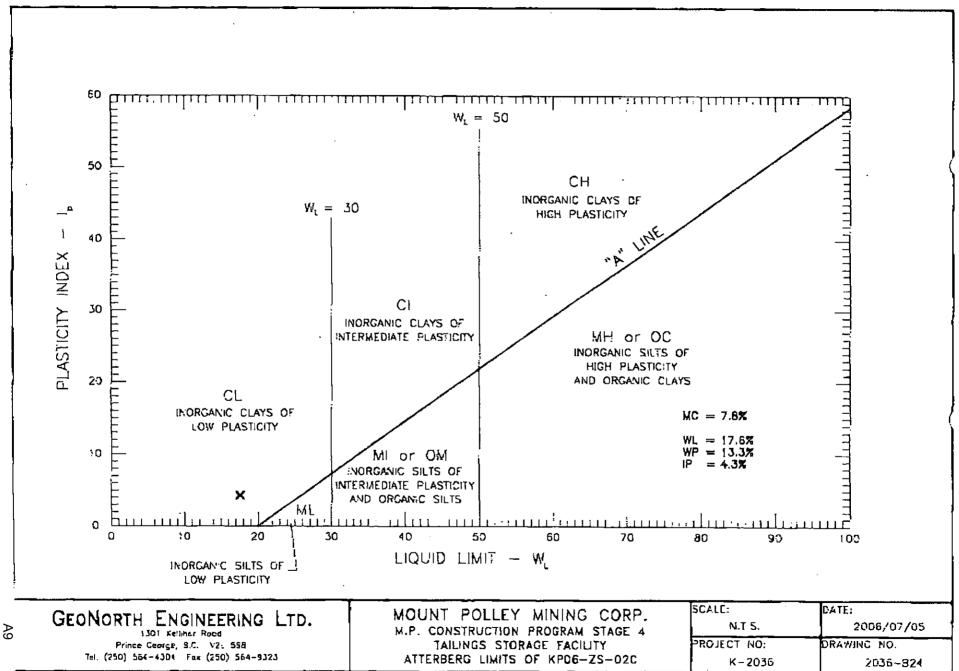
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I FROM-MOUNT POLLEY MINING CORF

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T-160 P 018/024 F-988

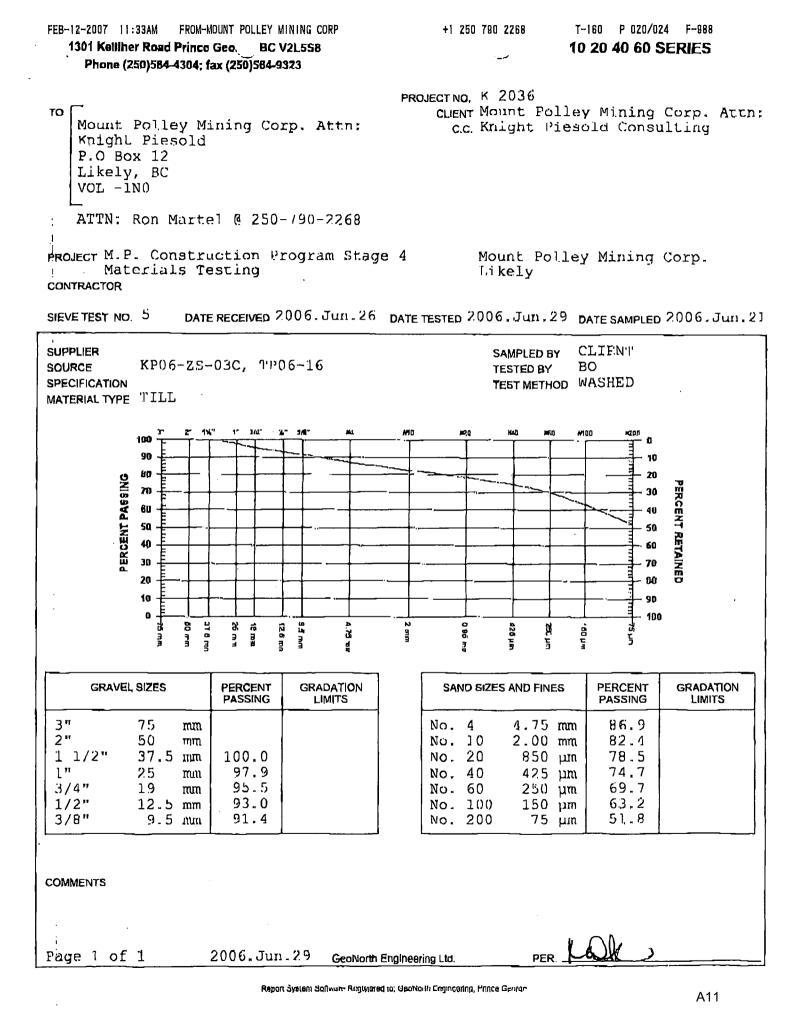
T-160 P 019/024 F-988 FEB-12-2007 11:33AM FROM-MOUNT POLLEY MINING CORP +1 250 790 2268 ----- 300 **RELATIONSHIP REPORT** 1301 Kelliher Road Prince George, BC V2L5S8 Phone (250)564-4304; fax (250)564-8323 PROJECT NO. K 2036 CLIENT Mount Polley Mining Corp. Attn: то Mount Polley Mining Corp. Attn: cc Knight Piesold Consulting Knight Piesold P.O Box 12 Likely, BC VOL -1NO ATTN: Ron Marlel @ 250-790-2268 PROJECT M.P. Construction Program Stage 4 Mount Polley Mining Corp. Materials Testing Likely CONTRACTOR DATE TESTED 2006. Jun. 29 DATE RECEIVED 2006. Jun. 26 DATE SAMPLED 2006. Jun. 21 PROCTOR NO. 3 INSITU MOISTURE N/A % Standard Proctor, COMPACTION STANDARD CLIENT ASTM D698 SAMPLED BY A: 101.6mm Mold, HЛ TESTED BY COMPACTION PROCEDURE Passing 4.75mm SUPPLIER KP06-%3-02C, TP06-15 Manual RAMMER TYPE SOURCE Moist MATERIAL IDENTIFICATION PREPARATION OVERSIZE CORRECTION METHOD ASTM 4718 MAJOR COMPONENT TILL 10.6% **RETAINED 4.75mm SCREEN** SIZE 2.67 DESCRIPTION OVERSIZE SPECIFIC GRAVITY 4 TOTAL NUMBER OF TRIALS ROCK TYPE 2050 MOISTURE TRIAL WET DRY DENSITY NUMBER DENSITY CONTENT (kg/m3) (%) (kg/m3) 2 2000 1 1915 6.5 2039 DENSITY (kg/m3) 2198 2000 9.9 2 1950 14.5 2174 1899 З 16.6 2097 1/984 1900 R 1850 MAXIMUM OPTIMUM MOISTURE DRY DENSITY CONTENT 1800 (kg/m3) T 10 T (%) 2000 10.0 CALCULATED 12.5 7.5 15,0 5.0 10.0 9.0 2060 **OVERSIZE CORRECTED MOISTURE CONTENT (%)** COMMENTS PER.

GeoNorth Engineering Ltd.

Page 1 of 1

2006. Jun. 29

A10



GeoNorth Engineering Test Designation: ASTM D-422

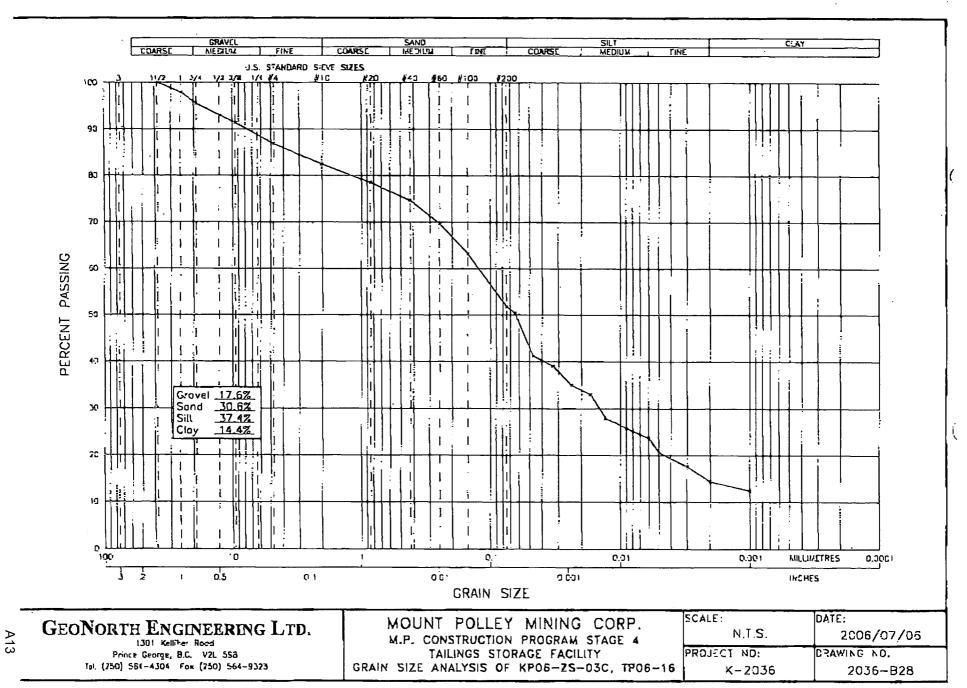
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Hydrometer Analysis

	180011: AST												
Client: Mou			p. (Knight	Plesold)			<u>_</u>		Date: July 5				
Project Nar			•						Project #: 1	K-2036			
Source/Loc	calion: KP	06-Z5-03C							Type: Till				
Sample #:			Test#		Hole#: TP	06-16	Depth:		Time:				
Sampled By				Tested By:					Checked By				
Date Sampl	ed: 06.21.0	06		Dale Recei	ved: 06.26.	06		-	Date Teste	<u>d: 07.04.06</u>			
		Elapsed		- · · ·		Corr.		1					
Starting		Time	Reading	Temp		Reading	1	SQRT(Zr)/T			,		
WI. (g)	% - #10	(min)	R	(00)	ĸ	R'	Zr (cm)	(min)	D (mm)	N (%)	N*(%#10)		
40.0	0.824	0.5	24.5	24.0	0.01301				0.065	61.3	50.5		
40.0	0.824	1	20.0	24.0	0.01301	·		1	0.047	50.0	41.2		
40.0	0.824	2	19.0	24.0	0.01301		1		0.033	47.5	39.1		
40.0	0.824	4	17.0	24.0	0.01301				0.024	42.5	35.0		
40.0	0.824	8	16.0	24.0	0.01301				0_017	40.0	33.0		
40.0	0.824	15	13.5	24.0	0.01301				0.013	33.8			
40.0	0.824	30	12.5	24.0	0.01301				0.009	31.3			
40.0	0.824	60	11.5	24.0	0.01301				0.006	28.8			
40.0	0.824	120	10.0	24.0	0.01301	1			0.005	25.0	20,6		
40.0	0.824	240	8.5	24.0	0.01301	1	Γ		0.003	21.3	17.6		
40.0	0.824	480	7.0		0.01301				0.002	17.5			
40.0	0.824	1440	6.0	24.0	0.01301				0.001	15.0	12.4		
Hydrometer			Graduale #	k 3		Dispersing	Agent: So	dium Hex		Amount: 12	25ml		
Density of S													
Description	of Sample:								-				
	Hydrom	leler Sieve	Analysis			Sieve	Analysis			Initial Mois	lure Content		
		Total WI.		% Finer				% Finer					
	Weighl	Finer	% Finer	Than Orig	1	Weight	Total WL	Than Orig.	1				
Seive No.	Retained	Than	Than	Samp.	Seive No.	Retained	Passing	Samp.	ų				
10		40.0	100.0	B2.4			1		Tare No.				
20	1.7		95.8	78.9	25.4			J	Wel WI. &	Tare]		
40	1.8		91.3	75.2	19.0				Dry Wt. & T	fare			
60	2.6		84.8	69.9	12.5			1	Water WI.				
100	2.7		78.0	64.3	9.5				Tare Wt.				
200	2.9		70.8	58.3	4.75		1	1	Wt. of Dry	Soil	=W		
Pan	28.3		1		10		ASHED SIE	VE RPT	Moisture C		%		
Total	40.0		1		— —	•		T	Dry WL OFS	ample from	Initial Moisture		
Unwashed	WIL =		1			 	1	1					
Tare =	<u> </u>	WL Passin	g #200 =	·	Tolai =		† <u> </u>		- =(100xWet S	501 WI.)(100	+ Initial Moisture) =		
					<u>کھی</u>		<u></u>	<u></u>			NOLLE		

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FEB-12-2007 11:33AM FROM-MOUNT POLLEY MINING CORP

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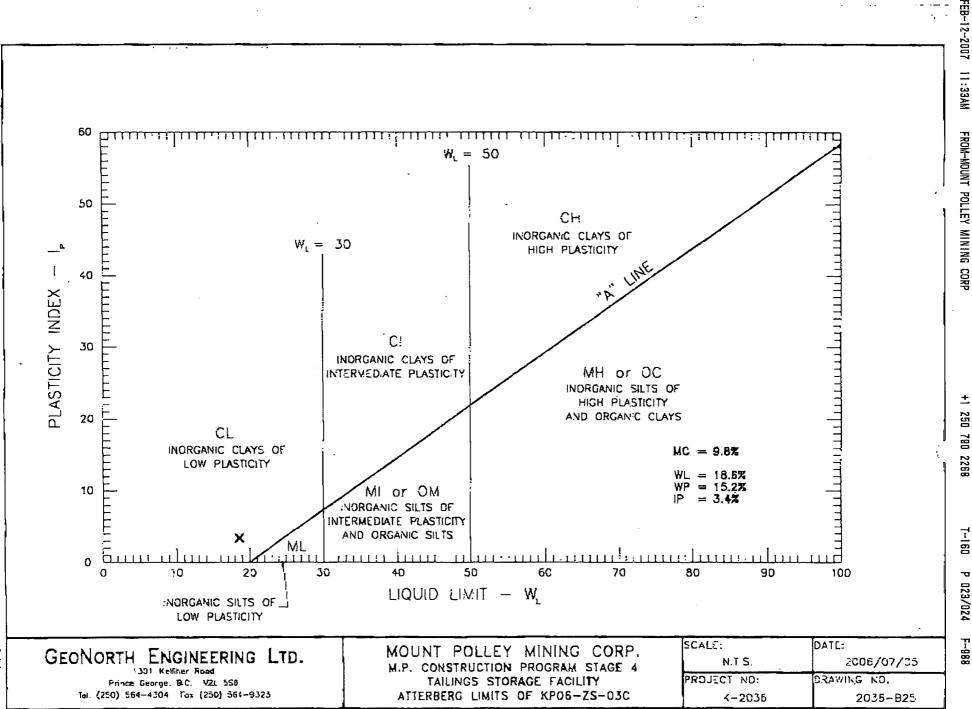
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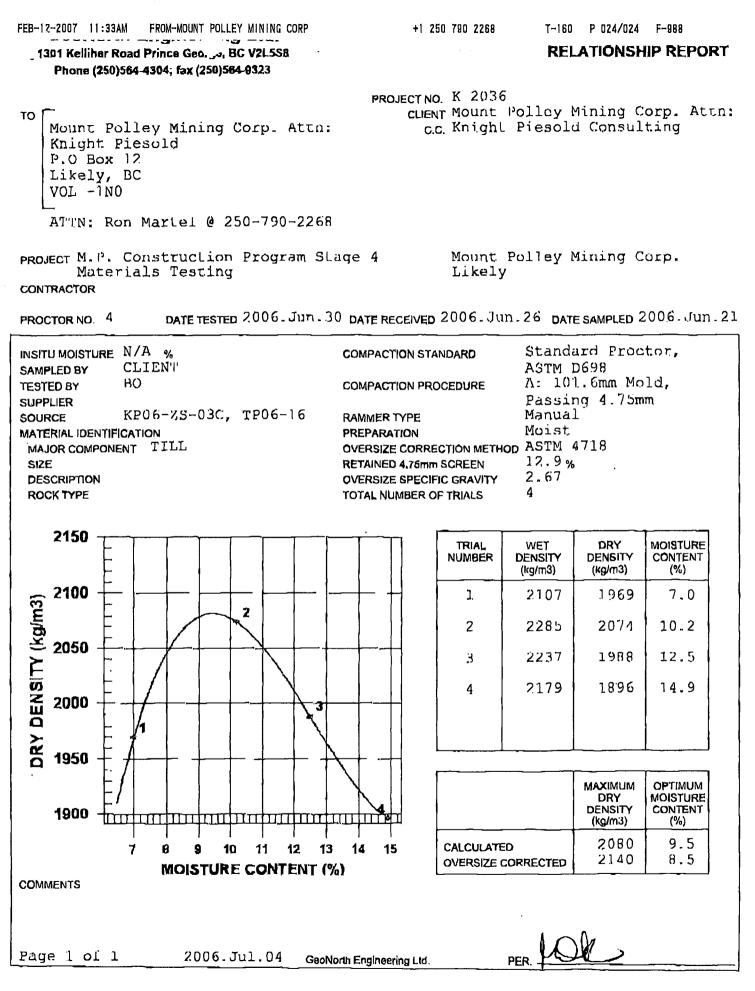
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FEB-14-2007 01:06PM FROM-MOUNT POLLEY MINING CORP +1 250 790 2268 T-214 P 012/027 F-115 1301 Kelliher Road Prince Geol ____ BC V2L558 10 20 40 60 SERIES Phone (250)564-4304; fax (250)564-9323 PROJECT NO. K 2036 то CLIENT Mount Polley Mining Corp. Attn: Mount Polley Mining Corp. Atln: c.c. Knight Piesold Consulting Knight Picsold P.O Box 12 Likely, BC VOL -1NO ATTN: Ron Martel @ 250-790-2268 PROJECT M.P. Construction Program SLage 4 Mount Polley Mining Corp. Materials Testing Likely CONTRACTOR SIEVE TEST NO. 7 DATE RECEIVED 2006. Jun. 26 DATE TESTED 2006. Jun. 30 DATE SAMPLED 2006. Jun. 26 SUPPLIER CLIENT SAMPLED BY KP06-ZS-04C, TP06-18 SOURCE RO TESTED BY SPECIFICATION TEST METHOD WASHED MATERIAL TYPE TILL. 18 2/4* **'**." 101 120 ARG man IN DO M200 100 0 90 10 80 PERCENT PASSING 20 PERCENT RETAINED 70 30 60 40 50 50 411 - 01 30 70 20 80 10 90 0 100 9.5 mm 23 ava 233 8 37.5 ла ww.s. 125 1.70 mn 8 250 1 1 Ŕ 100 - ----3 3 2 ï Ę ŝ **GRAVEL SIZES** PERCENT GRADATION SAND SIZES AND FINES PERCENT GRADATION PASSING LIMITS PASSING LIMITS 3" 75 mm No. 4 4.75 mm 89.9 2" 50 mn No. 10 2.00 mm 86.7 1 1/2" 37.5 mm 100.0 No. 20 850 jum 83.4 יי ך 25 98.3 mm No. 40 425 µm 80.2 3/4" 19 97.0 nm No. 60 75.9 250 LLm 1/2" 12.5 mm 95.4 No. 100 72.6 150 µm 3/8" 9.5 mm 94.0 No. 200 75 jim 71.4 COMMENTS PER. Page 1 of] 2006.Jul.04 GeoNorth Engineering Ltd.

GeoNorth Engineering Tesl Designation: ASTM D-422

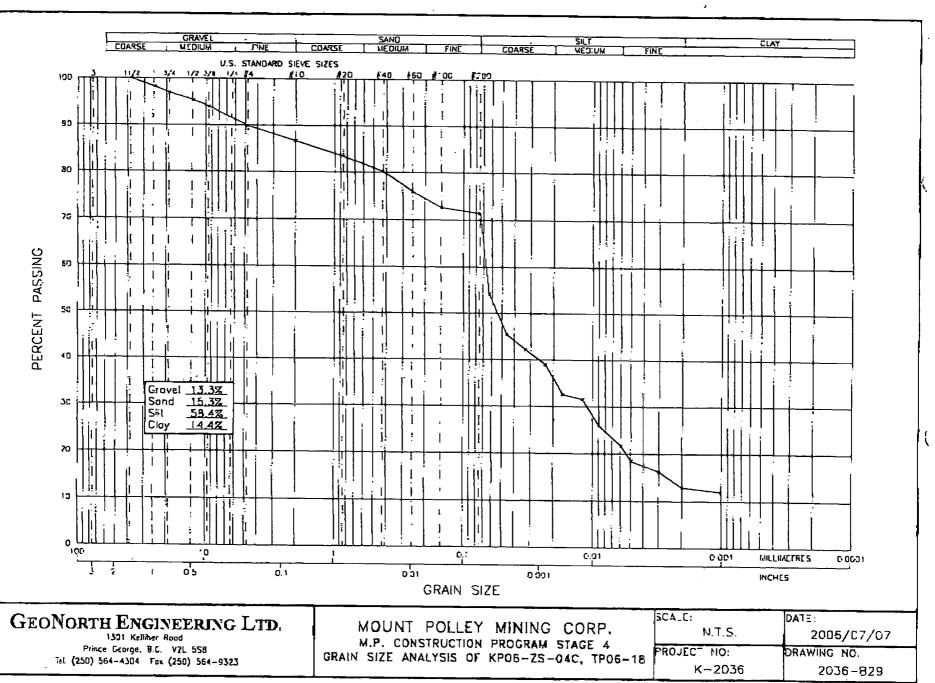
Hydrometer Analysis

Client: Mc	ount Polley	Mining Co	rp. (Knigh	t Plesold)					Date: July	7. 2006			
Project N	ama: MPCP	- Stage 4							Project #:		······		
	ocation: KP	06-ZS-04C							Type: Till				
Sample #:			Test #:							Time:			
Sampled E		_		Tesled By	: DJ				Checked B				
Date Sam	pled: 06.21.	06		Dale Rece	eived: 06.26	.06			Date Teste				
	-	Elapsed		·		Corr.		7		<u>u. 07.00.00</u>	T		
Starting		Time	Reading	Temp		Reading		SQRT(Zr)/T					
Wl. (g)	% - #10	(min)	R	(0C)	ĸ	R	Zr (cm)	(min)	D (mm)	N (%)	1 117/0/ #401		
40.0	0.867	0.5	25.0					(many			N*(%-#10)		
40.0		1						· /	0.063	62.5	54.		
40.0		2						+	0.046	52.5	45.		
40.0		4							0.033	48.8	42.		
40.0	1	8					+	<u>+</u>	0.023	45.0			
40.0		15					+	{	0.017	37.5	32.		
40.0		30						<u> </u>	0.012	36.3	31.		
40.0		68						<u> </u>	0.009	30.0	26.		
40.0		120					+		0.005	25.0	21.		
40.0		240						f	0.005	21.3	18.		
40.0		480						<u>+</u>	0.003	18.8			
40.0		1409					+		0.002	15.0			
Hydromete	#: 794968	A	Graduate #		0.01001		Agent: So		0.001	13.8	12.		
Density of					<u> </u>	Dispersing	Agent. 50			Amount: 12	.5ml		
	of Sample												
		eter Sieve	Analysis		u	Sieve	Amelia						
<u>_</u>		Total Wt.	1.10.19313	% Finer	₽	Sieve	Analysis	% Finer	·	nifial Moist	ure Content		
	Weight	Finer	% Finer	Than Orig		Weight	Total WI.						
Seive No.	Retained	Than	Than	Samp.	Seive No.	Retained	Passing	Than Orig.					
10		40.0		86.7	38.1	i veraineu	1- 022110	Samp.		·			
20			96.3		25.4		<u>├───</u>	┼──── ┥	Tare No.				
40			92.3	80.0	19.0				Wet Wt. & T				
60			86.5	75.0	12.5		<u> </u>		Dry Wt. & T	are			
			79.5	68.9	9.5		├ ───-	łł	Water Wt.				
100				57.0	4.75		+		Tare Wt.				
100	the second second		1 BAN		∥ 4 /3				WI. of Dry S	oil	V=		
200	5.5		65.8	51.0		CEE II	INCUED OF		11.1.4				
200 Рал	5.5 26.3		8.60	57.0	10	SEE W	ASHED SI		Moisture Co	ontenl			
200 Рал Total	5.5 26.3 40.0		8.60	57.0		SEEW	ASHED SI	EVE		ontenl	% iltial Moisture		
200 Рал	5.5 26.3 40.0 W1. =	Wt. Passin		57.0		SEEV	ASHED SI		Dry WI. of Sa	onteni mple from ir	111111 Moisture Inilial Moisture) =		

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FROM-MOUNT POLLEY MINING CORP

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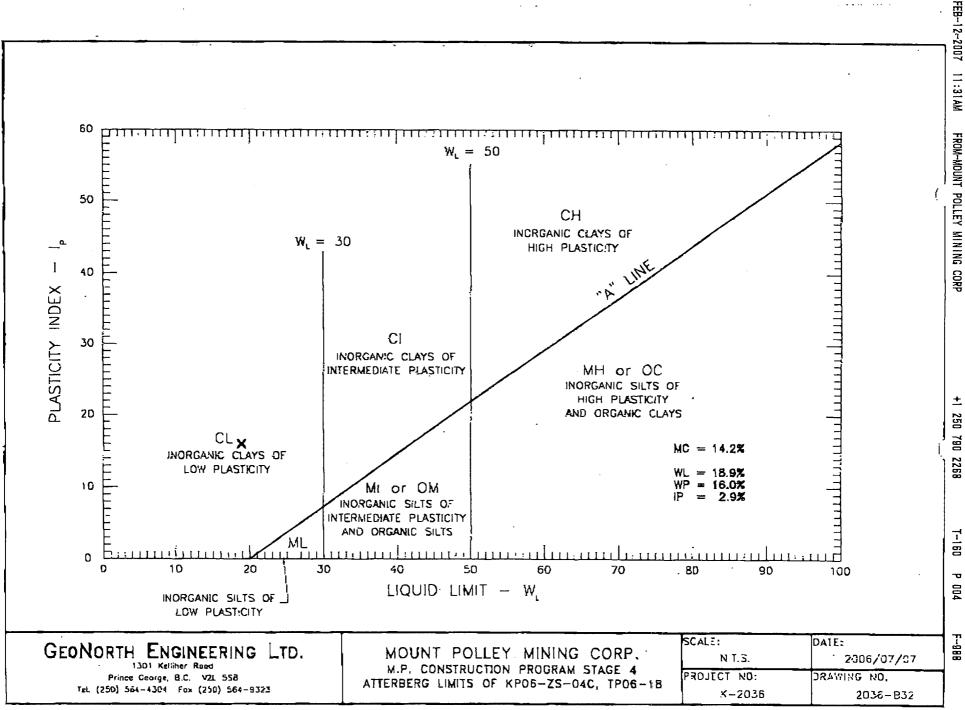
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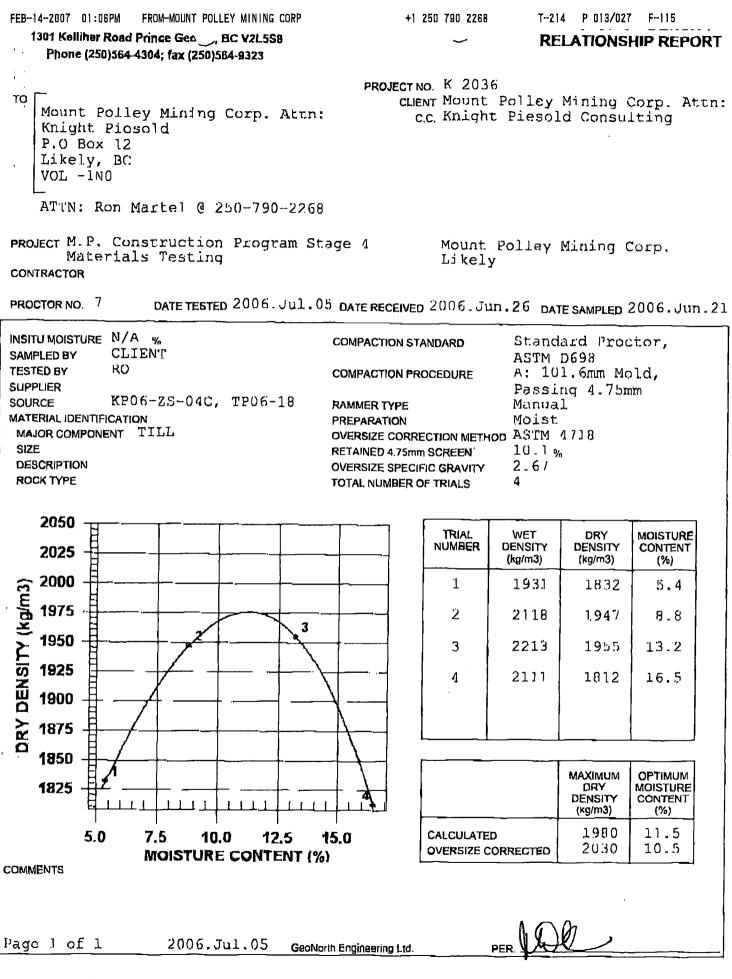
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T-214



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FEB-14-2007 01:07PM FROM-MOUNT POLLEY MI			-214 P 016/027 F-115
1301 Kelliher Road Prince Gec, BC V: Phone (250)564-4304; fax (250)564-93		10	0 20 40 60 SERIES
Mount Polley Mining Cor Knight Piesold P.O Box 12 Likely, BC VOL -1NO ATTN: Ron Martel @ 250-	PF p. Attn:	ROJECTNO. K 2036 CLIENT Mount: Polle c.c. Knight Pies	y Mining Corp. Alln: old Consulting
PROJECT M.P. Construction Pro Materials Testing CONTRACTOR	ogram Stage 4	Mount Folle Likely	y Mining Corp.
SIEVE TEST NO. 6 DATE RECEIVED 20	06.Jun.26 DAT	E TESTED 2006.Jun.30	DATE SAMPLED 2006. Jun. 21
SUPPLIER SOURCE KP06-ZS-05C, TP00 SPECIFICATION MATERIAL TYPE TILL	6-20		CLIEN'I' HJ WASHED
100 5° 2° 1%° 1° 2/4 2° 00 40 1° 2/4 4° 00 40 1° 2/4 4° 100 1° 2/4 4° 10			ADD AROD D 10 10 10 10 10 10 10 10 10 10
GRAVEL SIZES PERCENT PASSING	GRADATION LIMITS	SAND SIZES AND FINES	PERCENT GRADATION PASSING LIMITS
3" 75 mm 2" 50 mm 100.0 1 1/2" 37.5 mm 99.1 1" 25 mm 95.7 3/4" 1.9 mm 93.2 1/2" 12.5 mm 88.3 3/8" 9.5 mm 86.4		No.44.75mmNo.102.00mmNo.20850μmNo.40425μmNo.60250μmNo.100150μmNo.20075μm	80.1 74.9 70.1 66.2 60.8 55.4 48,5
COMMENTS			
Page 1 of 1 2006.Jul.	04 GeoNorth Engine	ering Ltd. PER	

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I.

GeoNorth Engineering Test Designation: ASTM D-422

Hydrometer Analysis

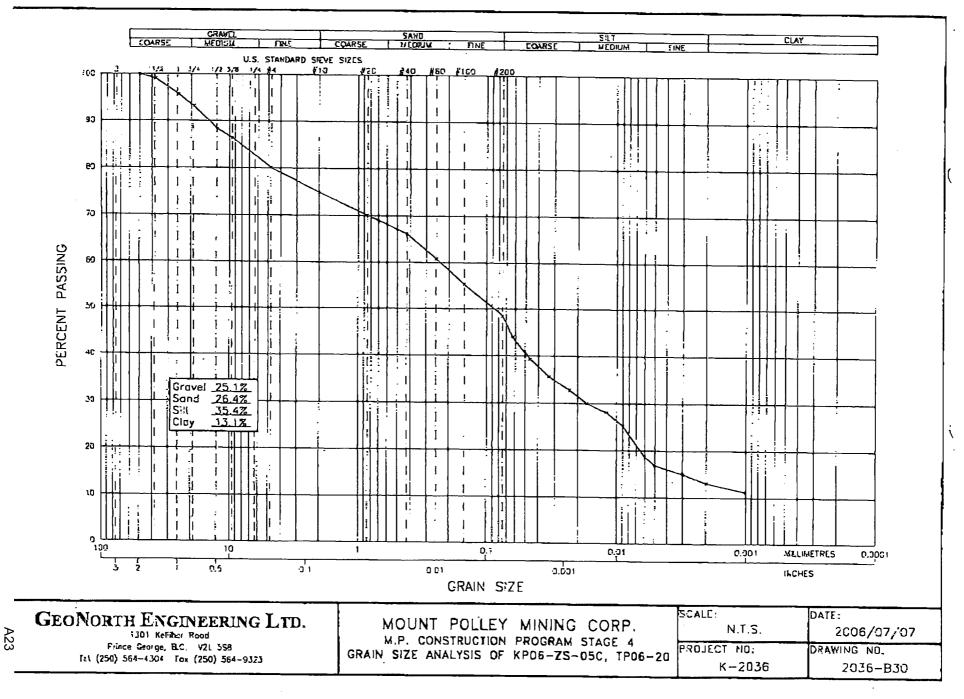
Test Design		the second se	1.14									
			rp. (Knight	Piesold)					Date: July 7			
Project Na									Project #: 1	<u>{-2035</u>		
Source/Lo	cation: KP	06-ZS-05C	r=						Type: Till			
Sample #			Test #:		Hola #: TP	06-20	Depth:		Time:			
Sampled B				Tested By:					Checked By		· · · · · · · · · · · · · · · · · · ·	
Date Samp				Date Rece	ived: 06.26.				Date Tester	d: 07.06.06		
		Elapsed				Corr.	·[·					
Starting		Time	Reading	Temp		Reading	}	SQRT(Zr)/T	-			
Wt. (g)	% - #10	(min)	R	(0C)	Ķ	R`	Zr (cm)	(min)	D (mm)	N (%)	N*(%-#10)	
40.D	0.749	0.5	23.5	26.0	0.01272		1		0.063	58.8	44.0	
40.0	0.749	1	21.0	26.0	0.01272			1	0.046	52.5		
40.0	0.749	2	19.0	26.0	0.01272				0.033	47.5		
40.0	0.749	4	17.5	26.0			1	1	0.023	43.8		
40.0	0.749			26.0	0.01272			-	0.017	40.0		
40.0	0.749				0.01272			1	0.012	37.5		
40.0	0.749				0.01272		1.		0.009	33.8	25.3	
40.0	0.749			24.0	0.01301	†	1		0.006	25.0		
40.0	0.749	120			0.01301	1		1	0.005	22.5		
40.0	0.749	240	8.0				1	1	0.003	20.0	15.0	
40.0	0.749			24.0			1		0.002	17.5		
40.0	0.749	1434	6.0					-	0.001	15.0		
Hydromete	r #: 794968		Graduate #	: 5		Dispersing	Ageni: So	dium Hex	·	Amouni: 12	25ml	
Densily of S	Solids:											
Description	of Sample	•					<u> </u>					
· ·	Hydron	eter Sieve	Analysis			Sieve	Analysis]	Initial Mois	ure Conlent	
		Total Wt.		% Finer	<u> </u>	T	T	% Finer	i			
	Weight	Finer	% Finer	Than Orig		Weight	Tolal Wt.	Than Orig.				
	Relained	Than	Than	Samp.	Seive No.	Retained	Passing	Samp.				
10		40.0	100.0		38.1				Tare No.		<u> </u>	
20	2.1		94.8		25.4	f			Wet WL &	Tare	•	
40	2.4		88.8	66.5			1	1	Dry Wt. & T		• • • • • • • • • • • • • • • • • • •	
60	3.0	· · · · · · · · · · · · · · · · · · ·	81.3		12.5			+	Waler Wi		<u> </u>	
100	2.8		74.3		9,5		1	+	Tare Wt.			
200	4.7		62.5	46.8	4.75		1	+	Wt. of Dry S	Soil	N=	
Pan	25.0				10		VASHED SI	LEVE	Moisture C		8	
Total	40.0						1	1			nilial Moisture	
Unwashed			<u>+</u>	<u>↓</u>			+					
Tare =		WL Passin	$\sigma \#200 =$		Tolal =	<u> </u>	+	+	=(100xWet S	oil Wt.)/(100	+ Initial Moisture) =	
			9 1200 -				<u></u>	<u></u>	<u></u>			

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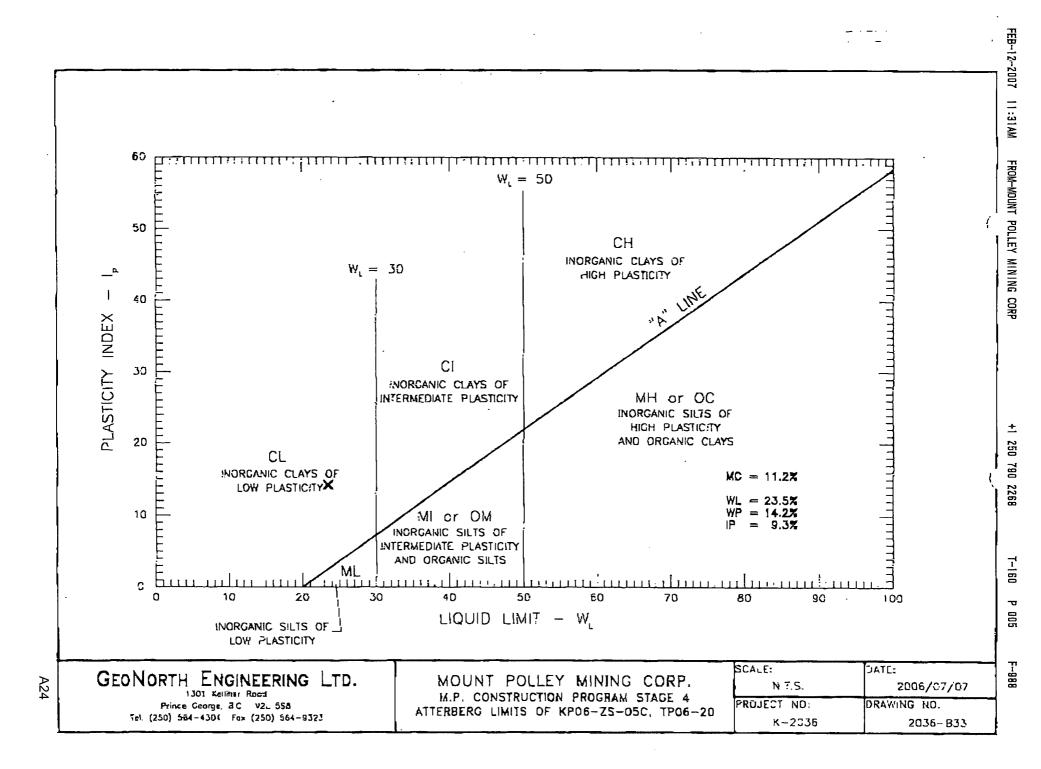
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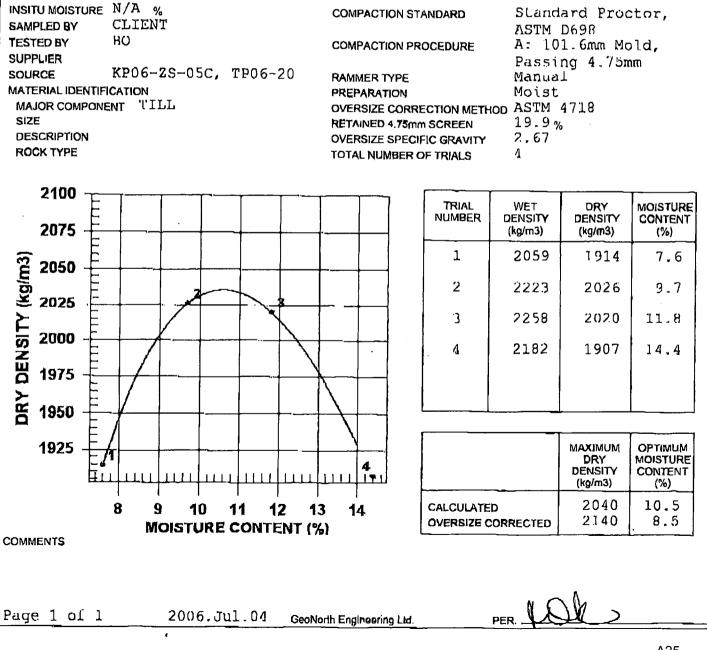


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FEB-14-2007 01:07PM FROM-MOUNT POLLEY MINING CORP T-214 P 017/027 F-115 +1 250 790 2268 -----MUDIUKE - DENGILI 1301 Kellihor Road Prince Geo, BC V2L5S8 1.1 **RELATIONSHIP REPORT** Phone (250)564-4304; fax (250)564-9323 PROJECT NO. K 2036 то CLIENT Mount Polley Mining Corp. Attn: Mount Polley Mining Corp. Attn: c.c. Knight Picsold Consulting Knight Piesold P.O Box 12 Likely, BC VOL -1NO ATTN: Ron Martel @ 250-790-2268 PROJECT M.P. Construction Program Stage 4 Mount Polley Mining Corp. Materials Testing Likelv CONTRACTOR

PROCTOR NO. 5 DATE TESTED 2006. Jun. 30 DATE RECEIVED 2006. Jun. 26 DATE SAMPLED 2006. Jun. 21



FEB-14-2007 01:07PM FROM-MOUNT POLLEY MINING CORP +1 250 790 2268 T-214 P 020/027 F-115 1301 Kelliher Road Prince Geo, BC V2L5S8 10 20 40 60 SERIES Phone (250)584-4304; fax (250)584-9323 PROJECT NO. K 2036 CLIENT Mount Polley Mining Corp. Attn: TO Mount Polley Mining Corp. Attn: cc Knight Piesold Consulting Knight Piesold P.O Box 12 Likely, BC VOL -INO ATTN: Ron Martel @ 250-790-2268 PROJECT M.P. Construction Program Stage 4 Mount Polley Mining Corp. Materials Testing Likely CONTRACTOR DATE RECEIVED 2006, Jun. 26 DATE TESTED 2006, Jun. 30 DATE SAMPLED 2006, Jun. 20 SIEVE TEST NO. 8 CLIENT SUPPLIER SAMPLED BY KP06-ZS-06C, TP06-04 (รพ SOURCE TESTED BY TEST METHOD WASHED SPECIFICATION MATERIAL TYPE TILL ма 1%" 4" 3/4" Ψ. 3/0 **12**0 MAD **H**60 *н*та0 200 100 D 90 10 20 80 PERCENT PASSING **ERCENT RETAINED** 70 36 60 40 50 50 60 40 30 70 60 20 10 - 90 100 Ð 8 Ы 19 0 1 5 D. 285 425 µm 376 125 g, 163 Я 3 1 Ē 2 g 2 Ę 4 ٦ PERCENT SAND SIZES AND FINES PERCENT GRADATION GRAVEL SIZES GRADATION PASSING LIMITS PASSING LIMITS 3" No. 4 4./5 mm 86.7 75 mm 2" 82.3 No. 10 2.00 mm 50 mm 77.9 1 1/2" 37.5 mm 100.0 No. 20 850 um ູ " 25 98.9 No. 40 425 μm 75.0 mm 97.5 68.3 No. 60 3/4" 19 mm 250 jam 62.3 95.3 No. 100 1/2" 12.5 mm 150 µm 3/8" No. 200 52.7 9.5 mm 93.4 75 um COMMENTS 1 DN 2006.Jul.04 PER. Page 1 of 1 GeoNorth Engineering Ltd. A26

GeoNorth Engineering Test Designation: ASTM D-422

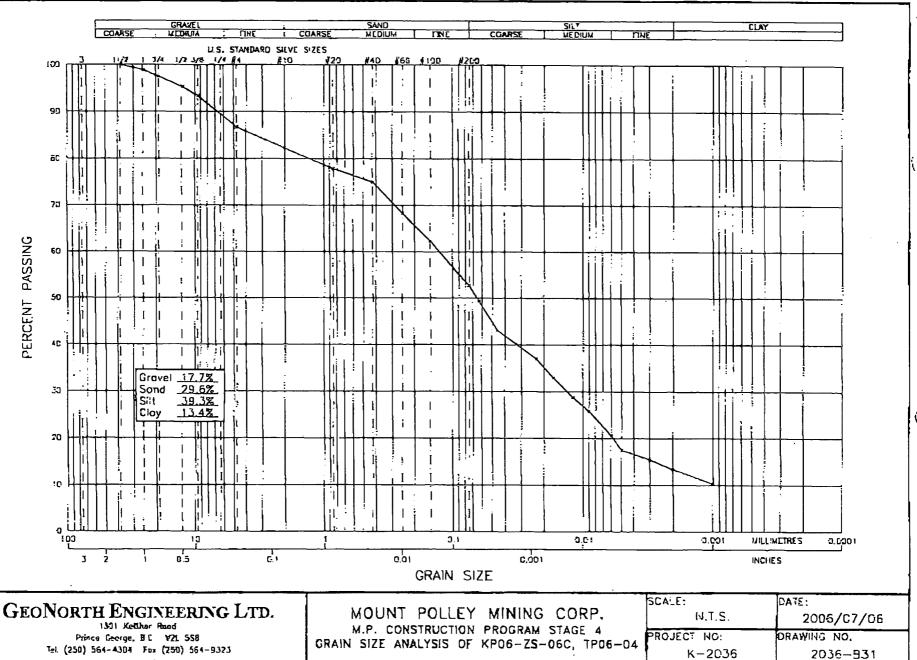
Hydrometer Analysis

Client: Mo	ount Polley	Mining Co	rp. (Knigh	t Piesold)					Date: July	7.2006	
Project Ne	ame: MPCP	- Stage 4							Project #:		
	ocation: KP	06-ZS-08C							Type: Till		
Sample #:			Test#:		Hole #: TE	206-04	Depth:		Time:		
Sampled E	By: Client			Tested By					Checked B	V: NK	
Date Sam	oled: 06.20.	06		Dale Rece	ived: 06.26	.06				d: 07.06.06	
	Τ.	Elapsed	Ţ	T		Corr.	-	T	1		<u> </u>
Starting		Time	Reading	Temp	ł	Reading		SQRT(Zr)/T			
Wt (g)	% - #10	(min)	R	(0C)	к	R	Zr (cm)	(min)	D (mm)	N (%)	N*(%-#10)
40.0	0.823	0.5	24.0		<u></u>			1. miny	0.063		
40.0			21.0				+			60.0	49.
40.0		in the second					+	+	0.046	52.5	
40.0							+	·	0.033	48.B	
40.0							+	+	0.023	45.0	
40.0								+	0.017	40.0	
40.0							<u> </u>		0.012	35.0	28.
40.0		68					{		0.009	31.3	25,1
40.0							<u> </u>			25.0	20.1
40.0		240					╉─────	+	0.005	21.3	17.
40.0		480					<u>+</u>	+	D.003	18.8	15.4
40.0		1400					<u>+</u>		0.002 0.001	16.3 12.5	13.4
Hydromete	r #: 794968		Graduate				I Ageni: Sox	dium Hox			10.3
Density of				<u> </u>		Loisheisille	Luñanii' 200			Amount: 12	imi
	n of Sample					<u> </u>					
		eler Sieve	Analysis		ī —	Siour	Anglusia				
		Total Wt.		% Finer	J	Sieve	Analysis	% Finer	{}	Initial Moist	ure Content
	Weight	Finer	% Finer	Than Orig		Weight	Total Wt.				
Seive No.	Retained	Than	Than	Samp.	Seive No.	Retained		Than Orig.	1		
10		40.0			38.1	Interaineo	Passing	Samp.		-	
20	1.8	40.0	95.5			<u> </u>	<u></u>	4	Tare No.		
40			90.3	74.3					Wet WI. & T		
60	2.1		83 .3	68.5	19.0	L		+	Dry WL & T	are	
100	2.8	·	76.3	62.8	9.5		<u> </u>	4	Water Wt.		
	4.6		64.8	53.3	9.5		<u> </u>	}	Tare Wt.		
200	·0		04.0	33.3	4.75		A OUT D DI		WL of Dry S		=W
200 Pan					10 10	SEEV	ASHED SI	EVE	Moisture C	ontem	%
Pan	25.9				·		1				
Pan Totai	25.9 40.0								Dry Wt. of Sa	Imple from Ir	itial Moisture
Pan	25.9 40.0	Wt. Passin			Total =						hilial Moisture

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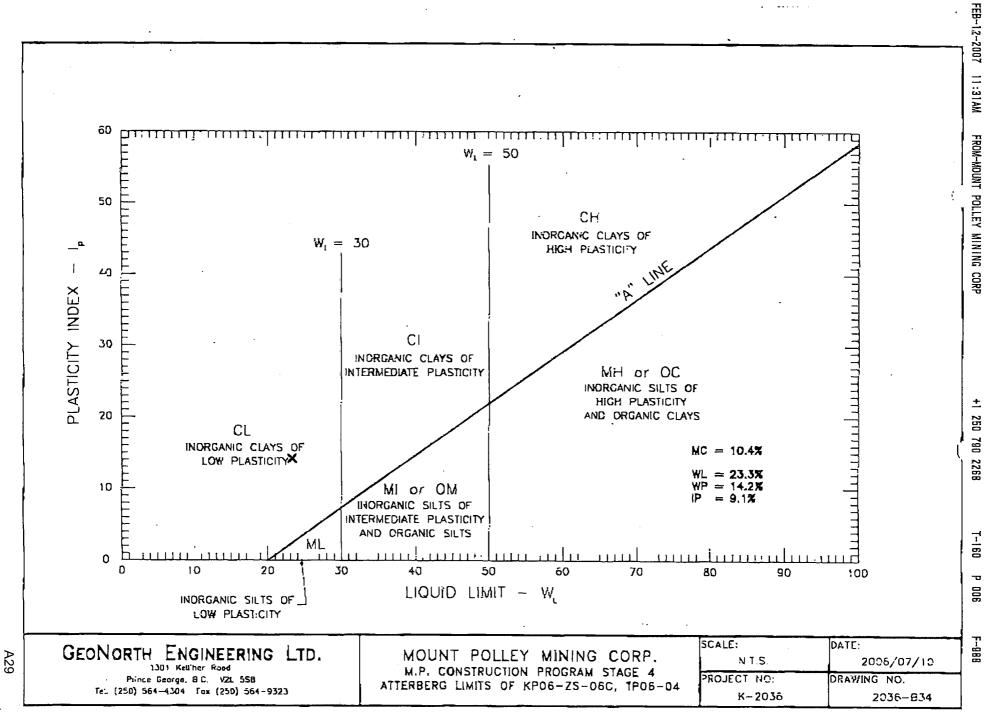
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FEB-14-2007 01:07PM FROM-MOUNT POLLEY MINING CORP

T-214 ъ 018/027 F-15

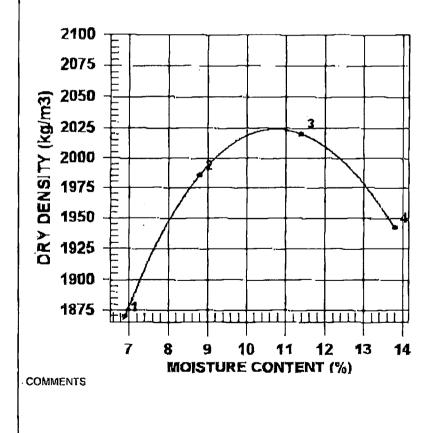
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FEB-14-2007 01:07PM FROM-MOUNT POLLEY MINING CORP +1 250 790 2268 T-214 P 021/027 F-115 I CALL DOWN IN THE R **RELATIONSHIP REPORT** Phone (250)564 4304; fax (250)564-9323 PROJECT NO. K 2036 CLIENT Mount Polley Mining Corp. Attn: TO Mount Folley Mining Corp. Attn: c.c. Knight Piesold Consulting Knight Picsold P.O Box 12 Likely, BC VOL -1NO ATTIN: Ron Marlel @ 250-790-2268 PROJECT M.P. Construction Program Stage 4 Mount Polley Mining Corp. Materials Testing Likely CONTRACTOR DATE TESTED 2006, Jun. 30 DATE RECEIVED 2006, Jun. 26 DATE SAMPLED 2006, Jun. 20 PROCTOR NO. 6 INSITU MOISTURE N/A % Standard Proctor. **COMPACTION STANDARD** CLIENT ASTM D698 SAMPLED BY BO TESTED BY A: 101_6mm Mold, COMPACTION PROCEDURE **SUPPLIER** Passing 4.75mm KP06-ZS-06C, TP06-04 Manual SOURCE RAMMER TYPE Moist MATERIAL IDENTIFICATION PREPARATION MAJOR COMPONENT TILL OVERSIZE CORRECTION METHOD AS'I'M 4718 13.1% SIZE RETAINED 4.75mm SCREEN 2.67 DESCRIPTION OVERSIZE SPECIFIC GRAVITY

TOTAL NUMBER OF TRIALS



ROCK TYPE

DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)
1999	1870	6.9
2161	1,986	8.8
2250	2020	11.4
2210	1942	13.8
	1999 2161 2250	1999 1870 2161 1986 2250 2020

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	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	2020	10.5
OVERSIZE CORRECTED	2090	9.5

Page 1 of 1 2006, Jul. 04 GeoNorth Engineering Ltd.

PER.

FEB-12-2007 08:53AM FROM-MOUNT POLLEY MINING CORP 1301 Kellihar Road Prince Georga, V2L5S8 Phone (250)564-4304; fax (250)564-9323	+1 250 790 2268 T-157 P 006/013 F-975
TO Mount Polley Mining Corp. Attn: Knight Piesold P.O Box 12 Likely, BC VOL -1NO	PROJECT NO. K 2036 CLIENT Mount Polley Mining Corp. Attn: c.c. Knight Piesold Consulting
ATTN: Ron Martel @ 250-790-2268	
PROJECT M.P. Construction Program Stage Materials Testing CONTRACTOR	4/5 Mount Polley Mining Corp. Likely
SIEVE TEST NO. 9 DATE RECEIVED 2006. Oct. 05	DATE TESTED 2006. Oct. 10 DATE SAMPLED 2006. Oct. 02
SUPPLIER LEACH PAD SOURCE R1-S5-LP-ZS SPECIFICATION MATERIAL TYPE "ILL	SAMPLED BY CLIENT - EC TESTED BY DJ TEST METHOD WASHED
100 ³ 2' 12' 1' 3/4' 2' 3m' M' 90 90 90 90 90 90 90 90	Ma kas Has Has Has Has Has Has Has Has Has H
GRAVEL SIZES PERCENT GRADATION PASSING LIMITS	SAND SIZES AND FINES PERCENT GRADATION PASSING LIMITS
3" 75 mm 2" 50 mm 100.0 1 1/2" 37.5 mm 98.7 1" 25 mm 97.2 3/4" 19 mm 95.1 1/2" 12.5 mm 92.0 3/8" 9.5 mm 90.2	No. 4 4.75 mm 86.2 No. 10 2.00 mm 31.8 No. 20 850 μm 77.8 No. 40 425 μm 73.6 No. 60 250 μm 68.9 No. 100 150 μm 63.7 No. 200 75 μm 52.9
COMMENTS	
Page 1 of 1 2006.Oct.11 GeoNorth Engin	neering Ltd. PER.

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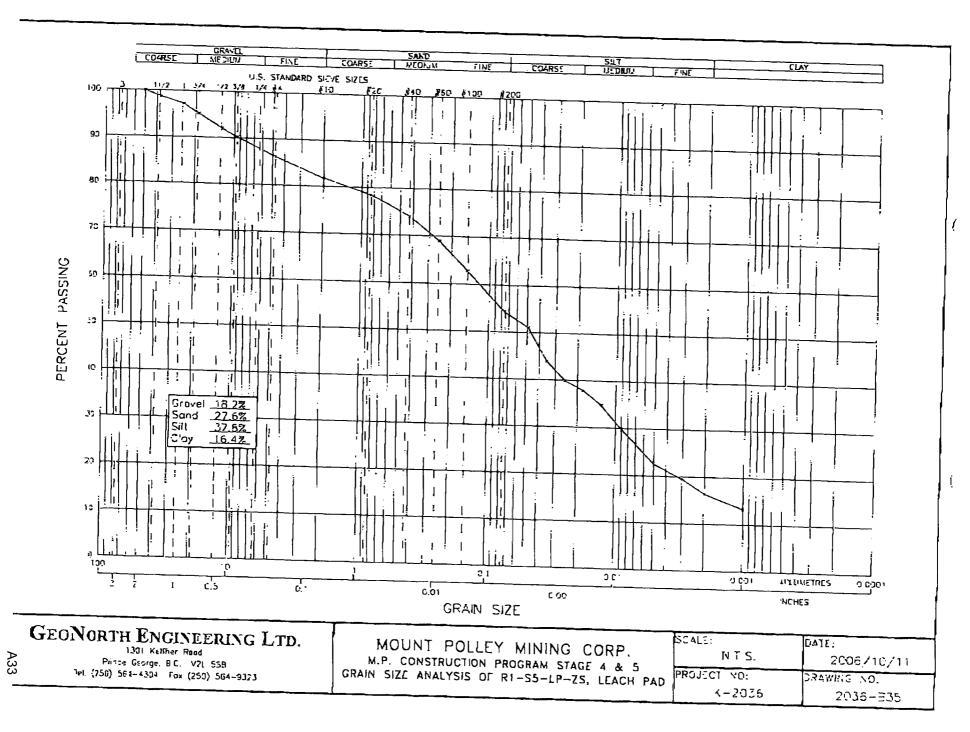
GeoNorth Engineering Test Designation: ASTM D-422

Hydrometer Analysis

C J = 01 14		y Mining Co P - Stage 4	L F				<u> </u>		Date: Octo	ber 11, 20	16
Source/L	ocalion: R	1-S5-LP-ZS	- Leach P	ad					Project #:	K-2036	
sample #	•		Test #:		Hole #:				Type: TILL		
Sampled	By: Eric Co	ffin		Tested B			Depth:		Time:		
Date Sam	pled: 10.02	.06			ceived: 10.0	E 00			Checked B	V: NK	
		Elapsed							Date Teste	d: 10.10 0F	
Starting		Time	Reading	Temp		Corr.					
Wt. (g)	% - #10	(min)	R	(0C)	1	Reading		SQRT(Zf)/	Т		1
					ĸ	R	Zr (cm)	(min)	D (mm)	N (%)	NIT/OF HEARS
40.0	0.818	3 1								1 (74)	N*(%-#10)
40.0	0.818		L 54.0	+	-1				0.049	60.5	<u>_</u>
40.0									0.045	<u> </u>	
40.0	0.818								0.025	<u> </u>	
40.0	0.818					2			0.028	46.8	3
40.0	0.818					2			0.013	40.3	3
40.0	0.818								0.009	36.3	3
40.0		120		18.0					0.007	32.5	2
40.0	0.818	240							0.005	27.5	2
40.0	0.818	480		17.0					0.003	23.8	2
40.0	0 818	1440		19.0	1 010 10111				0.002	20.0	1
ydromele	r #: 79496B		Graduate #		001362				0.001	16 3	11
ensily of S	Solids:					Dispersing	g Agent: So	dium Hex	A	mount: 12	Sml
escription	of Sample:										<u></u>
	Hydrom	eler Sieve A	Analysis		17						
	ļ	Total WI.		% Finer	}	Sieve	Analysis			itial Moistu	re Content
		Finer		Than Orig			I	% Finer		indi Infoldita	re content
	Relained		1		Sohalla	Weight	Tolal Wt.	Than Orig.			
10		40.0	100.0	81.8	Seive No.	Relained	Passing	Samp.			
20	1.7		95.8	78,4			[Tare No.		
40	2.1		90.5	74.0	25.4				Wel Wt. & Ta	re	
60	2.5		84.3	69.0	19.0				Dry WL & Tai	re t	
100	3.0		76.8	62.B	12.5				Water Wi.		
200	4.2		66.3	54.2	9.5				Tare WI.		
าก	26.5			<u></u>	4.75				WL of Dry So	11	
lal	40.0	+			10	SEEW	ASHED SI		Moisture Cor		=\
washed V	VI. =								Dry WI. of Sam		iol Maister
re =		VI. Passing	#200 -	4				11			
	·		7200 -	j	Total =		+	I :	=(100xWet Soil		

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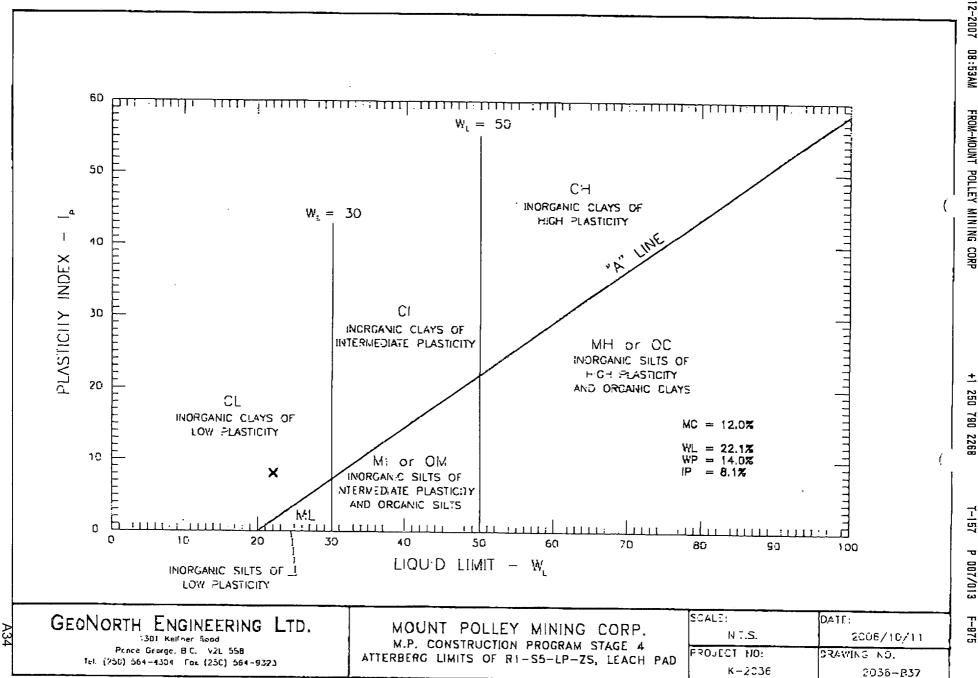
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250 790 2268

<u>+</u>

P 005 F-975

T-157



FEB-12-2007 08:53AM FROM-MOUNT POLLEY MINING CORP

T-157 P 007/013

FROM-MOUNT POLLEY MINING CORP FEB-12-2007 08:53AM +1 250 780 2268 T-157 P 008/013 F-975 MARGINE COLLER цц, MOISTURE - DENSITY 1301 Kellihør Road Prince George, BC V2L5S8 **RELATIONSHIP REPORT** Phone (250)564-4304; fax (250)564-9323 PROJECT NO. K 2036 то CLIENT Mount Polley Mining Corp. Altn: Mount Polley Mining Corp. Attn: c.c. Knight Piesold Consulting Knight Piesold P.O Box 12 Likely, BC VOL -INO ATTN: Ron Martel @ 250-790-2268 PROJECT M.P. Construction Program Stage 4/5 Mount Polley Mining Corp. Malerials Testing Likely CONTRACTOR DATE TESTED 2006.0ct.11 DATE RECEIVED 2006.0ct.05 DATE SAMPLED 2006.0ct.02 PROCTOR NO. 8 INSITU MOISTURE N/A % COMPACTION STANDARD Standard Proctor, CLIENT-EC SAMPLED BY ASTM D698 TESTED BY JF! mm Móld, SUPPLIER Leach Pad 4.75mm SOURCE R1-S5-LF-ZS MATERIAL IDENTIFICATION

SIZE DESCRIPTION

MAJOR COMPONENT 'CILL

50MM

ROCK TYPE

COMPACTION PROCEDURE	A: 101.6m
RAMMER TYPE	Passing 4 Manual
PREPARATION	Moist
OVERSIZE CORRECTION METHOD	ASTM 4718
RETAINED 4.75mm SCREEN	13.5%
OVERSIZE SPECIFIC GRAVITY	2.65
TOTAL NUMBER OF TRIALS	4

2100 2075 DRY DENSITY (kg/m3) 2050 2 2025 2000 1975 1950 1925 111 1111 1111 M 6 7 8 9 10 11 12 13 14 **MOISTURE CONTENT (%)** COMMENTS

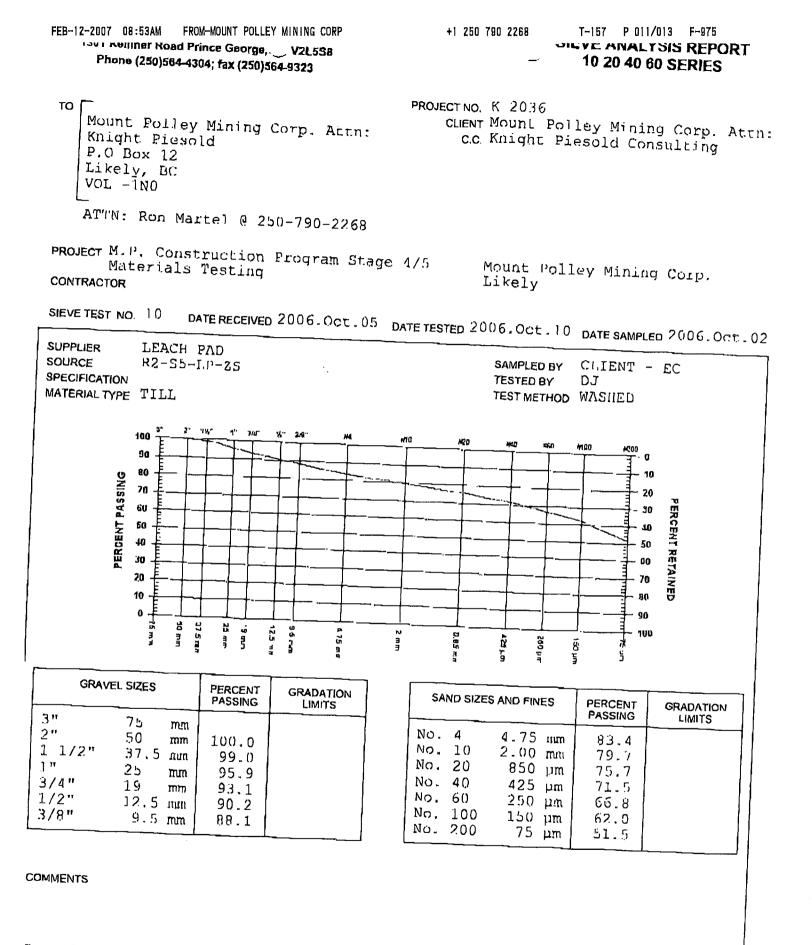
TRIAL NUMBER	WET DENSITY (kg/m3)	DRY DENSITY (kg/m3)	MOISTURE CONTENT (%)		
1	2.037	1925	5.8		
2	2235	2034	<u>ə</u> 9		
3	2237	1994	12.2		
4	2193	1919	14.3		
			_		

	MAXIMUM DRY DENSITY (kg/m3)	OPTIMUM MOISTURE CONTENT (%)
CALCULATED	2030	9.5
OVERSIZE CORRECTED	2100	8.5

Page 1 of 1

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Page 1 of 1

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GeoNorth Engineering Test Designation: ASTM D-422 Cillent: Mount Polley Mining Cor

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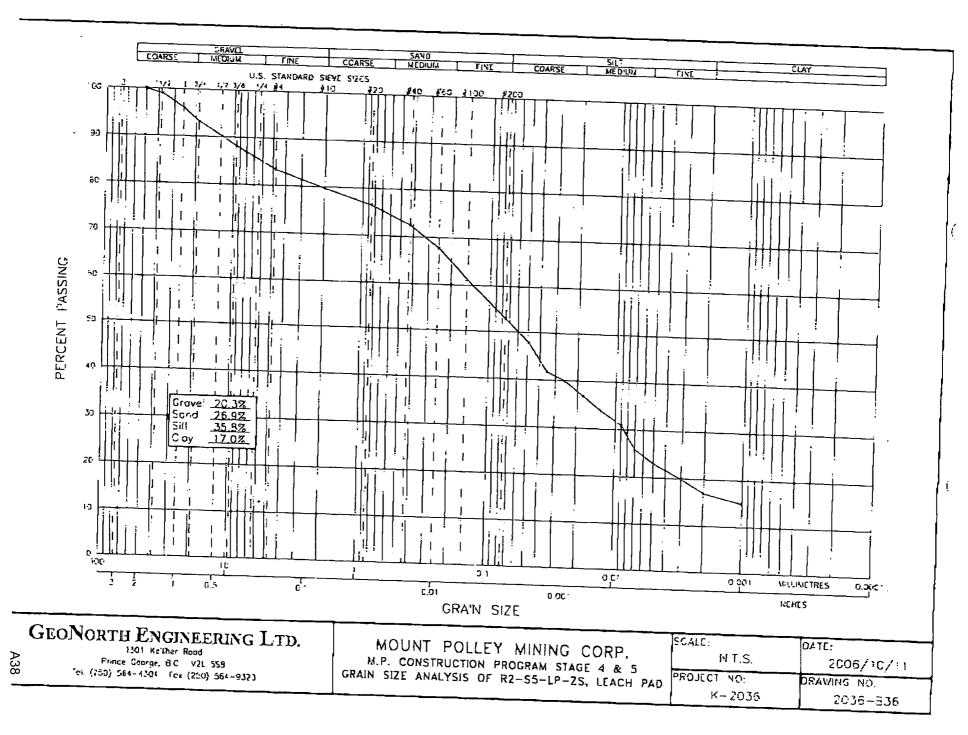
Hydrometer Analysis

Client: Mount Polley Mining Corp. Atin: Knight Piesold Project Name: MPCP - Stage 4 & 5									Date: Octo	ber 11, 200	06	
Source/Location: R2-S5-LP-ZS - Leach Part								Project #: K-2036				
Sample #			Test #:		Hole #:				Type: TILL			
Sampled By: Eric Coffin			Tested B	Tested By: DJ					Time:			
Date Sampled: 10.02.06				Date Received: 10.05.06				Checked By: NK				
	1	Elapsed	1	10010 Nove	11460. 10.03				Date Tested: 10.10.06			
Starting		Time	Reading			Corr.					<u></u>	
WI. (g)	% - #10	(min)	R	Temp (0C)	к	Reading R'	Zr (cm)	SQRT(Zr)/1 (mIn)	D (mm)	N (%)		
40.0	0.797	1 1						<u>+</u>	- (14 [76]	N*(%-#10)	
40.0							1	······	0.049			
40.0									0.049	60.0	4	
40.0								1	0.035	52.5 50.0	4	
40.0				+				·	0.018	46.3	39	
40.0								†	0.013	40.3	36	
40.0	0.797			10.0				1	0.009	38.8	33	
40.0									0.007	32.5	30	
40.0	0.797							1	0.005	32.5 28.8	25	
40.0	0.797			17.0					0.003	25.0	23	
40 0	0.797	1440		<u> </u>					0.002	21.3	19	
lydromete	r #: 794968		Graduate #		0.01382				0.001	18.8	17	
ensity of S	Solids:		Oraduate #	· · ·		Dispersing	Agent: Soc	lium Hex		mount: 12	15	
escription	of Sample:									mount. 12		
		eler Sieve A	Inchesio									
		Total WI.		% Finer	Sieve Analysis			γ	Initial Moisture Content			
ŀ						1		% Finer		iniai moistu	re Content	
				Than Orig		Weight	Tolal Wt.	Than Orig. 🛛				
10		40.0	100.0	Samp.	Seive No.	Relained	Passing	Samp.				
20	1.6	,0.0	26.0	79.7	38.1				Tare No.			
40	2.0		91.0	76.5	25.4				Nel WI. & Ta			
60	2.4		85.0	72.5 67.7	19.0				Dry WI & Ta			
100	3.3		76.8	61.2	12.5]		Valer Wt.	<u> </u>		
200	4.2		66.3		9.5				are Wt.			
an	26.5			52.8	4.75			1	WI. of Dry Soil			
lal	40.0		+		10	SEE W	ASHED SI	EVE	Molslure Content		=W	
washed V		———							bry Wt. of Sam			
ire =		NI. Passing	#200-		Total =	1						
10-											nitial Moislure) =	

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FEB-12-2007 08:53AM 60 FROM-MOUNT POLLEY MINING CORF ₩, = 50 5C СН ENORGANIC CLAYS OF $W_{1} = 30$ HIGH PLAST;CITY "A" LINI 40 PLASTICITY INDEX CL 30 NORGANIC CLAYS OF MH or OC INTERMEDIATE PLASTICITY INORGANIC SILTS OF HIGH PLASTICITY +1 250 790 2268 AND ORGANIC CLAYS 20 CL INORGANIC CLAYS OF MC = 10.3%LOW PLASTICITY WL = 22.5%WP = 14.7%IP = 7.8%10 MI or OM Х INORCAN'C SILTS OF INTERMEDIATE FLASTICITY AND ORGANIC SILIS T-157 ML 11111:0011111 00 0 r 4C 50 30 D 10 20 60 70 80 90 100 Τ LIQUID LIMT - W. INORGANIC SILTS OF LOW PLASTICITY SCALE: DAIC: F-975 GEONORTH ENGINEERING LTD. MOUNT POLLEY MINING CORP. N.T.S. 2006/00/11 1301 Kelaher Road M.P. CONSTRUCTION PROGRAM STAGE 4 DRAWING HC. PROJECT NO: Prince George, B.C. V2. 558 ATTERBERG LIMITS OF R2-S5-LP-ZS, LEACH PAD 1e1 (250) 500-4304 Fax (250) 564-9323 K-2036 2036-838

A39

012/013

FEB-12-2007 08:54AM FROM-MOUNT POLLEY MINING CORP +1 250 790 2268 T-157 P 013/013 F-975 WARNER MANERIA -.u. MOISTURE - DENSITY 1301 Kelliher Road Prince George, BC V2L5S8 **RELATIONSHIP REPORT** Phone (250)564-4304; fax (250)564-9323 PROJECT NO. K 2036 TO CLIENT Mount Polley Mining Corp. Attn: Mount Polley Mining Corp. Attn: c.c. Knight Piesold Consulting Knight Piesold P.O Box 12 Likely, HC VOL -1NO ATTN: Ron Martel @ 250-790-2268 PROJECT M.P. Construction Program SLage 4/5 Mount Polley Mining Corp. Materials Testing Likelv CONTRACTOR DATE TESTED 2006.Oct.11 DATE RECEIVED 2006.Oct.05 DATE SAMPLED 2006.Oct.02 PROCTOR NO. 9 INSITU MOISTURE N/A % COMPACTION STANDARD Standard Proctor, CLIENT-EC SAMPLED BY ASTM 10698 JE TESTED BY COMPACTION PROCEDURE A: 101.6mm Mold, SUPPLIER Leach Pad Passing 4.75mm R2-S5-LP-ZS SOURCE RAMMER TYPE Manual MATERIAL IDENTIFICATION PREPARATION Moist MAJOR COMPONENT 11 LL OVERSIZE CORRECTION METHOD ASTM 4718 SIZE 50MM 16.5% RETAINED 4.75mm SCREEN DESCRIPTION OVERSIZE SPECIFIC GRAVITY 2.65 ROCK TYPE TOTAL NUMBER OF TRIALS A 2100 TRIAL WET DRY MOISTURE NUMBER DENSITY DENSITY CONTENT (kg/m3) (kg/m3) (%) 2050 DENSITY (kg/m3) 1. 2110 1972 7.0 3 2 2724 2037 9.2 2000 3 2259 2015 12.1 4 2121 1840 15.31950 ORY 1900 MAXIMUM OPTIMUM ORY 1850 MOISTURE DENSITY CONTENT ΗU 1111 (kg/m3) (%) 5 7 6 A 9 10 11 12 13 2040 10.0 14 15 CALCULATED 2120 8,5 OVERSIZE CORRECTED **MOISTURE CONTENT (%)** COMMENTS Page 1 of 1 2006.Oct.11 GeoNorth Engineering Ltd. PER.

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APPENDIX B

NUCLEAR DENSOMETER TESTS

(Page B1 to B3)

TABLE B1

MOUNT POLLEY MINING CORPORATION MOUNT POLLEY MINE TEST HEAP LEACH PAD CONSTRUCTION PROGRAM

SOIL LINER FIELD COMPACTION

	FIELD COMPACTION					
TEST NO.	Dry	Moisture		Compaction	Pass	
	Density	Content	Compaction	Specification	or	
	(kg/m ³)	(%)	(%)	(%)	Fail	
1	2079	10.1	99.5	95	Pass	
2	1986	9.8	95.0	95	Pass	
3	1998	10.5	95.6	95	Pass	
4	2033	9.6	97.3	95	Pass	
5	2089	8.3	100.0	95	Pass	
6	2053	9.5	98.2	95	Pass	
7	2061	9.7	98.6	95	Pass	
8	2104	10.0	100.7	95	Pass	
9	2092	10.5	100.1	95	Pass	
10	2075	10.4	99.3	95	Pass	
11	2112	9.7	101.1	95	Pass	
12	2009	9.9	96.1	95	Pass	
13	2169	9.4	103.8	95	Pass	
14	2080	9.5	99.5	95	Pass	
15	2091	10.0	100.0	95	Pass	
16	2069	10.2	99.0	95	Pass	
17	2116	9.9	101.2	95	Pass	
18	2096	10.8	100.3	95	Pass	
19	2108	10.5	100.9	95	Pass	
20	2067	9.4	98.9	95	Pass	
21	2135	9.8	102.2	95	Pass	
22	2091	10.5	100.0	95	Pass	
23	2059	11.0	98.5	95	Pass	
24	2154	9.6	103.1	95	Pass	
25	2030	10.6	97.1	95	Pass	
26	2045	8.6	97.8	95	Pass	
27	2013	9.3	96.3	95	Pass	
28	2086	8.0	99.8	95	Pass	
29	2082	9.3	99.6	95	Pass	
30	2112	11.0	101.1	95	Pass	
31	2158	9.6	103.3	95	Pass	
32	2091	9.2	100.0	95	Pass	
33	2136	9.6	102.2	95	Pass	
34	2165	9.0	103.6	95	Pass	
35	2179	9.4	104.3	95	Pass	

TABLE B1

MOUNT POLLEY MINING CORPORATION MOUNT POLLEY MINE TEST HEAP LEACH PAD CONSTRUCTION PROGRAM

SOIL LINER FIELD COMPACTION

	FIELD COMPACTION					
TEST NO.	Dry	Moisture		Compaction	Pass	
	Density (kg/m ³)	Content	Compaction	Specification	or	
		(%)	(%)	(%)	Fail	
36	2170	9.2	103.8	95	Pass	
37	2203	9.1	105.4	95	Pass	
38	2189	8.7	104.7	95	Pass	
39	2192	9.0	104.9	95	Pass	
40	2151	9.2	102.9	95	Pass	
41	2173	9.1	104.0	95	Pass	
42	2109	9.9	100.9	95	Pass	
43	2172	9.0	103.9	95	Pass	
44	2085	10.2	99.8	95	Pass	
45	2115	10.4	101.2	95	Pass	
46	2062	11.0	98.7	95	Pass	
47	2048	11.8	98.0	95	Pass	
48	2089	9.4	100.0	95	Pass	
49	2144	9.7	102.6	95	Pass	
50	2048	11.4	98.0	95	Pass	
51	2053	11.4	98.2	95	Pass	
52	2050	9.9	98.1	95	Pass	
53	2082	11.0	99.6	95	Pass	
54	2082	10.2	99.6	95	Pass	
55	2003	12.0	95.8	95	Pass	
56	2089	10.9	100.0	95	Pass	
57	2086	10.8	99.8	95	Pass	
58	2035	11.7	97.4	95	Pass	
59	2046	12.0	97.9	95	Pass	
60	2089	10.2	100.0	95	Pass	
61	2087	11.3	99.9	95	Pass	
62	2112	10.6	101.1	95	Pass	
63	2135	10.5	102.2	95	Pass	
64	2168	9.4	103.7	95	Pass	
65	2137	10.1	102.2	95	Pass	
66	2097	9.8	100.3	95	Pass	
67	2098	11.6	100.4	95	Pass	
68	2144	9.9	102.6	95	Pass	
69	2032	10.9	97.2	95	Pass	
70	2009	10.1	96.1	95	Pass	

TABLE B1

MOUNT POLLEY MINING CORPORATION MOUNT POLLEY MINE TEST HEAP LEACH PAD CONSTRUCTION PROGRAM

SOIL LINER FIELD COMPACTION

		FI	ELD COMPACTI	ON	
TEST NO.	Dry	Moisture		Compaction	Pass
	Density	Content	Compaction	Specification	or
	(kg/m ³)	(%)	(%)	(%)	Fail
71	2128	9.7	101.8	95	Pass
72	2084	11.4	99.7	95	Pass
73	2059	12.1	98.5	95	Pass
74	2121	8.7	101.5	95	Pass
75	2099	9.8	100.4	95	Pass
76	2061	9.8	98.6	95	Pass
77	2170	9.5	103.8	95	Pass
78	2086	10.9	99.8	95	Pass
79	2113	11.9	101.1	95	Pass
80	2109	11.4	100.9	95	Pass
81	2054	11.2	98.3	95	Pass
82	2087	10.2	99.9	95	Pass
83	2059	10.6	98.5	95	Pass
84	2047	9.7	97.9	95	Pass
85	2011	10.4	96.2	95	Pass
86	2093	11.0	100.1	95	Pass
87	2050	10.3	98.1	95	Pass
88	2060	9.9	98.6	95	Pass
89	2039	11.3	97.6	95	Pass
Min	1986	8.0	95.0		
Max	2203	12.1	105.4		
Median	2089	10.0	100.0		

M:\1\01\00001\17\A\Report\1-Construction Report\Rev 0\Appendices\Appendix B - Nuclear Densometer Tests\[Field Compaction Leach Pad 2006.xls]Nuke Field Sheet-2006 (2)

Revised March 5, 2007



APPENDIX C

GEOSYNTHETICS QA/QC DATA

(Pages C1 to C129)

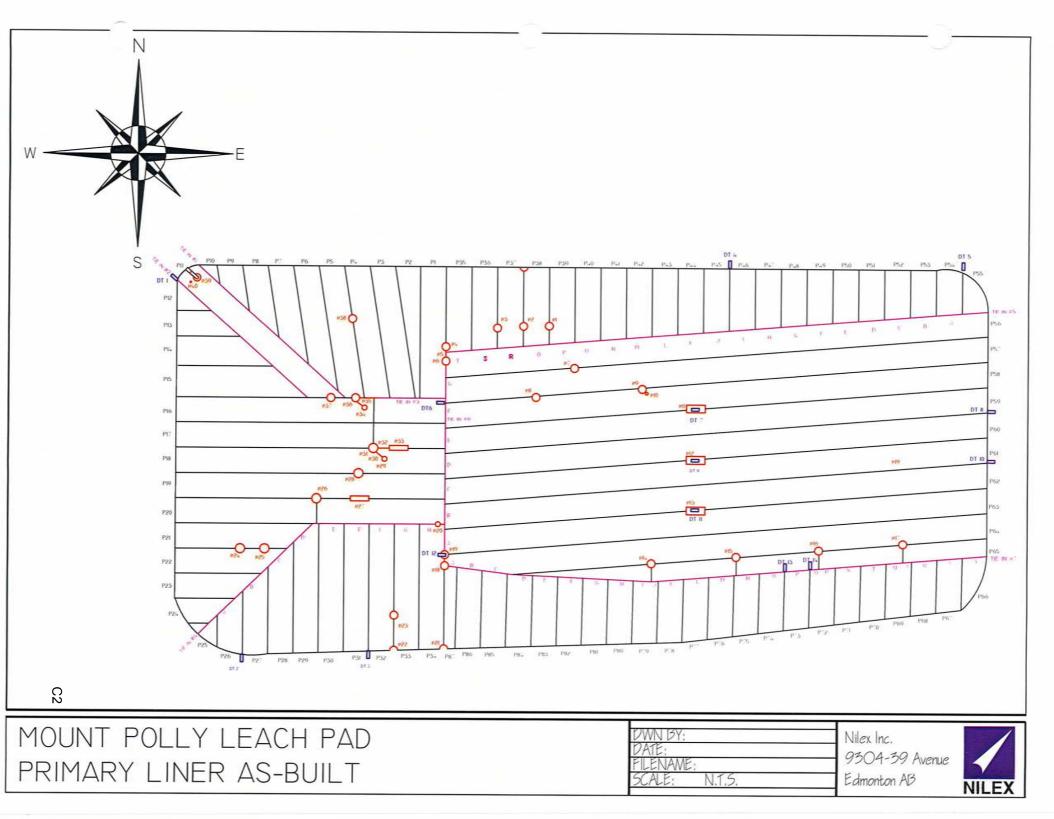


Quality Assurance/ Quality Control Data

Mount Polley Head Leach Pad

Table of Contents

Section	<u>Contents</u>
1	Primary Liner As-built Drawing
2	Primary Liner QC Documents: Extruder & Wedge Welding Qualification, Panel Placement Log, Seam Tests, Repair Log
3	Secondary Liner As-built Drawing
4	Secondary Liner QC Documents: Extruder & Wedge Welding Qualification, Panel Placement Log, Seam Tests, Repair Log
5	Roll Certification
6	Certificate of Completion





EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:	······	MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	23-Oct-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
1	12:30	WH	s 3	235	240

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	123	0	pass
#2	124	0	pass
#3	99	0	pass
#4	100	0	pass
#5	101	0	pass

TENSOMETER		···· ··· ··· ··· ··· ··· ··· ··· ··· ·	
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	149	>200%	pass
#2	139	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	24-Oct-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
2	10:40	WH	s 3	240	250

TENSOMETER			
PEEL	Ibs/in	% SEPARATION	COMMENTS
#1	111	0	pass
#2	108	0	pass
#3	104	0	pass
#4	109	0	pass
#5	106	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	173	>200%	pass
#2	173	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	25-Oct-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
3	9:00	WH	s 3	238	245

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	98	0	pass
#2	99	0	pass
#3	100	0	pass
#4	94	0	pass
#5	99	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	169	>200%	pass
#2	170	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	30-Oct-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	ТЕМР.
4	8:30	WH	s 3	238	245

TENSOMETER PEEL	lbs/in	% SEPARATION	COMMENTS
#1	121	0	pass
#2	120	0	pass
#3	118	0	pass
#4	118	0	pass
#5	118	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	150	>200%	pass
#2	156	>200%	pass

QC Technician _____

QA/QC Approval

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EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	31-Oct-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
5	10:00	WН	s 3	236	240

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	126	0	pass
#2	140	0	pass
#3	125	0	pass
#4	127	0	pass
#5	145	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	181	>200%	pass
#2	172	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	·····
PROJECT No.:	62479	_QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	31-Oct-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
6	1:30	WH	s 3	238	240

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	116	0	pass
#2	91	0	pass
#3	118	0	pass
#4	118	0	pass
#5	123	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	164	>200%	pass
#2	162	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	1-Nov-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	ТІМЕ	TECH.	NUMBER	TEMPERATURE	TEMP.
7	WH	9:00	s 3	238	245

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	124	0	pass
#2	121	0	pass
#3	110	0	pass
#4	121	0	pass
#5	119	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	177	>200%	pass
#2	190	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	2-Nov-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
8	9:00	WH	s 3	236	243

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	97	0	pass
#2	107	0	pass
#3	93	0	pass
#4	95	0	pass
#5	106	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	164	>200%	pass
#2	171	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	10-Nov-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
9	8:50	GW	D 3	245	255

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	88	0	pass
#2	91	0	pass
#3	93	0	pass
#4	93	0	pass
#5	92	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	160	>200%	pass
#2	160	>200%	pass

QC Technician

QA/QC Approval _____



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	_ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:	····	MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	11-Nov-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
10	9:00	GW	D 3	245	255

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	93	0	pass
#2	96	0	pass
#3	116	0	pass
#4	88	0	pass
#5	89	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	143	>200%	pass
#2	140	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	12-Nov-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
11	9:30	GW	D#	245	265

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	92	0	pass
#2	102	0	pass
#3	118	0	pass
#4	90	0	pass
#5	109	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	144	>200%	pass
#2	144	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	·····
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	14-Nov-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
12	9:00	GW	PW 2	235	7

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	97	0	pass
#2	107	0	pass
#3	109	0	pass
#4	112	0	pass
#5	114	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	172	>200%	pass
#2	163	>200%	pass

QC Technician

QA/QC Approval _____



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	23-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
1	1:30	DM	c 2	365	8.6

TENSOMETER		%		%	· · · · · · · · · · · · · · · · · · ·
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	129	0	140	0	pass
#2	134	0	127	0	pass
#3	144	0	131	0	pass
#4	136	0	137	0	pass
#5	137	0	127	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	178	>200%	pass
#2	180	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	· · · · · · · · · · · · · · · · · · ·	
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	23-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
2	1:15	DoM	nsc 7	385	8

TENSOMETER		%		%	и . у
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	133	0	133	0	pass
#2	136	0	131	0	pass
#3	140	0	133	0	pass
#4	132	0	118	0	pass
#5	126	0	127	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	180	>200%	pass
#2	178	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:	······································		60 mil HDPE	
OWNER:	Imperial Metals	DATE:	24-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
3	8:00	DM	c 2	365	8

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	133	0	1 43	0	pass
#2	133	0	133	0	pass
#3	124	0	128	0	pass
#4	130	0	127	0	pass
#5	142	0	125	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	173	>200%	pass
#2	175	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	24-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
4	8:30	DoM	c 69	365	8

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	125	0	138	0	pass
#2	124	0	126	0	pass
#3	141	0	119	0	pass
#4	135	0	119	0	pass
#5	144	0	125	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	175	>200%	pass
#2	175	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	_ENGINEER:	
PROJECT No.:	62479		Gary Watkins
CONTRACTOR:	· · · · · · · · · · · · · · · · · · ·	MATERIAL:	60 mil HDP E
OWNER:	Imperial Metals	DATE:	30-Oct-06

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
5	1:30	DM	c 69	365	8

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	135	0	131	0	pass
#2	144	0	129	0	pass
#3	130	0	143	0	pass
#4	138	0	136	0	pass
#5	136	0	126	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	164	>200%	pass
#2	168	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	31-Oct-06	

SAMPLE			MACHINE	MACHINE	MACHINE SPEED
NUMBER	TIME	TECH.	NUMBER	TEMP	ft/min
6	7:45	DM	c 69	365	7.5

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	130	0	146	0	pass
#2	146	0	139	0	pass
#3	147	0	148	0	pass
#4	180	0	143	0	pass
#5	135	0	142	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	219	>200%	pass
#2	220	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479		Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	31-Oct-06

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
7	12:45	DM	c 69	365	8

TENSOMETER		%		%	· · · · · · · · · · · · · · · · · · ·
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	133	0	130	0	pass
#2	132	0	132	0	pass
#3	121	0	125	0	pass
#4	136	0	129	0	pass
#5	129	0	124	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	178	>200%	pass
#2	177	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479		Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	1-Nov-06

SAMPLE NUMBER	TIME	ТЕСН.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
8	7:50	DM	c 69	365	7.5

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	144	0	134	0	pass
#2	142	0	131	0	pass
#3	146	0	131	0	pass
#4	118	0	134	0	pass
#5	121	0	109	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	159	>200%	pass
#2	159	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Leach Pad	_ENGINEER:	
PROJECT No.:	62479		Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	2-Nov-06

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
9	8:00	DM	c 69	365	7.7

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	145	0	138	0	pass
#2	126	0	128	0	pass
#3	120	0	123	0	pass
#4	127	0	127	0	pass
#5	125	0	124	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	147	>200%	pass
#2	157	>200%	pass

QC Technician

QA/QC Approval _____



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	· · · · · · · · · · · · · · · · · · ·	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:	······································	MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals			

Square Feet	mentions	Panel Di	Deployment	Roll No.	Panel No.
	Width (ft.)	Length (ft.)	Date		
246	22	112	23-Oct-06	1011120153	1
246	22	112	23-Oct-06	1011120153	2
246	22	112	23-Oct-06	101120152	3
246	22	112	23-Oct-06	101120152	4
246	22	112	23-Oct-06	101120152	5
246	22	112	23-Oct-06	101120152	6
235	22	107	23-Oct-06	101120152	7
158	22	72	23-Oct-06	101120140	8
110	22	50	23-Oct-06	101120140	9
43	16	27	23-Oct-06	101120140	10
363	22	165	23-Oct-06	101120140	11
59	22	27	23-Oct-06	101120140	12
116	22	53	23-Oct-06	101120146	13
184	22	84	23-Oct-06	101120146	14
253	22	115	23-Oct-06	101120140	15
495	22	225	23-Oct-06	101120140	16
495	22	225	23-Oct-06	101120146	17
3992	TOTAL			•	

QC Technician



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals			

Panel No.	Roll No.	Deployment	Panel Di	mentions	Square Feet
		Date	Length (ft.)	Width (ft.)	
18	101120146	23-Oct-06	225	22	495
19	101120141	23-Oct-06	225	22	495
20	101120141	23-Oct-06	225	22	495
21	1011120153	24-Oct-06	120	22	264
22	101120143	24-Oct-06	96	22	211
23	101120143	24-Oct-06	74	22	162
24	101120143	24-Oct-06	51	22	112
25	102126044	24-Oct-06	28	22	61
26	102126044	24-Oct-06	56	22	123
27	102126044	24-Oct-06	76	22	167
28	102126044	24-Oct-06	97	22	213
29	102126044	24-Oct-06	108	22	237
30	102126044	24-Oct-06	108	22	237
31	102126044	24-Oct-06	108	22	237
32	101120143	24-Oct-06	108	22	237
33	101120143	24-Oct-06	108	22	23
34	101120143	24-Oct-06	108	22	237
		, <u> </u>		TOTAL	4220

QC Technician

QA/QC Approval _____



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:	· · · · · · · · · · · · · · · · · · ·	MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals			

Square Feet	mentions	Panel Di	Deployment	Roll No.	Panel No.
	Width (ft.)	Length (ft.)	Date		
167	22	76	30-Oct-06	101120145	35
162	22	74	30-Oct-06	101120145	36
158	22	72	30-Oct-06	101120145	37
154	22	70	30-Oct-06	101120145	38
145	22	66	30-Oct-06	101120145	39
140	22	64	30-Oct-06	101120145	40
140	22	64	30-Oct-06	101120145	41
138	22	63	30-Oct-06	102126052	42
134	22	61	30-Oct-06	102126052	43
129	22	59	30-Oct-06	102126052	44
125	22	57	30-Oct-06	102126052	45
121	22	55	30-Oct-06	102126052	46
116	22	53	30-Oct-06	102126052	47
112	22	51	30-Oct-06	102126052	48
110	22	50	30-Oct-06	102126052	49
105	22	48	30-Oct-06	102126052	50
101	22	46	30-Oct-06	102126050	51
. 2263	TOTAL				

QC Technician



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals			

Square Feet	mentions	Panel Dimentions		Roll No.	Panel No.
	Width (ft.)	Length (ft.)	Date		
96	22	44	30-Oct-06	102126050	52
92	22	42	30-Oct-06	102126050	53
88	22	40	30-Oct-06	102126050	54
77	22	35	30-Oct-06	102126050	55
1049	22	477	26-Oct-06	101120142	56
1049	22	477	26-Oct-06	102126046	57
1049	22	477	31-Oct-06	102126063	58
1049	22	477	31-Oct-06	102126051	59
1049	22	477	31-Oct-06	102126053	60
1049	22	477	31-Oct-06	102126054	61
1049	22	477	31-Oct-06	102126073	62
1049	22	477	31-Oct-06	102126072	63
1049	22	477	1-Nov-06	102126071	64
80	11	73	2-Nov-06	102126072	65A
80	11	73	2-Nov-06	102126072	65B
79	11	72	2-Nov-06	102126071	65C
81	11	74	2-Nov-06	102126071	65D
10120	TOTAL				

QC Technician

QA/QC Approval _____



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:	· · · · · · · · · · · · · · · · · · ·		60 mil HDPE	
OWNER:	Imperial Metals			

Square Feet	Panel Dimentions		Deployment	Roll No.	Panel No.
	Width (ft.)	Length (ft.)	Date		
126	11	115	2-Nov-06	102126071	65E
101	22	46	2-Nov-06	101120142	66
103	22	47	2-Nov-06	102126038	67
105	22	48	2-Nov-06	101120146	68
107	22	49	2-Nov-06	101120141	69
110	22	50	2-Nov-06	102126073	70
112	22	51	2-Nov-06	102126054	71
114	22	52	2-Nov-06	102126053	72
116	22	53	2-Nov-06	102126041	73
118	22	54	2-Nov-06	102126063	74
121	22	55	2-Nov-06	102126036	75
121	22	55	2-Nov-06	102126037	76
123	22	56	2-Nov-06	101120135	77
123	22	56	2-Nov-06	101120646	78
125	22	57	2-Nov-06	101120138	79
127	22	58	2-Nov-06	102126050	80
132	22	60	2-Nov-06	102126050	81
1989	TOTAL				

QC Technician



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:	· · · · · · · · · · · · · · · · · · ·		60 mil HDPE	
OWNER:	Imperial Metals			

Panel No.	Roll No.	Deployment	Panel D	imentions	Square Feet
		Date	Length (ft.)	Width (ft.)	
82	102126050	2-Nov-06	61	22	1342
83	102126050	2-Nov-06	63	22	1386
84	102126070	2-Nov-06	65	22	1430
85	102126070	2-Nov-06	69	22	1518
86	102126070	2-Nov-06	72	22	1584
87	102126070	2-Nov-06	76	12	912
					0
					0
					0
					0
					0
					0
					0
					0
					0
······			-		0
					0
· · · · ·				TOTAL	8172

QC Technician



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	sure	Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
1\2	10/23/2006	11/10/2006	DM	concord 2	53	53	12:40	12:45	pass
2\3	10/23/2006	11/10/2006	DM	concord 2	40	38	12:40	12:45	pass
3\4	10/23/2006	11/10/2006	DM	concord 2	50	50	12:40	12:45	pass
4\5	10/23/2006	11/10/2006	DM	concord 2	43	42	12:49	12:54	pass
5\6	10/23/2006	11/10/2006	DM	concord 2	43	43	12:49	12:54	pass
6\7	10/23/2006	11/10/2006	DM	concord 2	45	45	12:49	12:54	pass
7\8	10/23/2006	11/10/2006	DM	concord 2	45	45	1:15	1:20	pass
8\9	10/23/2006	11/10/2006	DM	concord 2	43	43	1:30	1:35	pass
9\10	10/23/2006	11/10/2006	DM	concord 2	45	45	1:30	1:35	pass
tie in 1	10/23/2006	11/10/2006	DoM	nsc 7	44	43	2:00	2:05	pass
tie in 2	10/23/2006	11/10/2006	DoM	nsc 7	47	46	1:36	1:41	pass
12\13	10/23/2006	11/10/2006	DM	concord 2	60	58	2:08	2:13	pass
13\14	10/23/2006	11/10/2006	DM	concord 2	50	49	1:49	1:54	pass
14\15	10/23/2006	11/10/2006	DM	concord 2	43	41	2:02	2:07	pass
15\16	10/23/2006	11/10/2006	DoM	nsc 7	42	40	1:53	1:58	pass
16\17	10/23/2006	11/10/2006	DM	concord 2	58	58	2:16	2:21	pass
17\18	10/23/2006	11/13/2006	DoM	nsc 7	43	42	3:26	3:31	pass
18\19	10/23/2006	11/10/2006	DM	concord 2	52	52	2:22	2:27	pass

QC Technician



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	sure	Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
19\20	10/23/2006	11/12/2006	DM	concord 2	47	47	4:09	4:14	pass
20\21	10/23/2006	11/12/2006	DM	concord 2	43	42	4:07	4:12	pass
21\22A	10/23/2006	11/12/2006	DoM	nsc 7	46	46	3:52	3:57	pass
21\22B	10/23/2006	11/12/2006	DM	concord 2	62	62	3:52	3:57	pass
21\22C	10/23/2006	11/12/2006	DM	concord 2	48	48	3:45	3:50	pass
22\23	10/23/2006	11/12/2006	DoM	nsc 7	43	43	3:35	3:40	pass
23\24	10/23/2006	11/12/2006	DoM	nsc 7	50	48	3:32	3:37	pass
25\26	10/24/2006	11/12/2006	DM	concord 69	53	53	3:24	3:29	pass
26\27	10/24/2006	11/12/2006	DM	concord 69	48	48	3:18	3:23	pass
27\28	10/24/2006	11/12/2006	DM	concord 69	54	54	3:11	3:16	pass
28\29	10/24/2006	11/12/2006	DM	concord 69	40	38	3:12	3:17	pass
29\30	10/24/2006	11/12/2006	DM	concord 69	52	50	2:55	3:00	pass
30\31	10/24/2006	11/12/2006	DM	concord 69	48	48	2:55	3:00	pass
31\32	10/24/2006	11/12/2006	DM	concord 69	48	48	2:55	3:00	pass
32\33	10/24/2006	11/12/2006	DM	concord 69	51	51	2:40	2:45	pass
32\33A	10/24/2006	11/12/2006	DM	concord 69	45	45	2:35	2:40	pass
33\34	10/24/2006	11/12/2006	DM	concord 69	54	54	2:40	2:45	pass

QC Technician

QA/QC Approval

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GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	ssure	Tii	ne	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
tie in 4A	10/24/2006	11/12/2006	DM	concord 69	40	40	11:21	11:26	pass
В	10/24/2006	11/12/2006	DM	concord 69	60	58	11:21	11:26	pass
С	10/24/2006	11/12/2006	DM	concord 69	48	47	11:21	11:26	pass
D	10/24/2006	11/12/2006	DM	concord 69	43	43	11:32	11:37	pass
E	10/24/2006	11/12/2006	DM	concord 69	46	46	1:05	1:10	pass
F	10/24/2006	11/12/2006	DM	concord 69	45	45	11:34	11:39	pass
G	10/24/2006	11/12/2006	DM	concord 69	59	58	11:40	11:45	pass
н	10/24/2006	11/12/2006	DM	concord 69	54	53	11:40	11:45	pass
1	10/24/2006	11/12/2006	DM	concord 69	39	39	11:56	12:01	pass
sump seam 1	10/23/2006	11/12/2006	DoM	NSC 7	43	43	9:31	9:36	pass
sump seam 2	10/23/2006	11/12/2006	DoM	NSC 7	49	49	1:12	1:17	pass
tie in 3	10/23/2006	11/14/2006	DoM	NSC 7	40	40	11:46	11:51	pass
16\17a	10/23/2006	11/14/2006	DoM	NSC 7	47	47	11:50	11:55	pass
17\18a	10/23/2006	11/14/2006	DoM	NSC 7	50	48	11:50	11:55	pass
18\19a	10/23/2006	11/14/2006	DoM	NSC 7	54	54	11:50	11:55	pass
19\20a	10/23/2006	11/14/2006	DoM	NSC 7	50	47	11:50	11:55	pass

QC Technician



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	<u></u>	

Seam	Date	Date	Operator	Machine	Pres	ssure	TÌ	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
tie in 7 A	2-Nov-06	14-Nov-06	DM	concord 69	50	49	1:00	1:05	pass
В	2-Nov-06	14-Nov-06	DM	concord 69	48	48	1:00	1:05	pass
С	2-Nov-06	14-Nov-06	DM	concord 69	50	47	1:02	1:07	pass
D	2-Nov-06	14-Nov-06	DM	concord 69	42	41	1:10	1:15	pass
Е	2-Nov-06	14-Nov-06	DM	concord 69	61	60	1:10	1:15	pass
F	2-Nov-06	14-Nov-06	DM	concord 69	48	46	1:21	1:26	pass
G	2-Nov-06	14-Nov-06	DM	concord 69	50	47	1:21	1:26	pass
Н	2-Nov-06	14-Nov-06	DM	concord 69	50	49	1:29	1:34	pass
I	2-Nov-06	14-Nov-06	DM	concord 69	61	60	1:29	1:34	pass
J	2-Nov-06	14-Nov-06	DM	concord 69	44	43	1:36	1:41	pass
к	2-Nov-06	14-Nov-06	DM	concord 69	65	65	1:36	1:41	pass
Ŀ	2-Nov-06	14-Nov-06	DM	concord 69	49	49	1:46	1:51	pass
м	2-Nov-06	14-Nov-06	DM	concord 69	61	60	1:46	1:51	pass
N	2-Nov-06	14-Nov-06	DM	concord 69	58	56	1:54	1:59	pass
0	2-Nov-06	14-Nov-06	DM	concord 69	70	68	1:54	1:59	pass
Р	2-Nov-06	14-Nov-06	DM	concord 69	43	42	2:05	2:10	pass
Q	2-Nov-06	14-Nov-06	DM	concord 69	54	53	2:05	2:10	pass
R	2-Nov-06	14-Nov-06	DM	concord 69	49	48	2:12	2:17	pass

QC Technician

QA/QC Approval

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GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	ssure	Tii	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
tie in 7 s	2-Nov-06	14-Nov-06	DM	concord 69	50	49	2:12	2:17	pass
Т	2-Nov-06	14-Nov-06	DM	concord 69	49	46	2:22	2:27	pass
U	2-Nov-06	14-Nov-06	DM	concord 69	49	48	2:22	2:27	pass
V	2-Nov-06	14-Nov-06	DM	concord 69	42	41	2:36	2:41	pass
w	2-Nov-06	14-Nov-06	DM	concord 69	45	45	2:30	2:35	pass
х	2-Nov-06	14-Nov-06	DM	concord 69	60	60	2:33	2:38	pass
Y	2-Nov-06	14-Nov-06	DM	concord 69	59	59	3:40	3:45	pass

QC Technician

QA/QC Approval

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GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	ssure	Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
35\36	10/30/2006	10/31/2006	DM	Concord 69	50	50	2:20	2:25	pass
36\37	10/30/2006	10/31/2006	DoM	Concord 2	52	50	2:11	2:16	pass
36\37A	10/30/2006	10/31/2006	DoM	Concord 2	41	41	2:34	2:39	pass
37\38	10/30/2006	10/31/2006	DM	Concord 69	40	39	2:05	2:10	pass
37\38A	10/30/2006	10/31/2006	DM	Concord 69	48	47	2:35	2:40	pass
38\39	10/30/2006	10/31/2006	DoM	Concord 2	42	42	2:05	2:10	pass
38\39A	10/30/2006	10/31/2006	DoM	Concord 2	42	41	2:35	2:40	pass
39\40	10/30/2006	10/31/2006	DM	Concord 69	52	52	2:35	2:40	pass
40\41	10/30/2006	10/31/2006	DM	Concord 69	45	45	2:45	2:50	pass
41\42	10/30/2006	10/31/2006	DM	Concord 69	47	47	2:45	2:50	pass
42\43	10/30/2006	10/31/2006	DM	Concord 69	56	56	2:45	2:50	pass
43\44	10/30/2006	10/31/2006	DM	Concord 69	54	52	2:45	2:50	pass
44\45	10/30/2006	10/31/2006	DM	Concord 69	42	42	2:50	2:55	pass
45\46	10/30/2006	10/31/2006	DM	Concord 69	45	45	2:50	2:55	pass
46\47	10/30/2006	10/31/2006	DM	Concord 69	48	48	2:50	2:55	pass
47\48	10/30/2006	10/31/2006	DM	Concord 69	46	46	2:55	3:00	pass
48\49	10/30/2006	10/31/2006	DM	Concord 69	39	39	3:05	3:10	pass
49\50	10/30/2006	10/31/2006	DM	Concord 69	50	50	3:05	3:10	pass

QC Technician



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	sure	Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
50\51	10/30/2006	10/31/2006	DM	concord 69	46	46	3:05	3:10	pass
51\52	10/30/2006	10/31/2006	DM	concord 69	59	57	3:05	3:10	pass
52\53	10/30/2006	10/31/2006	DM	concord 69	42	42	3:13	3:18	pass
53\54	10/30/2006	10/31/2006	DM	concord 69	42	41	3:13	3:18	pass
54\55	10/30/2006	10/31/2006	DM	concord 69	46	46	3:13	3:18	pass
56\57	10/25/2006	10/31/2006	DM	concord 69	42	39	4:18	4:23	pass
56\57A	10/25/2006	10/31/2006	DM	concord 69	40	38	3:20	3:25	pass
tie in 5	10/30/2006	10/31/2006	DM	concord 69	44	43	11:44	11:49	pass
А	10/30/2006	10/31/2006	DM	concord 69	62	61	11:44	11:49	pass
В	10/30/2006	10/31/2006	DM	concord 69	40	40	11:55	12:00	pass
С	10/30/2006	10/31/2006	DM	concord 69	62	62	11:43	11:48	pass
D	10/30/2006	10/31/2006	DM	concord 69	38	36	11:52	11:57	pass
E	10/30/2006	10/31/2006	DM	concord 69	46	46	11:43	11:48	pass
F	10/30/2006	10/31/2006	DM	concord 69	48	48	11:43	11:48	pass
G	10/30/2006	10/31/2006	DM	concord 69	45	44	11:43	11:48	pass
Н	10/30/2006	10/31/2006	DM	concord 69	39	39	1:49	1:54	pass
1	10/30/2006	10/31/2006	DM	concord 69	56	56	1:49	1:54	pass
J	10/30/2006	10/31/2006	DM	concord 69	43	43	1:49	1:54	pass

QC Technician



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	ssure	Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
Tie in 5 K	10/30/2006	10/31/2006	DM	concord 69	55	54	1:49	1:54	pass
L	10/30/2006	10/31/2006	DM	concord 69	54	54	4:15	4:20	pass
М	10/30/2006	10/31/2006	DM	concord 69	41	41	1:56	2:01	pass
N	10/30/2006	10/31/2006	DM	concord 69	42	41	1:58	2:03	pass
0	10/30/2006	10/31/2006	DM	concord 69	57	56	1:58	2:03	pass
Р	10/30/2006	10/31/2006	DM	concord 69	53	52	4:15	4:20	pass
Q	10/30/2006	10/31/2006	DM	concord 69	58	57	2:05	2:10	pass
R	10/30/2006	10/31/2006	DM	concord 69	46	46	2:11	2:16	pass
s	10/30/2006	10/31/2006	DM	concord 69	47	45	2:11	2:16	pass
Т	10/30/2006	10/31/2006	DM	concord 69	50	49	2:20	2:25	pass
57\58	10/31/2006	10/31/2006	DM	concord 69	59	58	11:35	11:40	pass
57\58A	10/31/2006	10/31/2006	DM	concord 69	55	54	11:35	11:40	pass
57\58B	10/31/2006	10/31/2006	DM	concord 69	32	30	11:35	11:40	pass
58\59	10/31/2006	10/31/2006	DM	concord 69	52	52	3:38	3:43	pass
59\60	10/31/2006	10/31/2006	DM	concord 69	55	55	3:40	3:45	pass
60\61	10/31/2006	10/31/2006	DM	concord 69	60	61	3:40	3:45	pass
61\62	10/31/2006	11/1/2006	DM	concord 69	58	57	9:04	9:09	pass
62\63	10/31/2006	11/1/2006	DM	concord 69	49	49	9:12	9:17	pass

QC Technician



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:	··-	MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	ssure	Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	pass
63\64	11/1/2006	11/2/2006	DM	Concord 69	42	42	9:05	9:10	pass
tie in 6A	11/1/2006	11/2/2006	DM	Concord 69	54	54	8:43	8:48	pass
в	11/1/2006	11/2/2006	DM	Concord 69	51	51	10:36	10:41	pass
С	11/1/2006	11/2/2006	DM	Concord 69	42	40	10:36	10:41	pass
D	11/1/2006	11/2/2006	DM	Concord 69	49	49	8:43	8:48	pass
Е	11/1/2006	11/2/2006	DM	Concord 69	61	60	8:48	8:53	pass
F	11/1/2006	11/2/2006	DM	Concord 69	49	49	8:48	8:53	pass
G	11/1/2006	11/2/2006	DM	Concord 69	54	53	8:55	9:00	pass
1\35	11/1/2006	11/2/2006	DM	Concord 69	46	46	10:42	10:47	pass
64\65E	11/2/2006	11/2/2006	DM	Concord 69	57	54	9:15	9:20	pass
64\65D	11/2/2006	11/2/2006	DM	Concord 69	56	55	9:15	9:20	pass
65D\65E	11/2/2006	11/2/2006	DM	Concord 69	42	40	9:15	9:20	pass
65B\65C	11/2/2006	11/2/2006	DM	Concord 69	45	45	9:25	9:30	pass
64\65C	11/2/2006	11/2/2006	DM	Concord 69	54	54	9:25	9:30	pass
65B\65C	11/2/2006	11/2/2006	DM	Concord 69	56	54	9:29	9:34	pass
64\65B	11/2/2006	11/2/2006	DM	Concord 69	52	50	9:29	9:34	pass
64\65A	11/2/2006	11/2/2006	DM	Concord 69	58	56	9:35	9:40	pass
65A\65B	11/2/2006	11/2/2006	DM	Concord 69	46	45	9:35	9:40	pass

QC Technician

QA/QC Approval

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GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	ssure	Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
66\67	11/2/2006	11/2/2006	DM	Concord 69	52	49	11:00	11:05	pass
67\68	11/2/2006	11/2/2006	DM	Concord 69	51	50	11:03	11:08	pass
68\69	11/2/2006	11/2/2006	DM	Concord 69	59	58	11:05	11:10	pass
69\70	11/2/2006	11/2/2006	DM	Concord 69	53	53	11:13	11:18	pass
70\71	11/2/2006	11/2/2006	DM	Concord 69	60	58	11:44	11:49	pass
71\72	11/2/2006	11/2/2006	DM	Concord 69	41	40	11:43	11:48	pass
72\73	11/2/2006	11/2/2006	DM	Concord 69	54	54	1:17	1:22	pass
73\74	11/2/2006	11/2/2006	DM	Concord 69	53	53	1:17	1:22	pass
74\75	11/2/2006	11/2/2006	DM	Concord 69	42	41	1:17	1:22	pass
75\76	11/2/2006	11/2/2006	DM	Concord 69	42	42	1:17	1:22	pass
76\77	11/2/2006	11/2/2006	DM	Concord 69	49	49	1:33	1:38	pass
77\78	11/2/2006	11/2/2006	DM	Concord 69	52	49	1:33	1:38	pass
78\79	11/2/2006	11/2/2006	DM	Concord 69	53	53	1:33	1:38	pass
79\80	11/2/2006	11/2/2006	DM	Concord 69	54	54	2:07	2:12	pass
80\81	11/2/2006	11/2/2006	DM	Concord 69	52	52	2:07	2:12	pass
81\82	11/2/2006	11/2/2006	DM	Concord 69	49	48	2:07	2:12	pass
82\83	11/2/2006	11/2/2006	DM	Concord 69	54	54	2:32	2:37	pass
83\84	11/2/2006	11/2/2006	DM	Concord 69	59	59	2:32	2:37	pass

QC Technician



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:	· · · · · · · · · · · · · · · · · · ·	MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	ssure	Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
84\85	11/2/2006	11/2/2006	DM	Concord 69	52	52	3:02	3:07	pass
85\86	11/2/2006	11/2/2006	DM	Concord 69	56	56	3:02	3:07	pass
86\87	11/2/2006	11/2/2006	DM	Concord 69	55	55	3:02	3:07	pass
87\34	11/2/2006	11/2/2006	DM	Concord 69	54	52	3:10	3:15	pass
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QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	25-Oct-06	
OWNER:	Imperial Metals	DATE:	25-Oct-06	

TEST LOCATION: tie in seam 1 (anchor trench) COMMENTS:

DT # 1

TENSOMETER PEEL	lbs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1	160	0	121	0	pass
#2	125	0	105	0	pass
#3	119	0	140	0	pass
#4	122	0	111	0	pass
#5	132	0	112	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	200	>200%	pass
#2	198	>200%	pass
#3	199	>200%	pass
#4	195	>200%	pass
#5	179	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:	·····	MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	1-Nov-06

DT # 2

TENSOMETER PEEL	lbs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1	120	0	127	0	pass
#2	119	0	130	0	pass
#3	126	0	121	0	pass
#4	128	0	124	0	pass
#5	134	0	120	0	pass

TENSOMETER	ik - C		00000000
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	178	>200%	pass
#2	173	>200%	pass
#3	176	>200%	pass
#4	173	>200%	pass
#5	173	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

Mount Polley Leach Pad	ENGINEER:	
62479		Gary Watkins
· · · ·	MATERIAL:	60 mil HDPE
Imperial Metals	DATE:	1-Nov-06
	62479	62479 QC TECHNICIAN:

TEST LOCATION: seam 31\32 (anchor trench) COMMENTS: DT # 3

TENSOMETER PEEL	lbs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1	116	0	116	0	pass
#2	112	0	124	0	pass
#3	124	0	121	0	pass
#4	122	0	114	0	pass
#5	130	0	109	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	188	>200%	pass
#2	169	>200%	pass
#3	182	>200%	pass
#4	181	>200%	pass
#5	181	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	· · · · · · · · · · · · · · · · · · ·	
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	1-Nov-06	

TEST LOCATION: _____ Seam 45\46 COMMENTS: _____ DT # 4

TENSOMETER PEEL	Ibs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1	132	0	132	0	pass
#2	132	0	120	0	pass
#3	153	0	137	0	pass
#4	127	0	133	0	pass
#5	123	0	1 41	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	191	>200%	pass
#2	196	>200%	pass
#3	199	>200%	pass
#4	193	>200%	pass
#5	194	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	1-Nov-06	

DT #5

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	113	0	136	0	pass
#2	130	0	134	0	pass
#3	131	0	130	0	pass
#4	135	0	147	0	pass
#5	133	0	147	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	187	>200%	pass
#2	191	>200%	pass
#3	190	>200%	pass
#4	190	>200%	pass
#5	188	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:			60 mil HDPE
OWNER:	Imperial Metals	DATE:	1-Nov-06

TEST LOCATION: _____ Seam 57\58 (cut off) COMMENTS: _____ DT # 6

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	119	0	125	0	pass
#2	138	0	135	0	pass
#3	137	0	125	0	pass
#4	12	0	137	0	pass
#5	124	0	137	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	190	>200%	pass
#2	192	>200%	pass
#3	189	>200%	pass
#4	186	>200%	pass
#5	186	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	1-Nov-06	
TEST LOCATION:	seam 58\59 (floor)	COMMENTS:	DT # 7	

TENSOMETER		%		%	
PEEL	ibs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	146	0	123	0	pass
#2	154	0	117	0	pass
#3	155	0	121	0	pass
#4	136	0	112	0	pass
#5	136	0	125	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	185	>200%	pass
#2	180	>200%	pass
#3	178	>200%	pass
#4	183	>200%	pass
#5	183	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	· · · · · · · · · · · · · · · · · · ·
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	1-Nov-06

DT # 8

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	121	0	114	0	pass
#2	121	0	131	0	pass
#3	126	0	116	0	pass
#4	121	0	114	0	pass
#5	133	0	114	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	181	>200%	pass
#2	182	>200%	pass
#3	186	>200%	pass
#4	184	>200%	pass
#5	183	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	1-Nov-06	

TEST LOCATION: ______ Seam 60\61 (floor) COMMENTS: ______ DT # 9

TENSOMETER PEEL	lbs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1	118	0	134	0	pass
#2	119	0	126	0	pass
#3	127	0	136	0	pass
#4	11	0	130	0	pass
#5	130	0	132	0	pass

TENSOMETER			· · · · · · · · · · · · · · · · · · ·
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	174	>200%	pass
#2	174	>200%	pass
#3	173	>200%	pass
#4	173	>200%	pass
#5	174	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	1-Nov-06	
•	Imperial Metals			

TEST LOCATION: _____ seam 61\62 (anchor trench) COMMENTS: _____

DT #10

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	126	0	128	0	pass
#2	129	0	140	0	pass
#3	139	0	123	0	pass
#4	141	0	111	0	pass
#5	128	0	139	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	173	>200%	pass
#2	178	>200%	pass
#3	179	>200%	pass
#4	177	>200%	pass
#5	179	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil HDPE
OWNER:	Imperial Metals	DATE:	1-Nov-06

TEST LOCATION: ______ seam 62\63 (floor) COMMENTS: _____ DT # 11

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	132	0	126	0	pass
#2	122	0	126	0	pass
#3	114	0	129	0	pass
#4	128	0	133	0	pass
#5	124	0	125	0	pass

TENSOMETER			<u></u>
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	179	>200%	pass
#2	179	>200%	pass
#3	179	>200%	pass
#4	179	>200%	pass
#5	181	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	1-Nov-06	

TEST LOCATION: _____ seam 63\64 (cut off) COMMENTS:

DT # 12

TENSOMETER PEEL	lbs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1	146	0	130	0	pass
#2	125	0	138	0	pass
#3	117	0	138	. 0	pass
#4	133	0	131	0	pass
#5	140	0	140	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	178	>200%	pass
#2	177	>200%	pass
#3	182	>200%	pass
#4	180	>200%	pass
#5	184	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME: _	Mount Polley Leach Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil HDPE	
OWNER:	Imperial Metals	DATE:	13-Nov-06	

TEST LOCATION: ______ seam 72\73 (cut-off) COMMENTS: ______

DT # 13

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	135	0	136	0	pass
#2	135	0	141	0	pass
#3	136	0	109	0	pass
#4	134	0	139	0	pass
#5	132	0	137	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	168	>200%	pass
#2	170	>200%	pass
#3	167	>200%	pass
#4	176	>200%	pass
#5	169	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Leach Pad	_ENGINEER:		_
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	_
CONTRACTOR:	· · · · · · · · · · · · · · · · · · ·	MATERIAL:	60 mil HDPE	_
OWNER:	Imperial Metals	DATE:	13-Nov-06	
				-

TEST LOCATION: ______ seam 73\74 (cut-off) COMMENTS: ______

TENSOMETER % % PEEL lbs/in SEPARATION lbs/in SEPARATION COMMENTS #1 128 0 107 0 pass #2 126 0 120 0 pass #3 126 0 117 0 pass #4 127 0 120 0 pass #5 125 0 0 114 pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	168	>200%	pass
#2	162	>200%	pass
#3	169	>200%	pass
#4	159	>200%	pass
#5	166	>200%	pass

QC Technician

QA/QC Approval _____

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DT # 14



REPAIR LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN	Gary Watkins	
CONTRACTOR:		MATERIAL	60 mil HDPE	
OWNER:	Imperial Metals			

Repair	Repair	Repair	Repair	Repair	Pick	Vac	Test	Tested	Repair	Comments
#	Туре	Size	Date	Tech.	Test	Test	Date	Ву	Location	
1	patch	1' round	30-Oct-06	WН		١	2-Nov-06	GW	seam 38\39	no leaks
2	patch	1' round	30-Oct-06	WН		١	2-Nov-06	GW	seam 37\38	no leaks
3	patch	1' round	30-Oct-06	WН		١	2-Nov-06	GW	seam 36\37	no leaks
4	patch	1' round	1-Nov-06	WН		١	2-Nov-06	GW	tie in 6	no leaks
5	bead	5'	1-Nov-06	WН		١	2-Nov-06	GW	tie in 6	no leaks
6	patch	1' round	1-Nov-06	WH		١	2-Nov-06	GW	tie in 6	no leaks
7	patch	2' round	1-Nov-06	WН		١	2-Nov-06	GW	seam 56\57	no leaks
8	patch	2' round	1-Nov-06	WН		١	2-Nov-06	GW	seam 57\58	no leaks
9	patch	2' round	1-Nov-06	WН		١	2-Nov-06	GW	seam 57\58	no leaks
10	patch	1' round	1-Nov-06	wн		١	2-Nov-06	GW	panel 58	no leaks
11	patch	1' x 3'	1-Nov-06	wн		١	2 - Nov-06	GW	seam 58\59	no leaks
12	patch	1' x 3'	1-Nov-06	WН		١	2-Nov-06	GW	seam 60\61	no leaks
13	patch	1' x 3'	1-Nov-06	wн		١	2-Nov-06	GW	seam 62\63	no leaks
14	patch	1' round	1-Nov-06	WН		١	2-Nov-06	GW	seam 64\65	no leaks
15	patch	1' round	1-Nov-06	WН		١	2-Nov-06	GW	seam 64\65	no leaks
16	patch	1' round	1-Nov-06	wн		١	2-Nov-06	GW	seam 64\65	no leaks
17	patch	1' round	1-Nov-06	WH		١	2-Nov-06	GW	seam 64\65	no leaks
18	patch	1' x 2'	12 - Nov-06	GW	1		12-Nov-06	GW	tie in 6	no leaks

QC Technician



REPAIR LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN	Gary Watkins	
CONTRACTOR:		MATERIAL	60 mil HDPE	
OWNER:	Imperial Metals			

Repair	Repair	Repair	Repair	Repair	Pick	Vac	Test	Tested	Repair	Comments
#	Туре	Size	Date	Tech.	Test	Test	Date	Ву	Location	
19	patch	1' round	12-Nov-06	GW	١		12-Nov-06	GW	tie in 6	no leaks
20	patch	1' round	12-Nov-06	GW	N		12-Nov-06	GW	tie in 4	no leaks
21	patch	1' round	14-Nov-06	GW	١		14-Nov-06	GW	seam 34\37	no leaks
22	patch	1' round	14-Nov-06	GW	١		14-Nov-06	GW	seam 32\33	no leaks
23	patch	1' round	14-Nov-06	GW	١		14-Nov-06	GW	seam 32\33	no leaks
24	patch	1' round	14-Nov-06	GW	١.		14-Nov-06	GW	seam 21∖22	no leaks
25	patch	1' round	14-Nov-06	GW	١		14-Nov-06	GW	seam 21\22	no leaks
26	patch	2' round	24-Oct-06	GW		١	10-Nov-06	GW	seam 19\20	no leaks
27	patch	1' x 3'	24-Oct-06	GW		١	10-Nov-06	GW	seam 19\20	no leaks
28	patch	1' round	24-Oct-06	GW		١	10-Nov-06	GW	seam 18\19	no leaks
29	patch	1' round	24-Oct-06	GW		١	10-Nov-06	GW	panel 18	no leaks
30	bead	3'	24-Oct-06	GW		١	10-Nov-06	GW	panel18	no leaks
31	patch	2' round	24-Oct-06	GW		١	10-Nov-06	GW	seam 17\18	no leaks
32	bead	4'	24-Oct-06	GW		١	10-Nov-06	GW	seam 17\18	no leaks
33	patch	1' x 4'	24-Oct-06	GW		١	10-Nov-06	GW	seam 17\18	no leaks
34	patch	1' round	24-Oct-06	GW		١	10-Nov-06	GW	panel 16	no leaks
35	bead	3'	24-Oct-06	GW		١	10-Nov-06	GW	panel16	no leaks
36	patch	2' round	24-Oct-06	GW		١	10-Nov-06	GW	tie in 3	no leaks

QC Technician

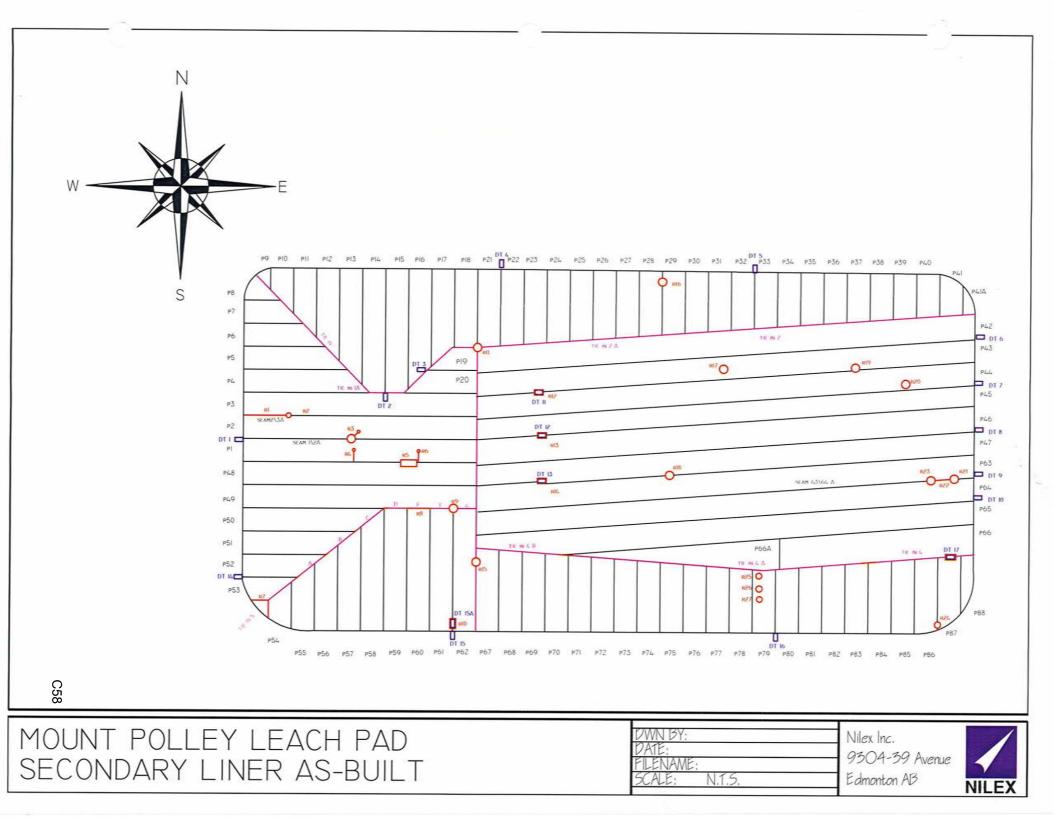


REPAIR LOG

PROJECT NAME:	Mount Polley Leach Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN	Gary Watkins
CONTRACTOR:		MATERIAL	60 mil HDPE
OWNER:	Imperial Metals		

Repair	Repair	Repair	Repair	Repair	Pick	Vac	Test	Tested	Repair	Comments
#	Туре	Size	Date	Tech.	Test	Test	Date	Ву	Location	
37	patch	1' round	10-Nov-06	GW		١	14-Nov-06	GW	seam 15\16	no leaks
38	patch	1' round	14-Nov-06	GW	١		14 - Nov-06	GW	seam 4\5	no leaks
39	patch	4' round	11-Nov-06	GW	١		14-Nov-06	GW	pipe boot	no leaks
40	patch	1' round	11-Nov-06	GW	١		14-Nov-06	GW	panel 11	no leaks
,										
				-						
				:						0 0

QC Technician





EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		_
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	_
CONTRACTOR:		MATERIAL:	60 mil smooth	_
OWNER:	Imperial Metals	DATE:	11-Oct-06	_

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
1	8:00	WH	PW 3	238	7

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	141	0	pass
#2	118	0	pass
#3	110	0	pass
#4	118	0	pass
#5	117	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	158	>200%	pass
#2	167	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil smooth
OWNER:	Imperial Metals	DATE:	13-Oct-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
2	8:15	WH	PW 3	238	7

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	131	0	pass
#2	141	0	pass
#3	148	0	pass
#4	139	0	pass
#5	136	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	189	>200%	pass
#2	177	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	14-Oct-06	

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
3	8:15	WН	PW 3	240	8

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	109	0	pass
#2	119	0	pass
#3	135	0	pass
#4	130	Û	pass
#5	126	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	178	>200%	pass
#2	178	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil smooth
OWNER:	Imperial Metals	DATE:	17-Oct-06

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
4	9;00	WH	PW 3	240	10

TENSOMETER	-		
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	146	0	pass
#2	117	0	pass
#3	120	0	pass
#4	118	0	pass
#5	129	O	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	171	>200%	pass
#2	159	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		_
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	_
CONTRACTOR:		MATERIAL:	60 mil smooth	_
OWNER:	Imperial Metals	DATE:	20-Oct-06	_

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
5	7:45	WH	PW 3	240	10

TENSOMETER			
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	99	0	pass
#2	109	0	pass
#3	120	0	pass
#4		0	pass
#5	99	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	153	>200%	pass
#2	157	>200%	pass

QC Technician



EXTRUSION WELDING QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		_
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	_
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	20-Oct-06	

SAMPLE			MACHINE	MACHINE	PREHEAT
NUMBER	TIME	TECH.	NUMBER	TEMPERATURE	TEMP.
6	1:20	WH	Dohle 1	240	255

TENSOMETER	. –		
PEEL	lbs/in	% SEPARATION	COMMENTS
#1	90	0	pass
#2	90	0	pass
#3	97	0	pass
#4	98	0	pass
#5	99	0	pass

TENSOMETER			
SHEAR	Ibs/in	% ELONGATION	COMMENTS
#1	157	>200%	pass
#2	157	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:	· · · · · · · · · · · · · · · · · · ·	MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	9-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
1	2:30	DM	c 1	365	9

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	120	0	131	0	pass
#2	131	0	129	0	pass
#3	128	0	125	0	pass
#4	119	0	116	0	pass
#5	117	0	124	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	167	>200%	pass
#2	165	>200%	pass

QC Technician _____

QA/QC Approval

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WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	10-Oct-06	

SAMPLE NUMBER	TIME	ТЕСН.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
2	8:00	DM	nsc 7	385	8.5

TENSOMETER		%	·····	%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	120	0	139	0	pass
#2	125	0	117	0	pass
#3	146	0	139	0	pass
#4	131	0	131	0	pass
#5	138	0	120	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	178	>200%	pass
#2	166	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	10-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
3	12:45	DM	nsc 7	385	8.5

TENSOMETER		%		%	······
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	144	0	149	0	pass
#2	142	0	149	0	pass
#3	105	0	122	0	pass
#4	146	0	120	0	pass
#5	105	0	110	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	156	>200%	pass
#2	156	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	. <u>.</u>	
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	12-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
4	8:00	DM	C 2	365	8

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	137	0	135	0	pass
#2	123	0	134	0	pass
#3	133	0	136	0	pass
#4	126	0	129	0	pass
#5	141	0	152	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	172	>200%	pass
#2	172	>200%	pass

QC Technician

QA/QC Approval _____

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WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	
PROJECT No.:	62479		Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil smooth
OWNER:	Imperial Metals	DATE:	12-Oct-06

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
5	8:15	WH	C 1	365	9

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	132	0	1 4 4	0	pass
#2	129	0	136	0	pass
#3	133	0	123	0	pass
#4	128	0	123	0	pass
#5	135	0	129	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	156	>200%	pass
#2	157	>200%	pass

QC Technician

QA/QC Approval _____

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WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:	·····	MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	12-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
6	12:45	DM	C 2	365	8.5

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	111	0	123	0	pass
#2	119	0	119	0	pass
#3	131	0	15	0	pass
#4	112	0	122	0	pass
#5	133	0	131	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	140	>200%	pass
#2	148	>200%	pass

QC Technician

QA/QC Approval _____

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WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	12-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
7	1:00	WН	nsc 7	385	8

TENSOMETER PEEL	lbs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1		0			
#1	141	U .	137	0	pass
#2	129	0	125	0	pass
#3	138	0	129	0	pass
#4	148	0	147	0	pass
#5	133	0	127	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	144	>200%	pass
#2	146	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:			60 mil smooth	
OWNER:	Imperial Metals	DATE:	13-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
8	8:00	DM	c 1	365	8

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	132	0	136	0	pass
#2	134	0	124	0	pass
#3	150	0	145	0	pass
#4	149	0	133	0	pass
#5	144	0	145	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	173	>200%	pass
#2	173	>200%	pass

QC Technician

QA/QC Approval _____

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WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	13-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
9	12:45	DM	c 1	365	9

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	134	0	136	0	pass
#2	133	0	116	0	pass
#3	127	0	116	0	pass
#4	122	0	127	0	pass
#5	131	0	133	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	173	>200%	pass
#2	172	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	13-Oct-06	

SAMPLE NUMBER	ТІМЕ	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
10	12:45	GW	nsc 7	385	8

TENSOMETER		%		%	· · · · · · · · · · · · · · · · · · ·
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	122	0	120	0	pass
#2	120	0	130	0	pass
#3	136	0	128	0	pass
#4	135	0	132	0	pass
#5	125	0	129	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	171	>200%	pass
#2	167	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	14-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
11	7:45	DM	c 1	365	8.6

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	165	0	142	0	pass
#2	160	0	127	0	pass
#3	123	0	154	0	pass
#4	149	0	128	0	pass
#5	126	0	143	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	189	>200%	pass
#2	170	>200%	pass

QC Technician

QA/QC Approval

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WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	
PROJECT No.:	62479		Gary Watkins
CONTRACTOR:	<u> </u>	MATERIAL:	60 mil smooth
OWNER:	Imperial Metals	DATE:	14-Oct-06

SAMPLE			MACHINE	MACHINE	MACHINE SPEED
NUMBER	TIME	TECH.	NUMBER	TEMP	ft/min
12	8:30	DoM	c 2	365	7.5

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	128	0	119	0	pass
#2	120	0	133	0	pass
#3	127	0	133	0	pass
#4	126	0	131	0	pass
#5	144	0	136	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	177	>200%	pass
#2	169	>200%	pass

QC Technician



WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	17-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
13	7:45	DoM	nsc 7	385	8

TENSOMETER	-	%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	120	0	116	0	pass
#2	136	0	132	0	pass
#3	137	0	134	0	pass
#4	146	0	129	0	pass
#5	136	0	131	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	182	>200%	pass
#2	181	>200%	pass

QC Technician

QA/QC Approval _____

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WEDGE WELDER QUALIFICATION

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479		Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	17-Oct-06	

SAMPLE NUMBER	TIME	TECH.	MACHINE NUMBER	MACHINE TEMP	MACHINE SPEED ft/min
14	8:00	DM	c 1	365	8.3

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	134	0	122	0	pass
#2	147	0	137	0	pass
#3	141	0	131	0	pass
#4	127	0	119	0	pass
#5	124	0	128	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	170	>200%	pass
#2	170	>200%	pass

QC Technician

QA/QC Approval _____

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PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:	• ••••••••••••••••••••••••••••••••••••	MATERIAL:	6o mil smooth	
OWNER:	Imperial Metals			

Panel No.	Roll No.	Deployment	Panel Di	mentions	Square Feet
		Date	Length (ft.)	Width (ft.)	
1	102126040	9-Oct-06	225	22	4950
2	102126049	9-Oct-06	225	22	4950
3	102126049	9-Oct-06	225	22	4950
4	102126040	9-Oct-06	115	22	2530
5	102126040	10-Oct-06	98	22	2156
6	101120134	10-Oct-06	77	22	1694
7	101120134	10-Oct-06	52	22	1144
8	101120134	10-Oct-06	15	10	15(
9	101120139	10-Oct-06	10	10	100
10	101120139	10-Oct-06	28	22	616
11	101120139	10-Oct-06	50	22	1100
12	101120139	10-Oct-06	68	22	1496
13	101120139	10-Oct-06	83	22	1820
14	101120139	10-Oct-06	93	22	2040
15	101120139	10-Oct-06	93	22	2040
16	101120134	10-Oct-06	76	22	1672
17	101120134	10-Oct-06	60	22	1320
				TOTAL	3474

QC Technician



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	6o mil smooth	
OWNER:	Imperial Metals			

Square Fee	mentions	Panel Di	Deployment	Roll No.	Panel No.
	Width (ft.)	Length (ft.)	Date		
1	22	60	10-Oct-06	101120134	18
	22	45	10-Oct-06	101120134	19
1	22	70	10-Oct-06	101120134	20
1	22	75	10-Oct-06	101120132	21
1	22	72	10-Oct-06	101120132	22
1	22	70	10-Oct-06	101120132	23
1	22	69	10-Oct-06	101120132	24
1	22	67	12-Oct-06	101120149	25
1	22	65	12-Oct-06	101120149	26
1	22	63	12-Oct-06	101120149	27
1	22	62	12-Oct-06	101120149	28
1	22	60	12-Oct-06	101120149	29
1	22	58	12-Oct-06	101120149	30
1	22	57	12-Oct-06	101120149	31
1	22	55	12-Oct-06	101120149	32
1	22	53	12-Oct-06	102126038	33
1	22	51	12-Oct-06	102126038	34
AL 23	TOTAL				

QC Technician



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:			60 mil smooth	
OWNER:	Imperial Metals			

Square Feet	mentions	Panel Di	Deployment	Roll No.	Panel No.
	Width (ft.)	Length (ft.)	Date		
110	22	50	12-Oct-06	102126038	35
105	22	48	12-Oct-06	102126038	36
101	22	46	12-Oct-06	102126038	37
96	22	44	12-Oct-06	102126038	38
94	22	43	12-Oct-06	102126038	39
90	22	41	12-Oct-06	102126038	40
90	22	41	12-Oct-06	102126038	41
22	11	20	12-Oct-06	102126038	41A
1045	22	475 22	12-Oct-06 12-Oct-06	101120150 101120147	42
1045	22	475			43
1045	22	475	12-Oct-06	101120141	44
1045	22	475	12-Oct-06	102126037	45
1045	22	475	12-Oct-06	101120137	46
1045	22	475	12-Oct-06	101120138	47
495	22	225	13-Oct-06	101120136	48
495	22	225	13-Oct-06	101120136	49
495	22	225	13-Oct-06	102126035	50
8465	TOTAL				

QC Technician



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals			

Square Feet	mentions	Deployment Panel Dimention		Roll No.	Panel No.
	Width (ft.)	Length (ft.)	Date		
233	22	106	13-Oct-06	101120136	51
17	22	78	13-Oct-06	102126035	52
88	22	40	13-Oct-06	102126035	53
68	22	31	13-Oct-06	102126034	54
12	22	55	13-Oct-06	102126034	55
158	22	72	13-Oct-06	102126034	56
191	22	87	13-Oct-06	102126034	57
231	22	105	13-Oct-06	102126034	58
23	22		13-Oct-06	102126034 102126034	59
23	22		13-Oct-06		60
23	22	105	13-Oct-06	102126035	61
23	22	105	13-Oct-06	102126035	62
104!	22	475	14-Oct-06	101120135	63
104	22	475	14-Oct-06	101120148	64
104	22	475	14-Oct-06	102126036	65
40	22	185	14-Oct-06	102126042	66
25	17	149	17-Oct-06	102126035	66A
598	TOTAL				

QC Technician



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:			60 mil smooth	
OWNER:	Imperial Metals			

Square Feet	mentions	Deployment Panel Dimentions		Roll No.	Panel No.
	Width (ft.)	Length (ft.)	Date		
173	22	79	17-Oct-06	102126042	67
169	22	77	17-Oct-06	102126042	68
165	22	75	17-Oct-06	102126042	69
162	22	74	17-Oct-06	102126042	70
158	22	72	17-Oct-06	101120144	71
154	22	70	17-Oct-06	101120144 101120144	72 73
151	22	69	17-Oct-06		
147	22	67	17-Oct-06	101120144	74
143	22	65 22	17-Oct-06 17-Oct-06	101120144 101120144	75
140	22	64			76
136	22	62	17-Oct-06	101120144	77
134	22	61	17-Oct-06	101120144	78
129	22	59	17-Oct-06	102126039	79
134	22	61	17-Oct-06	102126039	80
134	22	61	17-Oct-06	102126039	81
134	61 22		17-Oct-06	102126039	82
134	22	61	17-Oct-06	102126039	83
2503	TOTAL				

QC Technician



PANEL PLACEMENT LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	6o mil smooth	
OWNER:	Imperial Metals			

Panel No.	Roll No.	Deployment	Panel Di	imentions	Square Feet
		Date	Length (ft.)	Width (ft.)	
84	102126039	17-Oct-06	61	22	1342
85	102126039	17-Oct-06	61	22	1342
86	102126039	17-Oct-06	61	22	1342
87	102126039	17-Oct-06	61	22	1342
88	101120147	17-Oct-06	61	22	1342
					0
	:				0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
				TOTAL	6710

QC Technician

QA/QC Approval

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GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil smooth
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pressure		Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
1\2	9-Oct-06	11-Oct-06	DM	concord 1	56	56	9:23	9:28	pass
1\2A	9-Oct-06	11-Oct-06	DM	concord 1	50	49	9:23	9:28	pass
2\3	9-Oct-06	11-Oct-06	DM	concord 1	53	53	9:34	9:39	pass
2\3A	9-Oct-06	11-Oct-06	DM	concord 1					seam singled and extruded
3\4	9-Oct-06	11-Oct-06	DM	concord 1	54	54	10:53	10:58	pass
4\5	11-Oct-06	11-Oct-06	DM	national seal 7	40	39	10:53	10:58	pass
5\6	11-Oct-06	11-Oct-06	DM	national seal 7	38	36	10:53	10:58	pass
6\7	11-Oct-06	11-Oct-06	DM	national seal 7	39	37	10:53	10:58	pass
7\8	11-Oct-06	11-Oct-06	DM	national seal 7	35	35	11:03	11:08	pass
9\10	11-Oct-06	11-Oct-06	DM	national seal 7	35	35	11:53	11:58	pass
10\11	11-Oct-06	11-Oct-06	DM	national seal 7	35	33	11:40	11:45	pass
11\12	11-Oct-06	11-Oct-06	DM	national seal 7	39	39	11:40	11:45	pass
12\13	11-Oct-06	11-Oct-06	DM	national seal 7	40	40	11:40	11:45	pass
13\14	11-Oct-06	11-Oct-06	DM	national seal 7	42	42	11:40	11:45	pass
14\15	11-Oct-06	11-Oct-06	DM	national seal 7	44	41	11:53	11:58	pass
15\16	11-Oct-06	11-Oct-06	DM	national seal 7	40	39	11:53	11:58	pass
16\17	11-Oct-06	11-Oct-06	DM	national seal 7	39	39	11:53	11:58	pass
17\18	11-Oct-06	11-Oct-06	DM	national seal 7	42	42	11:57	12:02	pass

QC Technician



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil smooth
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pressure		Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
19\20	11-Oct-06	11-Oct-06	DM	national seal 7	42	40	1:15	1:20	pass
3\20	11-Oct-06	11-Oct-06	DM	national seal 7	42	39	12:50	12:55	pass
18\21	11-Oct-06	11-Oct-06	DM	national seal 7	36	36	1:43	1:48	pass
21\22	11-Oct-06	11-Oct-06	DM	national seal 7	36	35	1:43	1:48	pass
22\23	11-Oct-06	11-Oct-06	DM	national seal 7	39	39	1:43	1: 48	pass
23\24	11-Oct-06	11-Oct-06	DM	national seal 7	40	38	1:43	1:48	pass
tie in 1	11-Oct-06	11-Oct-06	DM	national seal 7	42	39	11:10	11:15	pass
tie in 1A	11-Oct-06	11-Oct-06	DM	national seal 7	38	36	12:59	1:04	pass
24\25	12-Oct-06	13-Oct-06	DM	concord 2	51	51	11:39	11:44	pass
25\26	12-Oct-06	13-Oct-06	DM	concord 2	50	50	11:39	11:44	pass
26\27	12-Oct-06	13-Oct-06	DM	concord 2	55	52	11:39	11:44	pass
27\28	12-Oct-06	13-Oct-06	DM	concord 2	50	50	11:48	11:53	pass
28\29	12-Oct-06	13-Oct-06	DM	concord 2	52	51	11:57	12:02	pass
28\29A	12-Oct-06	13-Oct-06	DM	concord 2	49	48	11:57	12:02	pass
29\30	12-Oct-06	13-Oct-06	DM	concord 2	45	45	11:48	11:53	pass
30\31	12-Oct-06	13-Oct-06	WH	concord 1	54	54	11:48	11:53	pass
31\32	12-Oct-06	13-Oct-06	DM	concord 2	46	45	12:42	12:47	pass
32\33	12-Oct-06	13-Oct-06	WH	concord 1	55	54	12:42	12:47	pass

QC Technician



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil smooth
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	sure	Tii	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
33\34	12-Oct-06	13-Oct-06	DM	concord 2	57	55	12:42	12:47	pass
34\35	12-Oct-06	13-Oct-06	WH	concord 1	48	48	8:50	8;55	pass
35\36	12-Oct-06	13-Oct-06	DM	concord 2	42	42	12:57	1:02	pass
36\37	12-Oct-06	13-Oct-06	WH	concord 1	59	59	12:57	1:02	pass
37\38	12-Oct-06	13-Oct-06	DM	concord 2	50	49	12:57	1:02	pass
38\39	12-Oct-06	13-Oct-06	WH	concord 1	48	48	1:07	1:12	pass
39\40	12-Oct-06	13-Oct-06	DM	concord 2	55	53	1:07	1:12	pass
40\41	12-Oct-06	13-Oct-06	WH	concord 1	43	42	1:07	1:12	pass
41\41A	12-Oct-06	13-Oct-06	DM	concord 2	38	38	1:20	1:25	pass
tie in 2	12-Oct-06	13-Oct-06	WН	nsc 7	49	47	1:20	1:25	pass
tie in 2A	12-Oct-06	20-Oct-06	WН	nsc 7	45	44	1:27	1:32	pass
42\43	12-Oct-06	14-Oct-06	DM	concord 2	46	44	9:33	9:38	pass
43\44	12-Oct-06	14-Oct-06	WH	nsc 7	40	40	9:33	9:38	pass
44\45	12-Oct-06	14-Oct-06	DM	concord 2	48	48	9:37	9:42	pass
45\46	12-Oct-06	14-Oct-06	DM	concord 2	54	54	10:43	10:48	pass
46\47	12-Oct-06	14-Oct-06	DM	concord 2	55	55	10:43	10:48	pass
1\48	13-Oct-06	14-Oct-06	DM	concord 1	58	58	11:17	11:22	pass
48\49	13-Oct-06	14-Oct-06	DM	concord 1	47	44	11:17	11:22	pass

QC Technician



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil smooth
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pressure		Ti	ne	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
49\50	13-Oct-06	14-Oct-06	DM	concord 1	53	52	11:17	11:22	pass
50\51	13-Oct-06	14-Oct-06	DM	concord 1	48	48	11:26	11:31	pass
51\52	13-Oct-06	14-Oct-06	DM	concord 1	48	48	11:26	11:31	pass
52\53	13-Oct-06	14-Oct-06	DM	concord 1	53	52	11:26	11:31	pass
54\55	13-Oct-06	14-Oct-06	DM	concord 1	54	54	11:40	11:45	pass
55\56	13-Oct-06	14-Oct-06	DM	concord 1	49	49	11:40	11:45	pass
56\57	13-Oct-06	14-Oct-06	DM	concord 1	45	45	11:40	11:45	pass
57\58	13-Oct-06	14-Oct-06	DM	concord 1	43	40	11:51	11:56	pass
58\59	13-Oct-06	14-Oct-06	DM	concord 1	55	54	11:51	11:56	pass
59\60	13-Oct-06	14-Oct-06	DM	concord 1	46	45	11:51	11:56	pass
60\61	13-Oct-06	14-Oct-06	DM	concord 1	53	52	12:01	12:06	pass
61\62	13-Oct-06	20-Oct-06	DM	concord 1	48	48	4:39	4:44	pass
tie in 3	17-Oct-06	17-Oct-06	DoM	nsc 7	43	43	5:00	5:05	pass
67\68	17-Oct-06	17-Oct-06	DoM	nsc 7	52	52	5:00	5:05	pass
68\69	17-Oct-06	17-Oct-06	DM	concord 1	43	41	4:53	4:58	pass
69\70	17-Oct-06	17-Oct-06	DoM	nsc 7	52	52	4:53	4:58	pass
70\71	17-Oct-06	17-Oct-06	DM	concord 1	45	45	4:53	4:58	pass

QC Technician

QA/QC Approval



GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil smooth
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	sure	Ti	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
71\72	17-Oct-06	17-Oct-06	DoM	nsc 7	48	44	4:38	4:43	pass
72\73	17-Oct-06	17-Oct-06	DM	concord 1	42	42	4:38	4:43	pass
73\74	17-Oct-06	17-Oct-06	DoM	nsc 7	48	48	4:38	4:43	pass
74\75	17-Oct-06	17-Oct-06	DM	concord 1	42	39	4:27	4:32	pass
75\76	17-Oct-06	17-Oct-06	DoM	nsc 7	52	52	4:27	4:32	pass
76\77	17-Oct-06	17-Oct-06	DM	concord 1	44	42	4:27	4:32	pass
77\78	17-Oct-06	17-Oct-06	DoM	nsc 7	60	60	4:18	4:23	pass
78\79	17-Oct-06	17-Oct-06	DM	concord 1	50	49	4:18	4:23	pass
79\80	17-Oct-06	17-Oct-06	DoM	nsc 7	49	48	4:18	4:23	pass
80\81	17-Oct-06	17-Oct-06	DM	concord 1	44	44	4:08	4:13	pass
81\82	17-Oct-06	17-Oct-06	DoM	nsc 7	60	60	4:08	4:13	pass
82\83	17-Oct-06	17-Oct-06	DM	concord 1	49	47	4:08	4:13	pass
83\84	17-Oct-06	17-Oct-06	DoM	nsc 7	48	48	4:00	4:05	pass
84\85	17-Oct-06	17-Oct-06	DM	concord 1	48	46	4:00	4:05	pass
85\86	17-Oct-06	17-Oct-06	DoM	nsc 7	52	50	4:00	4:05	pass
86\87	17-Oct-06	17-Oct-06	DM	concord 1	48	46	8:07	8:12	pass
87\88	17-Oct-06	17-Oct-06	DM	concord 1	42	42	3:51	3:56	pass
66\65	17-Oct-06	20-Oct-06	DM	concord 1	50	50	8:18	8:23	pass

QC Technician

QA/QC Approval

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GEOMEMBRANE SEAM PRESSURE TESTING LOG

PROJECT NAME: _	Mount Polley Heap Pad	ENGINEER:	
PROJECT No.:	62479	QC TECHNICIAN:	Gary Watkins
CONTRACTOR:		MATERIAL:	60 mil smooth
OWNER:	Imperial Metals		

Seam	Date	Date	Operator	Machine	Pres	sure	Tiı	me	Comments
No.	Welded	Tested		Name & Unit No.	Start	Finish	Start	Finish	
64\65	17-Oct-06	20-Oct-06	DoM	concord 2	48	48	9:24	9:29	pass
63\64	17-Oct-06	20-Oct-06	DM	concord 1	54	53	8:25	8:30	pass
63\64 A	17-Oct-06	20-Oct-06	DM	concord 1	50	49	8:33	8:38	pass
tie in 3	17-Oct-06	17-Oct-06	DoM	nsc 7	45	43	1:15	1:20	pass
tie in 3A	17-Oct-06	17-Oct-06	DoM	nsc 7	46	46	1:15	1:20	pass
tie in 4	17-Oct-06	20-Oct-06	DoM	nsc 7	58	54	8:36	8:41	pass
tie in 4A	17-Oct-06	19-Oct-06	DoM	nsc 7	42	41	1:42	1:47	pass
tie in 48	17-Oct-06	19-Oct-06	DoM	nsc 7	43	42	1:35	1:40	pass
tie in 5	13-Oct-06	20-Oct-06	GW	nsc 7	50	48	9:36	9:41	pass
Α	13-Oct-06	20-Oct-06	GW	nsc 7	45	44	9:36	9:41	pass
В	13-Oct-06	20-Oct-06	GW	nsc 7	45	45	9:39	9:44	pass
С	13-Oct-06	20-Oct-06	GW	nsc 7	40	38	9:45	9:50	pass
D	13-Oct-06	20-Oct-06	GW	nsc 7	40	40	10:22	1:27	pass
E	13-Oct-06	20-Oct-06	GW	nsc 7					seam failed and extruded
F	13-Oct-06	20-Oct-06	GW	nsc 7	40	40	10:15	10:20	pass
G	13-Oct-06	20-Oct-06	GW	nsc 7	51	49	10:36	10:41	pass
66\66A	13-Oct-06	20-Oct-06	DM	concord 1	48	47	8:16	8:21	pass

QC Technician

QA/QC Approval



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	11-Oct-06	
				_

TEST LOCATION: ______seam 1\2 (anchor trench) COMMENTS: _____

DT # 1

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	123	0	118	0	pass
#2	110	0	136	0	pass
#3	136	0	124	0	pass
#4	136	0	134	0	pass
#5	143	0	102	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	174	>200%	pass
#2	183	>200%	pass
#3	178	>200%	pass
#4	172	>200%	pass
#5	182	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:	· · · · · · · · · · · · · · · · · · ·	MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	11-Oct-06	

TEST LOCATION: _____seam 14\15 (floor cut-off) COMMENTS: _____

DT # 2

TENSOMETER PEEL	lbs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1	106	0	117	0	pass
#2	106	0	117	0	pass
#3	110	0	120	0	pass
#4	107	0	122	0	pass
#5	134	0	118	0	pass

TENSOMETER			
SHEAR	ibs/in	% ELONGATION	COMMENTS
#1	168	>200%	pass
#2	168	>200%	pass
#3	168	>200%	pass
#4	159	>200%	pass
#5	164	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:	·····	MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	11-Oct-06	

DT # 3

TENSOMETER PEEL	lbs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1	104	0	113	0	pass
#2	111	0	117	0	pass
#3	124	0	111	0	pass
#4	119	0	109	0	pass
#5	110	0	110	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	169	>200%	pass
#2	167	>200%	pass
#3	181	>200%	pass
#4	173	>200%	pass
#5	174	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

Mount Polley Heap Pad	ENGINEER:		
62479	QC TECHNICIAN:	Gary Watkins	
	MATERIAL:	60 mil smooth	
Imperial Metals	DATE:	11-Oct-06	
	62479	62479 QC TECHNICIAN:	62479 QC TECHNICIAN: Gary Watkins MATERIAL: 60 mil smooth

DT # 4

TENSOMETER PEEL	lbs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1	106	0	117	0	pass
#2	114	0	116	0	pass
#3	115	0	119	0	pass
#4	131	0	107	0	pass
#5	123	0	110	0	pass

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1		>200%	pass
#2		>200%	pass
#3		>200%	pass
#4		>200%	pass
#5		>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME: _	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	15-Oct-06	

DT # 5

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	142	0	109	0	pass
#2	137	0	139	0	pass
#3	127	0	125	0	pass
#4	125	0	131	0	pass
#5	125	0	121	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	180	>200%	pass
#2	173	>200%	pass
#3	185	>200%	pass
#4	195	>200%	pass
#5	190	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	15-Oct-06	

DT # 6

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	130	0	126	0	pass
<u></u> #2	109	0	115	0	pass
#3	120	0	113	0	pass
#4	121	0	112	0	pass
#5	131	0	120	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	194	>200%	pass
#2	173	>200%	pass
#3	185	>200%	pass
#4	195	>200%	pass
#5	190	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	15-Oct-06	

DT # 7

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	132	0	122	0	pass
#2	142	0	140	0	pass
#3	117	0	101	0	pass
#4	140	0	140	0	pass
#5	95	20	131	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	193	>200%	pass
#2	191	>200%	pass
#3	189	>200%	pass
#4	189	>200%	pass
#5	191	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	_ ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	15-Oct-06	

DT # 8

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	124	0	126	0	pass
#2	125	0	122	0	pass
#3	128	0	122	0	pass
#4	130	0	118	0	pass
#5	129	0	124	0	pass

TENSOMETER			
SHEAR	ibs/in	% ELONGATION	COMMENTS
#1	191	>200%	pass
#2	202	>200%	pass
#3	191	>200%	pass
#4	190	>200%	pass
#5	195	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	15-Oct-06	

TEST LOCATION: ______63\64 (anchor trench) COMMENTS: _____

DT # 9

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	117	0	103	0	pass
#2	146	0	112	0	pass
#3	127	0	119	0	pass
#4	135	0	109	0	pass
#5	134	0	115	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	166	>200%	pass
#2	178	>200%	pass
#3	188	>200%	pass
#4	182	>200%	pass
#5	186	>200%	pass

QC Technician

QA/QC Approval

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DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	15-Oct-06	

TEST LOCATION: ______64\65 (anchor trench) COMMENTS:

DT # 10

TENSOMETER PEEL	lbs/in	% SEPARATION	lbs/in	% SEPARATION	COMMENTS
#1	126	0	113	0	pass
#2	123	0	105	0	pass
#3	122	0	126	0	pass
#4	123	0	127	0	pass
#5	121	0	108	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	184	>200%	pass
#2	188	>200%	pass
#3	186	>200%	pass
#4	170	>200%	pass
#5	170	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	17-Oct-06	

TEST LOCATION: _____ seam 43\44 (floor) COMMENTS: _____ DT # 11

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	149	0	127	0	pass
#2	118	0	130	0	pass
#3	113	0	121	0	pass
#4	117	0	132	0	pass
#5	114	0	103	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	180	>200%	pass
#2	180	>200%	pass
#3	176	>200%	pass
#4	180	>200%	pass
#5	179	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:	· · ·	MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	17-Oct-06	

TEST LOCATION: seam 45\46 (floor) COMMENTS: DT # 12

TENSOMETER % % PEEL SEPARATION lbs/in lbs/in SEPARATION COMMENTS #1 123 0 133 0 pass #2 122 0 120 0 pass #3 125 0 115 0 pass #4 113 0 109 0 pass #5 0 0 113 109 pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	181	>200%	pass
#2	180	>200%	pass
#3	168	>200%	pass
#4	179	>200%	pass
#5	180	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		-
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	<u> </u>
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	17-Oct-06	

TEST LOCATION: _____ seam 47\63 (floor) ____ COMMENTS: _____ DT # 13

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	126	0	117	0	pass
#2	122	0	118	0	pass
#3	121	0	110	0	pass
#4	116	0	114	0	pass
#5	118	0	116	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	172	>200%	pass
#2	173	>200%	pass
#3	173	>200%	pass
#4	171	>200%	pass
#5	171	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	17-Oct-06	

TEST LOCATION: ______ seam 52\53 (anchor trench)_COMMENTS: ______

DT # 14

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	143	0	120	0	pass
#2	147	0	131	0	pass
#3	123	0	123	0	pass
#4	140	0	105	20	pass
#5	138	0	123	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	181	>200%	pass
#2	148	>200%	pass
#3	183	>200%	pass
#4	183	>200%	pass
#5	182	>200%	pass

QC Technician

QA/QC Approval



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	17-Oct-06	

TEST LOCATION: ______62 (anchor trench)__COMMENTS:

DT # 15

TENSOMETER		%	····	%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	102	100		0	fail
#2	95	100		0	fail
#3		0		0	
#4		0		0	
#5		0		0	

TENSOMETER SHEAR	lbs/in	% ELONGATION	COMMENTS
#1		>200%	
#2		>200%	
#3		>200%	
#4		>200%	
#5		>200%	

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	17-Oct-06	

TEST LOCATION: seam 61\62 (top of slope) COMMENTS: DT # 15 A

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	113	0	126	0	pass
#2	129	0	123	0	pass
#3	125	0	119	0	pass
#4	124	0	131	0	pass
#5	129	0	124	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	180	>200%	pass
#2	180	>200%	pass
#3	179	>200%	pass
#4	181	>200%	pass
#5	180	>200%	pass

QC Technician

QA/QC Approval



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	_ ENGINEER:		
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	20-Oct-06	

DT # 16

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	116	0	108	0	pass
#2	116	0	127	0	pass
#3	129	0	118	0	pass
#4	122	0	119	0	pass
#5	118	0	117	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	156	>200%	pass
#2	147	>200%	pass
#3	148	>200%	pass
#4	151	>200%	pass
#5	148	>200%	pass

QC Technician



DESTRUCTIVE SEAM SAMPLES

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	·····	
PROJECT NO:	62479	QC TECHNICIAN:	Gary Watkins	
CONTRACTOR:		MATERIAL:	60 mil smooth	
OWNER:	Imperial Metals	DATE:	20-Oct-06	

TEST LOCATION: tie in seam 4 (slope) COMMENTS: DT # 17

TENSOMETER		%		%	
PEEL	lbs/in	SEPARATION	lbs/in	SEPARATION	COMMENTS
#1	128	0	117	0	pass
#2	123	0	118	0	pass
#3	134'	0	122	0	pass
#4	125	0	121	0	pass
#5	129	0	131	0	pass

TENSOMETER			
SHEAR	lbs/in	% ELONGATION	COMMENTS
#1	162	>200%	pass
#2	161	>200%	pass
#3	169	>200%	pass
#4	168	>200%	pass
#5	161	>200%	pass

QC Technician

QA/QC Approval



REPAIR LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:		
PROJECT No.:	62479	QC TECHNICIAN	Gary Watkins	
CONTRACTOR:	·······	MATERIAL	60 smooth	
OWNER:	Imperial Metals			

Repair	Repair	Repair	Repair	Repair	Pick	Vac	Test	Tested	Repair	Comments
#	Туре	Size	Date	Tech.	Test	Test	Date	Ву	Location	
1	patch	1' x 2'	11-Oct-06	wн		١	11-Oct-06	GW	seam 1\2	no leaks
2	patch	1' round	11-Oct-06	WH		١	11-Oct-06	GW	seam 2\3	no leaks
3	bead	15'	11-Oct-06	WН		١	11-Oct-06	GW	seam 2\3A	no leaks
4	bead, patch	9', 1'round	13-Oct-06	WH		١	20-Oct-06	GW	panel 1	no leaks
5	patch	3'x 8'	13-Oct-06	WН		١	20-Oct-06	GW	panel 1	no leaks
6	bead, patch	9', 1'round	13-Oct-06	WН		١	20-Oct-06	GW	panel 1	no leaks
7	patch	8' x 10'	14-Oct-06	WН	\		20-Oct-06	GW	tie in 5	no leaks
8	bead	22'	20-Oct-06	WН		١	20-Oct-06	GW	p60-p49	no leaks
9	patch	1' round	14-Oct-06	WH		١	20-Oct-06	GW	tie in 5G	no leaks
10	patch	2' x 3'	20-Oct-06	WH	\		20-Oct-06	GŴ	seam 61\62	no leaks, DT patch
11	patch	3' x 6'	14-Oct-06	WН		١	20-Oct-06	GW	tie in 2A	no leaks
12	patch	2' x 3'	14-Oct-06	WН		١	20-Oct-06	GW	seam 43∖44	no leaks, DT patch
13	patch	2' x 3'	14-Oct-06	wн		١	20-Oct-06	GW	seam 45\46	no leaks, DT patch
14	patch	2' x 3'	14-Oct-06	WН		١	20-Oct-06	GW	seam 47∖63	no leaks, DT patch
15	patch	1' round	17-Oct-06	WН		١	20-Oct-06	GW	tie in 3	no leaks
16	patch	1' round	11-Oct-06	WH	N		20-Oct-06	GW	seam 28\29	no leaks
17	patch	1' round	20-Oct-06	WН		١	20-Oct-06	GW	panel 43	no leaks
18	patch	- 1' x 3'	17-Oct-06	WH		١	20-Oct-06	GW	seam 47\63	no leaks

QC Technician

QA/QC Approval

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REPAIR LOG

PROJECT NAME:	Mount Polley Heap Pad	ENGINEER:	<u></u>
PROJECT No.:	62479	_QC TECHNICIAN	Gary Watkins
CONTRACTOR:		MATERIAL	60 smooth

OWNER: Imperial Metals

Repair	Repair	Repair	Repair	Repair	Pick	Vac	Test	Tested	Repair	Comments
#	Туре	Size	Date	Tech.	Test	Test	Date	Ву	Location	
19	patch	1' round	14-Oct-06	WН		١	20-Oct-06	GW	seam 43\44	no leaks
20	patch	1' round	14-Oct-06	WН		١	20-Oct-06	GW	panel 44	no leaks
21	patch	1' round	17-Oct-06	WН		١	20-Oct-06	GW	seam 63\64	no leaks
22	bead	7'	17-Oct-06	WН		١	20-Oct-06	GW	seam 63\64	no leaks
<u>23</u>	patch	1' round	17-Oct-06	WН		١	20-Oct-06	GW	seam 63\64	no leaks
24	patch	1' round	20-Oct-06	WН	١		20-Oct-06	GW	seam 86\87	no leaks
25	patch	1' round	17-Oct-06	WН		١	23-Oct-06	GW	panel 79	no leaks
26	patch	1' round	17-Oct-06	WН		١	23-Oct-06	GW	panel 79	no leaks
27	patch	1' round	17-Oct-06	WН		١	23-Oct-06	GW	panel 79	no ∣eaks
28	patch	2' x 3'	20-Oct-06	WH		١	20-Oct-06	GW	tie in 4	no leaks

QC Technician

QA/QC Approval



Shipping Order - Packing List - Original - Not Negotiable

GSE Lining Technology, Inc. at HOUSTON, TEXAS Shippers No. 61773 Page 1 of 1 Received at Houston, Texas from GSE Lining Technology, Inc. the property described below, in apparent good order, except as noted (contents and condition of packages unknown), marked, consigned, and destined as indicated below, which said Carrier agrees to carry to the place of delivery at said destination. It is mutually agreed as to each Carrier of all or any said property, over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service performed hereunder shall be subject to the rates and contract agreed to in writing by GSE Lining Technology, Inc. and Carrier. GSE Lining Technology, Inc.'s obligation to pay freight charges for the shipment is conditioned on [1] the existence of a separate written contract with the carrier transporting the freight and (2) the carrier's name appearing on this Bill of Lading, and other carriers must look solely to a party other than GSE Lining Technology, Inc. for payment, Ship To: Nilex/Mount Polly Head Pad Date: 09/15/06 Nilex/Mount Polly Head Pad **Customer Pick up Roll Certifications** Final Destination Edmonton, Canada Included **Branch Plant:** 1500 621821 **Shipping Instructions:** Sales Order Contact Brad 780 463-9535 24 hrs prior to pick up 48384 so No. Kind of Package, Description of Articles, ατγ Roll # UМ Weight Line Project# 521237 Shipped **Special Marks and Exceptions** 1 102126050 12600 SF HDE060A000 60 mil Avg GSE HD 3,830.00 Freight charges are Blk, HD, Smooth, 22.5' prepaid unless marked 2 102126051 12600 SF HDE060A000 60 mil Avg GSE HD 3,820.00 collect. Blk, HD, Smooth, 22.5' 3 Check box if collect 102126052 12600 SF 60 mil Avg GSE HD HDE060A000 3,820.00 Blk, HD, Smooth, 22.5' 4 102126053 12600 SF HDE060A000 60 mil Avg GSE HD 3,815.00 Blk, HD, Smooth, 22.5' Customer P.O. Number: 5 102126054 12600 SF HDE060A000 60 mil Avg GSE HD 3,810.00 E-3800 Blk, HD, Smooth, 22.5'

iver must call (281) iver must call and a	s: 4 hrs prior) 230-6781 Idvise any d	when u lelay in t	ry and on Friday for Monday delivery. nloaded. ransit. any Freight Invoice. ORIGINAL	C111	Carrier I	,815.00 Vame: Signature: _	Truckers P.O. #
er Requirement iver must pre call 2	S: 4 hrs prior	to delive	ry and on Friday for Monday delivery.				Truckers P.O. #
uantity 151,2	200			Total Weig	ht: 48	,815.00	Truckers P.O. #
			······				Truckers P.O. #
						·	Seal #
						•	Pick Up # 13900RR
		•			•		x
			BIK, HD, Smooth, 22.5		•		
102126073	12600	SF	HDE060A000 60 mil Avg	GSE HD		3,820.00	Local Verification Signed:
102126072	12600	SF		GSE HD		3,820.00	
102126071	12600	SF	HDE060A000 60 mil Avg Blk, HD, Smooth, 22.5'	GSE HD		3,825.00	Signature of Consignor
·	. •		Blk, HD, Smooth, 22.5'				other lawing charges.
			Blk, HD, Smooth, 22.5'	· . ·		3,810.00	this shipment without payment of freight and all other lawful charges.
			Blk, HD, Smooth, 22.5'	•		3,805.00	following statement. Carrier may decline to deliver
			Blk, HD, Smooth, 22.5'				If this shipment is to be delivered to consignor, consignor shall sign the
	102126063 102126069 102126070 102126071 102126072	1021260631260010212606912600102126070126001021260711260010212607212600	10212606312600SF10212606912600SF10212607012600SF10212607112600SF10212607212600SF	Blk, HD, Smooth, 22.5' 102126063 12600 SF HDE060A000 60 mil Avg Blk, HD, Smooth, 22.5' 102126069 12600 SF HDE060A000 60 mil Avg Blk, HD, Smooth, 22.5' 102126070 12600 SF HDE060A000 60 mil Avg Blk, HD, Smooth, 22.5' 102126071 12600 SF HDE060A000 60 mil Avg Blk, HD, Smooth, 22.5' 102126071 12600 SF HDE060A000 60 mil Avg Blk, HD, Smooth, 22.5' 102126072 12600 SF HDE060A000 60 mil Avg Blk, HD, Smooth, 22.5' 102126072 12600 SF HDE060A000 60 mil Avg Blk, HD, Smooth, 22.5'	Blk, HD, Smooth, 22.5' 102126063 12600 SF HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5' 102126069 12600 SF HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5' 102126070 12600 SF HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5' 102126071 12600 SF HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5' 102126072 12600 SF HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5' 102126072 12600 SF HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5' 102126073 12600 SF HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5'	Bik; HD, Smooth, 22.5' 102126063 12600 SF HDE060A000 60 mil Avg GSE HD Bik, HD, Smooth, 22.5' 102126069 12600 SF HDE060A000 60 mil Avg GSE HD Bik, HD, Smooth, 22.5' 102126070 12600 SF HDE060A000 60 mil Avg GSE HD Bik, HD, Smooth, 22.5' 102126071 12600 SF HDE060A000 Bik, HD, Smooth, 22.5' 102126071 12600 SF HDE060A000 Bik, HD, Smooth, 22.5' 102126072 12600 SF HDE060A000 Bik, HD, Smooth, 22.5' 102126072 12600 SF HDE060A000 Bik, HD, Smooth, 22.5' 102126073 12600 SF HDE060A000 Bik, HD, Smooth, 22.5' 102126073 12600 SF HDE060A000 Bik, HD, Smooth, 22.5' 102126073 12600 SF HDE060A000	102126063 12600 SF HDE060A000 60 mil Avg GSE HD 3,805.00 102126069 12600 SF HDE060A000 60 mil Avg GSE HD 3,810.00 102126070 12600 SF HDE060A000 60 mil Avg GSE HD 3,830.00 102126070 12600 SF HDE060A000 60 mil Avg GSE HD 3,830.00 102126071 12600 SF HDE060A000 60 mil Avg GSE HD 3,825.00 102126072 12600 SF HDE060A000 60 mil Avg GSE HD 3,820.00 102126072 12600 SF HDE060A000 60 mil Avg GSE HD 3,820.00 102126073 12600 SF HDE060A000 60 mil Avg GSE HD 3,820.00 102126073 12600 SF HDE060A000 60 mil Avg GSE HD 3,820.00



Roll Test Data Report

GSE Sales Order No. Project Number Customer Name **Project Location** Product Name **Report** Date QC Nilex CPU Canada HDE060A000 9/15/2006 Ceroy P *Modified ASTM () 5199 ASTM D638, Type JV / D6693 ASTM D 1004 ASTM D 4833 ASTM D 1505 ASTM D 1603* ASTM D 5596 Average Minimum TD Strength MD Strength TU Strength MD Strength TD Elengation MD Elengation TD Elengation MD Elengation TP Teer MDTear Puncarre Corbon Black Carbon Black Thickness Thickness @ Yiels G Yiela @ Break @ Break € Yield @Yield 🖗 Read 6 Secol Vaciation Resistance Resistance Density Contest Dispersion (mils) (mils) (ppî) (ppi) (ppi) (ppi) (\mathbb{Z}_{0}) (%) (%) (%) (lbr) (Ibs) Views in Catl -(lbs) (g/cc) (%) Cai2 Roll No. every roll every 3rd every 3rd every 3rd every 3rd every 3rd every 3rd 0.947 2.58C112 0.947 2.58 0.947 2.58 0.947 2.55 0.947 2.55 0.947 2.52 0.947 2.57 0.947 2.65 0.947 2.65 0.947 2.47 0.947 2.47 0.947 2.47

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Jane aller Approved By: 🤇

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19103 Gundle Road - Houston, Texas 77073

Page: 1 of 1

Bill of Lading: 61773



Shipping Order - Packing List - Original - Not Negotiable

GSE Lining Technology, Inc.

at HOUSTON, TEXAS

Shippers No. 61819

Page 1 of 1

Received at Houston, Texas from GSE Lining Technology, Inc. the property described below, in apparent good order, except as noted (contents and condition of packages unknown), marked, consigned, and destined as indicated below, which said Carrier agrees to carry to the place of delivery at said destination. It is mutually agreed as to each Carrier of all or any said property, over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service performed hereunder shall be subject to the rates and contract agreed to in writing by GSE Lining Technology, Inc. and Carrier. GSE Lining Technology, Inc.'s obligation to pay freight charges for the shipment is conditioned on (1) the existence of a separate written contract with the carrier transporting the freight and (2) the carrier's name appearing on this Bill of Lading, and other carriers must look solely to a party other than GSE Lining Technology, Inc. for payment.

Ship To: Nilex/Mount Polly Head Pad Date: 09/18/06 Nilex/Mount Polly Head Pad **Roll Certification** Customer Pick up Included Final Destination Edmonton, Canada **Branch Plant:** 1500 621821 Shipping Instructions: Sales Order Contact Brad 780 463-9535 24 hrs prior to pick up 48384 SO No. QTY Kind of Package, Description of Articles, Rol! # UM Line Weight Project# 521237 Shipped Special Marks and Exceptions 1 101120140 12600 SF HDE060A000 60 mil Avg GSE HD 3,820.00 Freight charges are Blk, HD, Smooth, 22.5' prepaid unless marked 2 101120142 12600 SÈ HDE060A000 60 mil Avg GSE HD 3,850,00 collect. Blk, HD, Smooth, 22.5' 3 Check box if collect 101120143 12600 SF HDE060A000 60 mil Avg GSE HD 3.844.00 Blk, HD, Smooth, 22.5' 4 101120144 12600 SF HDE060A000 60 mil Ava GSE HD 3:846.00 Blk, HD, Smooth, 22.5' Customer P.O. Number: 5 101120145 12600 SF HDE060A000 60 mil Avg GSE HD 3.834.00 E-3800 Blk, HD, Smooth, 22.5' 6 12600 101120146 SF HDE060A000 60 mil Avg GSE HD 3,830.00 If this shipment is to be Blk, HD, Smooth, 22.5' delivered to consignor. consignor shall sign the 7 101120151 12600 SF HDE060A000 60 mil Avg GSE HD 3,842.00 following statement. Blk, HD, Smooth, 22.5' 8 Carrier may decline to deliver 101120152 12600 SF HDE060A000 60 mil Avg GSE HD 3,848.00 this shipment without Blk, HD, Smooth, 22.5' payment of freight and all 9 other lawful charges. 101120153 12600 SF HDE060A000 60 mil Avg GSE HD 3,840.00 Blk, HD, Smooth, 22.5' 10 102126042 12600 SF HDE060A000 60 mil Avg GSE HD 3,810.00 Blk, HD, Smooth, 22.5 Signature of Consignor 11 12600 SF 102126044 HDE060A000 60 mil Avg GSE HD 3.830.00 Blk, HD, Smooth, 22.5' Local Verification 12 102126046 12600 SF HDE060A000 60 mil Avg GSE HD 3,815.00 Signed: Blk, HD, Smooth, 22.5' Pick Up # 13901RR Seal # Truckers P.O. # 151.200 **Total Quantity Total Weight:** 46,009.00 Driver Requirements: 1) Driver must pre call 24 hrs prior to delivery and on Friday for Monday delivery. Carrier Name: 2) Driver must call (281) 230-6781 when unloaded. 3) Driver must call and advise any delay in transit. Carrier Signature: C113 4) A copy of this bill of lading must accompany Freight Invoice. Date: GSE 7.5.5-007 ORIGINAL REV02 - Date 06/1-2/01



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Roll Test Data Report

Salar ()						<u></u>										Bill of Lading	61819
Sales Ord 48384			Project N 521237	lumber		Custome Nilex			CPU	<i>ject Locati</i> I Canada	on		<i>Product</i> HDE060A			GSE QC Reproved	Report Date 9/18/2006
Roll No.		Mistimum Thickness (mills) ry toli	TD Strengt @ Yield (Ppi)	th M.O. Strengi & Yield (ppi)	@ Break (ppi)	h MD Strengt @ Break (ppi)	9,Tspe IV / D669: h TD Elanguion & Xield (%) ry 3rd	I MD Elonxoi @Yicki (%)	ion TD Elongati @ Brzak (%)	un MD Elongation @ Areak (%)	ASTM 1 TD Tear Resistance (Ibs)	A D 11104 MD Tear Resistunce (ibs)	ASTM D 48 Puliciure Resistance (lbs)			3* ASTM D S596 Curbon Black Dispersion Views in Carl -	*Modified
101120140	62	58	180	149	292	301					ever	y 3rd	every 314.	every 3rd	every 3rd	Cul2 every 3rd	
101120142 101120143	62	58	190	141	317	305	15 15	21	867	789	49	51	152	0.943	2.20	10	4
101120143	61	59	190	141	317	305	75 15	21	870	823	49	52	148	0.943	2.27	10	C11
101120145	62	58	147	148	309	280	17	21 18	870	823	49	52	148	0.943	2.27	10	0
101120146	62 61	57	147	148	309	280	17	18	900	790	48	53	152	0.943	2.26	10	
101120151	61 62	58	147	148	309	280	17	18	900	790	48	53	152	0.943	2.26	10	
101120152	61	58	183	148	321	311	18	21	900	790	48	53	152	0.943	2.26	10	
101120153	62	59 50	183	148	321	311	18	21	892 892	808	48	51	147	0.944	2.47	10	
102126042	61	58 57	212	143	313	326	15	15	848	808	48	51	147	0.944	2.47	10	
102126044	61	57 58	155	149	308	297	17	20	898	827 809	49	53	146	0.944	2.66	10	
102126046	61	58 58	188	141	317	313	15	21	893		51	53	151	0.945	2.41	10	
		90	188	141	317	313	15	21	893	842	51	52	150	0.945	2.64	10	
								-		842	51	52	150	0.945	2.64	10	

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GSE Lining Technology, Inc.

c. at HOUSTON, TEXAS

Shippers No. 61827

Page 1 of 1

Received at Houston, Texas from GSE Lining Technology, Inc. the property described below, in apparent good order, except as noted (contents and condition of packages unknown), marked, consigned, and destined as indicated below, which said Carrier agrees to carry to the place of delivery at said destination. It is mutually agreed as to each Carrier of all or any said property, over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service performed hereunder shall be subject to the rates and contract agreed to in writing by GSE Lining Technology, Inc. and Carrier 3. GSE Lining Technology, Inc.'s obligation to pay freight charges for the shipment is conditioned on (1) the existence of a separate written contract with the carrier transporting the freight and (2) the carrier's name appearing on this Bill of Lading, and other carriers must look solely to a party other than GSE Lining Technology, Inc. for payment.

Ship To: Nilex/Mount Polly Head Pad Date: 09/18/06 Nilex/Mount Polly Head Pad Customer Pick up **Roll Certifications** Final Destination Edmonton, Canada Included **Branch Plant:** 1500 621821 Shipping Instructions: Sales Order Contact Brad 780 463-9535 24 hrs prior to pick up 48384 SO No. ΩΤΥ Kind of Package, Description of Articles, Roll # UМ Line Shipped Weight Project# 521237 Special Marks and Exceptions 1 101120135 12600 SF HDE060A000 60 mil Avg GSE HD 3,818,00 Freight charges are Blk, HD, Smooth, 22.5' prepaid unless marked 2 101120136 12600 SF HDE060A000 60 mil Avg GSE HD 3,820.00 collect. Blk, HD, Smooth, 22.5' 3 101120137 12600 SE Check box if collect HDE060A000 60 mil Avg GSE HD 3,828.00 Blk, HD, Smooth, 22.5' 4 101120138 12600 SF HDE060A000 60 mil Avg GSE HD 3,830.00 Blk, HD, Smooth, 22.5 Customer P.O. Number: 5 101120148 12600 SF HDE060A000 60 mil Avg GSE HD 3,840.00 E-3800 Blk; HD, Smooth; 22.5' 6 101120149 12600 SF HDE060A000 60 mil Avg GSE HD 3,832.00 If this shipment is to be Blk, HD, Smooth, 22.5' delivered to consignor, 7 consignor shall sign the 101120150 12600 SF HDE060A000 60 mil Avg GSE HD 3,840.00 following statement. Blk, HD, Smooth, 22.5' 8 102126034 12600 SF Carrier may decline to deliver 60 mil Avg GSE HD HDE060A000 3,810.00 this shipment without Blk, HD, Smooth, 22.5 payment of freight and all 9 102126035 12600 SF 60 mil Avg GSE HD other lawful charges. HDE060A000 3,820.00 Blk, HD, Smooth, 22.5' 10 102126036 12600 SF HDE060A000 60 mil Avg GSE HD 3,820.00 Blk, HD, Smooth, 22.5' Signature of Consignor 11 102126037 12600 SF HDE060A000 60 mil Avg GSE HD 3,825.00 Blk, HD, Smooth, 22.5' Local Verification 12 102126038 12600 SF HDE060A000 60 mil Avg GSE HD 3,840.00 Signed: Blk, HD, Smooth, 22.5 Pick Up # 13902RR Seal # Truckers P.O. # **Total Quantity** 151,200 **Total Weight:** 45,923.00 **Driver Requirements:** 1) Driver must pre call 24 hrs prior to delivery and on Friday for Monday delivery. **Carrier Name:** 2) Driver must call (281) 230-6781 when unloaded. 3) Driver must call and advise any delay in transit. C115 Carrier Signature: _ 4) A copy of this bill of lading must accompany Freight Invoice. Date:

ORIGINAL

REV02 - Date 06/12/01

LANNIE ZECHNOLOGY, THE	P. 1	Lining Technology, Inc
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Roll Test Data Report

Bill of Lading: 51827

Sales Order 48384	No.		roject Nш 21237	nber		<i>lustomer i</i> lilex	Name			<i>ct Locatio</i> Canada	n		<i>Product N</i> HDE060A00			GSE QC PEPROVE	Report Date 9/18/2006 *Modified
	ASTM	D 5199				- ASTM 0638.1	ype IV I D6693	· · · · · · · · · · · · · · · · · · ·			ASTM	D 1004	ASTM () 4833	ASTM D 1505	ASTM D 160	* ASTM D 5596	
	Arerage	Minimum	TD Strength	MD Streugth	TO Scrength	MD Seength	TEI Eloneation	MD Elongatio	n YD Elongation	MD Elongation	TD Teur	MD Teur	Prosente		Carbon Blac	Carbon Black	
	Thickness	Thicknest	4 Yield	© Vield	@ Break	@ Reeak	@Yield	@Yield	@ Breat	@ Break	Resistance	Resistance	Resistance	Density	Content	Dispersion	
	(mils)	(neils)	(ppi)	(ppi)	(ppi)	(ppi)	(%)	(%)	(%a)	(%)	(lihy)	(150)	(165)	(g/cc)	(**)	Views in Cutl Cut2	
Roll No.	even	s coll					y 3rd			<i>-</i>	2188	y 3rd	every 3rd	every 3rd	every 3rd	every 3rd	
101120135	62	58	155	157	309	329	15	19	858	862	49	52	149	0.943	2.21	10	
101120136	61	57	155	157	309	329	15	19	858	862	49	52	149	0.943	2.21	10	C116
101120137	62	58	155	157	309	329	15	19	858	862	49	52	149	0.943	2.21	10	G
101120138	62	58	180	149	292	301	15	21	867	78 9	49	51	152	0.945	2.20	10	
101120148	61	58	190	150	316	285	18	19	875	765	49	52	148	0.944	2.52	10	
101120149	62	58	190	150	316	285	18	19	875	765	49	52	148	0.944	2.52	10	
101120150	62	58	183	148	321	311	18	21	892	808	48	51	147	0.944	2.47	10	
102126034	62	59	156	157	289	297	16	18	863	808	49	54	153	0.946	2.52	10	
102126035	61	58	162	153	292	292	15	18	877	804	49	52	150	0.945	2.65	10	
102126036	62	58	162	153	292	292	15	18	877	804	49	52	150	0.945	2.65	10	
102126037	61	58	162	153	292	292	15	18	877	804	49	52	150	0.945	2.65	10	
102126038	61	57	155	150	302	2 9 6	16	20	874	833	48	54	145	0.945	2.62	10	

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Â len Approved By:___ Since

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19103 Gundle Road - Houston, Texas 77073

Page: 1 of 1 GSE-8.2.4-029 Rev - - 03/05

2812306787



Shipping Order - Packing List - Original - Not Negotiable

GSE Lining Technology, Inc.

nc. at HOUSTON, TEXAS

Shippers No. 61859

Page 1 of 1

Received at Houston, Texas from GSE Lining Technology, Inc. the property described below, in apparent good order, except as noted icontents and condition of packages unknown); marked, consigned, and destined as indicated below, which said Carrier agrees to carry to the place of delivery at said destination. It is mutually agreed as to each Carrier of all or any said property, over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service performed hereunder shall be subject to the rates and contract agreed to in writing by GSE Lining Technology, Inc. and Carrier. GSE Lining Technology, Inc.'s obligation to pay freight charges for the shipment is conditioned on (1) the existence of a separate written contract with the carrier transporting the freight and (2) the carrier's name appearing on this Bill of Lading, and other carriers must look solely to a party other than GSE Lining Technology, Inc. for payment.

Sh	Nilex/N Custor	Aount Pol Aount Pol ner Pick u restination	lly Hei .p		Date:	09/19/06
	•			Branch Plant	1500	621821
Shi	oping Instruction	າຣ:			Sales C)rder
	Contact Brad 7	80 463-9	9535	24 hrs prior to pick uip	48384	SO
lo, ine	Roll #	QTY Shipped	UM	Kind of Package, Description of Articles, Special Marks and Exceptions	Weight	Project# 521237
1	101120132	12600	SF	HDE060A000 60 mil Avg GSE HD	3,810.00	Freight charges are
2	101120133	12600	SF	Blk, HD, Smooth, 22.5' HDE060A000 60 mil Avg GSE HD	3,840.00	prepaid unless marked collect.
3	101120134	12600	SF	Blk, HD, Smooth, 22.5' HDE060A000 60 mil Avg GSE HD	3,850.00	Check box if collect
4	101120139	12600	SF	Blk, HD, Smooth, 22.5' HDE060A000 60 mil Avg GSE HD	3,834.00	
5	101120141	12600	SF	Blk, HD, Smooth, 22.5' HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5'	3,824.00	Customer P.O. Number E-3800
6	101120147	12600	SF	HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5'	3,840.00	If this shipment is to be delivered to consignor,
7	101120154	12600	SF	HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5	3,858.00	consignor shall sign the following statement:
8	101120155	12600	SF	HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5'	3,888.00	Carrier may decline to delive this shipment without payment of freight and a
9	102126039	12600	SF	HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5'	3,825.00	other lawful, charges.
0	102126040	12600	SF	HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5'	3,820.00	
1	102126041	12600	SF	HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5'	3,805.00	Local Verification
2	102126049	12600	SF	HDE060A000 60 mil Avg GSE HD Blk, HD, Smooth, 22.5'	3,825.00	Signed:
					· ·	
-			-			×
-						Pick Up #
						13903RR Seal #
al C	wantity 151,2	.00		Total Weight: 4	3,019.00	Truckers P.O. #
) Di) Di) Di	iver must call (281) iver must call and a	4 hrs prior t 230-6781 dvise any d	when ı elay in	transit. C117 Carrier	Name: Signature:	
n <u>A</u>	copy or this bill of l	adıny must	accom	Date:		·. · · · ·



Roll Test Data Report

Sales Order 48384		S:	70ject Nu. 21237	mber		Customer lilex	Name		-	e <i>ct Locatio</i> Canada	n		Product , HDE060AC			QC Berroye	Report Date 9/19/2006
Roll No.	ASTM Average Thickness (nuils) every	D 5199 Minimum Thickness (mits) e rotl	TD Strength @ Yield (ypt)	MD Strengdu @ Yidd (ppi)	TD Strength @ Break (ppi)	MD Strength @ Break (ppi)	Type IV / D6693 TD Elongation @Yield (%) ty 3rd	MD Elongatio @Yield (%)	n TD Elongation @ Break (Sa)	n MD Eimigaúan @ Break (%)	TD Tear Resistance (Hos)	1 D 1004 MD Tear Resistance (Ibs)	Puncture Restistante (lbs)	13 ASTM I) 150 Density (g/ac)		3* ASTM D 5596 k Carloon Black Dispersion Views in Cast - Car2	*Modified
101120132	62	58	160	155	306	286	16	18				y 3 <i>m</i> /	every 3rd	every 3rd	every 3rd	every 3rd	
101120133	61	58	160	155	306	286	16	18	875	771	50	53	152	0.943	2.24	10	
101120134	62	58	160	155	306	286	16		875	771	50	53	152	0.943	2.24	10	
101120139	62	58	180	149	292		-	18	875	771	50	53	152	0.943	2.24	10	
101120141	61	57	190	141		301	15	21	867	789	49	51	152	0.945	2.20	10	18
101120147	61	57	190		317	305	15	21	870	823	49	52	148	0.943	2.27	10	ü
101120154	62	58	+	150	316	285	18	19	875	765	49	52	148	0.944	2.52	10	
101120155	62		212	143	313	326	15	15	848	827	49	53	146	0.944	2.66	10	
102126039	_	58	212	143	313	326	15	15	848	827	49	53	146	0.944	2.66		
	61	58	155	150	302	296	16	20	874	833	48	54	145	0.945		10	
102126040	61	57	155	1 5 0	302	296	16	20	874	833	48	54	145		2.62	10	
102126041	61	58	155	149	308	297	17	20	898	809	51			0.945	2.62	10	
102126049	60	57	155	146	299	310	15	15	864			53	151	0.945	2.41	10	
						- • •		15	99 4	836	51	53	152	0.945	2.59	10	

Approved By: < Alle bere

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19103 Gundle Road - Houston, Texas 77073

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Page: 1 of 1

GSE-8.2.4-029 Rev - - 03/05

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Bill of Lading: 61859

Sep

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Shipping Order - Packing List - Original - Not Negotiable

GSE Lining Technology, Inc. at Kingstree, SC

Shippers No.

Page 1 of 2

61823

Received at Kingstree, SC from GSE Lining Technology, Inc. the property described below, in apparent good order, except as noted (contents and condition of packages unknown), marked, consigned, and destined as indicated below, which said Carrier agrees to carry to the place of delivery at said destination. It is mutually agreed as to each Carrier of all or any said property, over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service performed hereinder shall be subject to the rates and contract agreed to in writing by GSE kining Technology, Inc. and Carrier. GSE Lining Technology, Inc.'s obligation to pay freight charges for the shipment is conditioned on (1) the existence of a separate written contract with the carrier transporting the freight and (2) the carrier's name appearing on this Bill of Leding; and other carriers must look solely to a party other than GSE Lining Technology, Inc. for payment.

Ship To: Nilex/Mount Polly Head Pad Date: 09/18/06 Nilex/Mount Polly Head Pad **Customer Pick up** Final Destination Edmonton, Canada **Branch Plant:** 1503 621822 **Shipping Instructions: Sales Order** Contact Brad 780 463-9535 24 hrs prior to pick up 48384 SO Nn. **Ω**ΤΥ Kind of Package, Description of Articles, Róll # UM Line Shipped Weight Project# 521237 **Special Marks and Exceptions** 1 131224245 4500 SF XL4000N004 HyperNet 840.00 Freight charges are Geonet, Std. 15 prepaid unless marked 2 131224246 4500 SF XL4000N004 HyperNet 829.00 collect. Geonet, Std, 15' 3 Check box if collect 131224247 4500 SF XL4000N004 HyperNet 826.00 Geonet, Std, 15' 4 131224248 4500 SF XL4000N004 HyperNet 834.00 Geonet, Std, 15' Customer P.O. Number: 5 131224249 4500 SF XL4000N004 HyperNet 825.00 E-3800 Geonet, Std, 15 6 131224250 4500 SF XL4000N004 HyperNet 824.00 If this shipment is to be delivered to consignor, Geonet, Std, 15 consignor shall sign the 7 131224251 4500 SF XL4000N004 HyperNet 825.00 following statement. Geonet, Std, 15' Carrier may decline to deliver 8 131224252 ŠF 4500 XL4000N004 HyperNet 821.00 this shipment without Geonet, Std, 15 payment of freight and all 9 other lawful charges. 131224253 4500 SF XL4000N004 HyperNet 820.00 Geonet, Std. 15 10 131224255 4500 SF XL4000N004 HyperNet 831.00 Geonet, Std, 15 Signature of Consignor 11 131224256 4500 SF XL4000N004 HyperNet 833.00 Geonet, Std. 15 Local Verification 12 131224257 4500 SF XL4000N004 HyperNet 830.00 Signed: Geonet, Std. 15' 13 131224258 4500 SF XL4000N004 HyperNet 828.00 Geonet, Std, 15' 14 SF 131224259 4500 XL4000N004 HyperNet 830.00 Geonet, Std, 15' 15 131224260 4500 SF XL4000N004 833.00 HyperNet Pick Up # Geonet, Std, 15' 16 131224261 7943KS 4500 SF XL4000N004 HyperNet 828.00 Geonet, Std, 15' Seal # 17 131224262 4500 SF XL4000N004 HyperNet 834.00 Geonet, Std, 15' Truckers P.O. # 121,500 22;459.00 Continued on next page CPU/Traffie Driver Requirements: 1) Driver must pre call 24 hrs prior to delivery and on Friday for Monday delivery. Carrier Name: 2) Driver must call (843) 201-1520 when unloaded. 3) Driver must call and advise any delay in transit. **Carrier Signature:** C119 4) A copy of this bill of lading must accompany Freight Invoice. Date: GSE 7.5.5-007 ORIGINAL REV02 - Date 06/12/01

	Shipping Order -	Packing List	- Original	- Not	Negotiable
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GSE Lining Technology, Inc. at Kingstree, SC

Shippers No. 61823

Page 2 of 2

Received at Kingstree, SC from GSE Lining Technology, Inc. the property described below, in apparent good order, except as noted (contents and condition of packages unknown), marked, consigned, and destined as indicated below, which said Carrier agrees to carry to the place of delivery at said destination. It is mutually agreed as to each Carrier of all or any said property, over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service performed hereunder shall be subject to the rates and contract agreed to h writing by GSE Liping Technology, Inc. and Carrier. GSE Lining Technology, Inc.'s obligation to pay freight charges for the shipment is conditioned on (1) the existence of a separate written contract with the carrier transporting the freight and (2) the carrier's name appearing on this Bill of Lading, and other carriers must look solely to a party other than GSE Lining Technology, Inc. for payment.

Ship To: Nilex/Mount Polly Head Pad Date: 09/18/06 Nilex/Mount Polly Head Pad **Customer Pick up** Final Destination Edmonton, Canada Branch Plant: 1503 621822 **Shipping Instructions:** Sales Order Contact Brad 780 463-9535 24 hrs prior to pick up 48384 SO No. OTY Kind of Package, Description of Articles, Roll # ŲМ Line Shipped Weight Project# 521237 Special Marks and Exceptions 18 131224263 4500 SF XL4000N004 HyperNet 837.00 Freight charges are Geonet, Std. 15 prepaid unless marked 19 131224264 4500 SF XL4000N004 HyperNet 835.00 collect. Geonet, Std, 15 20 131224265 4500 Check box if collect SF XL4000N004 HyperNet 836.00 Geonet, Std, 15' 21 131224266 4500 SF XL4000N004 HyperNet 835.00 Geonet, Std, 15' Customer P.O. Number: 22 131224267 4500 SF XL4000N004 HyperNet 834.00 E-3800 Geonet, Std. 15' 23 131224271 4500 SF XL4000N004 HyperNet 836.00 If this shipment is to be Geonet, Std, 15 delivered to consigner, 24 consignor shall sign the 131224272 4500 SF XL4000N004 HyperNet 834.00 following statement. Geonet, Std, 15 25 4500 Carrier may decline to delive 131224275 SF XL4000N004 HyperNet 841.00 this shipment without Geonet, Std. 15 payment of freight and all 26 131224276 4500 SF XL4000N004 other lawful charges. HyperNet 844.00 Geonet, Std, 15' 27 131224277 4500 SF XL4000N004 HyperNet 836.00 Geonet, Std. 15 Signature of Consignor Local Verification Signed: Pick Up # 7943KS Seal # Truckers P.O. # Total Quantity 121,500 **Total Weight:** 22,459.00 **Driver Requirements:** 1) Driver must pre call 24 hrs prior to delivery and on Friday for Monday delivery. **Carrier Name:** 2) Driver must call (843) 201-1520 when unloaded. 3) Driver must call and advise any delay in transit. **Carrier Signature:** C120 4) A copy of this bill of lading must accompany Freight Invoice. Date: GSE 7.5.5-007 ORIGINAL REV02 - Date 06/12/01

Roll Test Data Report

<u>GSE Nonwoven Technolog</u>

Bill of Lading: 61823

Sales Order No. 48384	Project Number 521237	Customer Nam Nilex	e Project Lo Customer P Up/Canada		CSE QC 9/18/2006 *Modified
	ASTM D 5199 Average Thickness (mils)	ASTM D 5035 Geonet Tensile Strength (ppi)	ASTM D 1603* Carbon Black Content (%)	ASTM D 1505 Density (g/cc)	
Roll No.	every 10th	every 10th	every 10th	every 10th	
131224245	244	66	2.4	0.963	
131224246	244	66	2.4	0.963	
131224247	244	6 6	2.4	0.963	
131224248	244	. 66	2.4	0.963	
131224249	244	66	2.4	0.963	
131224250	244	66	2.4	0.963	
131224251	244	66	2.4	0.963	
131224252	244	66	2.4	0.963	
131224253	241	66	2.3	0.962	
131224255	241	66	2.3	0.962	
131224256	241	66	2.3	0.962	
131224257	241	66	2.3	0.962	
131224258	241	66	2.3	0.962	
131224259	241	66	2.3	0.962	
131224260	241	66	2.3	0.962	
131224261	241	66	2.3	0.962	
131224262	241	66	2.3	0.962	
131224263	242	62	2.2	0.963	
131224264	242	6 <u>2</u>	2.2	0.963	
131224265	242	62	2.2	0.963	
131224266	242	62	2.2	0.963	
131224267	242	62	2.2	0,963	
131224271	242	62	2.2	0.963	
131224272	242	62	2.2	0.963	
131224275	243	65	2.5	0.962	
131224276	243	65	2.5	0.962	
131224277	243	65	2.5	0.962	

Approved By:

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Page: 1 of 1

GSE-8.2.4-029 Rev - - 03/05

C121

		E Lining Te	chnolo	gy, Inc. at Kingstree, SC	-	Shippers I	lo. 61849
· _					·.		Page 1 of :
ofs. virt	aid route to destination, an ting by GSE Lining Technol	d as to each pi ouv. Inc. and f	orty at any	, Inc. the property described below, in apparent good order, except a eas to carry to the place of delivery at said destination. It is mutuall time interested in all or any of said property, that every service per E Lining Technology, Inc.'s obligation to pay freight charges for the fer's name appearing on this Bill of Lading, and other carriers must lo	y agreed as to each Carri ormad hereunder shall be	er of all or any s subject to the	and property, over all or any portion rates and contract agreed to in
	nip To: Nilex/I	Mount Po Mount Po	olly He	ad Pad		Date:	09/19/06
	Custor	ner Pick	up				
		estinatio	n Edn	ionton, Canada ^I ioni voi uncerent Included	19 Zaz.	·	
•		• .		10334147.454.4	Branch Plant:	1500	
<u>с</u> ь:			· · · · · ·		oranich Flant;	1503	621823
อกเ	pping Instruction				-	Sales C	Drder
	Contact Brad 7	·	9535	24 hrs prior to pick uip		48384	SO
lo. Ine	Roll #	OTY Shipped	UM	Kind of Package, Description of Artic Special Marks and Exceptions	cles,	Weight	Project# 521237
1	130234467	500	SY	GEO1008002 Geotextile		351.00	Freight charges are
2	130234468	500	SY	10 oz/yd2 MARV GEO1008002 Geotextile 10 oz/yd2 MARV		353.00	prepaid unless marked collect.
3	130234469	500	SY	GEO1008002 Geotextile 10 oz/yd2 MARV		355.00	Check box if collect
4	130234470	500	SY	GEO1008002 Geotextile 10 oz/yd2 MARV		360.00	Customer P.O. Number:
5	130234471	500	SY	GEO1008002 Geotextile 10 oz/yd2 MARV		361.00	E-3800
6	130234472	500	SY	GEO1008002 Geotextile 10 oz/yd2 MARV	,	363.00	If this shipment is to be delivered to consignor,
7	130234473	500	SY	GEO1008002 Geotextile 10 oz/yd2 MARV		361.00	consignor shall sign the following statement.
3	130234474	500	SY	GEO1008002 Geotextile 10 oz/yd2 MARV		357.00	Carrler may decline to deliver this shipment without payment of freight and all
9	130234475	500	SY	GEO1008002 Geotextile 10 oz/yd2 MARV	-	350.00	other lawful charges.
)	131224212	4500	SF	XL4000N004 HyperNet Geonet, Std, 151		904.00	Signature of Consignor
	131224213	4500	SF	XL4000N004 HyperNet Geonet, Std, 15'		864.00	Local Verification
2	131224214	4500	SF	XL4000N004 HyperNet Geonet, Std, 15'		860.00	Signed:
	131224215	4500	SF	XL4000N004 HyperNet Geonet, Std, 15'		861.00	Cf lovo
	131224216	4500	SF	XL4000N004 HyperNet Geonet, Std, 15'		837.00	xoney pr
	131224217	4500	SF	XL4000N004 HyperNet Geonet, Std, 15'		841.00	Pick Up #
	131224221 131224224	4500 4500	SF SF	XL4000N004 HyperNet Geonet, Std, 15'		841.00	7945KS
			<u>ا</u> ب	XL4000N004 HyperNet Georiet, Std, 15'		838.00	<u>K-22/96 9</u> Truckers P.O. #

Driver must call (843) 201-1520 when unloaded.
Driver must call and advise any delay in transit.
A copy of this bill of lading must accompany Freight Invoice.

Date: Ŀ D

Carrier Signature:

C122

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REV02 - Date 06/12/01

of s	said route to destination, an	d as to each ba	arner agri rtv-at anv	Inc. the property described below, in appa les to carry to the place of delivery at said time interested in all or any of said propert	destination. It is mutually	agreed as to each Ca	rrier of all or any s	Page 2 c igës unknown), marked, consign aid property, over all or any por
	and by doe childe rectilion	00Y. INC. AND CA	WHEF. HIS	Lining Technology, Inc.'s obligation to parar's name appearing on this Bill of Lading, a	v fraight charges for the st	hinmant in anadkinia.	معمدتكم ممخللا مما	has af a second contains a second
Sł	Custor	Mount Po mer Pick (lly He up				Date:	09/19/06
••		·				Branch Plant	- 1502	621823
Shi	pping Instruction						-,,-	·····
	Contact Brad 7		9535	24 hrs prio	to pick uip	· ·	Sales C	•
No.	· · · · ·	·	1				48384	SO
Line	Roll #	QTY Shipped	UM	Special Mark	Description of Articles and Exceptions	les,	Weight	Project# 521237
18	131224225	4500	SF	XL4000N004 Hype Geonet, Std, 15'	rNet	• .	- 841.00	Freight charges are
19	131224227	4500	SF	XL4000N004 Hyper	Net		840.00	prepaid unless marke collect.
20	131224228	4500	SF	Geonet, Std, 15' XL4000N004 Hyper	Net		843.00	Check box if collec
21	121224220	4500	C	Geonet, Std, 15'	• •			
∠ L ,	131224230	4500	SF	XL4000N004 Hyper Geonet, Std, 15'	Net		840.00	Customer P.O. Numb
22	131224231	4500	SF	XL4000N004 Hyper Geonet, Std, 15'	Net		843.00	E-3800
23	131224232	4500	SF	Geonet, Std, 15 XL4000N004 Hyper Geonet, Std, 15'	Net	•	842.00	if this shipment is to l delivered to consigno consignor shall sign th
				•	• · ·			following statement. Carrier may decline to de
	•							this shipment withou payment of freight and other lawful charges.
		1	-		· · · · ·	•	· ·	
				. ·		• •		Signature of Consigno
							- 	
				•				Local Verification Signed:
			_			•		~
					- 	•		<u>^</u>
				•	•		;	Pick Up # 7945KS
-						•	-	Seal #
	•				. · ·			·····
otal O	Quantity 67,5	<u>. </u>	!		Tota	l Weight: 18	5,108.00	Truckers P.O. #
1) Dr 2) Dr 3) Dr	ver Requirements iver must pre call 24 iver must call (843) iver must call and ac copy of this bill of la	4 hrs prior t 201-1520 dvise any de	when u	ry and on Friday for Monday de nloaded. ransit.	<u>.</u>	Carrier I		- ANK

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Roll Test Data Report

GSE Nonwoven Technolog

Bill of Lading: 61849

Sales Order No. 48384	Project Number 521237	Customer Nam Nilex	e Project Lo Customer P Up/Canada		Product Name KL4000N004	GSE QC REPROVES	Report Date 9/19/2006 *Modified	
	ASTM D 5199 Average Thickness (mils)	ASTM D 5035 Geonet Tensile Strength (ppi)	ASTM D 1603* Carbon Black Content (%)	ASTM D I Density (g/cc)				
Roll No.	every 10th	every 10th	every 10th	every 10	th			
31224212	242	65	2.4	0.964				
31224213	240	65	2.3	0.963			•	
31224214	240	65	2.3	0.963		4		
31224215	240	65	2.3	0.963				
31224216	240	65	2.3	0.963				
31224217	240	65	2.3	0.963				
31224221	240	65	2.3	0.963				
1224224	244	65	2.3	0.963				
1224225	244	65	2.3	0.963				
1224227	244	65	2.3	0.963				
1224228	244	65	2.3	0.963				
1224230	244	65	2.3	0.963				
1224231	244	65	2.3	0.963	•			
1224232	244	65	2.3	0.963				
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GSE-8.2.4-029 Rev - - 03/05 C124

BSB GSE Nonwoven Technology

Roll Test Data Report

Bill of Lading: 61849

3384	No. Project Nu. 521237			Project Number Customer Name 521237 Nilex					<i>Project Location</i> Customer Pick Up/Canada				Product Name GEO1008002			QC Remove	Report Date 9/19/2006 *Modified
	AS			ASTM D 4751	D 4751 ASTM D 3786 ASTM D 4833		ASTM D 4533		ASTM D 4632		ASTM D 5199 ASTM D 5261						
	Average Sample Flow Rate (gallon min ft2)	Water permeahility (cm sec)	Permittivity (Sec-1)	Apparent Opening Size (mm)	Mullen Borst Strength (psi)	Puncture Resistance (Ibs)	Trap Tear Strength CD (Ibs)	Trap Tear Strength MD Absy	Grab Elongation CD	Grab Elongation MI3 (%)	Grab Strength CD (lbs)	Grab Strength MD (lbs)	Thickness (mils)	Mass per (init Area (oz. yd2)			
oll No.		every 60th		every roll	every 20th	y 20th every 20th	every 20th		every 20th			every: 20th	every 20th				
0234467	113	0.40	1.5	0.150	582	205	174	207	129	97	460	343	100	11.6	••••••	• • • •	
0234468	113	0.40	1.5	0.150	528	174	246	173	135	118	368	304	142	10.5			
0234469	113	0.40	1.5	0,150	528	174	246	173	135	118	368	304	142	10.5			
30234470	113	0.40	1.5	0.150	528	174	246	173	135	118	368	304	142	10.5			
30234471	113	0.40	1.5	0.150	528	174	246	173	135	118	368	304	142	10.5			
80234472	113	0.40	1.5	0.150	528	174	246	173	135	118	368	304	142	10.5		·	
30234473	113	0.40	1.5	0.150	528	174	246	173	135	118	368	304	142	10.5			
30234474	113	0.40	1.5	0.150	528	174	246	173	135	118	368	304	142	10.5			
30234475	113	0.40	1.5	0.150	528	174	246	173	135	118	368	304	142	10.5			

C125

Approved By:

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Page: 1 of 1



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Shipping Order - Packing List - Original - Not Negotiable

GSE Lining Technology, Inc. , at Kingstree, SC Shippers No. 61844 Page 1 of 2 Received at Kingstree, SC from GSE Lining Technology, Inc. the property described below, in apparent good order, except as noted (contents and condition of packages unknown), marked, consigned, Additional as indicated below, which said Carrier agrees to carry to the place of delivery at said destination. It is mutually agreed as to each Carrier of all or any said property, over all or any portion of said roperty, that avery service performed hereunder shall be subject to the rates and contract agreed to in writing by GSE Lining Technology, Inc. and Carrier, SEE Lining Technology, Inc. so bligation to bay freight charges for the shipment is conditioned on (1) the existence of a separate written contract with the carrier transporting the freight and (2) the carrier's name appearing on this Bill of Lading, and other carriers must look solely to a party other than GSE Uning Technology. Inc. for payment. Ship To: Nilex/Mount Polly Head Pad 09/19/06 Date: Nilex/Mount Polly Head Pad **Customer Pick up** Final Destination Edmonton, Canada Roll Certifications Included Branch Plant: 1503 621822 Shipping Instructions: Sales Order Contact Brad 780 463-9535 24 hrs prior to pick uip 48384 SO. No. QTY Kind of Package, Description of Articles, Roll # UΜ Line Weight Project# 521237 Shipped Special Marks and Exceptions 1 131224218 4500 SF XL4000N004 HyperNet 843.00 Freight charges are Geonet, Std, 15 prepaid unless marked 2 131224219 4500 SF XL4000N004 HyperNet 840.00 collect. Geonet, Std, 15' 3 Check box if collect 131224220 4500 SF XL4000N004 HyperNet 841.00 Geonet, Std, 15 4 131224222 450Ó SF XL4000N004 HyperNet 839.00 Geonet, Std, 15' Customer P.O. Number: 5 131224223 4500 SF XL4000N004 HyperNet 840.00 E-3800 Geonet, Std. 15 6 131224226 4500 SF XL4000N004 HyperNet 840.00 If this shipment is to be delivered to consignor, Geonet, Std, 15 consignor shall sign the 7 131224229 4500 SF XL4000N004 HyperNet 842.00 following statement. Geonet, Std, 15 131224233 arrier may decilne to delive 8 4500 SF XL4000N004 HyperNet 840.00 this shipment without Geonet, Std, 15' payment of freight and all 9 131224234 4500 SF other lawful charges. XL4000N004 844.00 HyperNet Geonet, Std, 15 10 SF 131224235 4500 XL4000N004 HyperNet 842.00 Geonet, Std, 1,5 Signature of Consignor 11 131224236 4500 SF XL4000N004 HyperNet 839.00 Geonet, Std, 15' Local Verification 12 131224237 4500 SF XL4000N004 HyperNet 830.00 Signed: Geonet, Std, 15' 13 131224238 4500 SF XL4000N004 HyperNet 831.00 Geonet, Std, 15 14 131224239 SF 4500 XL4000N004 HyperNet 830.00 Geonet, Std, 15' 15 131224240 4500 SF XL4000N004 HyperNet 827.00 Pick Up # Geonet, Std, 15 16 131224241 4500 SF 7944KS XL4000N004 HyperNet 832.00 Geonet, Std, 15 17 131224242 4500 SF XL4000N004 HyperNet 830,00 Geonet, Std, 15 Truckers P.O. # 121,500 22.573.00 Continued on next page... Driver Requirements: 1) Driver must pre call 24 hrs prior to delivery and on Friday for Monday delivery. Carrier Name 2) Driver must call (843) 201-1520 when unloaded. C126 Carrier Signature:

3) Driver must call and advise any delay in transit.

GSE 7.5.5-007

4) A copy of this bill of lading must accompany Freight Invoice.

ORIGINAL

REV02 - Date 06/12/01

-06

Date: 7



Shipping Order - Packing List - Original - Not Negotiable

GSE Lining Technology, Inc. at Kingstree, SC

Shippers No.

61844 Page 2 of 2

Received at Kingstree, SC from GSE Lining Technology, Inc. the property described below, in apparent good order, except as noted (contents and condition of packages unknown), marked, consigned, and destined as indicated below, which said Carrier agrees to carry to the place of delivery at said destination. It is mutually agreed as to each Carrier of all or any said property, over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service performed hereunder shall be subject to the rates and contract agreed to in writing by GSE Lining Technology, Inc. and Carrier. GSE Lining Technology, Inc.'s obligation to pay freight charges for the shipment is conditioned on (1) the existence of a separate written contract with the carrier transporting the freight and (2) the carrier's name appearing on this Bill of Lading, and other carriers must look solely to a party other than GSE Lining Technology, Inc. for payment.

Sh	Nilex/I Custo	Mount Po Mount Po mer Pick	olly He up	ad Pad ad Pad onton, Canada	Date:	09/19/06
			n cum	Branch P	lant: 1503	621822
Shir	ping Instruction	ns:		24	Sales (Order
	Contact Brad 7	780 463-9	9535	24 hrs prior to pick uip	48384	SO
No. Line	Roll #	QTY Shipped	UM	Kind of Package, Description of Articles, Special Marks and Exceptions	Weight	Project# 521237
18	131224243	4500	SF	XL4000N004 HyperNet	828.00	Freight charges are
19	131224244	4500	SF	Geonet, Std, 15' XL4000N004 HyperNet	833.00	prepaid unless marked collect.
20	131224254	4500	SF	Geonet, Std, 15' XL4000N004 HyperNet Geonet, Std, 15'	828.00	Check box if collect
21	131224268	4500	SF	Geonet, Std, 15 XL4000N004 HyperNet Geonet, Std, 15'	833.00	
22	131224269	4500	SF	XL4000N004 HyperNet Geonet, Std, 15'	829.00	Customer P.O. Number E-3800
23	131224270	4500	SF	Ceonet, Std, 15 XL4000N004 HyperNet Geonet, Std, 15'	834.00	If this shipment is to be delivered to consignor,
24	131224273	4500	SF	XL4000N004 HyperNet Geonet, Std, 15'	839.00	consignor shall sign the following statement.
25	131224274	4500	SF	XL4000N004 HyperNet Geonet, Std, 15	837.00	Carrier may decline to deliv this shipment without payment of freight and all
26	131224278	4500	SF	XL4000N004 HyperNet Geonet, Std, 15'	840.00	other lawful charges.
27	131224279	4500	SF	XL4000N004 HyperNet Geonet, Std, 15'	842.00	Signature of Consignor
						Local Verification Signed:
						<u>x</u>
			į.			Pick Up # 7944KS
						7944 <u>85</u> Seal #
tal Qu	antity 121,50	<u> </u> DÓ	<u>_</u>	Total Weight:	22,573.00	Truckers P.O. #
1) Driv 2) Driv 3) Driv	r Requirements rer must pre call 24 rer must call (843) er must call and ac opy of this bill of la	hrs prior to 201-1520 Ivise any de	when ur elav in ti	y and on Friday for Monday delivery. Carrie Iloaded. ansit. C127 Carrie my Freight Invoice.	er Name: er Signature: _	PP
7.5.5	-007	···	<u> </u>	Date:		

ORIGINAL

REV02 - Date 06/12/01

<u>BNB</u>

Roll Test Data Report

GSE Nonwoven Technolog

Bill of Lading: 61844

ć ;

Sales Order No. 48384	Project Number 521237	<i>Customer Nam</i> Nilex	··· ·	<i>Project Location</i> Customer Pick Up/Canada		QC PROVES Report Date 9/19/2006 *Modified
	ASTM D 5199 Average Thickness (mils)	ASTM D 5035 Geonet Tensile Strength (ppi)	ASTM D 1603* Carbon Black Content (%)	ASTM D Densi (g/co	ity	
- Roll No.	every 10th	every 10th	every 10th	every 1	Oth	
131224218	240	65	2.3	0.96	3	
131224219	240	65	2.3	0.96		
131224220	240	65	2.3	0.96		•
131224222	240	65	2.3	0.96		
131224223	244	65	2.3	0.96		
131224226	244	65	2.3	0.963		
131224229	244	65	2.3	0.963		
131224233	241	65	2.2	0.964		
131224234	241	65	2.2	0.964		
131224235	241	65	2.2	0.964		
131224236	241	65	2.2	0.964		
131224237	241	65	2.2	0.964		· · ·
131224238	241	65	2.2	0.964		
131224239	241	65	2.2	0.964		
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131224241	241	65	2.2	0.964	· · · · ·	· · · · · ·
131224242	241	65	2.2	0.964		
131224243	244	66	2.4	0.963	1	
131224244	244	66	2.4	0.963	1	•
131224254	241	66	2.3	0.962		
131224268	242	62	2.2	0.963		
131224269	242	62	2.2	0.963		· .
131224270	242	62	2.2	0.963		
31224273	243	65	2.5	0.962		ан Алагаан алагаан
31224274	243	65	2.5	0.962		
31224278	243	65	2.5	0.962		
31224279	243	65	2.5	0.962		

Approved By:

This test report shall not be reproduced except in full, without approval of the laboratory.

C128

GSE-8.2.4-029 Rev - - 03/05

NILEX CONSTRUCTION INC.



9304-39th Avenue Edmonton, AB T6E 5T9 PH: (780) 463-9535 Fax: (780) 463-1773

CERTIFICATE OF COMPLETION

Owner Imperial Engineer Bruns Borntragger (Knight Piesdel Ltd) Contractor Material 60 mil Smooth

Job #
Project Mount Polley Learh Pad.
Location Mount Polker Ning R.C.
Site Super GARY WATKINS
Date Abuember, 15, 2004

On <u>Mounder 15, 2006</u> a joint inspection was held at the above referenced project with a representative of the owner/general contractor and a Nilex Construction Inc. representative. The installation of the work by Nilex Construction Inc. was found to be in compliance with the contract/specification

COMMENTS all work completed as per contract with all vality Contral Pocumentation to be submitted turmour package.

Customer

Mar. 15/06 Date

1 Donald QC Engineer Print Name and Title

Nilex Construction Inc.

<u>Date</u> S Foreman/OC.

rint Name and Title



APPENDIX D

CONSTRUCTION PHOTOGRAPHS

(Page D1 to D21)





PHOTO 1 – Preparing the open excavation for prepared sub grade



PHOTO 2 - Compacted open excavation





PHOTO 3 – Placement of Zone F – prepared sub grade



PHOTO 4 – Placement of Zone S on the side slopes





PHOTO 5 - Placement of second layer of Zone S



PHOTO 6 - Zone S placement completed





PHOTO 7 – First panel of HDPE liner placed in sump area



PHOTO 8- Wedge welding two panels together





PHOTO 9 - Sand bags used to temporarily hold the liner in place



PHOTO 10 – Extruder used to weld two panels together.





PHOTO 11 - Pressure test on Seam # 1/2 A



PHOTO 12 - Vacuum test on extruded seam





PHOTO 13 – Cutting pieces from a destructive sample



PHOTO 14 – Geonet placed in the sump area





PHOTO 15 – Placement of geotextile, CPT pipe, and LCRS drain rock



PHOTO 16 - Slotted 200 mm PVC riser pipe





PHOTO 17 – Geotextile wrapped around the end of 200 mm PVC riser pipe.



PHOTO 18 – LCRS drain rock placed





PHOTO 19 – Peel and shear testing using a tensiometer.



PHOTO 20 – Preparing the surface of a patch for extruder.



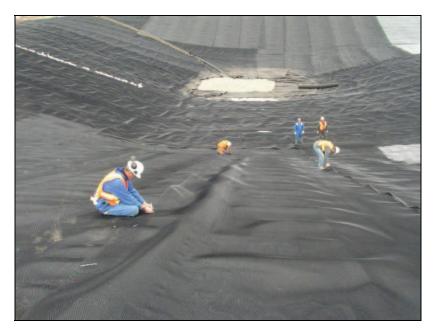


PHOTO 21 - Ties used to hold the Geonet together

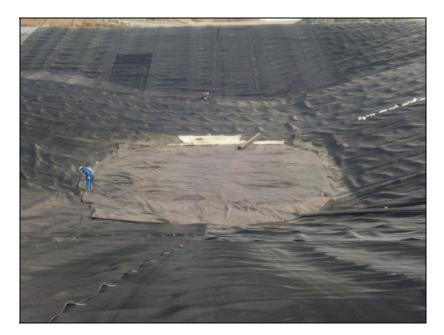


PHOTO 22 – Geotextile wrapped around the LCRS drain rock





PHOTO 23 – Placement of the second HDPE liner in the sump area.



PHOTO 24 – Geonet placed on the floor area.





PHOTO 25 – Wedge welding a corner seam.



PHOTO 26 – Mule used to pull panels along the floor area.





PHOTO 27 - First snow storm caused delays



PHOTO 28 – Ice in the sump area caused delays





PHOTO 29 - Snow and ice removal from Geonet



PHOTO 30 – Extruding a tie in seam.





PHOTO 31 – Pressure testing a tie in seam



PHOTO 32 – Snow and Ice removal form sump area



PHOTO 33 - Snow removal to finish welding the tie in seam



PHOTO 34 – Placement of "skirt" around exit area of the LCRS riser pipe. MOUNT POLLEY MINING CORPORATIO

MOUNT POLLEY MINE





PHOTO 35 - Extruding the LCRS riser pipe "skirt"



PHOTO 36 – Placement of "skirt" around the LCRS riser pipe.





PHOTO 37 – Placement excavated trench material back into the trench.



PHOTO 38 – Placement of Zone S material into the trench.





PHOTO 39 – Pump at the Cariboo Pit pumping to the leach pad.



PHOTO 40 - Pipe from the Cariboo Pit





PHOTO 41 - Filling with water during hydrostatic test.