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Mount Polley Mine
Hydrogeology Assessment And Data Review
Likely B.C

Submitted to:

Mount Polley Mining Corporation
Vancouver, BC

Submitted by:

AMEC Environment & Infrastructure,
a Division of AMEC Americas Limited
Burnaby, BC

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IMPORTANT NOTICE

This report was prepared exclusively for Mount Polley Mining Corporation by AMEC Environment & Infrastructure, a wholly owned subsidiary of AMEC Americas Limited. The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in AMEC services and based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions and qualifications set forth in this report. This report is intended to be used by Mount Polley Mining Corporation only, subject to the terms and conditions of its contract with AMEC. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

1.0 INTRODUCTION

The Mount Polley Mining Corporation (MPMC) has retained AMEC Environment and Infrastructure, a division of AMEC Americas Ltd. (AMEC), to provide a hydrogeological assessment of the Mount Polley mine site. The mine site is located approximately 60 km northeast of Williams Lake B.C. and approximately 20 km southwest of Likely B.C. The purpose of this assessment is to address concerns expressed by the British Columbia Ministry of Environment (MOE) regarding changes in groundwater quality at the mine site, and to characterize the hydrogeologic setting at the mine site.

1.1 Objectives and Scope of Work

The main objectives of the hydrogeological assessment are to:

- Provide a data gap analysis and attempt to resolve gaps in the available data;
- Characterize the local hydrogeological conditions at the mine site and develop a site specific conceptual model;
- Identify surface and/or groundwater quality changes related to mining activity, specifically acid rock drainage (ARD);
- Determine infiltration rates into the Springer Pit and identify potential groundwater impacts related to the Springer Pit development; and
- Identify areas of potential environmental concern and potential contaminants of concern.

The following work has been performed:

- An in-depth data review and compilation of relevant groundwater information collected by MPMC and from the public domain;
- Ten (10) monitoring wells at five locations have been installed to resolve identified data gaps;
- Development of a conceptual site model and the identification of wells exhibiting significant changes in either baseline static water levels and/or water quality;
- Hydrogeological mapping to define discharge and recharge areas; and
- Decommissioning of one (1) monitoring well.

The main text of this report provides a discussion of the regional setting, a summary of the field program, characterization of the hydrogeological setting, potential impacts and conclusions and recommendations. Supporting information is available in the accompanying figures, tables, and appendix.

2.0 REGIONAL SETTING

The mine site is positioned on a ridge that separates Polley Lake and Bootjack Lake. The regional study area includes the Mount Polley mine site and the adjacent Bootjack Lake/ Morehead Creek drainage basin and the Polley Lake/ Hazeltine Creek drainage basin located southwest and northeast of the mine site respectively, Figure 1.

2.1 Physiography

The regional topographic relief and drainage networks are shown in Figure 1. The study area covers approximately 100 km². The Mount Polley mine site is located within the geographic region known as the Fraser Plateau. This region is west of and adjacent to the Quesnel Highlands and the Cariboo Mountain Range. The topography of this area is bedrock controlled and the elevation ranges from approximately 915 meters above sea level (masl) to 1470 masl. The topographic highs in the area are Mount Polley which peaks at approximately 1470 masl and is located at the center of the mine site, Bootjack and Jacobie mountains are located east of Mount Polley with elevations of 1270 masl and 1310 masl, respectively. These topographic highs have volcanic origins. The terrain within the study area slopes towards the east with a total relief of approximately 680 meters, with the surface of Quesnel Lake at approximately 790 masl.

This area was glaciated during the last glaciation and the overburden in the area is mostly glacial and glacio-lacustrine sediments. The composition of the till is silty clay/clayey silt with varying amounts of gravel and boulders. The overburden thickness in the area ranges from less than 1 meter to greater than 25 meters and bedrock is typically not exposed within most of the site. Bedrock exposure is limited to steep slopes and cuts. The majority of the area is tree covered and supports an active logging industry.

2.2 Regional Climate

The climate in the area can be described as a humid, continental climate with warm summers, with spring being the driest season and the summer being the wettest season.

The climate data is from Environment Canada's Canadian Climate Normals (1971-2000) database. Climate data for Likely B.C. is available from 1974 to 1993 and the findings are summarized below:

- Precipitation rates range from a maximum monthly average of 81.8 mm in June to a minimum monthly average of 35.5 mm in March;
- The average annual precipitation is 692.4 mm, with 215.2 mm occurring as snow;
- Temperatures range from a maximum daily average of 15.4 degrees Celsius in July to minimum daily average of -7.0 degrees Celsius in January;
- The average annual daily temperature is 4.6 degrees Celsius.

The Likely B.C. meteorological station is located approximately 20 from the mine site.

2.3 Regional Geology

The mine site is located within the Quesnellia Terrane. The Quesnellia Terrane consists chiefly of west-facing Upper Triassic to Lower Jurassic (Karnian to Sinemurian) volcanic arc rocks (Nicola Group, Rosslund Formation), coeval calc-alkalic and alkalic plutons, and laterally equivalent clastic sedimentary rocks (Mortimer, 1987; Monger, 1989; Andrew and others, 1990; Parrish and Monger, 1992).

The mine site is located within Quesnellia on the eastern margin of the Intermontane Belt. This part of Quesnellia consists of a sequence of volcanic units that dip east to northeast 5 km west of the property, and dip predominantly to the west or southwest 4 km east of the property (Bailey, 1987).

The volcanic rocks include flows, breccias and tuffs. Volumetrically the most important are augite-porphyrific basalt to trachybasalts that locally form pillowed units. Less common are purple and maroon polymictic volcanic breccias, and green crystal and lapilli tuffs. An analcite-bearing flow and flow breccia are interpreted to be the youngest volcanic units in the area (Bailey, 1987).

3.0 PREVIOUS INVESTIGATIONS

Drilling and well installations have been completed in multiple years beginning in 1981. Much of the information from these well investigations is lost other than some reference to their drilling and some flow measurements. A series of holes labelled R81-1 to R86-38 were drilled to depths ranging from 18 meters to 237 meters. Each of these boreholes has a reported groundwater yield from them ranging from 10 to 400 gallons per minute. There is no other information from these wells.

Another series of wells labelled MP89-107 to MP89-236 were drilled in the tailings area and in the Springer or Cariboo pit areas. All of these were 2 inch monitoring wells at one time but have since been destroyed. No drill logs or information from the monitoring wells is available.

In 1995, seven water wells were completed labelled 95-R1 to 95-R7. Two of these wells, 95-R4 and 95-R5 have been incorporated into the regular groundwater monitoring plan, the others have been lost due to development.

Fifteen new monitoring wells were installed in 1996, generally with a shallow and a deep installation at each site. Most of these wells have borehole logs and installation details in the database and most of them are in the current groundwater monitoring network.

In 2000 and 2011 several new installations were constructed in the tailings area.

All of these boreholes provide information on the general geology of the area, particularly overburden geology and they provide groundwater monitoring locations where wells have been retained.

Golder Associates produced a report on Springer pit groundwater inflows and the development of a pit lake. They predicted that at ultimate pit depth (820 masl), the groundwater inflows would be 1600 m³/day and that when the pit lake reaches spill elevation (1060 masl) the groundwater influx would be 100 m³/day.

Knight and Piesold (KP) estimated ultimate pit inflows for Bell, Springer and Wight pits in 2004. Their estimated ultimate inflows were 545, 1309, and 2450 m³/day respectively.

4.0 IDENTIFICATION OF DATA GAPS

The available monitoring network from the previous investigations provides reasonable coverage of the mine site. There are some installations that require modification or replacement as outlined below.

1. The monitoring well GW96-8a/8b was destroyed in the construction of a haul road. This monitoring well nest provided coverage for an area downgradient of the mill and required replacement. This well was replaced by GW12-3a/b.
2. Monitoring well 95-R4 contained multiple screens at six different levels. This potentially connected separate aquifers. Interpretation of water quality results from these multiple screens was thus ambiguous. This well was grouted and replaced with GW12-2a/b.
3. Monitoring well 95-R5 also contained multiple screens creating the same potential to join multiple aquifers and mixing water quality. Water quality in 95-R-5 has shown a recent distinct increase in sulphate. This well will be retained in the monitoring network in the short term and two wells have been installed on either side of this well, GW12-4a/b and GW12-5a/b, to expand the monitoring network. Because of the multiple screens, this well will eventually be replaced.
4. Groundwater level and quality monitoring in the tailings facility is well developed. Some water quality is starting to show a potential impact from mine operations. This will be monitored closely and expanded monitoring in frequency or distribution will be develop if warranted.
5. Baseline characterization down gradient of the temporary PAG storage area is sparse. Monitoring wells GW12-1a/b were established downgradient of the temporary PAG storage area to collect baseline data.

In general, these older installations have not been hydraulically tested through rising or falling head tests. This will be completed in a future field program.

5.0 FIELD PROGRAM METHODOLOGY

The field program took place between November 14, 2012 and December 18, 2012 and involved borehole drilling, monitoring well installation, well development, and single well response tests.

5.1 Monitoring Well Installation

Monitoring wells were installed as pairs, with each pair having a shallow and deep monitoring well. Each well had its own borehole.

Drilling was completed with a Fraste Multidrill XL, air rotary, track mounted drill rig to advance a total of ten (10) boreholes at five locations. Rock chip samples were collected every 3.0 meters at each of the deep boreholes. These samples were submitted to the MPMC for analysis. At each location the shallow monitoring wells were installed at the first water bearing zone and the deep monitoring wells were installed at or around 100 meters below ground surface (mbgs).

Installation of PVC monitoring wells and the well development was completed by the drilling contractor, GeoTech Drilling Ltd., with AMEC providing guidance. The monitoring wells were constructed using 5 cm diameter PVC pipe risers and slotted screens. Screen lengths were 3.0 meters and 6.1 meters for the shallow and deep wells respectively. A sand pack was placed around the slotted screen and approximately 0.3 to 1.0 meter above the top of the screen. Bentonite pellets were placed above the sand pack to create a hydraulic seal. The remainder of the borehole was grouted to surface and completed with an above ground protective casing. Monitoring well details are summarized in Table 1. Borehole logs and well completions are in Appendix A.

Table 1: Monitoring Well Installation Details

Monitoring Well ID	Total Well Depth (m)	Ground Surface Elevation (masl)	Well Screen Interval (masl)	Screened Formation
GW12-1A	99.6	991.6	892.0 - 899.2	Bedrock
GW12-1B	24.4	991.4	967.0 - 970.7	Bedrock
GW12-2A	100.6	1035.4	934.8 - 941.5	Bedrock
GW12-2B	30.2	1035.4	1005.2 - 1008.9	Bedrock
GW12-3A	99.7	1039.1	939.4 - 946.4	Bedrock
GW12-3B	16.1	1039.2	1023.1 - 1026.4	Bedrock
GW12-4A	100.6	989.9	889.3 - 896.5	Bedrock
GW12-4B	36.3	990.1	953.8 - 957.3	Bedrock
GW12-5A	100.4	965.3	864.9 - 872.2	Bedrock
GW12-5B	12.7	966.2	953.5 - 957.6	Overburden

The completed monitoring wells were developed using air injection. Each monitoring well was developed by air lifting for at least 2 hours and/or until the purged water was clear and contained no sediments. Prior to well development, static water levels were taken and these are summarized in Section 6.1.1.

5.2 Single Well Response Tests

Upon completion of the air development, water levels were taken to record the recovery in each well (rising head test). The rising head test data was used to calculate hydraulic conductivities of subsurface materials.

6.0 RESULTS

6.1 Hydrogeology and Conceptual Site Model

Groundwater in the Mount Polley area is mainly confined in a bedrock aquifer where flow is largely controlled by the orientation and frequency of fractures, faults and unconformities caused by volcanic events.

Localized overburden aquifers occur in topographic low areas, particularly in the tailings area, as these areas were not scraped/eroded during the last period of glaciation, thus glacial deposits (basal till) have remained intact in these locations. In general these glacial deposits do not contain significant outwash sands and gravels which can typically occur in glacial-fluvial deposits. There are some sandy deposits in the tailings area.

6.1.1 Groundwater Levels and Flow Directions

Groundwater measurements were recorded at all new well locations upon well installation. The groundwater level ranges from an elevation of 957.57 mbgs to 1036.25 mbgs.

Table 2: Summary of Measured Groundwater Levels

Monitoring Well ID	Measured Groundwater Depth (m)	Ground Surface Elevation (m)	Groundwater Level Elevation (m)	Gradient
GW12-1A	4.98	991.59	986.61	Up
GW12-1B	5.12	991.37	986.25	
GW12-2A	21.42	1035.45	1014.03	Down
GW12-2B	21.39	1035.45	1014.06	
GW12-3A	3.15	1039.06	1035.91	Down
GW12-3B	2.99	1039.24	1036.25	
GW12-4A	21.95	989.87	968.17	Down
GW12-4B	12.81	990.12	977.06	
GW12-5A	7.71	965.28	957.57	Down
GW12-5B	5.31	966.22	960.91	

The strongest hydraulic gradients are downward at sites GW12-4 and 5. These are both adjacent to Polley Lake. The other gradients are also down, with the exception of GW12-1, but all are very slight. The downwards gradients adjacent to Polley Lake indicate that groundwater is recharged in the high ground between Polley and Bootjack Lakes and discharges into the



lakes. GW12-1 is located at the toe of Mount Polley and is thus expected to be a groundwater discharge area.

Bootjack Lake is approximately 63 meters in elevation above Polley Lake and imprints a deep seated flow direction from Bootjack to Polley Lake. The shallower flow paths report to both Bootjack and Polley lakes. Figure 2 displays a cross section through the Mount Polley mine site that illustrates the conceptual groundwater flow paths.

Figure 3 presents a map of hydraulic heads derived from water level measurements in monitoring wells, local ponds and pits, and topography. The figure illustrates the general mound of groundwater in the high ground around the mine and the steep groundwater contours surrounding the pits. Figures 2 and 3 represent our conceptual model of groundwater flow directions and approximate head distributions.

6.1.2 Hydraulic Conductivity

Single well response tests were performed on all new installations upon well completion. The well response test used was the rising head test and hydraulic conductivities were calculated based upon the results.

The Hvorslev mathematical solution was used to calculate the hydraulic conductivity. The solution assumes a homogeneous aquifer with infinite vertical extent. This solution is widely used and provides a straight-forward and well-documented approximation of hydraulic conductivity in the vicinity of the monitoring well screen. The results of the single well response tests are summarized in the following table.

Table 3: Hydraulic Testing of New Wells.

Monitoring Well	Screened Formation	Ground Surface Elevation (masl)	Well Screen Interval (masl)	Hydraulic Conductivity (m/s)
GW12-1A	Bedrock	991.59	892.0 - 899.2	2×10^{-9}
GW12-1B	Bedrock	991.37	967.0 - 970.7	$>10^{-4}$
GW12-2A	Bedrock	1035.45	934.8 - 941.5	3×10^{-8}
GW12-2B	Bedrock	1035.45	1005.2 - 1008.9	2×10^{-7}
GW12-3A	Bedrock	1039.06	939.4 - 946.4	2×10^{-7}
GW12-3B	Bedrock	1039.24	1023.1 - 1026.4	1×10^{-5}
GW12-4A	Bedrock	989.87	889.3 - 896.5	4×10^{-9}
GW12-4B	Bedrock	990.12	953.8 - 957.3	2×10^{-5}
GW12-5A	Bedrock	965.28	864.9 - 872.2	$>10^{-4}$
GW12-5B	Glacial Till	966.22	953.5 - 957.6	3×10^{-7}

The hydraulic conductivities of all of the wells range from $>10^{-4}$ to 2×10^{-9} m/s. The geometric mean hydraulic conductivity of the shallow wells is 4×10^{-6} m/s and the geometric mean hydraulic conductivity of the deep wells is 9×10^{-8} m/s. The deep bedrock well at GW12-5A is actually in

the shallow bedrock interval and the shallow well is in overburden, a different hydrostratigraphic unit. If the shallow result at GW12-5B is excluded and the deep result is included in the shallow data set, the geometric mean of the shallow bedrock is 7×10^{-6} m/s and the deep bedrock geometric mean hydraulic conductivity is 1×10^{-8} m/s. The difference in the hydraulic conductivity between the shallow and deep wells is nearly three orders of magnitude.

6.1.3 Groundwater Flow Velocities

Using the approximate distribution of hydraulic heads, Figure 3, the shallow general hydraulic gradient toward both Polley and Bootjack Lake is approximately 0.14 m/m. Around the dewatered Springer and Cariboo pits, the local gradient is much higher and it appears that in the vicinity of the tailings pond the gradients are much lower.

Using the average hydraulic conductivity for shallow wells is 7×10^{-6} m/s and an assumed porosity of 0.1, the average Darcy velocity is approximately 0.8 m/day.

6.1.4 Pit Groundwater Inflows

The actual groundwater inflows to Springer, Cariboo, and Wight pits can be determined from a detailed water balance, which is not in this scope of work; MPMC is preparing the water balance. Using the hydraulic head contours (Fig. 3) and estimates of bulk hydraulic conductivity, combined inflows to Springer and Cariboo pits may be as high as 2,700 m³/day. The KP estimate from 2004 estimated a combined inflow of 1,853 m³/day. Knight and Piesold estimated an inflow to the Wight pit at 2,450 m³/day. Using the head contours (Fig. 3) and estimates of bulk hydraulic conductivity, the estimated inflows from this analysis are 5,000 m³/day which is significantly higher than the KP estimate. This may be due to high bulk hydraulic conductivity estimates or poorly drawn hydraulic head contours.

6.2 Groundwater Quality Trends

Based on recent groundwater sampling programs, five wells appear to be showing evidence of influence by mine operations. Two are in the pit/waste rock area; 95-R4, 95-R5, and three are in the tailings facility area; GW96-2B, GW96-4B, and GW00-1B.

6.2.1 95-R4

Monitoring well 95-R4 has shown elevated Sulphate and Selenium and decreased Molybdenum. There is a slight possibility of elevated copper. This well has multiple screens so the origin of this water quality is not known. This well was also significantly affected by the nearby sub-horizontal borehole that appeared to dramatically lower the water level in the well. Monitoring wells GW12-2A/B have replaced this well. Further monitoring should help to clarify these ambiguous results.

6.2.2 95-R5

Monitoring well 95-R5 shows elevated concentrations of sulphate, cadmium, and possibly copper, as well as elevated hardness. There is also a slight decrease in molybdenum. This well also has multiple screens. Monitoring will continue on this well. Adjacent wells have been constructed, GW12-4A/B and GW12-5A/B, to expand coverage in this area.

Well 95-R5 is screened with four screens at 43ft, 164ft, 209ft, and 254ft. Discrete micro purge samples were collected at these four locations using a submersible pump. The results of the sampling are not entirely conclusive; however the parameters with the greatest historic increases, sulphate and cadmium, were at the highest concentrations in the zone at 164 feet. This may suggest that this is the zone carrying the highest percentage of mine affected water.

6.2.3 GW96-2B

Monitoring well GW96-2B, located on the northeast limb of the tailings facility, is constructed from 31 to 35 meters depth in a water bearing sand. Sulphate in this well is just beginning to show signs of change; no other parameters are showing any clear trends.

6.2.4 GW96-4B

Monitoring well GW96-4B, located on the southwest limb of the tailings facility is showing a distinct trend of rising hardness, sulphate, and nitrate. This is a very shallow well, 3 to 7 meters, constructed in a sand lens.

6.2.5 GW00-1B

This well is also on the southwest limb of the tailings facility and also shallow, 4 – 10 meters and constructed across a thin sand seam. This well shows several elevated parameters; hardness, sulphate, nitrate, cadmium, molybdenum, and selenium.

There are some common themes in this suite of results; sulphate is the commonly elevated parameter. Some wells also show elevated selenium, cadmium, or nitrate. Well GW00-1B includes all of them plus molybdenum.

The mechanisms for these changes are not fully known. A review of geochemistry data and analysis, which we understand is frequently updated with new kinetic data, will help explain some of these mechanisms. This is beyond the scope of this assignment.

7.0 GROUNDWATER QUALITY MONITORING PROTOCOL

A groundwater monitoring protocol including sampling sites, frequency, and parameters has been proposed by MPMC. This proposal is appropriate for current conditions. Because there are initial indications of some mine affected water showing up in a couple of places, the monitoring program should remain adaptable to monitoring results. Additional monitoring sites may be required in future along with enhanced frequency.

8.0 SUMMARY

Hydrogeological conditions at Mt. Polley are defined by boreholes and monitoring wells constructed across the site. This data set and interpretations are summarized below.

1. The area hydrostratigraphy consists of, from top down:
 - a. Generally thin but locally thick glacio-fluvial overburden
 - b. Weathered and/or fractured bedrock
 - c. Intact and competent bedrock
2. It is apparent that some permeable fractures can be present at depth.
3. Hydraulic heads are generally a subdued form of topography being high in the center of the mine area and lower at both lakes and lower south of the tailings pond.
4. Groundwater discharges to both Bootjack and Polley lakes.
5. Groundwater discharges southeast of the tailings pond.
6. Groundwater discharges to Springer and Cariboo pits.
7. Groundwater velocities are approximately 3 meters/year but with considerable variability.
8. Groundwater appears to have been impacted at a few sites in the tailings area and a couple of sites downgradient of mine facilities.
9. Monitoring is established across the mine site with appropriate frequencies and analytical protocols.

9.0 CONCLUSIONS AND RECOMMENDATIONS

MPMC has an established monitoring program with some data records extending back to 1995. Recent possible detections have resulted in an expansion and modification to the monitoring program. MPMC will need to continue to be adaptive to changes in water chemistry and devise mitigation measures where necessary. Some recommendations moving forward are:

1. Conduct a study correlating changes in groundwater chemistry with the waste rock and tailings geochemistry data. Some sampling in the tailings would help define mechanisms there.



2. Continue to monitor 95-R5 for two more events but consider replacing this well with a nested pair.
3. Water quality results for the new wells GW12-4 and GW12-5 may indicate a need for expanded monitoring in this area.
4. A detailed water balance should be prepared to assess the groundwater volumes reporting to the pits. This will aid in calibrating a groundwater flow model that can be used for closure planning.

10.0 LIMITATIONS AND CLOSURE

This report has been prepared for the use of Mount Polley Mining Corporation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of such third parties. AMEC accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. It has been prepared in accordance with generally accepted geology and geotechnical engineering practices. No other warranty, expressed or implied, is made.

Respectfully submitted,

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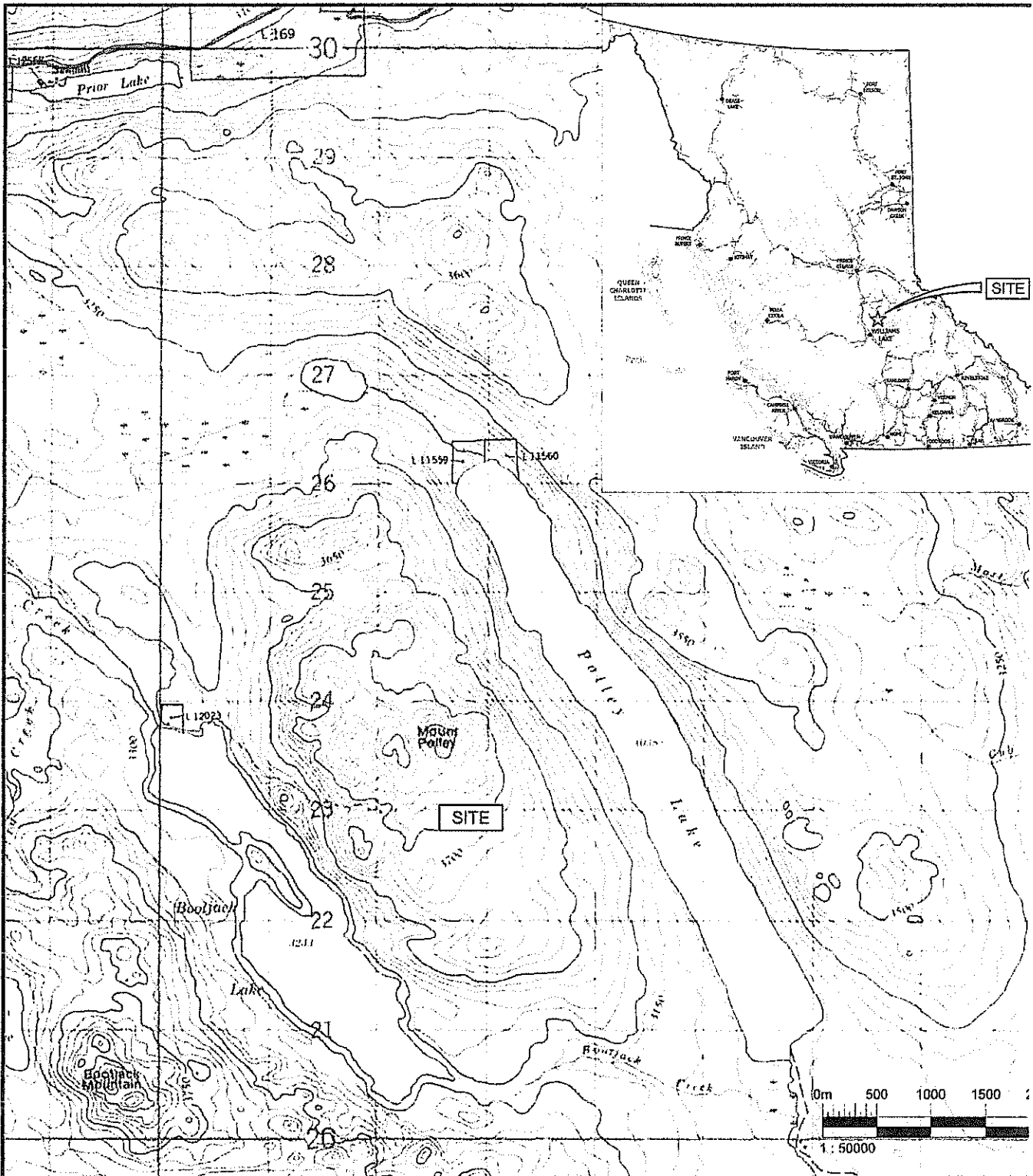
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FIGURES



BASE IMAGE: Natural Resources Canada (NRCAN), National Topographic Series (NTS), Mapsheet 93A12, 1976

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<p>PROJECT: MT. POLLEY CONCEPTUAL HYDROGEOLOGY</p>	<p>DWN BY: TH CHK'D BY: DE</p>	<p>DATUM: NAD 83 REV. NO: A</p>	<p>DATE: MARCH 2 PROJECT NO: VM00</p>
<p>TITLE: SITE LOCATION PLAN</p>	<p>PROJECTION: UTM Zone 10</p>	<p>SCALE: AS SHOWN</p>	<p>FIGURE NO:</p>



APPENDIX A
Borehole Logs

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-1A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5824612.572 EASTING: 590420.673	ELEVATION: 991.6 m
SAMPLE TYPE	<input type="checkbox"/> TUBE <input type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
0		SILT - Clayey, some sand and gravel, high plasticity, brown, moist.					
1				1			
2		SAND (fine) - Some silt, trace gravel, poorly graded, brown, dry.					
3		SAND and GRAVEL (fine to coarse)(subrounded to angular) - Trace silt, well graded, light brown (sand), dark grey (gravel), dry.		2			
4		BEDROCK - weathered, fine grained mass, mixture of pink and light green in color, dry.		3			
5				4		Measured depth to groundwater 5.89 mbg (11/30/2012)	
6		BEDROCK - (Igneous - granitic type bedrock) mixture of brownish red and light green in color, dry.		5			
7				6			
8				7			
9				8			
10				9			
11				10			
12				11			
13				12			
14				13			
15		Wet		14		Producing ~12 GPM.	
16		Possible fracture zone from 14.3 - 14.9 m.		15			
17				16			
18				17			
19				18			
20				19			
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

AMEC 88Y VM00560B - HYDRO LOGS.GPJ AMEC-PC-MULTIWELL-DATATEMPLATE.GDT 16-3-13



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LOGGED BY: TK
ENTERED BY: GN

COMPLETION DEPTH: 100.6 m
COMPLETION DATE: 20-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-1A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM005608
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5824612.572 EASTING: 590420.673	ELEVATION: 991.6 m
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE <input checked="" type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input checked="" type="checkbox"/> GRAB	<input checked="" type="checkbox"/> MUD RETURN <input checked="" type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SLOUGH	<input checked="" type="checkbox"/> GROUT <input checked="" type="checkbox"/> DRILL CUTTINGS <input checked="" type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
30		BEDROCK - (Igneous - granitic type bedrock) mixture of brownish red and light green in color, wet.		20				961
31				21				960
32				22				959
33				23				958
34				24				957
35				25				956
36				26				955
37				27				954
38				28				953
39				29				952
40				30				951
41				31				950
42				32				949
43				33				948
44				34				947
45				35				946
46				36				945
47				37				944
48				38				943
49				39				942
50								941
51								940
52		Trace Sulphides						939
53								938
54								937
55								936
56								935
57		Possible fracture zone from 57.0 to 59.4 m.						934
58								933
59								932
60								932



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COMPLETION DEPTH: 100.6 m
COMPLETION DATE: 20-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-1A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5824612.572 EASTING: 590420.673	ELEVATION: 991.6 m
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE <input type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT <input checked="" type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
60		BEDROCK - (Igneous - granitic type bedrock) mixture of brownish red and light green in color, wet. (continued)		40			
61							
62		Possible fracture zone from 64.0 to 65.5 m.		41			
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90							

AMEC BBY VM00560B - HYDRO LOGS.GPJ AMEC-PG-MULTIWELL-DATATEMPLATE.GDT 15-3-13

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-1A				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5824612.572 EASTING: 590420.673	ELEVATION: 991.6 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)	
90		BEDROCK - (Igneous - granitic type bedrock) mixture of brownish red and light green in color, wet. (continued)		59				901	
91					60				900
92					61				899
93					62				898
94					63				897
95					64				896
96					65				895
97					66				894
98									893
99									892
100									891
101		End of hole at 100.6 m depth.		66		Producing ~80-100 GPM.		890	
102								889	
103								888	
104								887	
105								886	
106								885	
107								884	
108								883	
109								882	
110								881	
111								880	
112								879	
113								878	
114								877	
115								876	
116								875	
117								874	
118								873	
119								872	
120								872	

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		ENTERED BY: GN	COMPLETION DATE: 20-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-1B
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5824617.366 EASTING: 590420.534	ELEVATION: 991.4 m
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE <input type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
0		SILT - Clayey, some sand and gravel, high plasticity, brown, moist.					
1		1.5m					
2		SAND (fine) - Some silt, trace gravel, poorly graded, brown, dry.					
6		6.1m				Measured depth to groundwater 5.97 mbg (11/30/12)	
7		BEDROCK - weathered, fine grained mass, mixture of brownish red and grey green in color, dry.					
12		12.2m					
13		BEDROCK - Igneous (Granitic type bedrock) mixture of brownish red and light green in color, dry					
19		Wet				Producing ~ 12 GPM	
24		24.4m					
25		End of hole at 24.4 m depth.					

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COMPLETION DEPTH: 24.4 m
 COMPLETION DATE: 22-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-2A				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00580B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5823179.943 EASTING: 591154.532	ELEVATION: 1035.4 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input checked="" type="checkbox"/> MUD RETURN	<input checked="" type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input checked="" type="checkbox"/> PEA GRAVEL	<input checked="" type="checkbox"/> SLOUGH	<input checked="" type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input checked="" type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
0		SILT and CLAY - Some sand and gravel, high plasticity, brown, moist		1				1035
1								1034
2								1033
3								1032
4								1031
5								1030
6				2			1029	
7		BEDROCK - weathered, fine grained mass, light green in color, dry.						1028
8		BEDROCK - Igneous (Granitic type bedrock), mixture of greyish purple and olive grey in color, dry.						1027
9				3				1026
10								1025
11								1024
12				4				1023
13								1022
14								1021
15				5				1020
16								1019
17								1018
18				6				1017
19								1016
20								1015
21								1014
22				7		Measured depth to groundwater 21.33 mbg (11/30/12)		1013
23								1012
24								1011
25				8				1010
26								1009
27						Producing ~ 5-6 GPM.		1008
28				9				1007
29								1006
30								1006



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COMPLETION DEPTH: 100.6 m
COMPLETION DATE: 24-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-2A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5823179.943 EASTING: 591154.532	ELEVATION: 1035.4 m
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE <input type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> GRAB <input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN	
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
30							
31		BEDROCK - Igneous (Granitic type bedrock), mixture of brownish red and grey green in color, wet		10			
32							
33							
34		Possible fracture zone from 33.5 - 36.5 m.		11			
35							
36				12			
37							
38							
39				13			
40							
41							
42				14			
43		Possible fracture zone from 42.7 - 44.2 m.					
44							
45				15			
46							
47							
48				16			
49							
50							
51				17			
52							
53							
54				18			
55							
56							
57				19			
58							
59							
60							

AMEC BBY VM00560B - HYDRO LOGS.GPJ AMEC-PC-MULTIWELL-DATA\PLATE GDT 15-3-13

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-2A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM005608
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5823179.943 EASTING: 591154.532	ELEVATION: 1035.4 m
SAMPLE TYPE	<input type="checkbox"/> TUBE <input checked="" type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
60		BEDROCK - Igneous (Granitic type bedrock), mixture of brownish red and grey green in color, wet (continued)		20				975
61								974
62								973
63								972
64					21		Producing ~40-50 GPM.	971
65								970
66								969
67					22			968
68								967
69								966
70				23			965	
71							964	
72							963	
73				24			962	
74							961	
75							960	
76				25			959	
77							958	
78							957	
79				26			956	
80							955	
81							954	
82				27			953	
83							952	
84							951	
85				28			950	
86							949	
87							948	
88				29			947	
89							946	
90								



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COMPLETION DEPTH: 100.8 m
COMPLETION DATE: 24-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-2A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5823179.943 EASTING: 591154.532	ELEVATION: 1035.4 m
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE <input type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> GRAB <input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN	
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
90		BEDROCK - igneous (Granitic type bedrock), mixture of brownish red and grey green in color, wet (continued)					
91			30				
92							
93							
94							
95			Possible fracture zone from 94.5 - 97.5 m.	31	Producing ~60 GPM.		
96							
97							
98							
99							
100							
101				33			
102		End of hole at 102.1 m depth.		102.1m		Producing >100 GPM.	
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							

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COMPLETION DEPTH: 100.6 m
 COMPLETION DATE: 24-11-12
 Page 4

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-2B
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5823176.641 EASTING: 591153.566	ELEVATION: 1035.4 m
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE <input checked="" type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input checked="" type="checkbox"/> GRAB	<input checked="" type="checkbox"/> MUD RETURN <input checked="" type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH	<input checked="" type="checkbox"/> GROUT <input checked="" type="checkbox"/> DRILL CUTTINGS <input checked="" type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
0		SILT and CLAY - some sand and gravel, high plasticity, brown, moist.						1035
1						1034		
2						1033		
3						1032		
4						1031		
5						1030		
6						1029		
7				1028				
8		BEDROCK - Igneous (granitic type bedrock), mixture of greenish grey and brownish red in color, dry.						1028
9						1027		
10						1026		
11						1025		
12						1024		
13						1023		
14						1022		
15						1021		
16						1020		
17						1019		
18						1018		
19						1017		
20						1016		
21				1015				
22				1014				
23				1013				
24				1012				
25				1011				
26				1010				
27				1009				
28				1008				
29				1007				
30				1006				

7.6m

Wet

Measured depth to groundwater
21.12 mbsg (11/30/12)

Producing ~ 6 GPM.




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LOGGED BY: JK
ENTERED BY: GN

COMPLETION DEPTH: 30.2 m
COMPLETION DATE: 25-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-2B
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5823176.641 EASTING: 591153.566	ELEVATION: 1035.4 m
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE <input type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT <input checked="" type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
30		End of hole at 30.5 m depth.		10		Producing ~ 12 GPM.	
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							

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COMPLETION DEPTH: 30.2 m
 COMPLETION DATE: 25-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-3A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00580B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822101.875 EASTING: 592147.584	ELEVATION: 1039.1 m
SAMPLE TYPE	<input type="checkbox"/> TUBE <input checked="" type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> GRAB <input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN	
BACKFILL TYPE	<input type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
0		MINE FILL - Sand and gravel, coarse, angular, moderately graded, olive grey, dry.						1038
1								1037
2								1036
3		SAND and GRAVEL - fine to coarse grained, subrounded to subangular, some silt, trace organics, well graded, dark brown, moist.		1		Measured depth to groundwater 3.88 mbg (11/30/12)		1035
4								1034
5								1033
6		Wet		2				1032
7		BEDROCK, weathered - fine to coarse, subrounded to angular, well graded, low plasticity, grey and brown in color, wet.						1031
8								1030
9		BEDROCK - Igneous (granitic type bedrock), mixture of greenish grey and brownish red in color, wet.		3				1029
10								1028
11								1027
12				4				1026
13								1025
14								1024
15				5				1023
16		Major fracture zone from 15.2 - 16.7 m.						1022
17								1021
18				6				1020
19								1019
20								1018
21				7				1017
22								1016
23								1015
24				8				1014
25								1013
26								1012
27				9		Producing ~ 20 GPM, soft water.		1011
28								1010

CLIENT: Mount Polley Mining Corporation	PROJECT: ML Polley Hydrogeological Assessment	BOREHOLE NO: GW12-3A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822101.875 EASTING: 592147.584	ELEVATION: 1039.1 m
SAMPLE TYPE	<input type="checkbox"/> TUBE <input checked="" type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> GRAB <input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN	
BACKFILL TYPE	<input type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
30		BEDROCK - Igneous (granitic type bedrock), mixture of greenish grey and brownish red in color, wet. (continued)		10			
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							
				11			
				12		Producing ~ 20 GPM, hard water.	
				13			
				14			

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LOGGED BY: TK
 ENTERED BY: GN

COMPLETION DEPTH: 100.6 m
 COMPLETION DATE: 28-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-3A				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822101.875 EASTING: 592147.584	ELEVATION: 1039.1 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
60		BEDROCK - Igneous (granitic type bedrock), mixture of greenish grey and brownish red in color, wet. (continued)						978
61								977
62								976
63								975
64								974
65								973
66								972
67								971
68								970
69								969
70								968
71								967
72								966
73								965
74								964
75								963
76								962
77								961
78								960
79								959
80							958	
81							957	
82							956	
83							955	
84							954	
85							953	
86							952	
87							951	
88							950	
89								
90								



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COMPLETION DEPTH: 100.6 m
 COMPLETION DATE: 28-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-3A				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822101.875 EASTING: 592147.584	ELEVATION: 1039.1 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
90		BEDROCK - Igneous (granitic type bedrock), mixture of greenish grey and brownish red in color, wet. (continued)					
91							
92							
93							
94							
95							
96							
97							
98							
99							
100							
101		End of hole at 100.6 m depth.				Producing ~ 20 GPM.	
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							

AMEC BBY VM00560B - HYDRO LOGS.GPJ AMEC-PG-MULTIWELL-DATATEMPLATE.GDT 15-3-13



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COMPLETION DEPTH: 100.6 m
 COMPLETION DATE: 28-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-3B				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822098.478 EASTING: 592147.958	ELEVATION: 1039.2 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
0		MINE FILL - SAND and GRAVEL - coarse, angular, some silt, moderately graded, olive grey, dry.						1039
1								1038
2								1037
3								1036
4		SILT and CLAY - some sand and gravel, high plasticity, brown, trace organics, moist.				Measured depth to groundwater 3.13 mbg (11/30/12) 2.99 mbg (12/17/12)		1035
5								1034
6		CLAY - silty trace sand and gravel, high plasticity, brown, moist.						1033
7								1032
8		BEDROCK - weathered, fine grain mass, mixture of greenish grey and brownish red in color, dry.						1031
9								1030
10		BEDROCK - Igneous (granitic type bedrock) mixture of greenish grey and brownish red in color, dry.						1029
11								1028
12		Wet						1027
13		Major fracture zone from 12.2 - 13.7 m.						1026
14								1025
15								1024
16		Major fracture zone from 15.2 - 16.1 m.						1023
17		End of hole at 16.1 m depth.				Producing -12 GPM.		1022
18								1021
19								1020
20								1019
21								1018
22								1017
23								1016
24								1015
25								1014
26								1013
27								1012
28								1011
29								1010
30								1010



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COMPLETION DEPTH: 16.1 m
COMPLETION DATE: 27-11-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-4A				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822894.269 EASTING: 594117.413	ELEVATION: 989.9 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
0		SAND - silty, trace Gravel, trace organics, occasional cobbles, moist					
0.6							
1		GRAVEL - Igneous (granitic type rock), coarse, some cobbles, subhedral light green (mafic) phenocrysts, grey matrix, pophyritic, dry					
1.6							
2		SAND - fine to medium grained, some silt, some gravel, brown/red, moist					
2.1							
2.8							
3		GRAVEL - Igneous (granitic type rock), coarse, some cobbles, subhedral light green (mafic) phenocrysts, grey matrix, pophyritic, dry		1			
4							
5		SAND - fine to medium grained, some silt, some gravel, brown/red, moist					
6		GRAVEL - Igneous (granitic type rock), coarse, some cobbles, subhedral light green (mafic) phenocrysts, grey matrix, pophyritic, dry		2			
7							
8		BEDROCK - Igneous (granitic type bedrock) pophyritic, subhedral light green (mafic) phenocrysts, grey matrix, calcite filled fractures from 18.28 to 24.38, dry		3			
9							
10							
11							
12				4			
13							
14							
15				5			
16							
17							
18							
19		Major fracture zone from 18.28 - 24.38 m.		6			
20							
21							
22				7			
23							
24							
24.4							
25		BEDROCK - Igneous (granitic type bedrock), fine grained, aphanitic, brown/yellow, dry (Intrusion)		8			
26							
27							
27.4							
28		BEDROCK - Igneous (granitic type bedrock) pophyritic, subhedral light green (mafic) phenocrysts, grey matrix, green content increases with depth, wet at 27.43 m		9			
29							
30							

AMEC BBY VM00560B - HYDRO LOGS.GPJ AMEC-PG-MUL-TWELL-DATATEMPLATE.GDT 15-3-13



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LOGGED BY: DK
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COMPLETION DEPTH: 100.6 m
 COMPLETION DATE: 7-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-4A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822894.269 EASTING: 594117.413	ELEVATION: 989.9 m
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE <input checked="" type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input checked="" type="checkbox"/> GRAB	<input checked="" type="checkbox"/> MUD RETURN <input checked="" type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SLOUGH	<input checked="" type="checkbox"/> GROUT <input checked="" type="checkbox"/> DRILL CUTTINGS <input checked="" type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
30		BEDROCK - Igneous (granitic type bedrock) pophyrhytic, subhedral light green (mafic) phenocrysts, grey matrix, green content increases with depth, wet at 27.43 m (continued)		10		Producing - 5 GPM.		959
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								



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COMPLETION DEPTH: 100.6 m
COMPLETION DATE: 7-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-4A				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822894.269 EASTING: 594117.413	ELEVATION: 989.9 m				
SAMPLE TYPE	<input type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
60		BEDROCK - Igneous (granitic type bedrock) porphyritic, subhedral light green (mafic) phenocrysts, grey matrix, green content increases with depth, wet at 27.43 m (continued)		20			
61				21			
62				22			
63				23			
64				24			
65				25			
66				26			
67				27			
68				28			
69				29			
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80						Producing - 18 GPM.	
81							
82							
83							
84							
85							
86							
87							
88							
89							
90							

AMEC BBY VM00560B - HYDRO LOGS GRJ AMEC-PG-MH-TIMEL-DATATEMPLATE.GDT 45-3-13



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COMPLETION DEPTH: 100.6 m
 COMPLETION DATE: 7-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-4A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822894.269 EASTING: 594117.413	ELEVATION: 989.9 m

SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
90		BEDROCK - Igneous (granitic type bedrock) pophyrhytic, subhedral light green (mafic) phenocrysts, grey matrix, green content increases with depth, wet at 27.43 m (continued)		30				899
91				898				
92				897				
93				896				
94				895				
95				894				
96				893				
97				892				
98				891				
99				890				
100		100.6m	33				889	
101		End of hole at 100.58 m depth.						888
102								887
103								886
104								885
105								884
106								883
107								882
108								881
109								880
110								879
111								878
112								877
113								876
114								875
115								874
116								873
117								872
118								871
119								
120								

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		ENTERED BY: GN	COMPLETION DATE: 7-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-4B
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822890.944 EASTING: 594115.972	ELEVATION: 990.1 m
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE <input checked="" type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
0		SAND - silty, trace Gravel, trace organics, occasional cobbles, brown, moist					
0.6							
1		GRAVEL - Igneous (granitic type rock), some cobbles, pophyritic, subhedral light green (mafic) phenocrysts, grey matrix, dry					
4.6							
5.2							
5		SAND - fine to medium grained, some silt, some gravel, brown/red, moist					
6		BEDROCK - Igneous (granitic type bedrock) pophyritic, subhedral light green (mafic) phenocrysts, grey matrix, calcite filled fractures from 18.28 to 24.38, dry					
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
24.4							
25		BEDROCK - Igneous (granitic type bedrock), fine grained, aphanitic, brown/yellow, dry (Intrusion), wet at approx. 27.43					
26							
27							
27.4							
28		BEDROCK - Igneous (granitic type bedrock) pophyritic, subhedral light green (mafic) phenocrysts, grey matrix, wet					
29							
30							

Measured depth to groundwater
12.81 mbg (12/15/12)

Major fracture zone from 18.28 - 24.38 m.

AMEC BBY VM00560B - HYDRO LOGS.GPJ AMEC-PG-MULTIWELL-DATATEMPLATE.GDT 15-3-13



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COMPLETION DEPTH: 36.3 m
COMPLETION DATE: 8-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-4B
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM005608
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5822890.944 EASTING: 594115.972	ELEVATION: 990.1 m
SAMPLE TYPE	<input type="checkbox"/> TUBE <input checked="" type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> GRAB <input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN	
BACKFILL TYPE	<input type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input checked="" type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
30		BEDROCK - Igneous (granitic type bedrock) pophyrhytic, subhedral light green (mafic) phenocrysts, grey matrix, wet (continued)				Producing ~5 GPM.		959
31			958					
32			957					
33			956					
34			955					
35			954					
36			36.3m	953				
37		End of hole at 36.27 m depth.					952	
38							951	
39							950	
40							949	
41							948	
42							947	
43							946	
44							945	
45							944	
46							943	
47							942	
48							941	
49							940	
50							939	
51							938	
52							937	
53							936	
54							935	
55							934	
56							933	
57							932	
58							931	
59								
60								



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COMPLETION DEPTH: 36.3 m
COMPLETION DATE: 8-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-5A				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5824568.66 EASTING: 593199.483	ELEVATION: 966.2 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
0		CLAY - silty, some gravel and cobbles, trace sand, high plasticity, brown, moist to wet (Basal Till)					
1							
2							
3				1			
4							
5							
6				2			
7							
7.6m							
8		GRAVEL - some sand and clay, occasional cobbles, subrounded gravel, brown, wet at 9.0 m, (Basal Till)				Measured depth to groundwater 7.71 mbg (12/14/12)	
9							
10				3			
11							
12				4			
13							
14							
15		Numerous boulders throughout unit				Producing ~ 90 GPM.	
16							
17				5			
18							
19							
20				6			
21							
22				7			
23							
24							
25				8			
25.9m							
26		BEDROCK - Igneous (granitic type rock), phaneritic, pink/grey, banded, wet Highly weathered zone from 25.9 - 39.6 m.					
27							
28				9			
29							
30							

AMEC BBY VM00560B - HYDRO LOGS.GPJ AMEC-PG-MULTIWELL-DATATEMPLATE.GDT 15-3-13



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LOGGED BY: DK
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COMPLETION DEPTH: 100.4 m
COMPLETION DATE: 11-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-5A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5824568.66 EASTING: 593199.483	ELEVATION: 966.2 m
SAMPLE TYPE	<input type="checkbox"/> TUBE <input checked="" type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
30		BEDROCK - Igneous (granitic type rock), phaneritic, pink/grey, banded, wet (continued)		10				936
31								935
32								934
33								933
34					11			932
35								931
36								930
37					12			929
38								928
39								927
40		Fracture zone from 39.6 - 45.7 m, calcite filled fractures.		13				926
41								925
42								924
43					14			923
44								922
45								921
46					15			920
47								919
48								918
49					16			917
50							916	
51							915	
52				17			914	
53							913	
54							912	
55				18			911	
56							910	
57							909	
58				19			908	
59							907	
60								907



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 Tel: (604) 294-3811

LOGGED BY: DK
 ENTERED BY: GN

COMPLETION DEPTH: 100.4 m
 COMPLETION DATE: 11-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-5A				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5824568.66 EASTING: 593199.483	ELEVATION: 966.2 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
60		BEDROCK - Igneous (granitic type rock), phaneritic, pink/grey, banded, wet (<i>continued</i>)		20			
61							
62							
63							
64							
65				21			
66				22			
67		BEDROCK - Igneous (granitic type rock), phaneritic, green/grey, wet, (intrusion) 67.1m		22			
68				23			
69				24			
70				25			
71				26			
72				27			
73				28			
74				29			
75							
76		BEDROCK - Igneous (granitic type rock), phaneritic, pink/grey, banded, occasional grey/green seams from 91.44 to 94.49, wet 76.2m		25			
77				26			
78				27			
79				28			
80				29			
81							
82							
83							
84							
85							
86							
87							
88							
89							
90							

AMEC BBY VM00560B - HYDRO LOGS.GPJ AMEC-PG-MULTIWELL-DATATEMPLATE.GDT 15-3-13



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COMPLETION DEPTH: 100.4 m
 COMPLETION DATE: 11-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-5A
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5824568.66 EASTING: 593199.483	ELEVATION: 966.2 m

SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
90		BEDROCK - Igneous (granitic type rock), phaneritic, pink/grey, banded, occasional grey/green seams from 91.44 to 94.49, wet (continued)		30				876
91								875
92								
93								873
94				31				872
95								871
96								870
97				32				869
98								868
99								867
100								866
101		End of hole at 100.58 m depth		33				865
102								864
103								863
104								862
105								861
106								860
107								859
108								858
109								857
110								856
111								855
112								854
113								853
114								852
115								851
116								850
117								849
118								848
119								847
120								



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COMPLETION DEPTH: 100.4 m
 COMPLETION DATE: 11-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: GW12-5B				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5824582.252 EASTING: 593197.113	ELEVATION: 965.3 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
0		CLAY - silty, some gravel and cobbles, trace sand, high plasticity, brown, moist to wet (Basal Till)					
7.6m						Measured depth to groundwater 5.31 mbg (12/14/12)	
8		GRAVEL - subrounded, some clay and sand, some cobbles, (Basal Till), brown, wet at 9.0 Numerous boulders throughout unit				Producing ~ 3 GPM.	
12.7m		End of hole at 12.74 m depth.					

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LOGGED BY: DK
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COMPLETION DEPTH: 12.7 m
 COMPLETION DATE: 13-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: S112-01				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5819786 EASTING: 595408	ELEVATION: 940 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
0		SILT - some clay, trace sand, moderate plasticity, dark brown, trace organics, moist.						939
1					1.5m			
2		SILT and CLAY - some sand and gravel, high plasticity, brown, moist.						938
3					3m			937
4		SAND - fine to coarse, gravelly, subrounded to subangular, some silt, trace clay, well graded, brown, moist.						936
5					4.5m			935
6		SILT - clayey to some clay, some to trace sand and gravel, high to medium plasticity, brown, moist.						934
7								933
8		Interbedded sand and gravel lenses between 7.6 - 9.1 m.						932
9		Becomes less clay (to trace clay), and more sandy (to sandy) between 9.1 - 16.7 m.						931
10								930
11								929
12								928
13								927
14								926
15								925
16								924
17		Color change to olive grey at 16.7 m.						923
18								922
19		Sand and gravel lenses between 18.3 - 18.9 m						921
20								920
21					21.3m			919
22		SILT - sandy, some gravel, trace clay, low plasticity, olive grey, moist.						918
23								917
24								916
25								915
26								914
27								913
28								912
29								911
30								



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LOGGED BY: TK
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COMPLETION DEPTH: 41.5 m
COMPLETION DATE: 3-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: SH2-01				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5819786 EASTING: 595408	ELEVATION: 940 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
30		SILT - sandy, some gravel, trace clay, low plasticity, olive grey, mosit. (continued)					
31							
32							
33							
34							
35		Wet					
36							
37							
38							
39							
40							
41							
41		BEDROCK - fine grained matrix, light grey in color.					
42		End of hole at 41.5 m depth. Installed SI at 41.5m.					
43		3 telescopic SI sections installed at 5.8 mbg, 9.8 mbg, and 13.4 mbg.					
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							

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COMPLETION DEPTH: 41.5 m
 COMPLETION DATE: 3-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: S112-02				
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B				
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5819421 EASTING: 595920	ELEVATION: 940 m				
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> NO RECOVERY	<input checked="" type="checkbox"/> SPLIT SPOON	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN	<input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE	<input type="checkbox"/> PEA GRAVEL	<input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> DRILL CUTTINGS	<input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS	ELEVATION (m)
0		SILT and CLAY - gravelly, some sand, high plasticity, olive grey, dry.						939
1								938
2								937
3								936
4								935
5								934
6								933
7								932
8								931
9								930
10								929
11								928
12								927
13								926
14								925
15								924
16								923
17								922
18								921
19								920
20								919
21								918
22								917
23								916
24								915
25								914
26								913
27								912
28								911
29								
30								



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LOGGED BY: TK
 ENTERED BY: GN

COMPLETION DEPTH: 42.7 m
 COMPLETION DATE: 5-12-12

CLIENT: Mount Polley Mining Corporation	PROJECT: Mt. Polley Hydrogeological Assessment	BOREHOLE NO: SI12-02
DRILLER: Geotech Drilling	Mount Polley B.C.	PROJECT NO: VM00560B
DRILL TYPE/METHOD: Fraste DR238/Air Rotary (ODEX) 6"	NORTHING: 5819421 EASTING: 595920	ELEVATION: 940 m
SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE <input type="checkbox"/> NO RECOVERY <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> GRAB	<input type="checkbox"/> MUD RETURN <input type="checkbox"/> CORE RETURN
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> PEA GRAVEL <input type="checkbox"/> SLOUGH	<input type="checkbox"/> GROUT <input checked="" type="checkbox"/> DRILL CUTTINGS <input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	ADDITIONAL INFORMATION	WELL INSTALLATION DETAILS
30		SILT and CLAY - gravelly, some sand, high plasticity, olive grey, dry. (continued)					
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
42		BEDROCK - fine grained matrix, light grey in color. 42.1m					
43		End of hole at 42.7 mbg. Installed SI at 42.7 mbg. 42.7m 3 Telescopic SI sections installed at 4.2 mbg, 7.9 mbg and 11.6 mbg.					
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							

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COMPLETION DEPTH: 42.7 m
 COMPLETION DATE: 5-12-12