Minto Mine Phase V/VI Expansion: Hydrogeological Characterization Report

Prepared for

Minto Explorations Ltd.

Prepared by

SRK Consulting (Canada) Inc.
1CM002.008.301
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1 Introduction

SRK Consulting (Canada) Inc. was contracted by Minto Explorations Ltd. to develop a hydrogeological conceptual model that characterizes the groundwater flow regime of the Minto Mine site in order to determine flow paths and where these will discharge to surface receiving bodies. The model is designed to address the central issues of how groundwater moves through the site and how it is potentially impacted by mining activities. The model also considers the possible follow-on effects to the receiving environment, where groundwater discharges to surface water bodies.

This report is intended to compile the existing hydrogeological knowledge of the site and to integrate this knowledge with the overall site hydrology in the context of the proposed plans for mine expansion. The hydrogeological conceptual model is used to determine the probable flow paths of groundwater through the site, the controlling factors for volume and rate of flow, and the areas where water may come into contact with sources of potential parameters of concern.

2 Hydrogeological Environment

2.1 Site Description

The Minto Mine is situated in the headwaters of Minto Creek (Figure 1), which drains northeast to the Yukon River. The Minto Creek catchment is characterized by moderate to steep slopes to the north, south, and west. The portion of the catchment occupied by the mine is known as Upper Minto Creek; this upper catchment covers approximately 1,040 ha of the larger 4,100 ha Minto Creek catchment, and is defined as the catchment area up gradient of the Water Storage Dam (SRK 2012b). The catchment below the water dam contains no mine components, and is known as Lower Minto Creek.

The groundwater flow regime is affected by several contributing factors including topography, climate, overburden, bedrock, major structures, and permafrost. At Minto, groundwater flow direction is dominated by topography, with groundwater flowing from the upland areas towards Minto Creek, as indicated by the arrows shown in Figure 2. The influences of these contributing factors are discussed throughout Section 2.

The conceptual model describes the groundwater flow regime at Minto Mine. It allows the site to be characterized based on the data available from multiple studies conducted on the property. Although the conceptual model does not provide quantitative results like outputs of a numerical model, it does provide a comprehensive description of groundwater flow at the site.

The flow regime at Minto Mine is a relatively simple groundwater system, but the system has some components that are difficult to characterize. With the exception of Minto North Pit, the entire mine footprint exists in a single catchment with Minto Creek as its main channel of surface discharge. However, permafrost distribution is not comprehensively known as it is discontinuous and is undoubtedly affected by mining, which results in changes in the location of permafrost boundaries over time. As permafrost creates an aquiclude (groundwater barrier), precise groundwater flow paths are challenging to determine or incorporate into a numerical model. Because the system has a main drainage location (Minto Creek), groundwater can be monitored

at multiple points along the gradient, thus providing the opportunity to track possible effects on groundwater.

Another factor that could significantly affect the groundwater flow regime is the fractured bedrock. Fractures in the bedrock have the potential to act as conduits for groundwater flow if they are well connected and are not blocked by low permeability materials such as clay. This factor is also difficult to characterize in a numerical groundwater model, even if extensive data is available. However, observations of drill core indicate that the bedrock generally has tight fractures or fractures filled with weathered material including clay and hematite.

The proposed Minto North Pit is part of the McGinty Creek watershed (Figure 2). The catchment containing the pit has an area of approximately 100 ha, and is located in the upper portion of the east tributary of McGinty Creek. Minto North Pit is the only component of the proposed mine expansion within this catchment. Preliminary water quality modelling has indicated that the development of Minto North Pit is unlikely to lead to significant water quality effects (SRK 2013c). Throughout pit operations, the pit sump water will be pumped into the Minto Creek watershed and managed with all other mine water; this pumping will result in a short term depression of the local water table. After pit operations are complete, it is expected that groundwater and local surface runoff will accumulate in the pit resulting in the groundwater table rebounding to near the pre-mining elevation.

2.2 Climate

The mine is located in a subarctic climate, typically characterized by long, cold winters and cool, mild summers (ACG 2012a). Minto Mine typically experiences precipitation throughout the year, with more snowfall than rain. Details regarding the baseline climate data are presented in the Minto Climate Baseline Report: YESAB Project Proposal Phase V/VI (ACG 2012a).

The mean annual temperature is –2°C, with winter temperatures typically ranging from –10 to –30°C and summer ranging from 10 to 20°C. Wind direction is predominantly south to southeast and north to northwest with an average speed of approximately 10 km/h, dependent on height above ground surface. Relative humidity is highest during the winter months, 75 to 95%, and lowest in spring and early summer, 40 to 60%, with an annual average of 71%. Average daily mean temperatures recorded from October through March are below 0°C, representing the time of year where infiltration is reduced or not possible due to a frozen ground surface.

2.2.1 Hydrology

Total precipitation has been monitored on site in two locations and correlated with the Pelly Ranch meteorological station to determine the estimated mean annual precipitation to be 329 mm/year (SRK 2012b). The mean annual precipitation includes rainfall and snowfall, using snow water equivalent measurements.

The site-wide water balance estimated that the total runoff for the catchment area above the Water Storage Dam (WSD) was 925,000 m^3 for 2012 (SRK 2012b). The 2012 runoff is consistent with the runoff coefficient of 0.3 that has been estimated for the site (SRK 2013a).

There are three weirs set up for monitoring along Minto Creek where continuous water level monitoring is conducted for the open water season, which spans approximately early May through mid-October. The weirs are affected by controlled release of water from the site; however, rainfall events are still evident in the hydrographs (ACG 2012b).

2.3 Overburden

Overburden thickness across the site is correlated with geomorphological features. Near topographic highs (or ridges) there is little to no overburden, while overburden thickness increases down valley slopes and is generally thickest in valley bottoms. Unconsolidated material deposited along the valley bottom varies in thickness. Typically, the ridge tops are dominated by sandy, residual soils grading to weathered bedrock. It is generally observed that fine weathering products have been washed down slope. Overburden in the valley bottoms consists of finer materials dominated by sandy silts and clays (SRK 2008a). A representative selection of drill hole logs from various geotechnical drilling programs is presented in Appendix A; collar locations are shown in Figure 3. The drill holes shown in Appendix A provide spatial coverage within the core site footprint and high quality data regarding depth to bedrock. In isolated cases, drill holes that did not reach bedrock are also included; these provide minimum bedrock depths.

2.3.1 Thickness and Distribution

Several geotechnical studies have been conducted across the site (e.g. Golder 1974; SRK 2007; EBA 2009–2011 and 2012). Figure 3 presents the overburden depth determined from these studies. It should be noted that overburden thicknesses for the Dry Stack Tailings Storage Facility generally represent data collected post-construction, and therefore reflect combined tailings and overburden thickness. The drill holes located at the toe of the Southwest Waste Dump were drilled prior to the full extent of the current waste rock and provide a good indication of the overburden depth.

Along the ridge near the proposed Ridgetop North and Ridgetop South pits, bedrock is close to the surface (less than 15 m). In most cases, the bedrock is within 5 m of the surface. The proposed Minto North Pit also has minimal overburden near the ridge top.

To the north/northeast of the Dry Stack Tailings Storage Facility, overburden is controlled by the steep valley slopes and Minto Creek cutting through the bottom of the valley. The overburden thickness near the creek bed is less than 15 m, but increases in some areas, especially along the southern valley slopes. In some areas, this overburden can exceed 50 m, but typically ranges between 30 and 50 m.

2.3.2 Material Composition

The ridge tops to the north and south of the mine footprint have little overburden, and that which exists consists of sandy residual soils that grade into weathered bedrock. In the valley east of the Southwest Waste Dump, the subsurface soils consist of sand and silt layers that overlie the residual sandy soil and weathered bedrock. Some locations have a mix of sand, silt, and gravel layers with no clear stratigraphic continuity evident through the valley.

Fill has been placed in the mine's central area near the Main Pit, the mill, the administration and the camp buildings and extends up to 8 m below current ground surface. The fill overlies overburden consisting of sandy silt, with gravel and some cobbles throughout. The overburden transitions to weathered bedrock between 15 and 20 m below ground surface at the time of drilling (predominantly 2010 and 2011).

Below the Dry Stack Tailings Storage Facility, overburden is generally fine-grained silt or silt and sand overlying ice rich layers of silts and clays. This layered type of overburden continues along the valley to the east, which overlies residual sandy soils and weathered bedrock with depth.

2.4 Bedrock

The Minto Mine site is underlain predominantly by igneous rocks of granodiorite composition. The granodiorite is generally categorized based on textures which are associated with foliation and crystal size. Rock texture ranges from massive granodiorite to foliated granodiorite, with foliated granodiorite typically characterized by increased biotite content. The biotite-rich foliated granodiorite hosts mineralized zones of copper sulphide. Crystal textures range from equigranular to porphyritic.

Other minor lithologies consisting of small dykes of simple quartz-feldspar pegmatite, aplite, and an aphanitic textured intermediate composition rock are also observed. Bodies of all of these units are relatively thin and rarely exceed one metre core intersections. These dykes are relatively late, generally postdating the peak ductile deformation event; however, some pegmatite and aplite bodies observed in a rock cut located north of the mill complex are openly folded. There has been evidence of conglomerate and volcanic flows in drill core by past operators, and drilling has demonstrated that a conglomerate unit bearing local granodiorite pebbles occurs across much of the southern part of the project area. This is of particular note in the vicinity of the proposed Ridgetop North and Ridgetop South pits.

2.4.1 Structure

Structure can have a significant impact on groundwater flow if structures have a higher hydraulic conductivity than that of the surrounding rock. Although there is evidence both regionally and locally of multiple structures and structure types, this section discusses the structures that have been identified on site as structures of interest with respect to groundwater flow.

There are both ductile and brittle phases of deformation around the Minto deposits. Copper-sulphide mineralization is strongly associated with foliated granodiorite. This foliation is defined by the alignment of biotite in areas of weak to moderate strain, and by the segregation of quartz and feldspar into bands in areas of higher strain, giving the rock a gneissic texture in very strongly deformed areas. The deformation zones form sub-horizontal horizons within the more massive plutonic rocks of the region and can be traced laterally for more than 1,000 m in the drill core. They are often stacked in parallel to sub-parallel sequences (SRK 2013c).

The Minto Creek Fault (MC Fault) bisects the Minto Main deposit, dividing it into north and south areas and is modeled as dipping steeply north-northeast with an apparent left lateral reverse displacement. The northern block moved up and to the west relative to the southern block. Both the vertical and horizontal displacements are evident by offsets in the main zone mineralization

and appear to be minimal. A lack of marker horizons in the plutonic rocks, however, makes it difficult to determine the absolute magnitude of the movement (SRK 2008b).

The DEF Fault defines the northern end of the Minto Main deposit. It strikes more or less east-west and dips north-northwest and cuts off the Main Zone mineralization. The vertical orientation of most of the drilling is less than optimal to intersect steep to vertical faults; the DEF fault may have a similar sense of movement to the MC fault, however, a significant amount of displacement is inferred. (SRK 2013c).

The mineralization in the proposed Ridgetop North and Ridgetop South pits is also controlled by structure. The boundary between the Area 2 and Area 118 pits is defined by a northeast dipping fault. At least two parallel structures have also been identified in Area 118 (SRK 2008b).

2.5 Permafrost

2.5.1 Spatial Distribution

Instrumentation to monitor ground temperatures has been installed across the site as part of various studies conducted since 1974. The current general understanding of permafrost distribution is presented in Figure 4 (adapted from EBA 2011), as understood from a combination of drill results, test pit results, surficial mapping, and interpretation of aerial photographs. Although the available data does not allow for unequivocal mapping of areas of permafrost, the distribution of the permafrost across the site has been characterized to a degree that is adequate for developing a conceptual hydrogeological model and for planning the groundwater monitoring system layout.

Generally, the west to east trend of the upper Minto Creek valley bottom (extending from down gradient of the Southwest Waste Dump, past the mill and administration buildings, the Dry Stack Tailings Storage Facility, and along the north facing slopes of the Minto Creek drainage upstream of the Water Storage Dam) coincides with the permafrost region. The north facing slopes (at the southern edge of the property) have geomorphic and vegetation evidence suggesting the presence of permafrost or discontinuous permafrost, except along the crests of the ridges which are generally free of permafrost. The south facing slopes and ridges may or may not have permafrost, based on observations of both frozen and unfrozen ground conditions in these areas.

2.5.2 Effects on Groundwater Flow System

Permafrost plays a significant role in the groundwater flow system on the site as it forms a confining layer (or aquiclude) for flow below the frozen ground and inhibits infiltration from the overlying active layer. The lack of permafrost in the bed and adjacent areas of Minto Creek (SRK 2013c) indicates that groundwater and surface water can interact along the axis of the creek and that by-pass of surface and/or shallow groundwater monitoring points below a permafrost layer is unlikely.

As permafrost limits infiltration into the groundwater system, it can also prevent contaminants from entering the deeper groundwater system. One of the areas where this is most notable is along the valley between the Southwest Waste Dump and the proposed Ridgetop Waste Dump. The valley has many small surface channels during spring and summer, but also has evidence of

permafrost. Groundwater will either tend to report to the ephemeral suprapermafrost channels (in the case of shallow groundwater) or stay below the permafrost layer (in the case of deeper groundwater) until it reports to the Main Pit.

2.6 Hydraulic Conductivity

Hydraulic conductivity data have been collected during two studies at Minto Mine. The first tests were a series of packer injection tests conducted by Golder Associates as part of the initial mine feasibility studies (Golder 1974). These tests were carried out in the vicinity of the Main Pit at various depths within bedrock, and were categorized by multiple rock characteristics:

- completely weathered (CW),
- highly weathered (HW),
- moderately weathered (MW),
- slightly weathered (SW), and
- fresh jointed (FJ).

The results from these tests are presented in Table 1. It should be noted that tests were not conducted in massive rock and therefore the results in Table 1 are biased towards more permeable zones to a certain extent.

In the second study, rising head tests were completed as part of the multi-port (MP) monitoring well installation program in the fall of 2012 (SRK 2013b). These tests were conducted primarily in bedrock with the exception of one test in overburden. Analyses of these tests can be found in Appendix B. Table 1 also summarizes the 2012 results using the same rock categories as those presented by Golder (1974). Where multiple tests were conducted, a mean result for the interval is presented.

The bulk hydraulic conductivity for different bedrock and overburden characteristics is presented in Table 2. These represent the best estimate of hydraulic conductivity for each of the rock categories on site. These values were obtained by averaging all available tests for a given rock condition and they seem reasonable, based on observations of pit wall rock, drill core, typical literature values, and experience elsewhere.

Of note is the observation that the “fresh jointed” rock does not exhibit increased hydraulic conductivity when compared to all other rock categories. This implies that the jointing is not well connected through the rock mass (i.e., the fractures do not interlink to provide a flow path). Therefore, it appears that rock on site is consistently low K with a low probability of extensive higher K zones that could transmit significant water flux. The overburden hydraulic conductivity value presented in Table 1 is situated in frozen ground.

Table 1: Compiled Hydraulic Conductivity Data.

Hole ID	Test Type	Test Depth (m)	Rock Condition	Hydraulic Conductivity (m/s)
75	Packer Injection Test	40 - 43	MW	6×10^{-07}
77	Packer Injection Test	46 - 49	HW	9×10^{-08}
		55 - 59	MW	6×10^{-08}
		61 - 65	MW	5×10^{-08}
		67 - 71	MW	5×10^{-08}
		73 - 77	HW	6×10^{-08}
		80 - 83	HW	5×10^{-08}
		86 - 89	MW	6×10^{-08}
		92 - 95	MW	5×10^{-08}
		98 - 101	MW	5×10^{-08}
		104 - 107	SW	3×10^{-08}
79	Packer Injection Test	43 - 46	FJ	6×10^{-08}
		52 - 55	SW	7×10^{-08}
		58 - 61	FJ	5×10^{-07}
		64 - 67	FJ	8×10^{-08}
		70 - 73	FJ	2×10^{-08}
		76 - 80	FJ	8×10^{-08}
		82 - 86	SW	6×10^{-08}
		88 - 92	FJ	7×10^{-08}
		94 - 98	FJ	6×10^{-08}
		101 - 104	SW	9×10^{-08}
84	Packer Injection Test	22 - 25	HW	2×10^{-06}
87	Packer Injection Test	21 - 25	MW	9×10^{-08}
		40 - 43	SW	4×10^{-08}
		58 - 61	SW	3×10^{-08}
		64 - 70	SW	3×10^{-08}
		76 - 80	FJ	5×10^{-08}
		85 - 89	FJ	4×10^{-08}
		101 - 104	FJ	2×10^{-08}
89	Packer Injection Test	25 - 28	CW	1×10^{-07}
		28 - 31	HW	1×10^{-07}
		34 - 37	HW	3×10^{-07}
		40 - 43	MW	8×10^{-08}
		46 - 49	CW	7×10^{-08}
		55 - 59	HW	6×10^{-08}
MW12-05	Rising head	136	FJ	4×10^{-09}
		98	FJ	1×10^{-07}
		52	SW	7×10^{-07}
		18	HW	1×10^{-08}
MW12-06	Rising head	126	FJ	4×10^{-07}
		70	SW	2×10^{-07}
		22	overburden	5×10^{-09}
MW12-07	Rising head	136	SW	1×10^{-07}
		103	HW	2×10^{-08}

Source: \\VAN-SVR0\Projects\01_SITES\Minto\1CM002.008_Hydrogeology_2012\!080_Deliverables\Hydrogeological Conceptual Model\020_Tables

Table 2: Assumed Bulk Hydraulic Conductivity Values.

Rock Condition	Hydraulic Conductivity (m/s)
Overburden & Highly Weathered Bedrock	2×10^{-07}
Moderately Weathered Bedrock	6×10^{-08}
Non-Weathered Bedrock	8×10^{-08}
Fault Zone	5×10^{-09}

Source: \\VAN-SVR0\Projects\01_SITES\Minto\1CM002.008_Hydrogeology_2012\!080_Deliverables\Hydrogeological Conceptual Model\020_Tables

2.7 Water Level Data

SRK installed three standpipes down gradient of the proposed Ridgetop North and Ridgetop South pits (SRK 2012a and Figure 1). Figures 5 to 8 give the temperature profiles over time along the ridge. With the exception of the active layer, permafrost is present in two of the ridge top monitoring wells (MW11-02 and MW11-03). MW11-04A thermistor data reports above freezing temperatures, but no recent samples have been collected as this well is still being developed. Temperatures in monitoring well MW11-01A are above freezing at depth, and portions of the overburden around the Main Pit are expected to be absent of permafrost.

The multi-piezometer (MP) monitoring wells installed in 2009 and 2012 provide water level data that can be used in conjunction with permafrost data to determine the flow of groundwater (SRK 2009, SRK 2012a, SRK 2012b). Appendix C provides the piezometric levels in each of the active MP wells. The design of each MP well is presented in Appendix D.

The pressure profiles show that most of the locations exist in hydrostatic conditions and therefore limited vertical groundwater flow will occur. In other words, the groundwater flux is expected to be dominated by horizontal flow.

3 Groundwater Flow Regime

3.1 Upper Minto Creek

A series of cross sections have been used to aid the following discussion of the groundwater flow regime within the upper Minto Creek watershed. Figure 9 presents the map of the section lines for the sections provided in Figures 10 to 18. These sections display the current topography, bedrock surface (modeled), and existing and expected pit development. Representative flow lines are shown and illustrate how the topography dominates flow direction.

Where permafrost occurs, it is expected that most groundwater will be confined and travel beneath the permafrost layer, with minor seasonal flow occurring through the near-surface active layer. As the permafrost depth across the site is not well delineated, it is represented schematically in the cross sections for purposes of illustration.

Section A (Figure 10) is perpendicular to the Minto Creek valley and was selected to illustrate the typical flow patterns expected down gradient of the Water Storage Dam, across the narrow part of the valley where steep slopes are present. Each end of the section is on a ridge, which are both the topographical and groundwater divides. It is expected that permafrost exists on the south

slope as that is consistent with other south-facing slopes on site, but there is no thermal ground data at this location in the valley. Groundwater will flow from the ridges on both sides and surface along the Minto Creek valley. On the south slope, groundwater will have minor seasonal suprapermafrost flow, and deeper water will be confined until it reaches the valley where it will then report to the creek.

Section B (Figure 11) was selected to show the flow regime expected in the vicinity of the Dry Stack Tailings Storage Facility (DSTSF). The section terminates on a ridge to the north of the DSTSF and at a ridge near the airstrip. Bedrock is close to or at surface near the northern ridge, so shallow groundwater is expected to travel within the weathered bedrock. From the ridge near the airstrip, groundwater travels sub-permafrost beneath the DSTSF and to the Minto Creek valley. This slope contains permafrost, with seasonal flow through the active layer towards the valley.

Section C (Figure 12) demonstrates groundwater flows from ridge tops to the small valley between the Southwest Waste Dump (SWD) and the proposed Ridgetop Waste Dump. The valley is underlain by permafrost with ephemeral surface water channels. From the west, shallow groundwater will flow through and beneath the SWD, with the permafrost confining deeper water. Shallow groundwater will only flow through the active layer of the overburden before reporting to surface channels. Groundwater will flow down gradient from the east ridge to the valley, also directed to either shallow soils in the active layer or confined below the permafrost.

Section D (Figure 13) was selected to illustrate how groundwater will be directed from the ridge near the airstrip and the proposed Ridgetop pits towards the valley between these points. Since permafrost is present in this valley, the shallow groundwater will largely report to surface water in the valley bottom. Deeper groundwater will be confined by permafrost in the valley, which will then be topographically directed to the northwest beneath the DSTSF. The Ridgetop North Pit will contain saturated and unsaturated tailings post-closure, with the expectation that groundwater will continue to flow down gradient through the pit.

Section E (Figure 14) was selected to represent the groundwater flow regime across the Minto Creek valley down gradient of the Main Pit. The Area 2 Pit will contain saturated tailings while the Area 118 Pit will be backfilled with overburden. Permafrost will be affected by mining, and likely recede from the pit walls within the plane of this section, and groundwater will travel from the ridge top towards the mill area where it will be directed down the Minto Creek valley. Some shallow water will flow above permafrost, with deeper groundwater confined beneath the mill area as well. Groundwater from the north will also flow from ridge tops to the mill area and will merge with other groundwater moving eastward (out of this section) along the Minto Creek valley.

Section F (Figure 15) was selected to illustrate groundwater flow through the Minto North Pit to the McGinty Creek catchment, while groundwater to the south of the topographic divide will be directed toward the Main Pit. The Minto North Pit will fill with surface and groundwater inflows to a static water level that is expected to approximate pre-mining groundwater levels. Groundwater will flow from the ridge top down gradient into the McGinty Creek watershed. South of the Minto North Pit, groundwater will report to the Main Pit which will be full of saturated tailings. The ridge near the western edge of the Area 2 pit will also yield groundwater that will move towards the

Main Pit. It should be noted that this ridge will direct groundwater radially in multiple directions – north, east and west, as it is at the edge of multiple topographic divides.

Sections G through I (Figures 16 to 18) were selected to represent the groundwater paths along the length of the Upper Minto Creek valley. Section G starts at the edge of the west wall of the Main Pit and travels through the mill area where it intersects Section B. The Minto Creek valley continues with Section H, which traces along the Water Storage Pond and through the Water Storage Dam where it intersects Section A. Section I continues along the Minto Creek valley and terminates down gradient of all the mine components, into the Lower Minto Creek catchment. This section was terminated where ridges with bedrock close to or at surface are present, defining an ideal narrow point in the valley where overburden is expected to be limited.

These sections (G through I) show the approximate flow paths that groundwater on the site are expected to follow. At the western end of the section, groundwater is directed to the Main Pit and Minto Creek. Once directed here, it will continue along the valley towards the Yukon River. In Section G, groundwater is predominantly confined deep by permafrost until it is down gradient of the mill area. It will continue along the valley trace to the Water Storage Pond. The Water Storage Dam will be breached post-closure, removing the pond, but a saturated area similar to a wetland is expected to remain. Groundwater will then follow the trace of- the valley to the Yukon River. It should be noted the valley floor doesn't have a steep topographical gradient, so groundwater movement does not have a large hydraulic head driving force. Furthermore, this trace along the Minto Creek valley is free of permafrost allowing groundwater to surface in the creek channel. There is an expectation that deeper regional groundwater also flows beneath the valley, but it is not expected to be affected by the mine components.

The faults identified in Section 2.4.1 are not expected to change the overall groundwater flow direction as they are not characterized by significantly different hydraulic conductivity than the surrounding fractured bedrock. Hydraulic testing conducted at MW12-06 across a fault zone that was characterized with over 1 m of completely altered clay material, yielded a hydraulic conductivity of $5x10^{-9}$ m/s. Artesian conditions below the fault also suggest this could be a confining unit, further supporting fault characteristics to restrict groundwater flow. The DEF fault has been similarly characterized as a groundwater barrier in previous studies (SRK 2009). Assuming these represent typical faults on the property, it is improbable that faults will act as conduits for significant water flow.

There is the possibility that groundwater may preferentially flow through fractured bedrock. However, being able to identify which fractures may be significant and connected across the site, or even within a defined zone, is a difficult feature to characterize. Geotechnical core logging conducted for three drill holes (SRK 2013c) found that fractures in the weathered bedrock were often filled with hematite or gouge, suggesting groundwater flow rates would be minimized. Fresh bedrock joints were often extremely tight, also restricting groundwater flow. As discussed in Section 2.6, the hydraulic conductivity of highly fractured rock was found to be similar to unfractured rock, indicating poor connectivity over the larger scale of rock mass.

Despite the difficulty of accurately characterizing the permafrost extent or the network of bedrock fractures, it is possible to adequately monitor groundwater at the Minto property. Since the system exists almost entirely in a single catchment, the strategically planned groundwater

network allows for the ability to monitor groundwater at multiple locations as it travels down gradient. Drivepoint piezometers have also been installed to monitor overburden groundwater flow down gradient of the Southwest Waste Dump and below the Mill Valley Fill (Stage 1).

All surface water is monitored and managed at Minto Mine. Any water released from the property from the Water Storage Pond must meet water use licence conditions (YWB 2012).

3.2 Minto North

The proposed Minto North Pit is located in the headwaters of McGinty Creek, the catchment immediately north of Minto Creek. The pit will remain dewatered throughout the mining phase of the pit (approximately 1 to 2 years). All water - surface and groundwater - that flows into the pit will be pumped to the Minto Creek catchment and managed accordingly.

Since Minto North Pit is in the very upper part of the McGinty Creek headwaters, groundwater quality will not be affected by upstream mining activity (i.e., there are no additional mining activities upgradient of the pit). Similar to the Minto Creek catchment, topography within the McGinty Creek catchment is expected to control groundwater flow. As water will be pumped out of the pit during operations, groundwater will not be released into the environment, thereby ensuring Minto North Pit will not affect down gradient groundwater during operations. After mining is complete, the Minto North Pit will be allowed to fill with surface and groundwater inflows, and it is expected that the final lake water level will be similar to the pre-mining groundwater table elevation of 907 to 896 m above sea level.

A post-mining water and load balance was developed for the McGinty Creek catchment that indicated there will be no significant effect to water quality (SRK 2013a).

4 Water Chemistry Data

The groundwater monitoring network was most recently updated in November 2012 (SRK 2013b). Initial sampling was conducted shortly after each well installation program. All of the groundwater chemistry data is presented in Appendix E. Table 4 presents selected chemistry data for all samples collected as of April 2013. The Groundwater Monitoring Plan (Minto 2013) was updated in 2013 to include all monitoring wells and specifies semi-annual sampling. Data from future monitoring will allow trends in groundwater chemistry to be identified.

Table 3: Selected Chemistry Data.

Well ID	Zone	Date	Selected Parameters (mg/L)					
			SO4-D	N-NO3	Cd-D	Cu-D	Se-D	Zn-D
MW09-01	2	30-Nov-2009	77	n/a*	0.000050	0.012	0.0028	0.0090
MW09-01	3	30-Nov-2009	83	n/a*	0.000080	0.020	0.0028	0.0060
MW09-01	3	30-Mar-2010	170	n/a*	0.00015	0.021	0.0018	0.016
MW09-01	4	30-Nov-2009	83	n/a*	0.000070	0.018	0.0030	0.0040
MW09-02	1	2-Dec-2009	170	n/a*	0.000090	0.0040	0.0067	0.010
MW09-02	3	2-Dec-2009	170	n/a*	0.000060	0.0030	0.0068	0.0070
MW09-03	1	1-Dec-2009	120	n/a*	0.00020	0.019	0.0080	0.022
MW09-03	1	29-Mar-2010	23	n/a*	0.00012	0.0040	<0.0006	0.014
MW09-03	1	10-May-2012	21	0.11	0.000085	0.0028	<0.00010	0.017
MW09-03	1	17-Nov-2012	22	0.069	0.00068	0.0018	0.000052	0.011
MW09-03	2	1-Dec-2009	110	n/a*	0.000080	0.022	0.0067	0.010
MW09-03	2	29-Mar-2010	49	n/a*	0.00072	0.0060	0.0028	0.0050
MW09-03	2	10-May-2012	<0.50	0.10	0.000028	0.0011	0.00020	0.0053
MW09-03	2	17-Nov-2012	<0.50	0.035	<0.000025	0.00073	<0.00020	0.0080
MW09-03	3	1-Dec-2009	10	n/a*	0.000070	0.0050	<0.0006	0.012
MW09-03	3	29-Mar-2010	10	n/a*	0.000020	0.0050	<0.0006	0.0050
MW09-03	3	10-May-2012	11	0.30	0.000069	0.0032	0.00031	0.0078
MW09-03	3	17-Nov-2012	9.8	0.25	0.000023	0.0017	0.00041	0.0014
MW09-03	5	10-May-2012	<0.50	<0.020	<0.000010	0.00022	<0.0001	<0.0050
MW09-03	5	17-Nov-2012	<0.50	<0.020	<0.0000050	0.00011	<0.00004	0.00046
MW12-05	1	11-Nov-2012	350	0.37	0.00014	0.0074	0.00047	0.040
MW12-05	3	12-Nov-2012	460	0.030	0.00021	0.0022	0.00036	0.031
MW12-05	5	12-Nov-2012	46	0.82	0.000016	0.0015	0.00016	0.0066
MW12-05	7	12-Nov-2012	41	<0.020	<0.0000050	0.00048	0.00011	0.0054
MW12-06	2	16-Nov-2012	210	0.081	0.000016	0.00023	0.00014	0.011
MW12-06	4	16-Nov-2012	180	0.080	0.000012	0.00011	0.000083	0.0081
MW12-06	6	16-Nov-2012	170	0.45	0.000012	0.00026	0.00051	0.0031
MW12-07	1	3-Nov-2012	180	54	0.00063	0.077	0.035	0.064
MW12-07	2	3-Nov-2012	280	21	0.00027	0.022	0.015	0.039

\\VAN-SVR0\Projects\01_SITES\Minto\1CM002.008_Hydrogeology_2012\!080_Deliverables\Hydrogeological Conceptual Model\020_Tables

*n/a - not available

5 Conclusions/Recommendations

The conceptual understanding of the Minto Mine site's hydrogeological system is reasonably well advanced. The topographical constraints on the groundwater flow system being imposed by the relief of the catchment provide a high degree of control of groundwater flow. This constraint allows for a high probability of predicting the major flow paths in the system. The topographic constraint also allows for a high degree of confidence in the placement of monitoring wells and surface water stations to assess potential impacts on the receiving waters.

5.1 Spatial Coverage

A key aspect of any monitoring plan is to ensure the system is designed to collect samples from all reasonable flow paths that could be carrying parameters of concern to a receiving body - in this case Lower Minto Creek.

Based on the review of the site layout and conceptual flows paths, which are presented both in map view (Figure 1) and section view (Figures 9 to 18), the current groundwater monitoring and surface water monitoring systems are considered to be appropriate for monitoring groundwater that may be impacted by mining and milling operations.

5.2 Temporal Coverage

For the most part, because the groundwater monitoring system has only been installed over the last several years, the temporal record of monitoring results is short. However, monitoring locations have been situated to collect data in a reasonable time period (i.e., situated close enough to a potential source to detect significant changes in parameters of concern within a reasonable time period, even if flow systems are moving slowly, as is expected at Minto Mine). As such, while the period of monitoring is still short, it is anticipated that any significant changes in groundwater chemistry related to mining operations will be detected in a timely fashion.

5.3 Adequacy of Groundwater Monitoring

Because the groundwater is not expected to have significant changes over short periods of time, the sampling can be conducted twice a year. One sampling event should be conducted around or just after freshet, as this time is expected to represent the recent effects of any loads mobilized during the melt. The second sampling event should be conducted in approximately late September or October, when groundwater chemistry is expected to be most concentrated due to reduced infiltration because of low precipitation at the end of summer/early autumn.

5.4 Numerical Modelling

At this time, SRK does not recommend carrying out detailed site-wide 3D numerical groundwater modelling. The current data for the site does not allow for a reasonable calibration to site hydrogeological conditions. The number of non-unique solutions would be too large to be of any real benefit for predicting groundwater movement over what can be inferred from routine hydrogeological theory and an understanding of the topography and subsurface conditions at the site.

The conceptual model has presented the available data and the current understanding of permafrost distribution. The monitoring wells present the opportunity to characterize groundwater at multiple points within the catchment with two wells, MW12-06 and MW12-05, near where the groundwater "exits" from the property. With these monitoring opportunities and with topography that lends itself to focussing the discharge point, numerical modelling does not present a better opportunity to increase comprehension of the flow regime.

This report, "Minto Mine Phase V/VI Expansion: Hydrogeological Characterization Report", was prepared by SRK Consulting (Canada) Inc.

"Orignal signed by Jennifer Adams"

Jennifer Adams, GIT (BC)
Consultant (Hydrogeology)

and reviewed by

"Orginal signed by Michael Royle"

Michael Royle, M.App.Sci., PGeo (BC, NT)
Principal Consultant (Hydrogeology)

"Orginal signed by Dylan MacGregor"

Dylan MacGregor, PGeo (BC)
Principal Consultant (Geochemistry)

All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

6 References

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Figures

383000 384000 385000 386000 387000

6946000

6945000

6944000

MW09-03
Minto North
MW12-05
Water Storage Dam
Water Storage Pond
MW12-06
MW12 DP4
Reclamation Overburden Dump
Main Waste Dump
Main Pit
Mill Valley Fill Extension Stage 2
MW12-07
MW11-01A
MW09-02
MW09-01
MW09-04
Dry Stack Tailings Storage Facility
Ice Rich Overburden Dump
MW12-DP3
Area 2
Area 118 Backfill Dump
MW12-DP2
Southwest Waste Dump
Ridgetop Waste Dump
MW12-DP1
MW11-02
Ridgetop North
MW11-03
Ridgetop South
MW11-04A

Legend

- MP Well, Functional
- MP Well, Non-functional
- Piezometer with thermistor, Functional
- Drivepoint, Functional
- Surface Water Monitoring
- Catchment Boundary

N

500 250 0 500 Meters

1:13,000

Notes:
1. Data presented in NAD 1983 UTM Zone 8N.
2. Base orthophoto provided by Minto Mine, August 2012.
3. Final pit designs provided by Minto Mine, October 2012.

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Job No: 1CM002.008

Filename: Figure1_SiteMap_Minto_1CM002.008_rev02.mxd

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Phase V/VI Hydrogeological Characterization Report

Site Map with Proposed Phase V/VI Pits

Date:	Approved:	Figure:
May 2013	JA	1

383000 384000 385000 386000 387000 388000

6946000 6945000 6944000 6943000

Legend

- Catchment Boundary
- Groundwater Flow Direction (inferred)

N

500 250 0 500 Meters

1:15,000

Notes:
1. Data presented in NAD 1983 UTM Zone 8N.
2. Base orthophoto provided by Minto Mine, August 2012.
3, Contours are in 20 m intervals and represent pre-mining topography.

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Job No: 1CM002.008

Filename Fig2_gwFlow_Minto_1CM002.008_rev02.mxd

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Phase V/VI Hydrogeological Characterization Report

Inferred Groundwater Flow Direction

Date:	Approved:	Figure:
May 2013	JA	2

383000 384000 385000 386000 387000

6946000

6945000

6944000

Legend

Overburden Thickness

- < 15 m
- 15 - 30 m
- 30 - 50 m
- > 50 m
- unknown

N

500 250 0 500 Meters

1:13,000

Notes:
1. Data presented in NAD 1983 UTM Zone 8N.
2. Base orthophoto provided by Minto Mine, August 2012.

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Job No: 1CM002.008

Filename: Fig3_OBdistribution_Minto_1CM002.008.mxd

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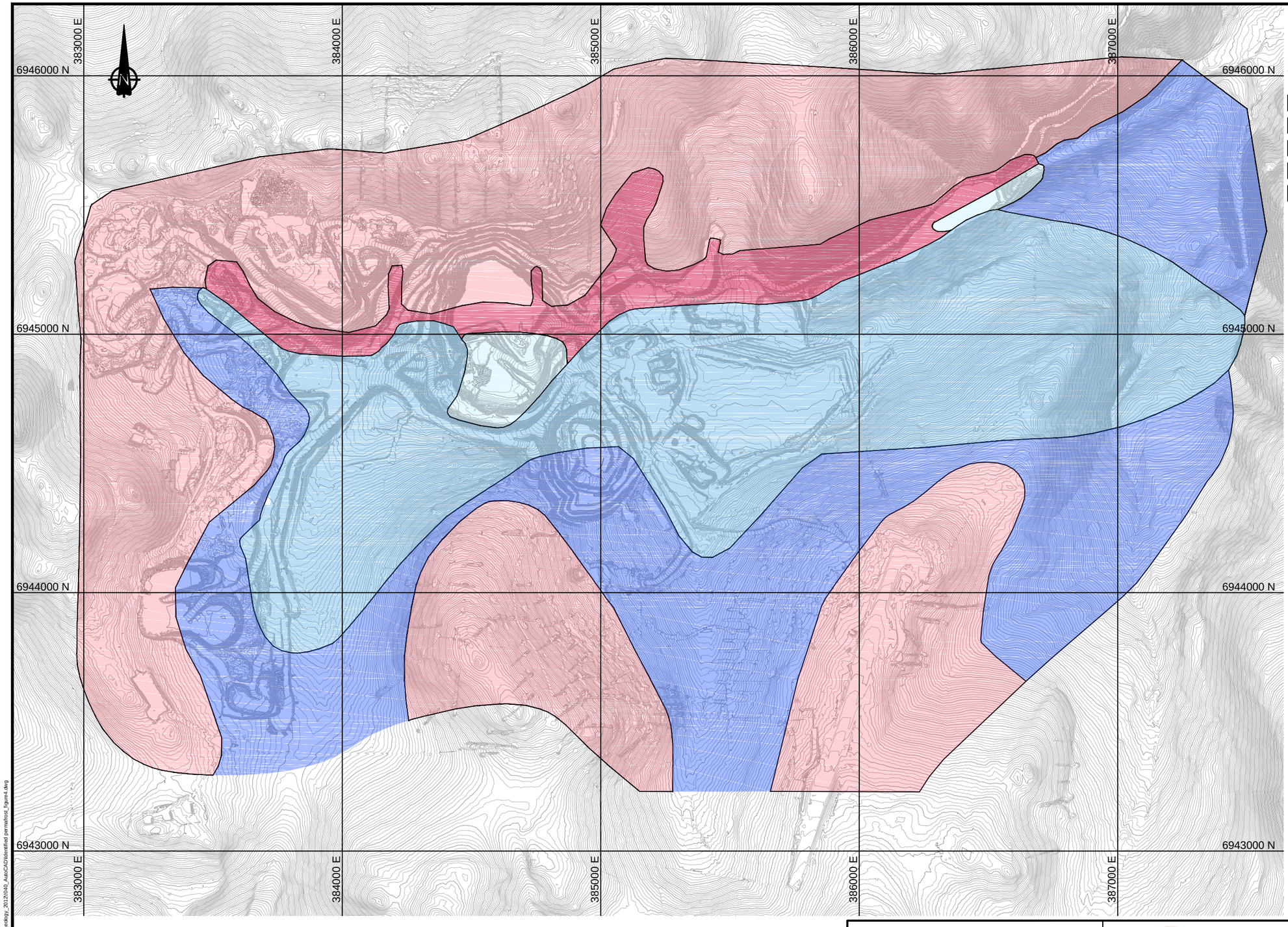
Phase V/VI Hydrogeological Characterization Report

OverburdenDrillhole Distribution and Thickness

Date:	Approved:	Figure:
May 2013	JA	3



LEGEND

- Indicates zones containing permafrost and/or ice
- Indicates zones possibly containing permafrost and/or ice
- Indicates zones containing thawed permafrost and/or ice
- Indicates zones containing no permafrost and/or ice
- Indicates zones possibly containing no permafrost and/or ice

0 200 400 600 800 1000
Scale in Metres

NOTES

1. Data presented in NAD 1983 UTM Zone 8N
2. Topographic information provided by Minto Mine, August 2012
3. Permafrost information provided by EBA, October 2011

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SRK JOB NO.: 1CM002.008.B1

FILE NAME: Identified permafrost_figure4.dwg

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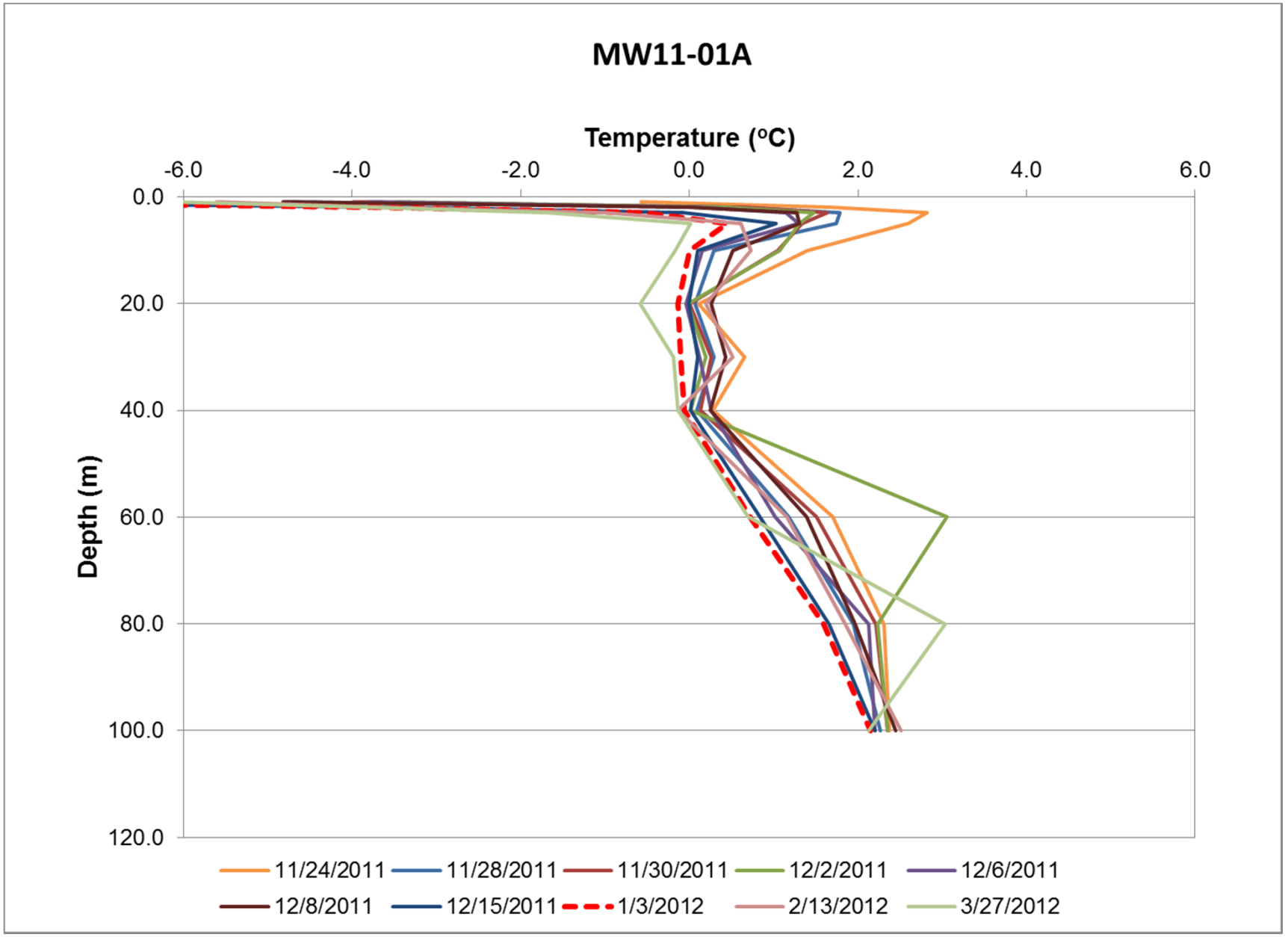
Minto Mine

Phase V/VI Hydrogeological Characterization Report

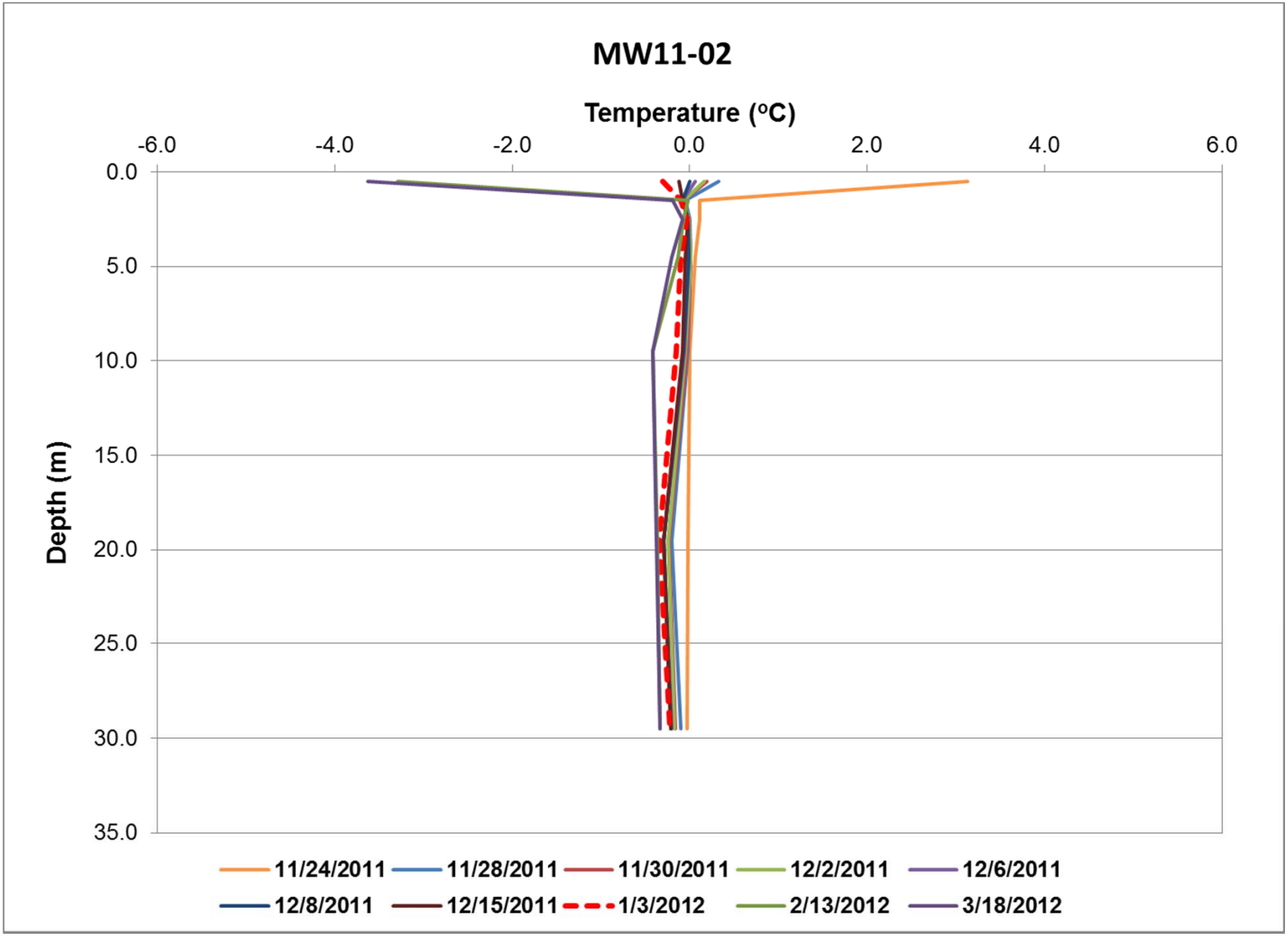
Site Plan
Permafrost Distribution

DATE:	APPROVED:	FIGURE:
May 2013	JA	4

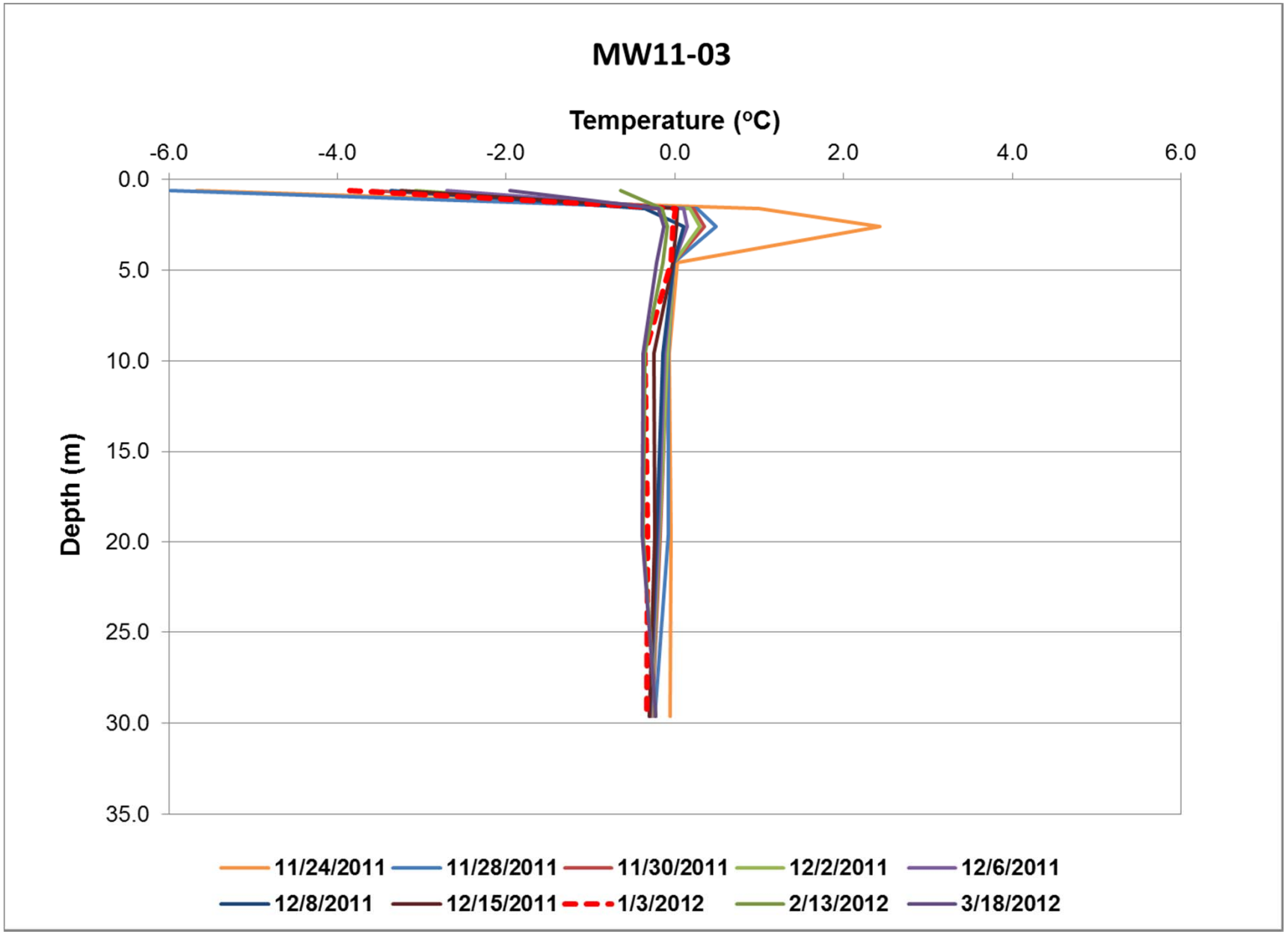
P:\01_SITES\Minto\1CM002.008_Hydrogeology_2012\040_AutoCAD\Identified permafrost_figure4.dwg



srk consulting	CAPSTONE MINING CORP. MINTO MINE OPERATED BY MINTO EXPLORATIONS LTD.	Phase V/VI Hydrogeological Characterization Report	
		Temperature Profile – MW11-01A	
Job No: 1CM002.008 Filename: Fig 5-8Temperature_Profile_Minto_1CM002.008.pptx	Minto Mine	Date: May 2013	Approved: JA / Figure: **5**



srk consulting	CAPSTONE MINING CORP. MINTO MINE OPERATED BY MINTO EXPLORATIONS LTD.	Phase V/VI Hydrogeological Characterization Report
		Temperature Profile – MW11-02
Job No: 1CM002.008 Filename: Fig 5-8Temperature_Profile_Minto_1CM002.008.pptx	Minto Mine	Date: May 2013 / Approved: JA / Figure: **6**



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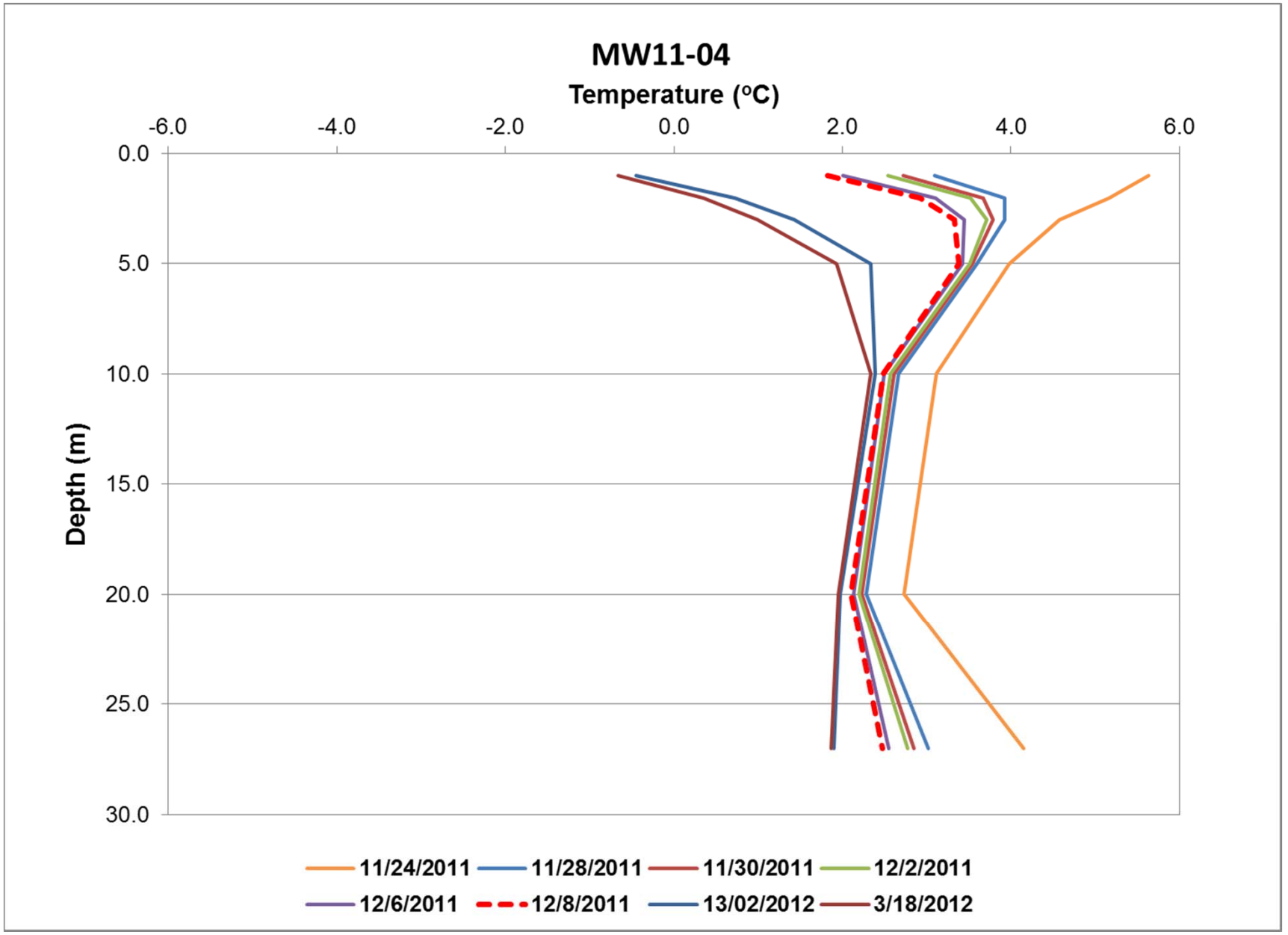
Phase V/VI Hydrogeological Characterization Report

Temperature Profile – MW11-03

Job No: 1CM002.008
Filename: Fig 5-8Temperature_Profile_Minto_1CM002.008.pptx

Minto Mine

Date:	Approved:	Figure:
May 2013	JA	7



srk consulting	CAPSTONE MINING CORP. MINTO MINE OPERATED BY MINTO EXPLORATIONS LTD.	Phase V/VI Hydrogeological Characterization Report
		Temperature Profile – MW11-04A
Job No: 1CM002.008 Filename: Fig 5-8Temperature_Profile_Minto_1CM002.008.pptx	Minto Mine	Date: May 2013 / Approved: JA / Figure: **8**

Legend

- Monitoring Well
- Cross Section Line

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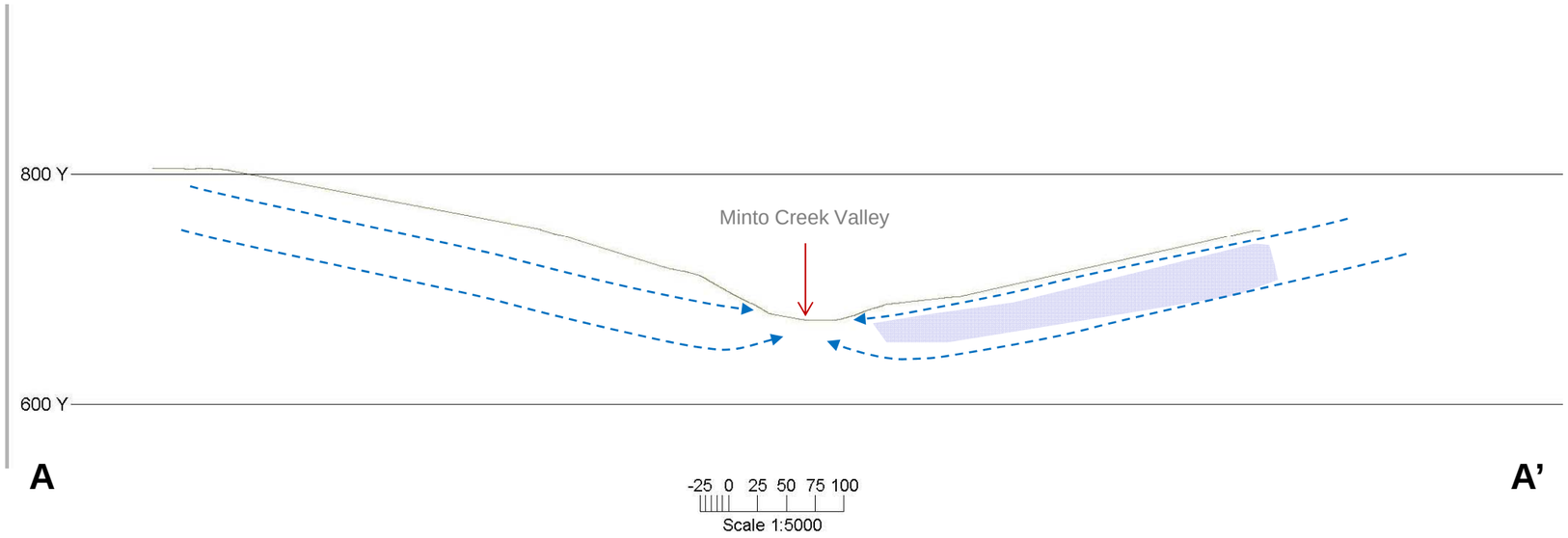
Job No: 1CM002.008.301 **Filename:** Fig9-19_Minto_crossSections_V2_1CM002.008.pptx	Minto Mine	**Plan View of Section Lines**
		Date: May 2013 / Approved: JA / Figure: **9**



No vertical exaggeration

Legend

- Current inferred permafrost (depth not to scale)
- Current topography
- Original Ground Surface
- Bedrock surface (modeled)
- Inferred groundwater pathway

Notes:

1. Original ground surface provided by Minto Mine.
2. Only original ground surface available for this area (no depth of overburden available). This part of the valley has not been significantly altered by the mine.
3. No data available for permafrost. Permafrost has been observed on north facing slopes and is reflected in this section due to the common geomorphologic and vegetation characteristics with known permafrost areas further west..

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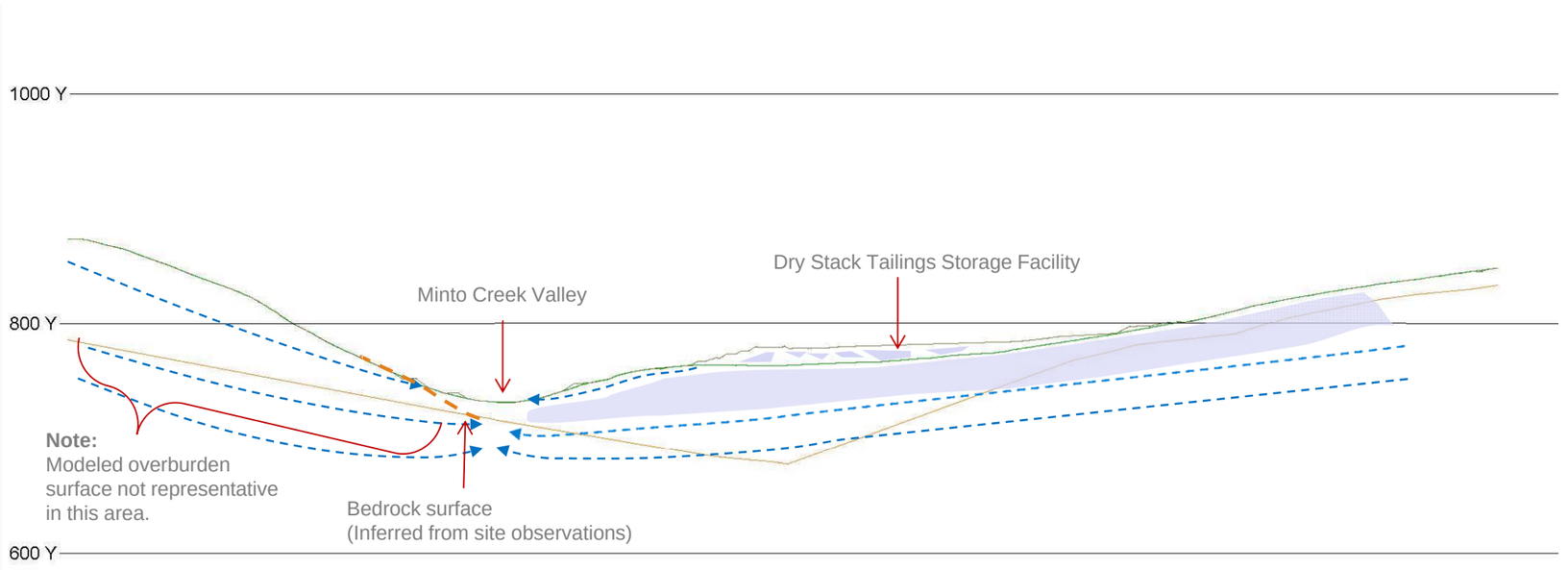
Phase V/VI Hydrogeological Characterization Report

Section A-A’

Job No: 1CM002.008.301
Filename: Fig9-19_Minto_crossSections_V2_1CM002.008.pptx

Minto Mine

Date: May 2013 | Approved: JA | Figure: **10**



B **B’**

-25 0 25 50 75 100

Scale 1:5000

No vertical exaggeration

Legend

- Current inferred permafrost (depth not to scale)
- Current topography
- Original Ground Surface
- Bedrock surface (modeled)
- Inferred groundwater pathway

Notes:

1. Topography data provided by Minto Mine in 2012.
2. Original ground surface provided by Minto Mine.
3. Bedrock surface modeled from drillhole data.

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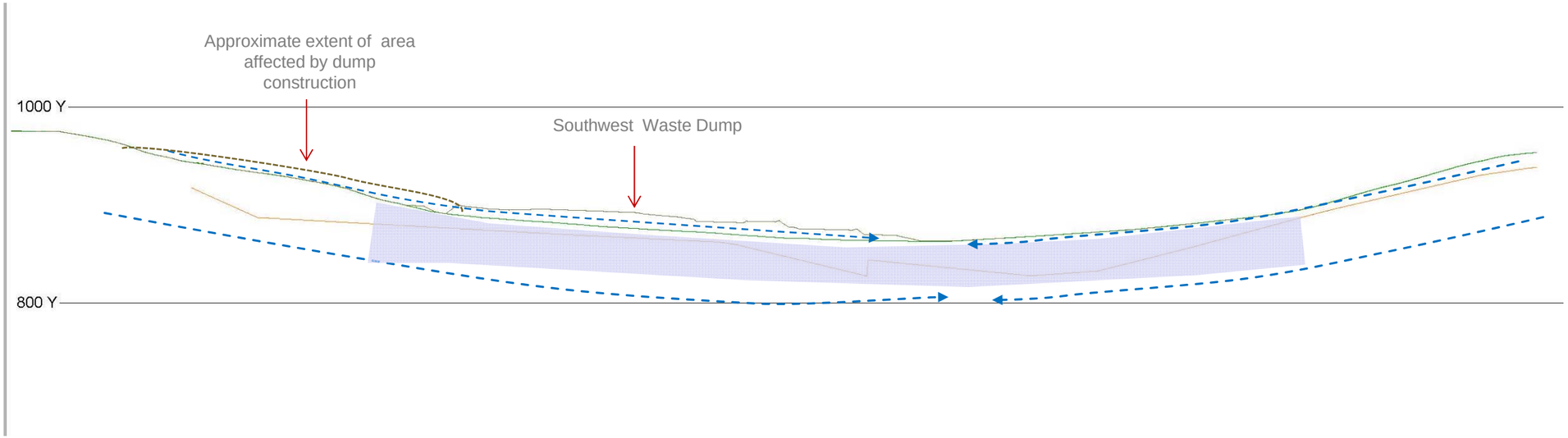
Phase V/VI Hydrogeological Characterization Report

Section B-B’

Job No: 1CM002.008.301
Filename: Fig9-19_Minto_crossSections_V2_1CM002.008.pptx

Minto Mine

Date: May 2013 | Approved: JA | Figure: **11**



C **C’**

-25 0 25 50 75 100

Scale 1:5000

No vertical exaggeration

Legend

- Current inferred permafrost (depth not to scale)
- Current topography
- Original Ground Surface
- Bedrock surface (modeled)
- Inferred groundwater pathway

Notes:

1. Topography data provided by Minto Mine in 2012.
2. Original ground surface provided by Minto Mine.
3. Bedrock surface modeled from drillhole data.

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Job No: 1CM002.008.301
Filename: Fig9-19_Minto_crossSections_V2_1CM002.008.pptx

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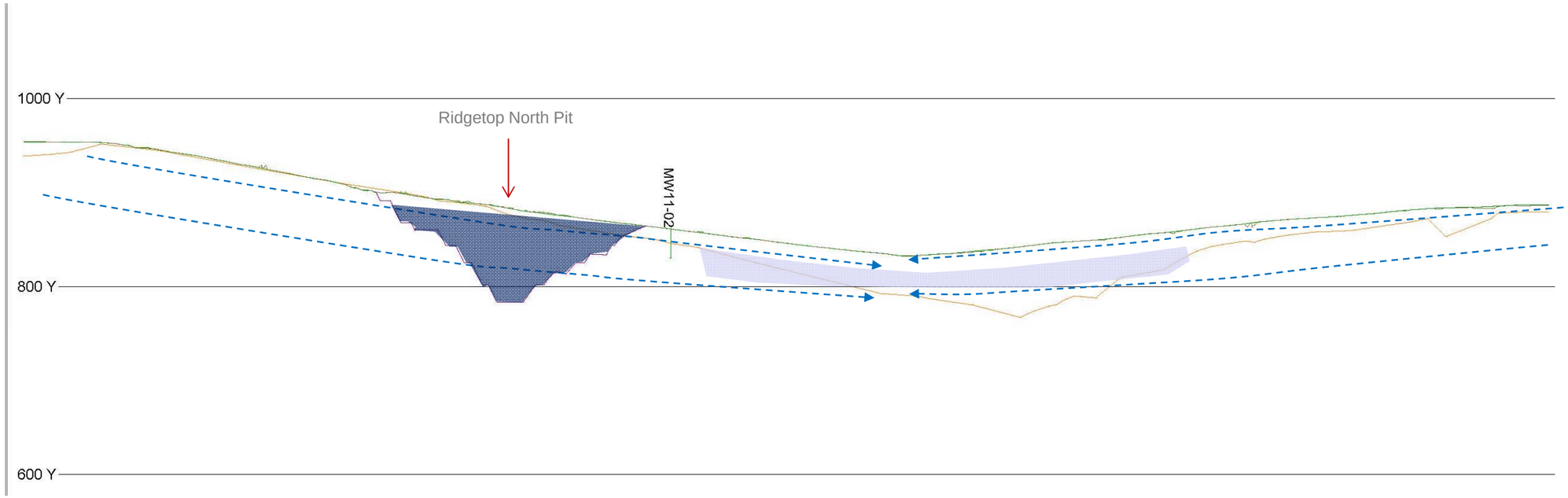
Minto Mine

Phase V/VI Hydrogeological Characterization Report

Section C-C’

Date:	Approved:	Figure:
May 2013	JA	**12**



No vertical exaggeration

Legend

- Current inferred permafrost (depth not to scale)
- Tailings
- Current topography
- Original Ground Surface
- Bedrock surface (modeled)
- Inferred groundwater pathway

Notes:

1. Topography data provided by Minto Mine in 2012.
2. Original ground surface provided by Minto Mine.
3. Bedrock surface modeled from drillhole data.
4. Groundwater inferred flow paths assume pits have flooded and reached static water levels.

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Job No: 1CM002.008.301

Filename: Fig9-19_Minto_crossSections_V2_1CM002.008.pptx

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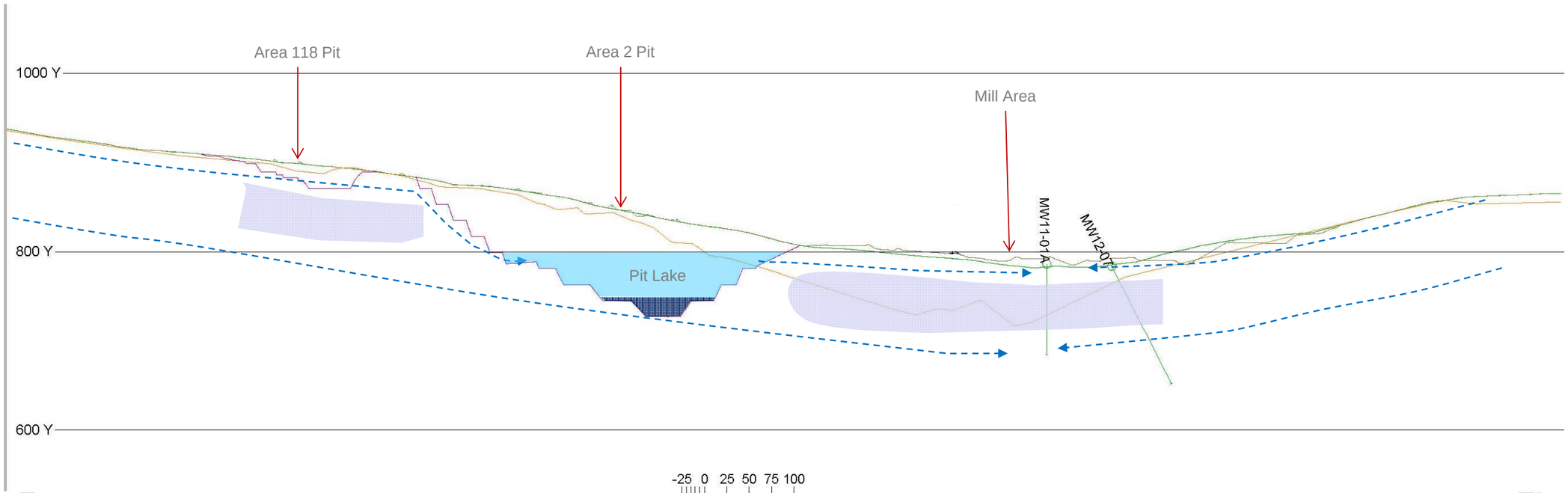
Minto Mine

Phase V/VI Hydrogeological Characterization Report

Section D-D'

Date:	Approved:	Figure:
May 2013	JA	**13**



No vertical exaggeration

Notes:

1. Topography data provided by Minto Mine in 2012.
2. Original ground surface provided by Minto Mine.
3. Bedrock surface modeled from drillhole data.
4. Groundwater inferred flow paths assume pits have flooded and reached static water levels.

Legend

- Current inferred permafrost (depth not to scale)
- Tailings
- Current topography
- Original Ground Surface
- Bedrock surface (modeled)
- Inferred groundwater pathway

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Job No: 1CM002.008.301
Filename: Fig9-19_Minto_crossSections_V2_1CM002.008.pptx

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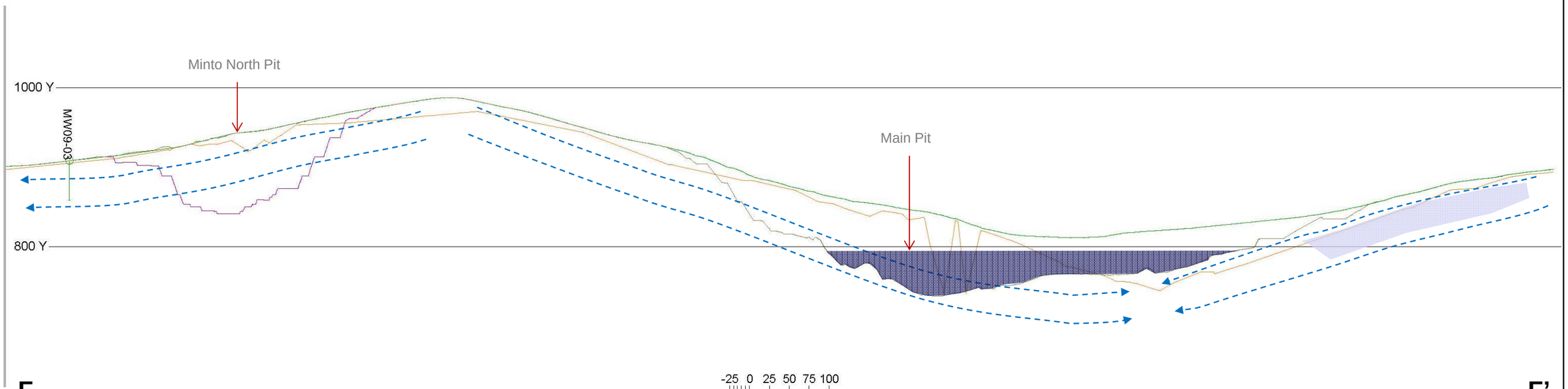
Phase V/VI Hydrogeological Characterization Report

Section E-E'

Date:	Approved:	Figure:
May 2013	JA	**14**



-25 0 25 50 75 100

Scale 1:5000

No vertical exaggeration

Legend

- Current inferred permafrost (depth not to scale)
- Tailings
- Current topography
- Original Ground Surface
- Bedrock surface (modeled)
- Inferred groundwater pathway

Notes:

1. Topography data provided by Minto Mine in 2012.
2. Original ground surface provided by Minto Mine.
3. Bedrock surface modeled from drillhole data. Bedrock surface through the Main Pit is not representative of site conditions.
4. Groundwater inferred flow paths assume pits have flooded and reached static water levels.

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Job No: 1CM002.008.301

Filename: Fig9-19_Minto_crossSections_V2_1CM002.008.pptx

CAPSTONE MINING CORP. MINTO MINE OPERATED BY MINTO EXPLORATIONS LTD.

Minto Mine

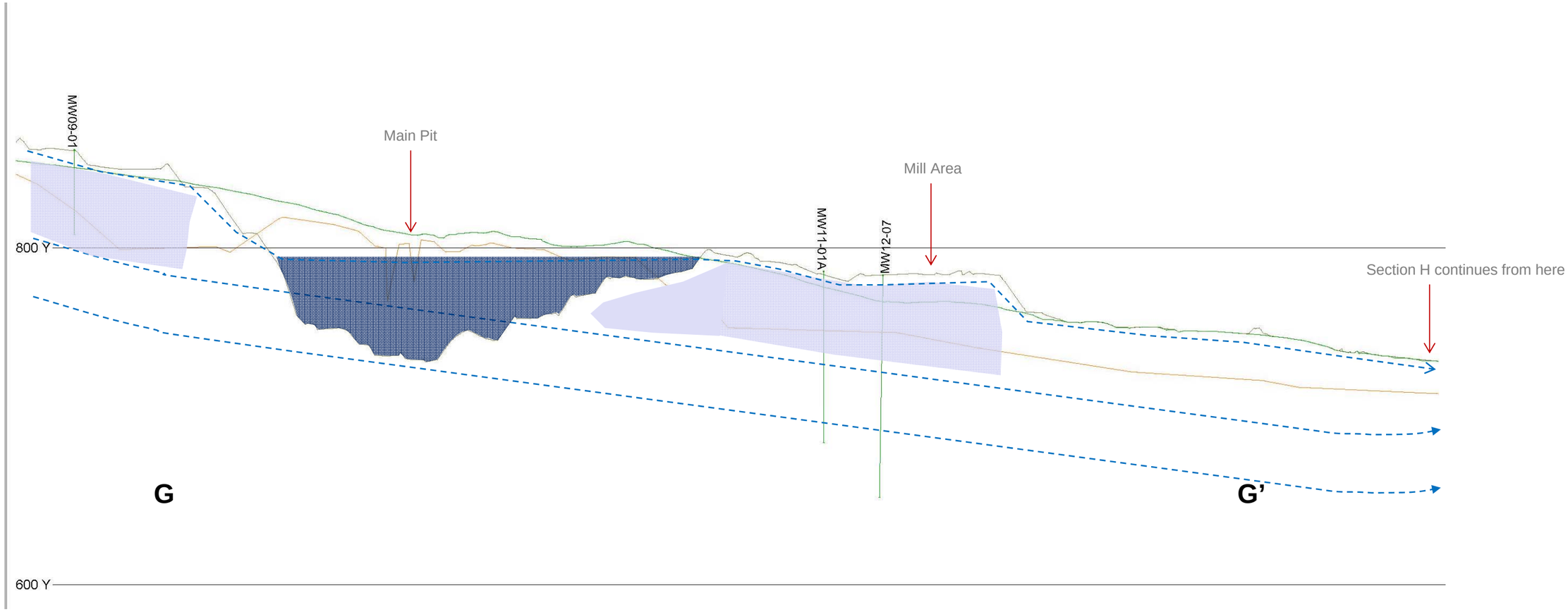
Phase V/VI Hydrogeological Characterization Report

Section F-F'

Date: May 2013

Approved: JA

Figure: **15**



2x vertical exaggeration

Legend

- Current inferred permafrost (depth not to scale)
- Tailings
- Current topography
- Original Ground Surface
- Bedrock surface (modeled)
- Inferred groundwater pathway

Notes:

1. Topography data provided by Minto Mine in 2012.
2. Bedrock surface modeled from drillhole data.
3. Original ground surface provided by Minto Mine.
4. Groundwater inferred flow paths assume pits have flooded and reached static water levels.
5. Section is near permafrost boundary.

srk consulting

Job No: 1CM002.008.301

Filename: Fig9-19_Minto_crossSections_V2_1CM002.008.pptx

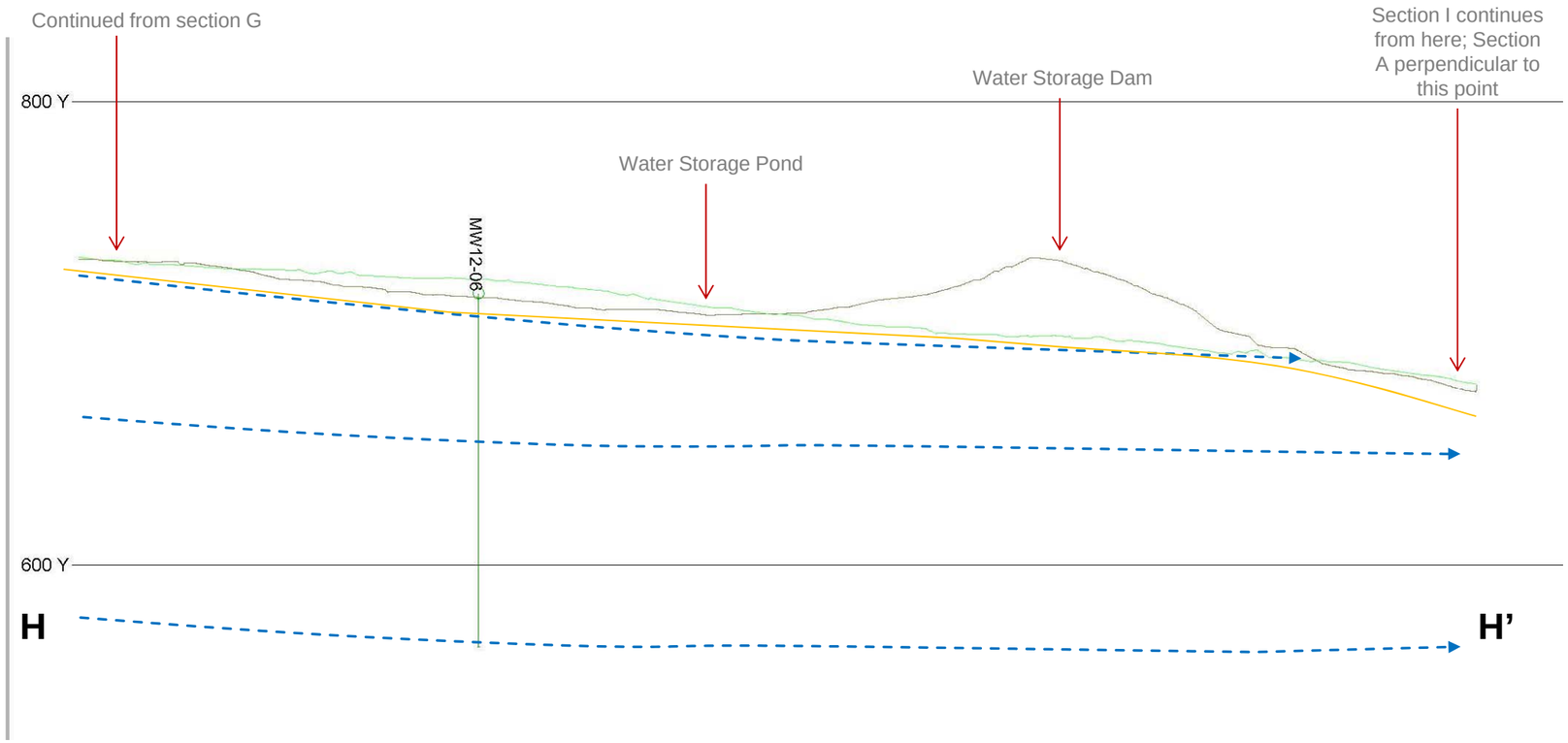
CAPSTONE MINING CORP. MINTO MINE OPERATED BY MINTO EXPLORATIONS LTD.

Minto Mine

Phase V/VI Hydrogeological Characterization Report

Section G-G'

Date:	Approved:	Figure:
May 2013	JA	**16**



2x vertical exaggeration

Legend

- Current inferred permafrost (depth not to scale)
- Current topography
- Original Ground Surface
- Bedrock surface (modeled)
- Inferred groundwater pathway

Notes:

1. Topography data provided by Minto Mine in 2012.
2. Original ground surface provided by Minto Mine.
3. Bedrock surface modeled from drill hole data.
4. Water storage pond footprint is expected to remain saturated (e.g. wetlands) post closure.

srk consulting

Job No: 1CM002.008.301
Filename: Fig9-19_Minto_crossSections_V2_1CM002.008.pptx

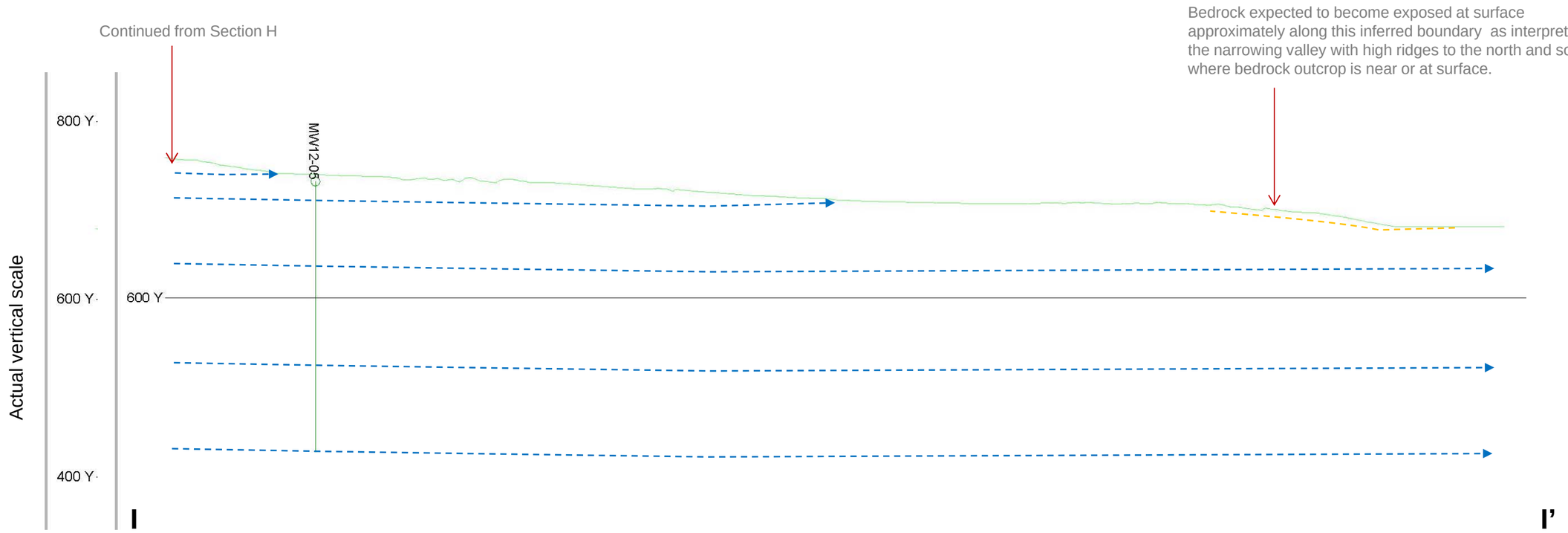
CAPSTONE MINING CORP. MINTO MINE OPERATED BY MINTO EXPLORATIONS LTD.

Minto Mine

Phase V/VI Hydrogeological Characterization Report

Section H-H'

Date:	Approved:	Figure:
May 2013	JA	**17**



-25 0 25 50 75 100

Scale 1:5000

2x vertical exaggeration

Legend

- Current inferred permafrost (depth not to scale)
- Current topography
- Original Ground Surface
- Bedrock surface (modeled)
- Inferred groundwater pathway

Notes: 1. Only original ground surface available for this section. Provided by Minto Mine.

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Phase V/VI Hydrogeological Characterization Report

Section I-I'

Job No: 1CM002.008.301

Filename: Fig9-19_Minto_crossSections_V2_1CM002.008.pptx

Minto Mine

Date: May 2013 | Approved: JA | Figure: **18**

Appendix A: Drill Hole Logs

Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G03
Area 2 Open Pit	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6944782.093N; 384948.312E; Zone 8	ELEVATION: 803.697m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	PEAT and ORGANIC SILT - brown		G1	- Vr <2%			803.0
1	SILT (TILL) - sandy, trace gravel, trace clay, non-plastic, gravel <25 mm in diameter, poorly graded, angular to sub-angular, occasional organics		G2				
2							802.0
3	- gravel seam			- Vs <4%			801.0
	- some gravel <20 mm in diameter		G3		I●	■ ▲ ●	
4							800.0
5			G4				799.0
6							798.0
7			G5				797.0
8			G6				796.0
9			G7				795.0
10	- gravel < 30 mm in diameter for 0.4 m - cobble 200 mm in diameter - only cobbles and gravel recovered, fines washed out for 100 mm						794.0
11							793.0
			G8				
12	- only cobbles and gravel recovered, fines washed out for 150 mm - some gravel			- Vr			792.0
	SAND: silty, gravelly, trace clay, well graded, angular to subangular, brownish grey		G9		●H	◆ ■▲	791.0
13							
14							790.0
15	- only gravel recovered, fines washed out for 100 mm						789.0
			G10				
16	SILT - gravelly, some sand, gravel <50 mm in diameter, poorly graded, angular to sub-angular, brownish grey		G11	- Vs <5%			788.0
17							787.0
18			G12	- 35 mm thick ice lens			786.0
19				- Vr <10% for 1.8 m			785.0
20							784.0
			G13				
21							783.0
			G14				
22	- cobbles for 2.3 m						782.0
23							781.0
			G15				
24							780.0
			G16				
25							779.0
26							778.0

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 50.9m
	REVIEWED BY: JGD	COMPLETE: 1/18/2011
	DRAWING NO:	Page 1 of 2

Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G03
Area 2 Open Pit	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6944782.093N; 384948.312E; Zone 8	ELEVATION: 803.697m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
26			G17				777.0
27	CLAY - silty, some sand, trace gravel, medium plastic, gravel <25 mm, poorly graded			- Vr <3%			
28			G18				776.0
	- high plastic						
29							775.0
			G19				
30							774.0
	- cobble 60 mm in diameter, no gravel						
31			G20				773.0
32	SAND - trace silt, trace gravel, sub-rounded, gravel <10 mm in diameter, medium brown		G21				772.0
33				- Nbn			771.0
			G22				
34	- becomes some gravel						770.0
	- becomes trace gravel			- Vx <5%			
35			G23				769.0
36	- bedded coarse grained sand						768.0
	- gravel seam 65 mm thick						
37							767.0
	CLAY - silty, some sand, trace gravel, medium plastic, grey		G24	- ice lens 40 mm, clear			
38			G25	- horizontal ice lenses for 1.2 m			766.0
39	- becomes laminated, 5 mm thick bands of black clay oriented at 45° to horizontal		G26				765.0
40							764.0
			G27	- ice lens 20 mm, clear			
41	- becomes dry, very stiff to hard						763.0
42							762.0
43			G28				761.0
	- increased sand and gravel, sub-angular, set in clay matrix		G29				760.0
44							
45	- boulder 300 mm in diameter						759.0
			G30	- Nbn			
46	SILT - sandy, some gravel, non-plastic, angular to sub-angular, dark brown to grey						758.0
47	SAND (RESIDUUM) - some gravel, light brown						757.0
48	BEDROCK - granodiorite						756.0
49							755.0
50							754.0
51							753.0
	END OF BOREHOLE @ 50.9 m - CONFIRMED BEDROCK						
52							752.0

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LOGGED BY: AT & SMC	COMPLETION DEPTH: 50.9m
REVIEWED BY: JGD	COMPLETE: 1/18/2011
DRAWING NO:	Page 2 of 2

Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G04
Area 2 Open Pit	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6944576.52N; 384922.911E; Zone 8	ELEVATION: 836.303m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	SAND - silty, some gravel, light brown, organics - organic layer 150 mm thick			- Vx <15%			836.0
1	SILT - some sand, trace clay, faint organic smell		G1	- Nbn			835.0
2				- ice lens 100 mm, cloudy, porous			834.0
3	SAND (RESIDUUM) - some silt, some gravel, <20 mm in diameter		G2	- Vx <50%			833.0
4			G3				832.0
5	BEDROCK						831.0
6							830.0
7							829.0
8	END OF BOREHOLE @ 8.2 m - CONFIRMED BEDROCK						828.0
9							827.0
10							

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LOGGED BY: AT & SMC	COMPLETION DEPTH: 8.23m
REVIEWED BY: JGD	COMPLETE: 1/18/2011
DRAWING NO:	Page 1 of 1

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-1
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945021.46N; 385563.531E; Zone 8	ELEVATION: 764.784m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	WASTE ROCK FILL							764.0
1								763.0
2								762.0
3								761.0
4								760.0
5								759.0
6								758.0
7								757.0
8								756.0
9	SILT (TILL): gravelly, sandy, trace clay, dark grey			- Nbn				
			G1	- Nbn				755.0
10	- no gravel present							
11			G2					754.0
12				- Nbn				753.0
	- some clay, trace sand			- Nbn				
			G3	- Vs, 5-10 mm thick ice lenses irregularly spaced 200-300 mm				752.0
13				- Nbn				
				- 50 mm thick ice lens				751.0
14			G4					
15	CLAY and SILT: trace sand, trace gravel, medium plastic, dark grey							750.0

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-1
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945021.46N; 385563.531E; Zone 8	ELEVATION: 764.784m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
15					
			G5		
16				- Vx, 5-10% - Vs, 5-10 mm thick ice lenses irregularly spaced 200-400 mm	749.0
17			G6	- Nbn - Nbe	748.0
18					747.0
19			G7	- Nbn - Vx, 15-20% - Vs, 5-10 mm thick ice lenses, irregularly spaced 200-300 mm	746.0
20			G8		745.0
21					744.0
22			G9		743.0
23					742.0
24			G10	- Nbe - Vx, 5-10% - Vs, 10-30 mm thick ice lenses, irregularly spaced 300-350 mm	741.0
25	- at 24.3 m cobble - some gravel, fine to medium grained		G11		740.0
26					739.0
27	- gravel, coarse grained, < 40 mm		G12 G13		738.0
28	BEDROCK: poor quality, weathered, moderately friable orangy brown		G14	- Nbe - Vr < 45%, lenses 10-20 mm thick	737.0
29				- Vx , 10% - Vc < 5%	736.0
30					735.0

Bulk Density(kg/m³) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Slope Indicator

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-1
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945021.46N; 385563.531E; Zone 8	ELEVATION: 764.784m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
30					
31					734.0
32			G15		733.0
33	CLAY (INFILL): silty, sandy, trace gravel, high plastic, dark grey			- Nbn - Vr < 30%, lenses < 2 mm thick	732.0
34			G16	- Vs < 10 mm thick	731.0
35			G17		730.0
36	BEDROCK: poor quality, weathered, moderately friable orangy brown			- Nf - Vx < 2%	729.0
37					728.0
38					727.0
39			G18		726.0
40			G19		725.0
41				- Nf - Vx < 2%	724.0
42			G20		723.0
43					722.0
44	END OF BOREHOLE at 43.3 m - set HW casing 1.2 m below OG - installed inclinometer to 726.5 m - azimuth of A+ direction is 353°		G21		721.0
45					720.0

Bulk Density(kg/m^3) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Slope Indicator

EBA Engineering Consultants Ltd.	LOGGED BY: JSB & MD	COMPLETION DEPTH: 43.3m
	REVIEWED BY: JPB	COMPLETE: 1/25/2010
	DRAWING NO:	Page 3 of 3

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-2
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945007.735N; 385732.337E; Zone 8	ELEVATION: 755.178m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) / SILT (%) / SAND (%) / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	WASTE ROCK FILL							755.0
1								754.0
2	Ground surface based on contour information, poor recovery							753.0
3								752.0
4								751.0
5								750.0
6								749.0
7	SILT (TILL): sandy, some gravel, trace clay, well graded gravel < 38 mm angular to subangular, dark greyish brown							748.0
8	- cobble							747.0
9			G1	- Vr < 5%, lenses < 10 mm thick				746.0
10			G2					745.0
11			G3					744.0
12								743.0
13			G4	- Nbn - Vx 1-3%				742.0
14								741.0
15								

EBA Engineering Consultants Ltd.

LOGGED BY: JSB & MD	COMPLETION DEPTH: 50m
REVIEWED BY: JPB	COMPLETE: 1/24/2010
DRAWING NO:	Page 1 of 4

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-2
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945007.735N; 385732.337E; Zone 8	ELEVATION: 755.178m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
15			G5					740.0
16								739.0
17			G6	- Vr, lenses < 2 mm thick				738.0
	- some clay - trace gravel, dark brown			- Nbn - Vx < 1-5% - trace Vc - trace Vr < 10 mm thick lens				
18								737.0
19			G7					736.0
20								735.0
21			G8		●	■ ▲ ●		734.0
22	- gravelly, < 40 mm, subrounded							733.0
23			G9					732.0
			G10					
24	- no gravel, coarse grained sand							731.0
25	CLAY: silty, some sand, trace gravel, slickensided, high plastic, dark grey			- Vs, 5-40 mm thick ice lenses irregularly spaced 400-500 mm - 30 mm thick ice lens				730.0
26			G11		□			729.0
27								728.0
28			G12	-Nbn - Vx < 5%				727.0
29			G13	- Vs, 5-75 mm thick ice lenses irregularly spaced 100-350 mm				726.0
30								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-2
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945007.735N; 385732.337E; Zone 8	ELEVATION: 755.178m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
30			G14					725.0
31								724.0
32								723.0
33			G15					722.0
34								721.0
35			G16					720.0
36			G17	- Nbn				719.0
37	- some fine to medium grained sand, trace fine to medium grained gravel - stratified layers of clay and silt		G18					718.0
38	SAND: trace clay and silt, trace gravel, well graded, angular, mottled reddish brown and grey		G19	- Nbn - Vx < 5%				717.0
39			G20					716.0
40								715.0
41			G21					714.0
42	BEDROCK: poor quality, moderately fractured, moderately friable		G22					713.0
43								712.0
44								711.0
45								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-2
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945007.735N; 385732.337E; Zone 8	ELEVATION: 755.178m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
45								710.0
46								709.0
47								708.0
48								707.0
49								706.0
50	END OF BOREHOLE at 50 m - set HW casing 1.2 m below OG - installed inclinometer to 712.9 m - azimuth of A+ direction is 25°							705.0
51								704.0
52								703.0
53								702.0
54								701.0
55								700.0
56								699.0
57								698.0
58								697.0
59								696.0
60								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-3
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944901.582N; 385505.363E; Zone 8	ELEVATION: 775.671m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	TAILINGS			- Nbn				775.0
1								
2								774.0
3				- 40 mm thick ice lens, clear, white inclusions, tailings inclusions				773.0
4	- occasional cobbles and boulders							772.0
5								771.0
6								770.0
7								769.0
8								768.0
9								767.0
10	ORGANICS							766.0
	SAND - gravelly, brown, occasional cobbles							
11	- silty, fine grained			- Nbe				765.0
	CLAY (TILL) - some silt, trace gravel, high plastic							
12	- gravel < 50 mm		G1					764.0
13	- 100 mm cobbles - some gravel, gravel < 20 mm, subrounded to angular, medium plastic, brown							763.0
14								762.0
	SAND (TILL) - some silt, trace gravel, fine to medium grained gravel, grey brown			- Nbe				
15	CLAY (TILL) - sandy, some silt, some gravel, gravel < 20 mm, subrounded to angular, medium plastic, brown - poor recovery							761.0
16								760.0
17								759.0

EBA Engineering Consultants Ltd.

LOGGED BY: JGD & MD	COMPLETION DEPTH: 63.4m
REVIEWED BY: JPB	COMPLETE: 4/5/2010
DRAWING NO:	Page 1 of 4

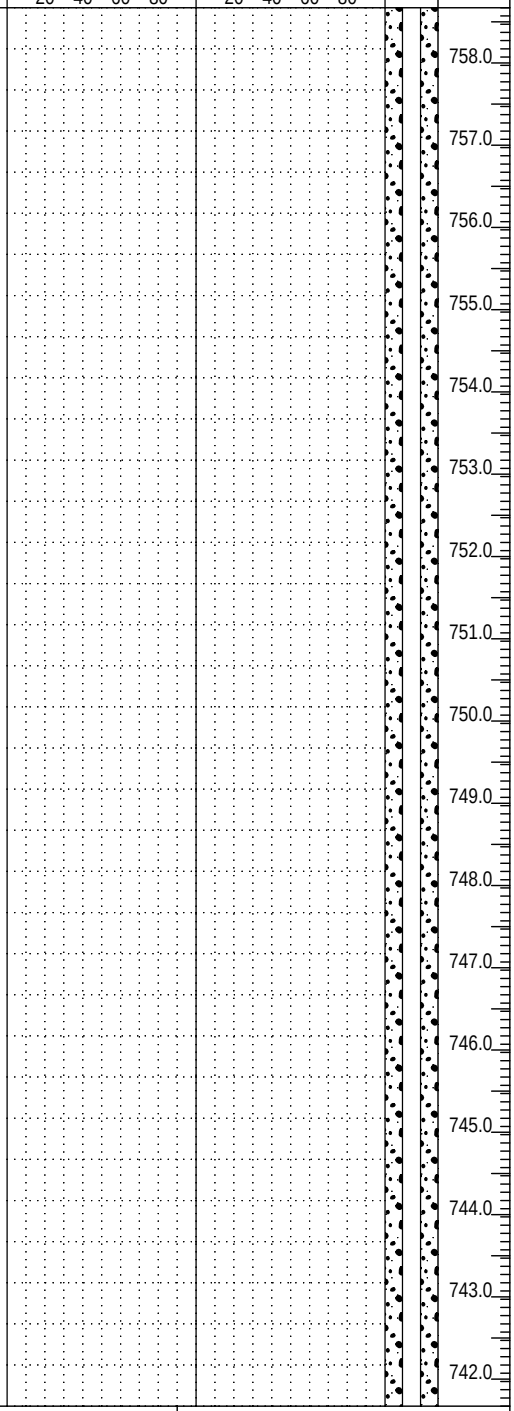
Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-3
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944901.582N; 385505.363E; Zone 8	ELEVATION: 775.671m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
17				
18	SILT (TILL) - some sand, some gravel, gravel < 10 mm, low plastic		G2	- Vx/Vr < 10%
19	- trace fine grained gravel, trace cobbles			
20				
21	CLAY (TILL) - gravelly, some cobbles, some silt, trace sand, subrounded gravel, medium plastic, grey - poor recovery from 20.7 m - 22.2 m			
22	- some sand, some gravel, some silt, high plastic			- Vx/Vr/Vc < 30%
23				
24	- poor recovery from 23.7 m - 25.3 m, recovered subrounded to subangular gravels < 50 mm			
25			G3	
26	- some silt, trace sand, trace gravel, high plastic		G4	- Vr/Vx < 40%
27			G5	
28	SILT (TILL) - some sand, trace clay, trace gravel, low to non-plastic, brown		G6	- Vr/Vx < 20%
29	- some gravel, trace cobbles		G7	- Vx < 10% - Vs < 1%, lenses < 3 mm thick - Vx < 20%
30	CLAY (TILL) - some silt, some gravel, medium to coarse grained gravel, high plastic			- Vx < 10%
31	SILT (TILL) - clayey, some sand, trace gravel, trace cobbles, fine grained sand		G8	- Vr < 10%
32	CLAY - silty, trace sand, trace gravel, medium plastic, grey			- Vx/Vr < 10%
33	- trace to some gravel, medium plastic		G9	- Nbn
34	- 300 mm thick sand layer		G10	

Elevation (m)
758.0
757.0
756.0
755.0
754.0
753.0
752.0
751.0
750.0
749.0
748.0
747.0
746.0
745.0
744.0
743.0
742.0



EBA Engineering Consultants Ltd.	LOGGED BY: JGD & MD	COMPLETION DEPTH: 63.4m
	REVIEWED BY: JPB	COMPLETE: 4/5/2010
	DRAWING NO:	Page 2 of 4

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-3
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944901.582N; 385505.363E; Zone 8	ELEVATION: 775.671m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) / SILT (%) / SAND (%) / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
34				- Vx < 40%				
35	- gravel < 40 mm subrounded, mottled brown and dark grey sections		G11	- 400 mm thick broken ice lens, clear - Nbn				741.0
36				- Vr < 2%, 1 mm thick ice lenses - Vx < 3%, crystals < 30 mm				740.0
37	- some sand, gravelly, subrounded gravel < 30 mm - mottled clay		G12	- 100 mm thick ice lens, clear - Nbn - Nbn				739.0
38				- Vr < 1%, ice lenses < 3 mm thick				738.0
39	- high plastic, dark grey, occasional angular gravel < 30 mm		G13	- Nbn				737.0
40			G14	- Vs < 3%, lenses < 30 mm thick, clear - Vr < 1%, ice lenses < 1 mm thick				736.0
41			G15	- Nbn - Vx < 1%, crystals < 2 mm				735.0
42	- clay intermixed with ice from 42.1 to 42.4 m (50/50) - slickensided, very shiny, no gravel present, occasional cobble			- Vs < 2%, lenses < 20 mm thick - Nbe - Nbn				734.0
43			G16	- Vr < 1%, ice lenses < 1 mm thick - Vs < 2%, lenses < 10 mm thick				733.0
44	- occasional horizontal silt layers < 1 mm thick, slickensided		G17	- Nbn - Vr < 5%, ice lenses < 4 mm thick				732.0
45			G18	- Vx < 1%				731.0
46				- Vx < 30 mm, cubic crystals < 30 mm				730.0
47	- occasional silt layers < 2mm thick, greyish brown silt			- Vs < 5%, lenses < 5 mm thick				729.0
48			G19					728.0
49	- no silt lenses, no slickensides visible, ice intermixed with clay			- Nbe - Vx < 30%, crystals < 20 mm				727.0
50			G20	- 200 mm of broken up ice				726.0
51	- occasional silt layers < 1 mm thick, dark brownish grey silt - gravelly < 40 mm, subangular			- Nbn - Vx < 10%, crystal <				725.0

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-3
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944901.582N; 385505.363E; Zone 8	ELEVATION: 775.671m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
51	- gravel < 20 mm, angular to subangular, silt layers < 30 mm thick		G21	10 mm				724.0
52				- Nbn				
			G22	- Vs < 2%, lenses < 3 mm thick				723.0
53								
54			G23					722.0
55								721.0
	SAND (RESIDUUM)- some gravel, well graded sand, gravel < 10 mm angular, brown		G24	- Nbn				720.0
56								
57			G25					719.0
	BEDROCK - highly weathered oxidized joints							718.0
58								
59	- rock becomes more competent with depth							717.0
60								716.0
61								715.0
62								714.0
63								713.0
	END OF BOREHOLE 63.4 m - set HW casing 1.2 m below OG - installed inclinometer to 713.5 m - azimuth of A+ direction is 42°							712.0
64								
65								711.0
66								710.0
67								709.0
68								708.0

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-4
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944935.493N; 385704.708E; Zone 8	ELEVATION: 773.472m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	WASTE ROCK FILL							773.0
1								772.0
2								771.0
3								770.0
4								769.0
5								768.0
6								767.0
7								766.0
8								765.0
9	TAILINGS							764.0
10								763.0
11								762.0
12								761.0
13	WASTE ROCK FILL							760.0
14								759.0
15								

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REVIEWED BY: JPB	COMPLETE: 4/4/2010
DRAWING NO:	Page 1 of 6

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-4
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944935.493N; 385704.708E; Zone 8	ELEVATION: 773.472m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
15								758.0
16								757.0
17								
	ORGANICS - some silt, dark brown, abundant rootlets			- Nbe				756.0
18	SILT and SAND: trace clay, dark brown, occasional gravel inclusions, occasional organic inclusions			- Vx < 2% - Vr < 5%, lenses < 1 mm thick				
			G1	- Vx < 2%, lenses < 2 mm thick				755.0
19								
	- gravelly, angular		G2		□			754.0
20								
			G3	- 5 mm thick ice lens, clear				753.0
21	- trace gravel, fine grained, angular			- Nbn - Vx < 3%				
			G4	- Vs < 1%, lenses 2 mm thick	●	■ ▲ ●		752.0
22								
								751.0
23				- 5 mm thick ice lens, clear				
			G5					750.0
24	- gravelly < 65 mm, subangular							
	- some silt, some gravel < 10 mm subrounded, well graded sand, brown			- 10 mm thick ice lens, cloudy - Nbn - Vx < 5%				749.0
25			G6	- Vr < 10%, lenses < 5 mm thick				
	- gravel < 30 mm, subangular							748.0
26			G7					
	- 300 mm boulder							747.0
27								
								746.0
28	SAND (TILL) - silty, some gravel, trace clay, gravel < 30 mm subangular, poor-well graded sand, dark brown			- Nbn				
			G8	- Vx < 3% - Vr < 10%, lenses < 3 mm thick				745.0
	- angular gravel							
29								
			G9		●	◆ ■ ● ▲		744.0
30								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-4
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944935.493N; 385704.708E; Zone 8	ELEVATION: 773.472m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
30	- subangular to subrounded gravel			- Vr < 1%, lenses < 2mm thick				743.0
31			G10	- Vr < 3%, lenses < 5mm thick				
	- some gravel < 30 mm, subangular							742.0
32								
	- silt lenses < 5 mm thick, low to non plastic							741.0
33	- 100 mm sand pocket, poorly graded, fine grained, brown			- Nbn				
	- trace to some silt, gravel < 15 mm, subangular, brown			- Vx < 2%				740.0
				- Vr < 3%, lenses < 2 mm thick				
34	- 400 mm silt till layer, sandy, some gravel, gravel < 10 mm, non plastic		G11	- Vr = 15 mm thick, clear	□			739.0
	- gravel < 60 mm			- Vr = 10 mm thick, vertical, cloudy				
35								
			G12					738.0
36								
	CLAY - silty, trace sand, medium plastic, dark grey			- Nbe				737.0
37	- 1.1 m of clay intermixed with ice			- Vx < 40%, crystals < 2 mm, cubical				
			G13					736.0
	- occasional slickensides, blocky			- Nbn				
38				- Vr < 2%, lenses < 1 mm thick				735.0
			G14		●—●	■	●	
39								
								734.0
40			G15					
	- sandy, some gravel, gravel < 15 mm, occasional silt lenses < 15 mm thick							733.0
	SAND AND GRAVEL - well graded sand, gravel < 75 mm subrounded to angular, dark brown, occasional cobbles < 170 mm							
41								732.0
42				- Nbn				
				- Vx < 1%				731.0
43			G16					
								730.0
44	- silty, poorly graded sand, no cobbles present							
								729.0
45								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-4
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944935.493N; 385704.708E; Zone 8	ELEVATION: 773.472m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
45			G17					728.0
46								
	- 150 mm boulder - gravel subangular		G18					727.0
47								
								726.0
48								
	- gravel < 50 mm			- Nbn - Vx < 1%				725.0
49								
								724.0
50	- some silt, trace clay			- Nbn - Vx < 2%				
				- Vr < 1%, lenses < 1 mm thick				723.0
51			G19					
	- gravel < 60 mm, subangular							722.0
52								
								721.0
53	CLAY - silty, trace sand, medium plastic, dark grey		G20	- Nbn - Vx < 2%				
				- Vr < 2%, lenses < 4 mm thick				720.0
54				- 1.0 m thick ice lens, cloudy, frequent horizontal soil layers < 1 mm				
								719.0
55				- Nbn - Vx < 1%				
			G21	- Vr < 2%, lenses < 1 mm thick				718.0
56			G22	- Nbn - Vx < 10%				
				- Vs < 10%, lenses < 150 mm thick				717.0
57								
								716.0
58								
								715.0
59	- 300 mm layer of ice and clay		G23					
			G24	- Nbn - Vs < 10%, lenses < 50 mm thick				714.0
60								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-4
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944935.493N; 385704.708E; Zone 8	ELEVATION: 773.472m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
60								713.0
61			G25					712.0
62				- Vs < 5%, lenses < 20 mm thick				711.0
63			G26					710.0
64								709.0
65			G27	- Vs < 20%, lenses < 80 mm thick				708.0
66								707.0
67								706.0
68			G28	- Nbn				705.0
69	- frequent sand seams, fine grained, < 3 mm							704.0
70								703.0
71								702.0
72								701.0
73	- some sand, grey - occasional gravel, coarse grained - browney grey							700.0
74								699.0
75								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-4
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944935.493N; 385704.708E; Zone 8	ELEVATION: 773.472m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
75								698.0
76								697.0
77								696.0
78								695.0
79	BEDROCK - highly weathered fractures spaced 30-50 mm apart							694.0
80	- oxide staining							693.0
81								692.0
82								691.0
83	- moderately to closely spaced joints, sand infilled joints							690.0
84								689.0
85								688.0
86	END OF BOREHOLE 85.6 m - set HW casing 1.5 m below OG - installed inclinometer to 687.9 m - azimuth of A+ direction is 10°							687.0
87								686.0
88								685.0
89								684.0
90								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-5
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944583.35N; 385509.075E; Zone 8	ELEVATION: 790.66m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
0	TAILINGS			
3.7	ORGANICS			
4	SAND - gravelly, coarse grained sand, occasional cobbles - poor recovery from 3.6 to 10.1 m			
10	CLAY - silty, trace sand, medium plastic, dark grey, silt pockets			- Nbn - Vx/Vs < 10%
11			G1	
12	SAND - clayey, trace silt, medium grained, greyish brown		G2	- Nbn
13	SILT - some clay, low plastic, brown		G3	
14	SAND - trace silt, trace gravel, medium to coarse grained sand, poorly graded			- Nbn
	SILT - trace sand, low plastic, dark grey			
15				

Bulk Density(kg/m³) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Slope Indicator

Elevation (m): 790.0, 789.0, 788.0, 787.0, 786.0, 785.0, 784.0, 783.0, 782.0, 781.0, 780.0, 779.0, 778.0, 777.0, 776.0

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REVIEWED BY: JPB	COMPLETE: 4/5/2010
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Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-5
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944583.35N; 385509.075E; Zone 8	ELEVATION: 790.66m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
15				
16	SAND AND GRAVEL - trace silt, well graded, brown		G4	- Nbn - Vx < 5%, occasional cubes < 1 mm
	SILT and SAND - trace clay, trace gravel, low plastic, brown			- Nbe - Vr < 15%
17			G5	- frequent 10 mm thick ice lenses
18				
	- gravelly, grey			- Nbn
19			G6	- Vx/Vr < 10% - Vs < 5%, lenses < 80 mm thick, clear
20	- 200 mm thick ice and clay layer		G7	
21				
				- Vx < 20% - Vs, lenses < 150 mm thick, clear
22			G8	
	- frequent sand layers < 250 mm thick			- Vx < 40%
23				
	CLAY (TILL) - some sand, some silt, medium plastic, grey			- Nbe
24	- gravelly			- Vx < 30%
25			G9	- 150 mm thick ice lens, clear, trace soil inclusions
	- sandy, trace silt, trace gravel, high plastic			- Nbn
26				
	SAND (TILL) - some clay, trace gravel, well graded, greyish brown		G10	
27				
	CLAY (TILL) - some sand, trace gravel			- Nbn
	SILT (TILL) - sandy, trace gravel, brown			- Vs < 10% - Vx < 5%
28				- Vx < 30%
	CLAY (TILL) - silty, trace sand, high plastic, grey			- Nbn
29				- Vx < 30%
	- brown		G11	- Vs, lenses < 150 mm thick
30				

Bulk Density(kg/m³): 20 40 60 80

PLASTIC M.C. LIQUID: 20 40 60 80

CLAY (%): 20 40 60 80

SILT (%): 20 40 60 80

SAND (%): 20 40 60 80

GRAVEL (%): 20 40 60 80

Slope Indicator

Elevation (m)
775.0
774.0
773.0
772.0
771.0
770.0
769.0
768.0
767.0
766.0
765.0
764.0
763.0
762.0
761.0

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-5
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944583.35N; 385509.075E; Zone 8	ELEVATION: 790.66m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
30	- grey			- Vx < 40%				
			G12					760.0
31			G13					
				- Vx < 15%				
	- 300 mm ice and clay layer (~60% ice)							759.0
32	- bedding planes 5 mm thick							
								758.0
33								
				- Vs, lenses < 200 mm thick				757.0
34	- 500 mm ice and clay layer (~50% ice)		G14					
				- Vx < 20%				756.0
35			G15					
								755.0
36								
			G16	- Vs, lenses < 100 mm thick				754.0
37				- Vx/Vr < 40%				
	- dark grey, occasional dark greyish brown silt lenses < 1 m thick		G17	- Nbn				753.0
38				- Vx < 2%				
				- Vr < 3%				
				- Vr < 3%, lenses < 2 mm thick				752.0
39				- Vs < 5%, lenses < 40 mm				
			G18	- Nbe				751.0
40								
								750.0
41	- occasional greyish brown silt pockets, occasional gravel < 20 mm		G19	- Nbn				
								749.0
42	- trace to some gravel < 40 mm, subrounded							
								748.0
43								
			G20					
	SAND - gravelly, trace silt, well graded sand, gravel < 10 mm, angular, orangey brown, occasional cobbles < 120 mm			- Nbn				747.0
44								
			G21					746.0
45								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-5
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944583.35N; 385509.075E; Zone 8	ELEVATION: 790.66m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
48	BEDROCK - highly weathered, friable oxidized joints, joints infilled with sand and gravel pieces, brown - competent							745.0
49								744.0
50								743.0
51								742.0
52	- joints spaced 200-600 mm							741.0
53								740.0
54								739.0
55								738.0
56	END OF BOREHOLE 55.8 m - installed inclinometer to 737.1 m - azimuth of A+ direction is 16°							737.0
57								736.0
58								735.0
59								734.0
60								733.0
								732.0
								731.0

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REVIEWED BY: JPB	COMPLETE: 4/5/2010
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Fall 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-6
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944972N; 385653.5E; Zone 8	ELEVATION: 766.496m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	ROCK FILL							766.0
1								765.0
2								764.0
3								763.0
4								762.0
5								761.0
6								760.0
7								759.0
8								758.0
9	MUSKEG - organics							757.0
10			G1					756.0
11								755.0
12	SAND - trace silt, poorly graded, fine grained, brown			- Nbe				754.0
13			G2					753.0
14								752.0
15				- Nbn, Vx < 1%				751.0
16			G3					750.0
17	SAND (TILL) - some silt, trace clay, trace gravel, well graded, medium-coarse grained, subgranular, brown		G4		●	■ ● ▲		749.0
18	- poorly graded, fine grained, dark grey, peat bog odour, abundant organic lenses < 20 mm (thick brown fibrous)							748.0
19			G5					747.0
20			G6					746.0
21	- trace gravel, well graded, medium-coarse grained, subgranular, brown		G7					745.0
22	- poorly graded, fine grained, dark grey, odor rotten clams, abundant organic lenses < 20 mm thick, brown roots		G8	- Nbe, occasional ice lenses < 30 mm, clear				744.0
23				- 70 mm ice lense, clear				743.0
24	- round, brown							742.0
25			G9					

Fall 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-6
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944972N; 385653.5E; Zone 8	ELEVATION: 766.496m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
25								741.0
26			G10					
27				- Nbn, Vr < 2%				740.0
28			G11					739.0
29			G12					738.0
30	SILT - some sand, trace gravel, low-medium plastic, brown		G13	- 30 mm ice lense, clear - Ice and soil, abundant ice lenses < 50 mm thick, clear				737.0
31								736.0
32	- gravelly, silty, some clay, low-non plastic, greyish brown, occasional cobble		G14	- Abundant ice lenses < 150 mm thick, clear, some cloudy				735.0
33				- Abundant ice lenses < 100 mm thick				734.0
34			G15					733.0
35	CLAY - silty, trace sand, slickensided, high plastic, dark grey							732.0
36			G16					731.0
37			G17					730.0
38			G18	- Clay and ice 50/50				729.0
39				- 100 mm ice lense, clear				728.0
40			G19	- 80 mm ice lense, half clear, half cloudy				727.0
41			G20	- Nbn, frequent ice lenses <120 mm thick				726.0
42								725.0
43			G21	- 50 mm ice lense, clear - Ice lense, clear				724.0
44			G22	-Vr < 2%, < 2 mm thick, Nbn				723.0
45				- Abundant ice lenses < 70 mm thick, clear, Vr < 1%, < 2 mm thick				722.0
46			G23					721.0
47			G24	- Nbn, Vr < 2%, < 2 mm thick				720.0
48				- Vertical ice lense ~5 mm thick - Ice and clay 50/50				719.0
49			G25					718.0
50								717.0

Fall 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-6
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944972N; 385653.5E; Zone 8	ELEVATION: 766.496m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
50								716.0
51			G26	- 150 mm ice lense, clear - Abundant ice lenses < 40 mm thick, clear, high plastic, blocky				715.0
52								714.0
53			G27	- Ice and clay 50/50				713.0
54			G28					712.0
55			G29					711.0
56	- silty, gravelly, some sand, high plastic		G30	- Nbn				710.0
57								709.0
58			G31					708.0
59	SAND (RESIDUUM) - silty, trace clay, trace gravel, poorly graded, dark brown		G32 G33					707.0
60								706.0
61								705.0
62	BEDROCK - highly weathered, light brown, more competent with depth		G34					704.0
63			G35					703.0
64								702.0
65			G36					701.0
66								700.0
67			G37					699.0
68								698.0
69								697.0
70								696.0
71								695.0
72	END OF BOREHOLE at 71.6 m - installed inclinometer to 697.2 m - azimuth of A+ direction is ____ °							694.0
73								693.0
74								692.0
75								

EBA Engineering Consultants Ltd.

LOGGED BY: MD & KDJ	COMPLETION DEPTH: 71.6m
REVIEWED BY: BC &JGD	COMPLETE: 11/9/2010
DRAWING NO:	Page 3 of 3

MGP W14101068.001.GPJ EBA.GDT 3/4/11

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-7
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945049N; 385580.8E; Zone 8	ELEVATION: 754.349m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
0	GRAVEL - clayey, some cobbles, poorly graded, dark brown			
4	SILT - sandy, some gravel, trace clay		G1	
5				- Vr 2mm thick
6	CLAY - silty, some sand, trace gravel, high plastic, dark brown			- Ice and clay 70/30
9			G2	
10			G3	
11				- Ice and clay 70/30
12				- Vr 1 mm thick
14			G4	- Ice and clay 70/30
16				- Ice and clay 70/30
17			G5	
18				- Ice and clay 70/30
			G6	
19			G7	- Ice and clay 70/30
21				- Ice and clay 70/30
22			G8	
				- Ice and clay 70/30
23			G9	
24				- Ice and clay 70/30
25			G10	

Bulk Density(kg/m³) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Slope Indicator

Elevation (m): 754.0, 753.0, 752.0, 751.0, 750.0, 749.0, 748.0, 747.0, 746.0, 745.0, 744.0, 743.0, 742.0, 741.0, 740.0, 739.0, 738.0, 737.0, 736.0, 735.0, 734.0, 733.0, 732.0, 731.0, 730.0

EBA Engineering Consultants Ltd.	LOGGED BY: KDJ	COMPLETION DEPTH: 43.3m
	REVIEWED BY: BC & JGD	COMPLETE: 11/10/2010
	DRAWING NO:	Page 1 of 2

MGP W14101068.001.GPJ EBA.GDT 3/4/11

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-7
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945049N; 385580.8E; Zone 8	ELEVATION: 754.349m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
25				- Ice and clay 70/30				729.0
26			G11					728.0
27								727.0
28			G12					
	SAND - silty, trace clay, trace gravel, poorly graded, coarse sand, fine gravel, reddish brown							
29			G13					726.0
30			G14					725.0
31			G15					724.0
32								723.0
33				- Vr 3 mm thick				722.0
	BEDROCK - brown		G16					721.0
34								720.0
35			G17					719.0
36			G18					718.0
37								717.0
38			G19					716.0
39			G20					715.0
40								714.0
41			G21					713.0
42			G22					712.0
43								711.0
	END OF BOREHOLE at 43.3 m - installed inclinometer to 711.0 m - azimuth of A+ direction is ____ °							
44								710.0
45								709.0
46								708.0
47								707.0
48								706.0
49								705.0
50								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-8
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945042N; 385673.7E; Zone 8	ELEVATION: 757.771m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	ROCK FILL							757.0
1								
2								756.0
3								
4								755.0
5	SILT - sandy, some clay, some gravel, non-plastic, brown, occasional cobble		G1	- Vr < 2%, 2 mm thick				754.0
6			G2	- Ice and silt and gravel, 50/50				753.0
7	CLAY - silty, stratified, medium plastic, dark grey, occasional cobble		G3	- Ice and clay 50/50				752.0
8								751.0
9			G4	- Ice and clay 70/30				750.0
10			G5					749.0
11				- Ice and clay 60/40				748.0
12			G6	- Vr 10 mm thick				747.0
13			G7	- Ice and clay 70/30				746.0
14								745.0
15			G8	- Ice and clay 70/30				744.0
16								743.0
17			G9	- Ice and clay 70/30				742.0
18			G10	- Ice and clay 70/30				741.0
19								740.0
20			G11	- Ice and clay 70/30				739.0
21								738.0
22			G12	- Ice and clay 50/50				737.0
23			G13	- Vr 2 mm thick - Ice and clay 50/50				736.0
24			G14	- Ice and clay 50/50				735.0
25				- Ice and clay 70/30				734.0
								733.0

EBA Engineering Consultants Ltd.	LOGGED BY: MD & KDJ	COMPLETION DEPTH: 43.2m
	REVIEWED BY: BC & JGD	COMPLETE: 11/10/2010
	DRAWING NO:	Page 1 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-8
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945042N; 385673.7E; Zone 8	ELEVATION: 757.771m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
25	- trace sand		G15	- Ice and clay 70/30				732.0
26								
27				- Ice and clay 50/50				731.0
28			G16					730.0
29			G17	- Ice and clay 70/30				729.0
			G18					
30				- Ice and clay 70/30				728.0
31				- Ice and clay 70/30				727.0
32			G19					726.0
33				- Ice and clay 50/50				725.0
34			G20					724.0
35				- Ice and clay 50/50				723.0
36			G21	- Ice and clay 50/50				722.0
37								721.0
38			G22					720.0
39	SAND (RESIDUUM) - gravelly, some cobbles, poorly graded, medium grained sand, brown							719.0
40	BEDROCK - light brown		G23					718.0
41			G24					717.0
42								716.0
43			G25					715.0
44	END OF BOREHOLE at 43.2 m - installed inclinometer to 715.4 m - azimuth of A+ direction is ____ °							714.0
45								713.0
46								712.0
47								711.0
48								710.0
49								709.0
50								708.0

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-9
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945136N; 385762.9E; Zone 8	ELEVATION: 737.042m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	NO RECOVERY							737.0
	BEDROCK - greyish brown							
1			G1					736.0
2								735.0
3								734.0
4			G2					733.0
5								732.0
6			G3					731.0
7	END OF BOREHOLE at 6.7 m - installed inclinometer to 731.5 m - azimuth of A+ direction is ____ m							730.0
8								729.0
9								728.0
10								

EBA Engineering Consultants Ltd.

LOGGED BY: KDJ	COMPLETION DEPTH: 6.7m
REVIEWED BY: BC & JGD	COMPLETE: 11/11/2010
DRAWING NO:	Page 1 of 1

MGP W14101068.001.GPJ EBA.GDT 2/22/11

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-10
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944926N; 386115E; Zone 8	ELEVATION: 780.139m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	ROCK FILL - no recovery							780.0
1								779.0
2								778.0
3								777.0
4	ORGANICS - muskeg, rootlets		G1					776.0
	SILT - sandy, non-plastic, brown, occasional organics							
5								775.0
6			G2					774.0
7								773.0
8								772.0
	- some sand, greyish brown		G3	- Vx < 1%				
9								771.0
10								770.0
11								769.0
12			G4					768.0
13	SILT (TILL) - sandy, trace clay, trace gravel, non-low plastic, frozen, brown							767.0
14								766.0
15			G5					765.0
	SAND - trace silt, poorly graded, medium-coarse grained, angular, brown							
16								764.0
	SILT - some sand, trace gravel, non-plastic, dark brown, organic odor, frequent organic pieces (wood)		G6					
17								763.0
18	SAND and SILT - some gravel, non-plastic, poorly graded, browny grey, frequent organics, occassional cobbles		G7					762.0
19								761.0
20			G8					760.0
21			G9					759.0
22								758.0
			G10	- ice lense, clear				
23	- gravelly							757.0
				- 100 mm ice lense				
24				- 250 mm ice lense				756.0
	- boulder		G11					
25								

EBA Engineering Consultants Ltd.

LOGGED BY: MD	COMPLETION DEPTH: 87.8m
REVIEWED BY: BC & JGD	COMPLETE: 11/7/2010
DRAWING NO:	Page 1 of 4

MGP W14101068.001.GPJ EBA.GDT 3/4/11

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-10
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944926N; 386115E; Zone 8	ELEVATION: 780.139m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
25	SAND (TILL) - some silt, gravelly, poorly graded, subangular gravel, brown							755.0
26								754.0
			G12					
27								753.0
	- gravel < 40 mm subangular-angular							
28			G13					752.0
			G14					
29								751.0
30	- silty		G15	- 100 mm ice lense, clear - Vr < 1%				750.0
31								749.0
32	- boulder							748.0
	SILT (TILL) - trace to some clay, trace sand, low plastic, dark grey		G16					
33			G17					747.0
34								746.0
35			G18					745.0
36								744.0
37	- sandy, trace clay, trace gravel, low-non plastic, occasional cobble		G19					743.0
	- gravely, subangular < 50 mm diameter							
38			G20					742.0
39			G21					741.0
40								740.0
	- frequent cobbles							
41			G22					739.0
42								738.0
43			G23					737.0
44			G24					736.0
45								735.0
	- 300 mm boulder							
46								734.0
47			G25					733.0
			G26					
48			G27					732.0
49								731.0
50	SILT AND SAND (TILL) - gravelly, trace clay, low-non plastic, dark		G28	- Nbn, Vx < 1%				

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-10
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944926N; 386115E; Zone 8	ELEVATION: 780.139m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
50	grey, occasional cobbles							730.0
51			G29					729.0
52								728.0
53	SAND (TILL) - silty, gravelly, poorly graded, dark grey, occasional cobbles			- Nbe				727.0
54	- trace to some gravel		G30					726.0
55			G31					725.0
56								724.0
57	SILT AND SAND (TILL) - some gravel, low-non plastic, dark grey, occasional cobbles		G32	- Nbn				723.0
			G33					
58								722.0
59								721.0
60			G34	- Nbn, Vx < 1% - Nbn				720.0
61								719.0
			G35					
62			G36					718.0
63								717.0
64	CLAY - silty, trace sand, trace gravel, medium plastic, dark grey, occasional fine grained sand pockets < 2 mm diameter		G37	- Nbn				716.0
65	- slickensided, no sand pockets, no gravel		G38					715.0
66								714.0
	- sandy			- Nbn				
67	- slickensided, medium-high plastic			- Nbn				713.0
68	- occasional light grey silt lenses < 4 mm thick		G39	- Nbn				712.0
69			G40					711.0
70	- high plastic, occasional lighter grey silt pockets ~10 mm diameter		G41					710.0
71	- stratified layers							709.0
72			G42					708.0
73	- high plastic, slickensided		G43					707.0
74								706.0
75								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-10
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944926N; 386115E; Zone 8	ELEVATION: 780.139m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
75			G44					705.0
76								704.0
77			G45					703.0
78	- sand, fine grained, grey sand lenses < 2 mm thick		G46					702.0
79			G47					701.0
80			G48					700.0
81								699.0
82			G49					698.0
83	SAND - some silt, some gravel, poorly-well graded, angular to subangular, dark greyish brown		G50 G51					697.0
84	CLAY - silty, high plastic, brown and dark grey - occasional sand and gravel							696.0
85	SAND (RESIDUUM) - gravelly, trace silt, poorly-well graded, angular, brown, frequent coarse grained sand lenses < 20 mm thick		G52					695.0
86								694.0
87	BEDROCK - highly weathered to sand and gravel sizes, orangy brown							693.0
88	END OF BOREHOLE at 87.8 m - installed inclinometer to 694.9 m - azimuth of A+ direction is ____°							692.0
89								691.0
90								690.0
91								689.0
92								688.0
93								687.0
94								686.0
95								685.0
96								684.0
97								683.0
98								682.0
99								681.0
100								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-11
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945115N; 385838.6E; Zone 8	ELEVATION: 736.898m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	ROCK FILL				
1	SAND and GRAVEL - some silt, well graded, brown			- Nbn	736.0
	- peat, fibrous				
2					735.0
3					734.0
	SILT - sandy, trace gravel, non-plastic			- Vr/Vx 35%	
			G1		
4					733.0
	- organics				
	SILT and SAND - trace gravel, trace clay, medium-low plastic, brown/grey			- Vr/Vx 15%	
			G2		
5					732.0
	- organics				
6			G3		731.0
	- some gravel, trace cobbles				
	ORGANICS				
7	- gravely, sandy, poor return, no fines				730.0
	ORGANICS - fibres and silt			- Nbe	
	SAND - gravelly, trace silt, medium-fine grained, occasional cobble, dark brown		G4	- Nbn	
8					729.0
	SILT - trace sand, trace clay, non-plastic, grey			- Nbn	
	SILT and SAND - trace clay, well graded, grey			- Nbn	
9			G5		728.0
				- Nbn	
	SAND - gravelly, trace silt, brown				
10					727.0

Bulk Density(kg/m³): 20 40 60 80

PLASTIC M.C. LIQUID: 20 40 60 80

CLAY (%): 20 40 60 80

SILT (%): 20 40 60 80

SAND (%): 20 40 60 80

GRAVEL (%): 20 40 60 80

Slope Indicator

EBA Engineering Consultants Ltd.

LOGGED BY: JGD	COMPLETION DEPTH: 17.4m
REVIEWED BY: BC & JGD	COMPLETE: 11/15/2010
DRAWING NO:	Page 1 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DSI-11
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945115N; 385838.6E; Zone 8	ELEVATION: 736.898m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
10								
11								726.0
12			G6					725.0
	BEDROCK - granite with pegmatite inclusions, highly weathered							
13								724.0
14								723.0
15								722.0
16								721.0
17								720.0
	END OF BOREHOLE at 17.4 m - installed inclinometer to 720.2 m - azimuth of A+ direction is ____ m							
18								719.0
19								718.0
20								717.0

EBA Engineering Consultants Ltd.

LOGGED BY: JGD	COMPLETION DEPTH: 17.4m
REVIEWED BY: BC & JGD	COMPLETE: 11/15/2010
DRAWING NO:	Page 2 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DST-6
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944832.401N; 385729.963E; Zone 8	ELEVATION: 774.958m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	TAILINGS				
1				- Nbn, potential seasonal frost	774.0
2					773.0
	SAND AND GRAVEL(FILL): trace silt, gravel < 40mm, subangular gravel, orangy brown			- Nbn	
3	TAILINGS				772.0
4					771.0
5					770.0
6					769.0
7					768.0
8					767.0
9					766.0
10	SAND AND GRAVEL (FILL): trace silt, gravel < 20 mm, subangular gravel, orangy brown				765.0
	TAILINGS			- Nbn	
11					764.0
12	ORGANICS: some silt, trace gravel, gravel subrounded, dark brown				763.0
	SAND: some silt, trace gravel, subrounded gravel, dark brown			- Nbn - Vr < 2%, lenses 1-2 mm thick	
13			G1		762.0
14	- silty				761.0
			G2		
15					760.0

Bulk Density(kg/m³) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Thermistor

EBA Engineering Consultants Ltd.

LOGGED BY: JSB & MD	COMPLETION DEPTH: 20.7m
REVIEWED BY: JPB	COMPLETE: 1/27/2010
DRAWING NO:	Page 1 of 2

MGP W14101068.001.GPJ EBA.GDT 3/4/11

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DST-6
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944832.401N; 385729.963E; Zone 8	ELEVATION: 774.958m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Thermistor	Elevation (m)
15								
16								759.0
17								758.0
			G3					
18	- organic inclusions, dark brown							757.0
19	- gravelly, < 6 mm, subangular to angular		G4	- Vs < 5%, lenses < 2mm thick - Vc < 10%				756.0
20								755.0
21	END OF BOREHOLE at 20.7 m - backfilled with grout 20.7 m to surface - DST-6 beads between 778.3 m and 786.7 m (three beads above ground)							754.0
22								753.0
23								752.0
24								751.0
25								750.0
26								749.0
27								748.0
28								747.0
29								746.0
30								745.0

EBA Engineering Consultants Ltd.	LOGGED BY: JSB & MD	COMPLETION DEPTH: 20.7m
	REVIEWED BY: JPB	COMPLETE: 1/27/2010
	DRAWING NO:	Page 2 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DST-7
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944855.942N; 385482.201E; Zone 8	ELEVATION: 777.599m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Thermistor	Elevation (m)
0	TAILINGS		- Nbn				777.0
1							
2							776.0
	- at 2.4 m, sandy silty, some gravel, angular to subangular, dark grey						775.0
3							
4							774.0
	ROCK FILL: gravelly, subrounded, medium to dark brown						773.0
5							
6							772.0
							771.0
7	SAND (TILL): some silt, gravelly, well graded, fine to medium grained, subrounded particles, dark grey						770.0
8							
	- some cobbles						769.0
9							
							768.0
10							
							767.0
11							
							766.0
12							
							765.0
13							
							764.0
14	- trace gravel, fine grained						
							763.0
15							

EBA Engineering Consultants Ltd.

LOGGED BY: JSB & MD	COMPLETION DEPTH: 28.3m
REVIEWED BY: JPB	COMPLETE: 1/28/2010
DRAWING NO:	Page 1 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DST-7
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944855.942N; 385482.201E; Zone 8	ELEVATION: 777.599m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Thermistor	Elevation (m)
15							
16	- some sand, some clay						762.0
17							761.0
18							760.0
19							759.0
20							758.0
21							757.0
22	- trace to no clay, gravel < 60 mm, dark greyish brown		- Vs, 100 mm thick ice lens				756.0
23							755.0
24			- Nbn				754.0
25							753.0
26							752.0
27							751.0
28							750.0
29	END OF BOREHOLE at 28.3 m - backfilled with grout from 28.3 m to 2.4 m - backfilled with tailings from 2.4 m to surface - DST-7 beads between 770.5 m and 750.5 m						749.0
30							748.0

EBA Engineering Consultants Ltd.

LOGGED BY: JSB & MD	COMPLETION DEPTH: 28.3m
REVIEWED BY: JPB	COMPLETE: 1/28/2010
DRAWING NO:	Page 2 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DST /P-3
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944995.395N; 385750.646E; Zone 8	ELEVATION: 756.633m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	WASTE ROCK FILL				756.0
1					755.0
2	GRAVEL: sandy, silty, well graded sub-rounded gravel, medium to coarse grained angular sand, dark greyish brown				754.0
3					753.0
4					752.0
5	- at 4.5 m, gravel and sand		G1	- Nbn - Vx < 1-2%	751.0
6					750.0
7					749.0
8			G2		748.0
9	SILT (TILL): sandy, some gravel, subrounded gravel, dark greyish brown		G3	- Nbn - Vx < 2%	747.0
10			G4		746.0
11			G5	- from 10-10.1 m Vr < 10 mm thick	745.0
12			G6	- occasional ice lenses < 15 mm	744.0
13	END OF BOREHOLE at 12.3 m - backfilled with grout from 12.3 m to 2.1 m - backfilled with bentonite chips from 2.1 m to surface - DSP-3A tip elevation at 753.5 m - DSP-3B tip elevation at 752.8 m - DST-3 beads between 755.5 m and 744.5 m		G7		743.0
14					742.0
15					

Bulk Density(kg/m³) 20 40 60 80 | PLASTIC M.C. LIQUID 20 40 60 80 | CLAY (%) 20 40 60 80 | SILT (%) 20 40 60 80 | SAND (%) 20 40 60 80 | GRAVEL (%) 20 40 60 80

Vibrating Wire | Vibrating Wire | Thermistor

EBA Engineering Consultants Ltd.

LOGGED BY: JSB & MD	COMPLETION DEPTH: 12.3m
REVIEWED BY: JPB	COMPLETE: 1/22/2010
DRAWING NO:	Page 1 of 1

MGP W14101068.001.GPJ EBA.GDT 2/11/11

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DST/P-4
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944927.605N; 385731.584E; Zone 8	ELEVATION: 773.141m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Vibrating Wire	Vibrating Wire	Thermistor	Elevation (m)
0	WASTE ROCK FILL									773.0
1										772.0
2										771.0
3										770.0
4										769.0
5										768.0
6										767.0
7										766.0
8										765.0
9										764.0
10										763.0
11										762.0
12										761.0
13										760.0
14	Ground surface based on contour information, poor recovery									759.0
15										758.0
16										

EBA Engineering Consultants Ltd.	LOGGED BY: JSB & MD	COMPLETION DEPTH: 28.3m
	REVIEWED BY: JPB	COMPLETE: 1/26/2010
	DRAWING NO:	Page 1 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-DST/P-4
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6944927.605N; 385731.584E; Zone 8	ELEVATION: 773.141m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
16				
17	SAND: some silt, trace organics, fine grained, dark brown, slight organic odour - no organics			- Nbn - Vx < 1%
18			G1	
19			G2	- Nbn - Vx < 1.0% - Vr < 1-2%, lenses 1-5 mm thick
	- some coarse grained sand, trace fine grained subangular gravel		G3	- Vc < 20%
20	- cobbles < 120 mm			
21				
22				
23	SAND (TILL): silty, gravelly, trace clay, gravel < 200 mm, gravel subangular and angular, dark greyish brown			- Nbn - Vr < 2-5%, lenses 1-2 mm thick
24			G4	
25				
26			G5	- Vc < 10%
27				
28				
29	END OF BOREHOLE at 28.3 m - core barrel left in ground from 25.3 m to 28.3 m - backfilled with grout from 28.3 m to 0.5 m - backfilled with bentonite chips from 0.5 m to surface - DSP-4A tip elevation at 755.2 m - DSP-4B tip elevation at 754.5 m - DST-4 beads between 773.1 m and 752.1 m			
30				
31				
32				

Bulk Density(kg/m³) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Vibrating Wire | Vibrating Wire | Thermistor

Elevation (m): 757.0, 756.0, 755.0, 754.0, 753.0, 752.0, 751.0, 750.0, 749.0, 748.0, 747.0, 746.0, 745.0, 744.0, 743.0, 742.0

EBA Engineering Consultants Ltd.	LOGGED BY: JSB & MD	COMPLETION DEPTH: 28.3m
	REVIEWED BY: JPB	COMPLETE: 1/26/2010
	DRAWING NO:	Page 2 of 2

MGP W14101068.001.GPJ EBA.GDT 3/4/11

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-G01
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945065N; 385772.3E; Zone 8	ELEVATION: 746.529m

SAMPLE TYPE: GRAB SAMPLE; NO RECOVERY; BULK; CRREL CORE; SHELBY TUBE; GRAB CORE

BACKFILL TYPE: BENTONITE; PEA GRAVEL; SLOUGH; GROUT; DRILL CUTTINGS; SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Backfill	Elevation (m)
0	ROCK FILL							746.0
1								745.0
2								
	ORGANICS - silty, trace gravel, black, roots, occasional cobble < 20 mm							744.0
3	SILT - trace sand, trace gravel, non-plastic, dark grey							743.0
4	- cobbles ~ 50 mm							742.0
5								741.0
6	- organics (small twigs)		G1	- Ice and silt 70/30				740.0
7				- Vr < 5 mm thick				
	CLAY - silty, trace sand, trace gravel, medium-high plastic, dark brown		G2					739.0
8								
	SILT - trace fine sand, dark brown		G3					738.0
9								737.0
10								736.0
11			G4					735.0
12	SAND - fine, brown							
	- occasional roots		G5					734.0
13								733.0
14								732.0
15			G6					

EBA Engineering Consultants Ltd.

LOGGED BY: KDJ	COMPLETION DEPTH: 22m
REVIEWED BY: BC & JGD	COMPLETE: 11/14/2010
DRAWING NO:	Page 1 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-G01
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945065N; 385772.3E; Zone 8	ELEVATION: 746.529m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Backfill	Elevation (m)
15	BEDROCK - boulder then highly weathered, orangy brown		G7					731.0
16								730.0
17								729.0
18			G8					728.0
19								727.0
20								726.0
21								725.0
22	END OF BOREHOLE at 22.0 m							724.0
23								723.0
24								722.0
25								721.0
26								720.0
27								719.0
28								718.0
29								717.0
30								

EBA Engineering Consultants Ltd.	LOGGED BY: KDJ	COMPLETION DEPTH: 22m
	REVIEWED BY: BC & JGD	COMPLETE: 11/14/2010
	DRAWING NO:	Page 2 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-G02
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945062N; 385856.1E; Zone 8	ELEVATION: 752.619m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
0	FILL - sand and gravel, trace fines, cobbles and boulders (waste rock)			
1	ORGANIC SILT - some sand, dark brown			- Nbn - Vs
			G1	- Ice and silt, stratified layers ~10-15 mm thick
2	SILT AND SAND - some clay, trace gravel, low to medium plastic, dark brown to grey			- Vs 8-10 mm thick lenses
			G2	
3				- Ice and silt
			G3	
4				
	CLAY - silty, trace sand, trace gravel, medium to high plastic, brown to grey		G4	-Vr 20%
5				
6				- Vr/Vs 35 %
			G5	
7	ICE AND CLAY - some silt, trace sand, medium to high plastic, grey			
			G6	
8				
9				
			G7	
10			G8	
11				
	CLAY - trace silt, trace sand, medium plastic, grey			
12			G9	
13				
14			G10	
15				

Bulk Density(kg/m³) 20 40 60 80 | PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80 | SILT (%) 20 40 60 80 | SAND (%) 20 40 60 80 | GRAVEL (%) 20 40 60 80

Backfill

Elevation (m): 752.0, 751.0, 750.0, 749.0, 748.0, 747.0, 746.0, 745.0, 744.0, 743.0, 742.0, 741.0, 740.0, 739.0, 738.0

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-G02
Dry Stack Tailings Storage Facility	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.001
Minto Mine, YT	6945062N; 385856.1E; Zone 8	ELEVATION: 752.619m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Backfill	Elevation (m)
15			G11					737.0
16								
			G12					736.0
17	- trace fine gravel			-Vr 30%				
								735.0
18			G13	- Ice and clay 50/50				
								734.0
19								
	SAND - some gravel, some clay, poorly graded, fine grained gravel, medium grained sand, greyish brown, frozen							733.0
20			G14					
	CLAY - trace gravel, medium plastic, greyish brown							732.0
21			G15					
								731.0
22	SAND (RESIDUUM) - trace gravel, poorly graded, fine grained sand, brown							
	BEDROCK - grey							730.0
23			G16					
								729.0
24								
								728.0
25								
	- becomes reddish brown		G17					727.0
26								
	END OF BOREHOLE at 26.5 m							726.0
27								
								725.0
28								
								724.0
29								
								723.0
30								

EBA Engineering Consultants Ltd.	LOGGED BY: JGD & KDJ	COMPLETION DEPTH: 26.5m
	REVIEWED BY: BC & JGD	COMPLETE: 11/15/2010
	DRAWING NO:	Page 2 of 2

Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-DSI-12
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945117.38N; 385981.036E; Zone 8	ELEVATION: 748.826m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Inclinometer	Elevation (m)
0	SAND - silty, trace gravel, sub-rounded to sub-angular, tan/grey-brown		G1					748.0
1	GRAVEL - cobbles <150 mm in diameter - poor recovery - clay seam 200 mm thick							
2								747.0
3								746.0
4								745.0
5								744.0
6								743.0
7	- increased gravel content							742.0
8								741.0
9	CLAY - silty, sandy, trace gravel, medium plastic, stratified, grey			- Vs/Vx <2%				740.0
10			G2					739.0
11			G3					738.0
12	- high plastic		G4					737.0
13	SAND (RESIDUUM) - gravelly, poorly graded, angular to sub-angular, gravel <30 mm in diameter, yellow-brown			- Nbn				736.0
14								735.0
15			G5					734.0
16			G6					733.0
	BEDROCK		G8					
17			G7					732.0
18								731.0
19			G9					730.0
20								729.0

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LOGGED BY: AT & SMC	COMPLETION DEPTH: 37.19m
REVIEWED BY: JGD	COMPLETE: 1/14/2011
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-DSI-12
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945117.38N; 385981.036E; Zone 8	ELEVATION: 748.826m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Inclinometer	Elevation (m)
20								
21								728.0
22			G10					727.0
			G11					
23								726.0
24			G12					725.0
25			G13					724.0
26								723.0
27								722.0
28								721.0
29								720.0
30								719.0
31								718.0
32								717.0
33								716.0
34								715.0
35								714.0
36								713.0
37	END OF BOREHOLE @ 37.2 m - CONFIRMED BEDROCK							712.0
38								711.0
39								710.0
40								709.0

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 37.19m
	REVIEWED BY: JGD	COMPLETE: 1/14/2011
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G01
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945149.321N; 3856934E; Zone 8	ELEVATION: 735.267m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	ROCK FILL		G1				735.0
	ORGANICS - peat			- 2 mm thick ice lens			
1	SAND - silty, some gravel, trace clay, poorly graded, sub-rounded to sub-angular, greyish brown, occasional organics		G2				734.0
2			G3				733.0
3							732.0
4	- becomes gravely, trace cobbles <150 mm in diameter		G4				731.0
5							730.0
	- some cobbles						
6	- boulder						729.0
7							728.0
8							727.0
	SILT - sandy, trace gravel, trace clay, non-plastic, dark brown, occasional organics, strong organic odour		G5	Nbn			
9							726.0
	- boulder						
10	SAND - gravelly, trace silt, trace cobbles, poorly graded sub-angular to angular, cobbles <75 mm in diameter, grey		G6				725.0
	- boulder						
11							724.0
	GRAVEL and SAND (RESIDUUM) - trace silt and clay, some cobbles, poorly graded, sub-angular to angular, cobbles <100 mm in diameter, grey						
12							723.0
			G7				
13	BEDROCK						722.0
14							721.0
15							

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 21.95m
	REVIEWED BY: JGD	COMPLETE: 1/11/2011
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G01
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945149.321N; 3856934E; Zone 8	ELEVATION: 735.267m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
15			G8				720.0
16							719.0
17			G9				718.0
18							717.0
19			G10				716.0
20							715.0
21							714.0
22	END OF BOREHOLE @ 22.0 m - CONFIRMED BEDROCK						713.0
23							712.0
24							711.0
25							710.0
26							709.0
27							708.0
28							707.0
29							706.0
30							

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LOGGED BY: AT & SMC	COMPLETION DEPTH: 21.95m
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G08
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945210.147N; 386049.964E; Zone 8	ELEVATION: 730.693m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	ORGANICS - peat, gravelly						
	CLAY - silty, sandy, trace gravel, medium plastic, dark brown, occasional roots		G1	- Nbn, Vx <1%			730.0
1	- no roots		G2	- Nbn, Vx <3%, Vr <10%			
							729.0
2				- Nbn, Vx <1%, Vr <1%			
			G3				728.0
3	SILT and SAND - some gravel, trace cobbles, non plastic, dark brown			- Nbn, Vx <1%, Vr			
							727.0
4	CLAY - silty, sandy, gravelly, non plastic, dark brown, foul odour, abundant organics		G4	- Vr			
							726.0
5							
							725.0
6			G5				
							724.0
7	SAND (RESIDUUM) - gravelly, trace silt and clay, sub-angular to angular, brown			- Nbn to Nbe, Vx <4%			
	- becomes more coarse and angular		G6				723.0
8	- light brown to orange						
	BEDROCK - highly weathered, angular			- Nbn to Nbe			
9							722.0
							721.0
10	- bedrock becomes more competent			- 10 mm thick ice lens, clear			
							720.0
11							
							719.0
12							
							718.0
13							
	END OF BOREHOLE @ 13.4 m - CONFIRMED BEDROCK						717.0
14							
							716.0
15							

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 13.4m
	REVIEWED BY: JGD	COMPLETE: 1/12/2011
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G09
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945164.655N; 386080.323E; Zone 8	ELEVATION: 746.484m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	SILT - some sand, some gravel, poorly graded, gravel <30 mm in diameter, sub-rounded to sub-angular, greyish brown, occasional organics		G1	- Vx <1%			746.0
1	- gravelly						
	- boulder			- Vx <1%			745.0
2	- trace clay, low to medium plastic CLAY - silty, some sand, trace gravel, medium plastic, gravel sub-angular to sub-rounded, grey		G2				
				- Vx <1%			744.0
3	- becomes high plastic		G3				
							743.0
4	- increased clay content, slickensided			- Nbn			
			G4				742.0
5							
				- Vs <5%			741.0
6			G5				
	- becomes some gravel						740.0
7				- frequent ice lenses			
			G6				739.0
8							
				- Vs 5-10%			738.0
9			G7				
							737.0
10			G8				
							736.0
11							
							735.0
12			G9				
							734.0
13							
							733.0
14			G10				
	- becomes gravelly						732.0
15			G11				
							731.0
16	GRAVEL - sandy, trace silt, trace cobbles, poorly graded, cobbles <100 mm in diameter, sub-angular to angular, yellow brown		G12	- Nbn			
							730.0
17							

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 31.1m
	REVIEWED BY: JGD	COMPLETE: 1/12/2011
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G09
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945164.655N; 386080.323E; Zone 8	ELEVATION: 746.484m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
17	SAND (RESIDUUM) - gravelly, trace silt, poorly graded, gravel <30 mm in diameter, sub-angular to angular			- Nbn			729.0
18			G13				728.0
19	- angular						727.0
20			G14				726.0
21							725.0
22							724.0
23							723.0
24	BEDROCK - highly weathered						722.0
25							721.0
26							720.0
27							719.0
28	- rock becomes more competent		G15				718.0
29							717.0
30							716.0
31	END OF BOREHOLE @ 31.1 m - CONFIRMED BEDROCK						715.0
32							714.0
33							713.0
34							

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LOGGED BY: AT & SMC	COMPLETION DEPTH: 31.1m
REVIEWED BY: JGD	COMPLETE: 1/12/2011
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G10
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945102.749N; 385514.177E; Zone 8	ELEVATION: 751.715m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	SAND - some silt, trace clay, trace gravel, yellow brown, occasional organics		G1	- Nbn			751.0
1	- no more organics						
2	- becomes some gravel		G2				750.0
3			G3				749.0
4	SAND - trace gravel, trace silt and clay, angular to sub-angular, greyish brown		G4	- Vs <2%			748.0
5							747.0
6	SILT and SAND - trace clay, trace gravel <15 mm in diameter, angular to sub-angular, non-plastic, brownish grey			- Vs <2%			746.0
7			G5				745.0
	- some gravel for 400 mm		G6				
8	- boulder						744.0
9	SAND - gravelly, gravel <25 mm in diameter, angular, yellow brown		G7				743.0
10	SAND (RESIDUUM) - some gravel, trace silt and clay, trace boulders, poorly graded, angular, yellow brown						742.0
11			G8				741.0
12			G9				740.0

LOGGED BY: AT & SMC	COMPLETION DEPTH: 21.95m
REVIEWED BY: JGD	COMPLETE: 1/16/2011
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eba A TETRA TECH COMPANY

Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G10
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945102.749N; 385514.177E; Zone 8	ELEVATION: 751.715m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
12							739.0
13							738.0
14			G10				737.0
15	- some cobbles and boulders						736.0
16	- becomes trace silt						735.0
17	BEDROCK - weathered		G11				734.0
18							733.0
19			G12				732.0
20	- bedrock more competent						731.0
21							730.0
22	END OF BOREHOLE @ 21.9 m - CONFIRMED BEDROCK						729.0
23							728.0
24							

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 21.95m
	REVIEWED BY: JGD	COMPLETE: 1/16/2011
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G11
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945094.013N; 385571.438E; Zone 8	ELEVATION: 749.612m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	SILT - sandy, non plastic, dark brown, frequent organics		G1	- Vr <15%			749.0
	- boulder			- 20 mm ice lens, cloudy			
1	SAND - some silt, some gravel, <10 mm in diameter, dark brown, occasional organics			- Nbn			
	SILT - sandy, dark brown, frequent organics			- Nbn			748.0
2			G2				
	SAND - silty, some gravel, some sand, sub-angular to angular, light brown		G3	- frequent 5 mm ice lenses, clear	●	◆■ ●▲	747.0
3							
							746.0
4	CLAY - some silt, some gravel, <20 mm in diameter, medium plastic, grey			- Vs <20%, clear			
			G4				745.0
5							
	SAND - trace gravel, trace silt and clay, coarse grained, brown		G5		●	■ ▲	
	- poor recovery						744.0
6							
							743.0
7	CLAY - silty, trace gravel, trace sand, medium plastic, dark grey			- Nbn			
			G6		●—	■ ◆●	742.0
8	- 300 mm sand lens, some gravel, dark grey			- Vx <5%			
	- 5 mm organics lens						
	- becomes gravelly			- Vx 5-10%			741.0
9			G7	- 10 mm ice lens, clear			
							740.0
10							
							739.0
11							
	- becomes some sand		G8	- Vx, Vr	●—	■ ● ◆	
				- Vr <20%			738.0
12							
			G9				
	- becomes sandy						737.0
13				- 20 mm ice lens, clear			
			G10	- abundant ice lenses for 30 mm, Vx <40%			736.0
14							
							735.0
15							

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 26.52m
	REVIEWED BY: JGD	COMPLETE: 1/17/2011
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G11
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945094.013N; 385571.438E; Zone 8	ELEVATION: 749.612m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
15							734.0
16	- some silt, trace to some gravel, medium plastic			- Nbn, Vs - 20 mm ice lens, clear			733.0
17	- becomes trace sand		G11				
	- becomes some gravel and sand						732.0
18	SAND - some silt, some gravel, light reddish brown			- Nbn			
	SILT - sandy, some gravel, trace clay, <10 mm in diameter, sub-angular to angular, non to low plastic, brown		G12	- Vs			731.0
19				- Vx <1%			
				- 5 mm thick ice lens, clear			730.0
20	SAND - silty, trace gravel, trace clay, non to low plastic, brown		G13				
21							729.0
22	SAND (RESIDUUM)						728.0
	BEDROCK						727.0
23							
24							726.0
25							725.0
26							724.0
	END OF BOREHOLE @ 26.5 m - CONFIRMED BEDROCK						723.0
27							
28							722.0
29							721.0
30							720.0

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 26.52m
	REVIEWED BY: JGD	COMPLETE: 1/17/2011
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G13
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945191.54N; 386140.942E; Zone 8	ELEVATION: 742.269m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	SILT and SAND - trace gravel, non-plastic, dark brown, frequent organics		G1				742.0
1	- silty			- Nbn, Vx <1%			
	SILT and PEAT - some sand, non-plastic, foul odour			- Nbn, Vx <1%			741.0
2			G2				740.0
3	- 2 mm sand lens						
	- odour becomes stronger, sandy		G3				739.0
4							
	- 15 mm sand and gravel seam						738.0
5	SAND and GRAVEL - trace silt and clay, poorly graded, sub-angular to angular, dark brown		G4	- Vc <10%, Vr <5%			737.0
6	- trace cobbles, poor recovery						
							736.0
7	- poor recovery						
8							735.0
	CLAY - silty, trace sand, trace gravel, high plastic, dark grey			- Nbn			734.0
9			G5	- Vr, Vx <5%			
10				- Vr throughout			733.0
			G6				732.0
11				- 20 mm ice lens, clear			731.0
12	- becomes some sand, some fine grained gravel		G7	- 10 mm ice lens, clear			730.0
13							
	SAND - gravelly, some clay, some silt, medium plastic, poorly graded, sub-rounded to sub-angular, grey brown		G8	- 100 mm ice lens			729.0
14				- Nbn			728.0
15	- becomes clayey, some gravel			- Vs			
	CLAY - silty, trace sand, medium to high plastic, grey		G9	- Vx <1%			727.0
16							726.0
17			G10				725.0
18				- Vs <2%			
19	- becomes some sand, trace gravel, high plastic		G11				724.0
	- 100 mm gravel seam						723.0
20	- 100 mm gravel and cobble seam			- Vs <5%			
	- slickensided, occasional high plastic seams		G12				722.0
21							
	SAND (RESIDUUM) - trace gravel, trace clay and silt, poorly graded, sub-angular to angular, grey		G13	- Nbn			721.0
22							720.0
			G14				
23	- becomes some gravel						719.0
24	- cobble						
	- 200 mm gravel seam		G15				718.0
25							717.0
26			G16				

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LOGGED BY: AT & SMC	COMPLETION DEPTH: 49.38m
REVIEWED BY: JGD	COMPLETE: 1/13/2011
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Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G13
Dry Stack Tailings Storage Facility	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6945191.54N; 386140.942E; Zone 8	ELEVATION: 742.269m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
26	- gravel <50 mm						716.0
27							715.0
28			G17				714.0
29							713.0
30			G18				712.0
31	- becomes gravelly, brown		G19				711.0
	- 100 mm cobble						
32			G20				710.0
	- cobble - becomes coarse grained						
33	- abundant cobbles and boulders						709.0
34			G21				708.0
35			G22				707.0
36			G23				706.0
37							705.0
38	BEDROCK - highly fractured, silt and gravel filled joints		G24				704.0
39							703.0
40			G25				702.0
41							701.0
42							700.0
43			G26				699.0
44	- 500 mm sand seam, trace gravel, angular						698.0
45							697.0
46							696.0
	- rock becomes more competent						
47							695.0
48							694.0
49							693.0
50	END OF BOREHOLE @ 49.4 m - CONFIRMED BEDROCK						692.0
51							691.0
52							

eba A TETRA TECH COMPANY

LOGGED BY: AT & SMC	COMPLETION DEPTH: 49.38m
REVIEWED BY: JGD	COMPLETE: 1/13/2011
DRAWING NO:	Page 2 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-MDI-1
Main Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.008
Minto Mine, YT	6944923.137N; 384117.207E; Zone 8	ELEVATION: 858.6001m

SAMPLE TYPE: GRAB SAMPLE; NO RECOVERY; BULK; CRREL CORE; SHELBY TUBE; GRAB CORE

BACKFILL TYPE: BENTONITE; PEA GRAVEL; SLOUGH; GROUT; DRILL CUTTINGS; SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	WASTE ROCK FILL						858.0
1							857.0
2							856.0
3	SAND (TILL): silty, some gravel, poorly graded, medium grained sand, trace cobbles < 80 mm, angular, brown, slightly to highly weathered granite cobbles of medium strength						855.0
4	- gravelly, < 75 mm, subangular						854.0
5							853.0
6	- gravel < 50 mm, angular						852.0
7							851.0
8	- 80 mm cobble						850.0
9							849.0
10							848.0
11	- dark brown						847.0
12							846.0
13	- trace gravel, coarse grained sand - gravel < 60 mm, subangular						845.0
14							844.0
15	- gravel < 30 mm, subangular						

EBA Engineering Consultants Ltd.

LOGGED BY: RM & MD	COMPLETION DEPTH: 23.8m
REVIEWED BY: JPB	COMPLETE: 2/6/2010
DRAWING NO:	Page 1 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-MDI-1
Main Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.008
Minto Mine, YT	6944923.137N; 384117.207E; Zone 8	ELEVATION: 858.6001m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
15							843.0
16	BEDROCK: granite, slightly weathered, slightly friable, oxide stained joints						842.0
17							841.0
18	- no longer friable						840.0
19	- friable						839.0
20							838.0
21							837.0
22							836.0
23							835.0
24	END OF BOREHOLE at 23.8 m - set HW casing 1.2 m below OG - installed inclinometer to 836.3 m - azimuth of A+ direction is 130°						834.0
25							833.0
26							832.0
27							831.0
28							830.0
29							829.0
30							

EBA Engineering Consultants Ltd.

LOGGED BY: RM & MD	COMPLETION DEPTH: 23.8m
REVIEWED BY: JPB	COMPLETE: 2/6/2010
DRAWING NO:	Page 2 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-MDI-2
Main Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.008
Minto Mine, YT	6945013.0801N; 384217.204E; Zone 8	ELEVATION: 858.3001m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	WASTE ROCK FILL							858.0
1								857.0
2								856.0
3								855.0
4								854.0
5								853.0
6								852.0
7								851.0
8								850.0
9	SAND AND GRAVEL FILL							849.0
10								848.0
	PEAT: fine fibrious, graded to amorphous granular, brown to black							
11	SAND: silty, trace gravel, poorly graded, fine grained sand, gravel < 10 mm angular to subangular, brown							847.0
12	- some gravel, < 20 mm subrounded to subangular							846.0
13			G1					
	- trace silt, well graded, fine to medium grained sand, gravel < 10 mm angular and subangular		G2					845.0
14								844.0
15	- gravel < 30 mm subangular							

EBA Engineering Consultants Ltd.

LOGGED BY: RM, MD & JD	COMPLETION DEPTH: 51.6m
REVIEWED BY: JPB	COMPLETE: 2/5/2010
DRAWING NO:	Page 1 of 4

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-MDI-2
Main Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.008
Minto Mine, YT	6945013.0801N; 384217.204E; Zone 8	ELEVATION: 858.3001m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) / SILT (%) / SAND (%) / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
15								843.0
16								842.0
17								841.0
18	- gravel < 40 mm subangular							840.0
19	- 100 mm cobble							839.0
20	SAND (TILL): silty, some gravel, poorly graded sand, fine grained gravel < 20 mm subangular greyish brown		G3					838.0
21								837.0
22			G4	- Vs, abundant 5 mm thick ice lenses, clear				836.0
23				- Nbn				835.0
24			G5	- Vs, abundant 1-4 mm thick ice lenses, clear				834.0
25			G6					833.0
26			G7	- 20 mm thick ice lens, cloudy				832.0
27	- 300 mm boulder							831.0
28			G8					830.0
29	- gravelly, < 40 mm subangular - sand and gravel, trace silt, coarse grained sand							829.0
30								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-MDI-2
Main Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.008
Minto Mine, YT	6945013.0801N; 384217.204E; Zone 8	ELEVATION: 858.3001m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
30	- trace silt - frequent cobbles, 100-150 mm							828.0
31								827.0
32			G9					
	SILT (TILL): sandy, trace clay, trace gravel, gravel < 20 mm subangular, firm, low to non plastic, dark greyish brown		G10					826.0
33								825.0
	SAND: trace silt, poorly graded, medium grained, greyish brown		G11					
34	- becomes gravelly, < 15 mm subangular							824.0
	SAND (TILL): silty, gravelly, fine grained sand, gravel < 40 mm subangular, greyish brown							
35								823.0
36								822.0
37								821.0
38	- some silt, trace gravel, trace clay, angular sand, fine grained gravel, occasional cobbles < 80 mm							820.0
39								819.0
	SILT (TILL): some sand, trace gravel, trace clay, gravel < 20 mm, low to non plastic, grey		G12					
40	SAND (RESIDUUM): trace gravel, trace silt, well graded, fine grained sand, brown, oxidized							818.0
41	BEDROCK: fine to coarse particles, sharp, extremely weak, oxide staining to grey, intermitent indicators of silt infill at former joints							817.0
42								816.0
	- granite, residual, very weak moderately weathered, very closely spaced discontinuities, fair quality, oxide stained joints							
43								815.0
44								814.0
45								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-MDI-2
Main Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.008
Minto Mine, YT	6945013.0801N; 384217.204E; Zone 8	ELEVATION: 858.3001m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
45								813.0
46								812.0
47	- medium grained							811.0
48								810.0
49								809.0
50								808.0
51								807.0
52	END OF BOREHOLE at 51.6 m - set HW casing 1.4 m below OG - installed inclinometer to 806.9 m - azimuth of A+ is 93°							806.0
53								805.0
54								804.0
55								803.0
56								802.0
57								801.0
58								800.0
59								799.0
60								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-MDI-2
Main Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.008
Minto Mine, YT	6945013.0801N; 384217.204E; Zone 8	ELEVATION: 858.3001m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	WASTE ROCK FILL							858.0
1								857.0
2								856.0
3								855.0
4								854.0
5								853.0
6								852.0
7								851.0
8								850.0
9	SAND AND GRAVEL FILL							849.0
10								848.0
	PEAT: fine fibrious, graded to amorphous granular, brown to black							
11	SAND: silty, trace gravel, poorly graded, fine grained sand, gravel < 10 mm angular to subangular, brown							847.0
12	- some gravel, < 20 mm subrounded to subangular							846.0
13			G1					
	- trace silt, well graded, fine to medium grained sand, gravel < 10 mm angular and subangular		G2					845.0
14								844.0
15	- gravel < 30 mm subangular							

EBA Engineering Consultants Ltd.

LOGGED BY: RM, MD & JD	COMPLETION DEPTH: 51.6m
REVIEWED BY: JPB	COMPLETE: 2/5/2010
DRAWING NO:	Page 1 of 4

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-MDI-2
Main Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.008
Minto Mine, YT	6945013.0801N; 384217.204E; Zone 8	ELEVATION: 858.3001m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) / SILT (%) / SAND (%) / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
15								843.0
16								842.0
17								841.0
18	- gravel < 40 mm subangular							840.0
19	- 100 mm cobble							839.0
20	SAND (TILL): silty, some gravel, poorly graded sand, fine grained gravel < 20 mm subangular greyish brown		G3					838.0
21								837.0
22			G4	- Vs, abundant 5 mm thick ice lenses, clear				836.0
23				- Nbn				835.0
24			G5	- Vs, abundant 1-4 mm thick ice lenses, clear				834.0
25			G6					833.0
26			G7	- 20 mm thick ice lens, cloudy				832.0
27	- 300 mm boulder							831.0
28			G8					830.0
29	- gravelly, < 40 mm subangular - sand and gravel, trace silt, coarse grained sand							829.0
30								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-MDI-2
Main Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.008
Minto Mine, YT	6945013.0801N; 384217.204E; Zone 8	ELEVATION: 858.3001m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
30	- trace silt - frequent cobbles, 100-150 mm							828.0
31								827.0
32			G9					
	SILT (TILL): sandy, trace clay, trace gravel, gravel < 20 mm subangular, firm, low to non plastic, dark greyish brown		G10					826.0
33								825.0
	SAND: trace silt, poorly graded, medium grained, greyish brown		G11					
34	- becomes gravelly, < 15 mm subangular							824.0
	SAND (TILL): silty, gravelly, fine grained sand, gravel < 40 mm subangular, greyish brown							
35								823.0
36								822.0
37								821.0
38	- some silt, trace gravel, trace clay, angular sand, fine grained gravel, occasional cobbles < 80 mm							820.0
39								819.0
	SILT (TILL): some sand, trace gravel, trace clay, gravel < 20 mm, low to non plastic, grey		G12					
40	SAND (RESIDUUM): trace gravel, trace silt, well graded, fine grained sand, brown, oxidized							818.0
41	BEDROCK: fine to coarse particles, sharp, extremely weak, oxide staining to grey, intermitent indicators of silt infill at former joints							817.0
42								816.0
	- granite, residual, very weak moderately weathered, very closely spaced discontinuities, fair quality, oxide stained joints							
43								815.0
44								814.0
45								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-MDI-2
Main Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.008
Minto Mine, YT	6945013.0801N; 384217.204E; Zone 8	ELEVATION: 858.3001m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
45								813.0
46								812.0
47	- medium grained							811.0
48								810.0
49								809.0
50								808.0
51								807.0
52	END OF BOREHOLE at 51.6 m - set HW casing 1.4 m below OG - installed inclinometer to 806.9 m - azimuth of A+ is 93°							806.0
53								805.0
54								804.0
55								803.0
56								802.0
57								801.0
58								800.0
59								799.0
60								

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-5
Area 1 Open Pit	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944695.774N; 384376.689E; Zone 8	ELEVATION: 835.299m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
0	WASTE ROCK FILL			
5	PEAT: amorphous granular, some fine fibres, trace wood peices, dark brown			- Nbe
	SILT: some sand, trace clay, thinly laminated, fine grained sand, dark brown			- Nbn
6	SAND (TILL): silty, some gravel, medium grained sand, gravel < 50 mm, angular to subangular, brown			
7	- gravel < 40 mm, greyish brown		G1	- Vs < 25%, 3-12 mm thick ice lenses
				- Vx < 10 %
9				- Nbn
			G2	- Vs < 15%, < 20 mm thick ice lensws
				- Vr < 10%, 4 mm thick ice lensws
10				- Vc < 1%, 2 mm thick ice coatings
	SILT (TILL): sandy, some gravel, gravel < 50 mm, low to non plastic, greyish brown			- Vx, 2-5%, < 4-12 mm thick
11				- Nbn
			G3	
12	- gravel < 75 mm		G4	
13	SAND (TILL): gravelly, some silt, gravel < 20 mm, greyish brown			- Nbn
				- Vx 10-20%, <20 mm thick
14			G5	
15	- trace cobbles < 250 mm			

Bulk Density(kg/m^3) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Slope Indicator

Elevation (m): 835.0, 834.0, 833.0, 832.0, 831.0, 830.0, 829.0, 828.0, 827.0, 826.0, 825.0, 824.0, 823.0, 822.0, 821.0

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-5
Area 1 Open Pit	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944695.774N; 384376.689E; Zone 8	ELEVATION: 835.299m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
15				- 60 mm thick ice lense, clear to white				820.0
16			G6					
	- gravel < 50 mm			- Vx < 2%, < 25 mm thick				819.0
17				- Vx, 15 mm thick vertical lens				
			G7					818.0
18								
			G8					817.0
	- gravel < 30 mm			- 70 mm thick ice lens, clear to white				
19				- 50 mm thick ice lens, clear, white inclusions				
	- medium grained sand, cobbles < 120 mm			- Nbn				816.0
20				- Vx, 10-20%				
								815.0
	- boulder, granite		G9					
	- gravel < 40 mm							
21								814.0
22								
								813.0
			G10					
23								
	SILT (TILL): gravelly, some silt, some clay, gravel < 20 mm greyish brown			-Vx, Vc, 15-20%, < 10 mm thick				812.0
24	- sandy, some gravel < 10 mm, medium grained sand							
			G11					811.0
	- 100 mm cobble							
25								
				- Vx/Vr, 10-15%, < 20 mm thick				810.0
26								
			G12	- 300 mm thick ice lens				809.0
27	- some sand, trace gravel, trace clay, low to non plastic, gravel < 75 mm subangular							
								808.0
			G13					
28								
	- 480 mm boulder, granite							807.0
29				- Nbn				
				- Vx < 12 mm thick				806.0
30			G14					

EBA Engineering Consultants Ltd.	LOGGED BY: RM, MD & JD	COMPLETION DEPTH: 80.8m
	REVIEWED BY: JPB	COMPLETE: 2/8/2010
	DRAWING NO:	Page 2 of 6

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-5
Area 1 Open Pit	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944695.774N; 384376.689E; Zone 8	ELEVATION: 835.299m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
30								805.0
31								804.0
32								803.0
33	- and clay, some gravel, low plastic		G15					802.0
34	CLAY (TILL): silt, trace fine grained sand, occasional brown laminations, very stiff, medium to high plastic, dark grey - 300 mm boulder		G16					801.0
35	- no recovery							800.0
36	SAND (TILL): silty, trace clay, poorly graded fine grained sand, greyish brown, occasional brown laminations < 2 mm							799.0
37			G17	- Vr < 5%, < 1 mm thick lenses - Nbn				798.0
38	- brown and grey laminations < 3 mm							797.0
39	- slight organic odour detected		G18					796.0
40	SAND (TILL): silty, some gravel, trace sand, gravel < 60 mm subangular, medium plastic, dark grey, occasional fine grained sand pockets < 2 mm		G19					795.0
41	- gravel < 25 mm subangular							794.0
42	CLAY (TILL): silty, some gravel, trace sand, gravel < 60 mm subangular, medium plastic, dark grey, occasional fine grained sand pockets < 2 mm		G20					793.0
43	- some sand, medium to high plastic, occasional brown silt pockets		G21					792.0
44	- gravel < 20 mm angular to subangular, high plastic							791.0
45	- 100 mm cobble		G22					

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-5
Area 1 Open Pit	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944695.774N; 384376.689E; Zone 8	ELEVATION: 835.299m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
45	CLAY: silty, trace to no gravel, fine grained gravel, slickensided, high plastic, dark grey							790.0
46	CLAY (TILL): some silt, some gravel, trace sand, gravel < 40 mm angular to subangular, high plastic, dark grey							789.0
47	SAND: gravelly, trace silt, medium to coarse grained sand, gravel < 75 mm angular to subangular, brown - poor recovery, sample dropping out of inner tube							788.0
48								787.0
49	- granite pieces, rough, highly weathered, weak, medium grained, oxide stained joints, very poor quality, grey							786.0
50	- granite pieces, weak to very weak, moderate to slightly weathered, trace residual							785.0
51								784.0
52								783.0
53								782.0
54	- trace fine grained gravel, uniformly graded, medium grained sand, brown grey, occasional coarse gravel to cobble < 100 mm							781.0
55								780.0
56								779.0
57	- no recovery							778.0
58								777.0
59								776.0
60								

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-5
Area 1 Open Pit	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944695.774N; 384376.689E; Zone 8	ELEVATION: 835.299m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
60								775.0
61	- no recovery							774.0
62								773.0
63								772.0
64								771.0
65								770.0
66								769.0
67								768.0
68								767.0
69								766.0
70								765.0
71								764.0
72								763.0
73								762.0
74								761.0
75								

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-5
Area 1 Open Pit	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944695.774N; 384376.689E; Zone 8	ELEVATION: 835.299m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
75								760.0
76								759.0
77	gravel < 70 mm subangular and angular							758.0
	BEDROCK: granite, poor quality, weathered, oxide stained joints, light and dark grey							
78								757.0
79								756.0
80								755.0
81	END OF BOREHOLE at 80.8 - set HW casing 1.2 m below OG - installed inclinometer to 755.3 m - azimuth of A+ direction is 44°							754.0
82								753.0
83								752.0
84								751.0
85								750.0
86								749.0
87								748.0
88								747.0
89								746.0
90								

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-6
Area 1 Open Pit	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944567.726N; 384384.236E; Zone 8	ELEVATION: 845.616m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	CLAY: silty, some sand, low plastic, occasional roots			- seasonal frost				845.0
1								
	SILT: sandy, low plastic, brown							844.0
2								
	SILT (TILL): sandy, trace clay, trace fine gravel, medium grained sand, brown			- Nbn				843.0
3								
4								842.0
	- clay lens, silty, laminated, low plastic, greyish brown							
	CLAY (TILL): sandy, silty, trace gravel, gravel < 20 mm, low plastic, dark grey, oxide stains							841.0
5	- brown			- Nbn				
	SILT (TILL): snady, trace fine gravel, low to non plastic, dark grey, oxide stained			- Vx < 5%				
	- gravelly							840.0
6								
	- no oxide staining visible							839.0
7								
	- gravel < 20 mm		G1					838.0
				- Vx < 20%, < 12 mm thick				
8								
	- clay pockets, high plastic							837.0
9								
								836.0
10								
	CLAY (TILL): silty, some sand, trace gravel, gravel < 20 mm, dark grey to black			- Nbn - Vx < 20%				835.0
			G2	- 100 mm thick ice lens, clear, laminar				
11								
	- clay lens, high plastic, dark grey		G3					834.0
				- < 40 mm thick ice lens, clear				
12	- medium plastic, gravel < 40 mm, dark grey		G4					
								833.0
13								
								832.0
14	SILT (TILL): sandy, trace clay, trace gravel, fine grained gravel < 15 mm , low to non plastic, dark grey		G5	- Nbn				
	SAND (TILL): silty, some gravel, medium grained gravel < 25 mm, dark grey							831.0
15			G6					

EBA Engineering Consultants Ltd.	LOGGED BY: RM & MD	COMPLETION DEPTH: 24.1m
	REVIEWED BY: JPB	COMPLETE: 2/9/2010
	DRAWING NO:	Page 1 of 2

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-6
Area 1 Open Pit	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944567.726N; 384384.236E; Zone 8	ELEVATION: 845.616m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
15	SAND: trace silt, uniformly graded, fine grained, dark brown to grey			- Vx < 15%				830.0
16			G7					829.0
17	- coarse gravel lens, sandy, trace silt, well graded gravel < 40 mm - sand lens, trace fine gravel, well graded, coarse grained		G8					828.0
18	- sand lens, well graded, medium grained sand, dark brown		G9					827.0
19	SAND: some gravel, trace silt, well graded sand, coarse grained gravel < 12 mm, dark brown grey			- Nbn - 6 mm thick ice lens, clear				826.0
20	- gravelly, gravel < 20 mm, subangular to subrounded, brown, orange staining		G10					825.0
21	BEDROCK: poor quality, weathered, weak, oxide stained joints, light and dark brown							824.0
22	- pink quartz and mica inclusions							823.0
23								822.0
24	END OF BOREHOLE at 24.1 m - installed inclinometer to 822.7m - azimuth of A+ direction is 6°							821.0
25								820.0
26								819.0
27								818.0
28								817.0
29								816.0
30								

EBA Engineering Consultants Ltd.	LOGGED BY: RM & MD	COMPLETION DEPTH: 24.1m
	REVIEWED BY: JPB	COMPLETE: 2/9/2010
	DRAWING NO:	Page 2 of 2

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-7
Area 1 Open Pit	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944515.201N; 384665.486E; Zone 8	ELEVATION: 864.732m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	SILT: clayey, some fine sand, low to non plastic, brown			- seasonal frost	864.0
1					
2	- cobble				863.0
3					862.0
4					861.0
	CLAY (TILL): silty, some sand, trace gravel, gravel < 30 mm, low plastic, brown			- Nbn	
5					860.0
6	- occasional cobble < 100 mm			- Nbe	859.0
7					858.0
8				- Vx, 1-5%, < 10 mm thick	857.0
9			G1	- Nbn	856.0
10					855.0
	- some gravel < 50 mm, cobbles < 120 mm		G2		854.0
11			G3		
12	- no more cobbles				853.0
	SAND (TILL): sandy, gravelly, some silt, gravel angular to subangular				852.0
13	BEDROCK: granite, slightly weathered, medium strong, fair quality, very close spaced discontinuities, silt infill				
	- poor quality, clay till and sand till infill up to 70 mm thick				851.0
14	- fair quality, stained joints, some residual infill < 30 mm thick				
15					850.0
16					849.0
	- faintly weathered trace sand infill < 2 mm thick				848.0
17					
18	END OF BOREHOLE at 17.7 m - installed inclinometer to 847.4 m - azimuth of A+ direction is 93°				847.0
19					846.0
20					845.0

Bulk Density(kg/m³) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Slope Indicator

EBA Engineering Consultants Ltd.	LOGGED BY: RM	COMPLETION DEPTH: 17.7m
	REVIEWED BY: JPB	COMPLETE: 2/9/2010
	DRAWING NO:	Page 1 of 1

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-8
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944684N; 384709E; Zone 8	ELEVATION: 809.298m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	SAND and GRAVEL - trace silt, well graded, angular, moist, brown		G1					809.0
1	- 200 mm cobble - 100 mm cobble							808.0
	SILT - some clay, laminated, medium plastic, dark grey			- Nbn				
2	- slickensided		G2					807.0
3	- some gravel, sandy			- Vr < 2 mm thick				
			G3					806.0
4	SILT (TILL) - sandy, gravelly, some clay, poorly to well graded, angular, dark grey, occasional cobble, occasional sand and gravel lenses < 10 mm thick			- Nbn				
			G4					805.0
5								
	SAND - some silt, trace gravel, poorly graded, medium grained, dark grey, slight organic odour			- Nbn				804.0
			G5					
6	SAND - trace silt and clay, well graded, angular to subangular, dark grey - abundant cobbles		G6					803.0
7	- trace to no gravel			- Nbn, Vr < 1 mm thick				802.0
			G7					
8				- Nbn				801.0
9								
			G8					800.0
	- cobble							
10	SAND - some silt, trace gravel, poorly graded, fine grained, dark grey			- Nbn				799.0
11								
	- abundant angular gravel		G9					798.0
	BEDROCK - highly weathered, crumbles into angular coarse grained sand, grey and orangey brown							
12								

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-8
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944684N; 384709E; Zone 8	ELEVATION: 809.298m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
12			G10					797.0
13								796.0
14			G11					795.0
15	- rust stains, grey							794.0
16								793.0
17								792.0
18								791.0
19								790.0
20								789.0
21	END OF BOREHOLE at 20.4 m - installed inclinometer to 793.4 m - azimuth of A+ direction is 109°							788.0
22								787.0
23								786.0
24								

EBA Engineering Consultants Ltd.

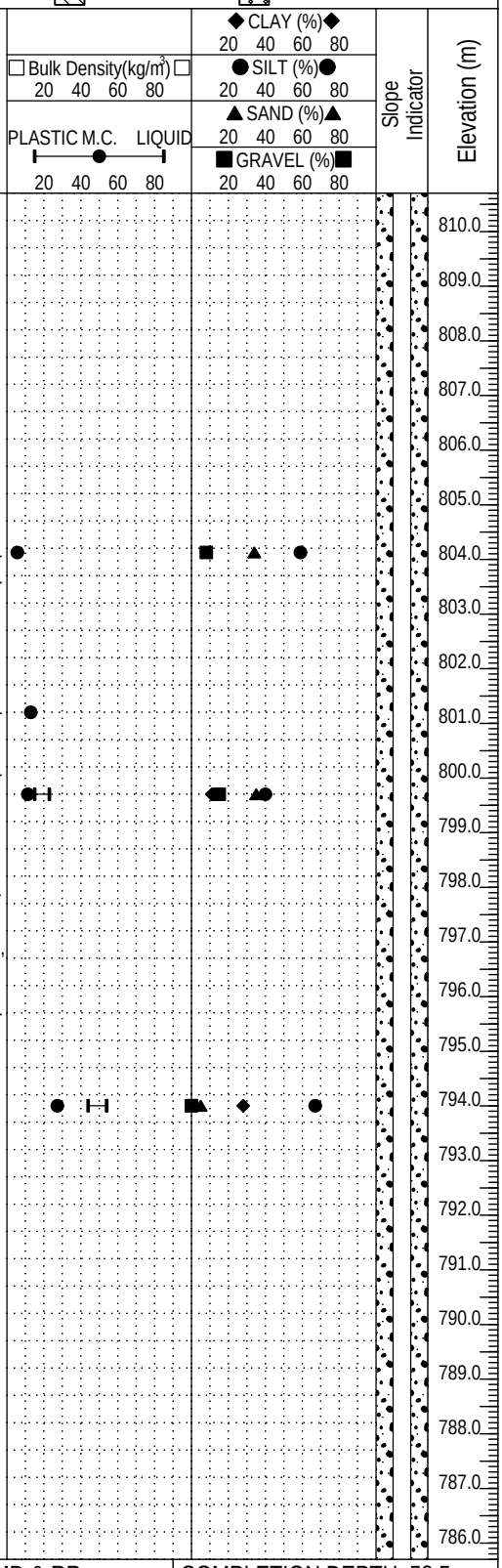
LOGGED BY: MD & RR	COMPLETION DEPTH: 20.4m
REVIEWED BY: BC & JGD	COMPLETE: 11/3/2010
DRAWING NO:	Page 2 of 2

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-9
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944775N; 384431.1E; Zone 8	ELEVATION: 810.703m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
0	BOULDER - granite, weathered			
3	SILT (TILL) - sandy, clayey, trace gravel, poorly graded, fine grained, dark grey		G1	- Nbn
				- Ice, slightly cloudy, mainly clear
5			G2	- Ice lense, cloudy - Ice lense, clear
				- Vr < 8 mm thick, clear
7	- becomes more silty		G3	- Ice lense 40 mm, clear - Ice lense 30 mm, clear
8			G4	- Ice lense 110 mm, clear
9	SILT and SAND (TILL) - some gravel, some clay, low plastic, dark grey, occasional cobble			- Vr < 5 mm thick, clear, vertical
10			G5	- Nbn, occasional Vr < 1 mm thick
11			G6	- Ice lense 30 mm, clear - Vr < 5 mm thick, clear, vertical
12				- Ice lense, clear
13			G7 G8	- 30 mm ice lense, clear
14	- low-medium plastic, trace clay			- Ice and soil intermixed, < 40 mm thick lenses, clear
15			G9	- Ice lense 50 mm, clear
16	- boulder (granite) CLAY (TILL) - silty, trace sand, blocky, slickensided, medium plastic, dark grey, occasional gravel or cobble			- Nbn
17	- sandy, some gravel		G10	
18	- 120 mm cobble		G11	
20			G12	
21	SILT (TILL)- sandy, non-plastic, dark grey		G13	- Nbn
22	- sand, trace gravel SAND (TILL) - silty, some gravel, poorly graded, angular, dark browny grey		G14	- Nbn
23	- frequent visible organic lense (brown organics)		G15	
24	- coarse grained sand			
25	SILT (TILL)- sandy, non plastic, dark grey		G16	- Nbn, Vr < 1 mm thick



EBA Engineering Consultants Ltd.	LOGGED BY: MD & RR	COMPLETION DEPTH: 58.5m
	REVIEWED BY: BC & JGD	COMPLETE: 11/4/2010
	DRAWING NO:	Page 1 of 3

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-9
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944775N; 384431.1E; Zone 8	ELEVATION: 810.703m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

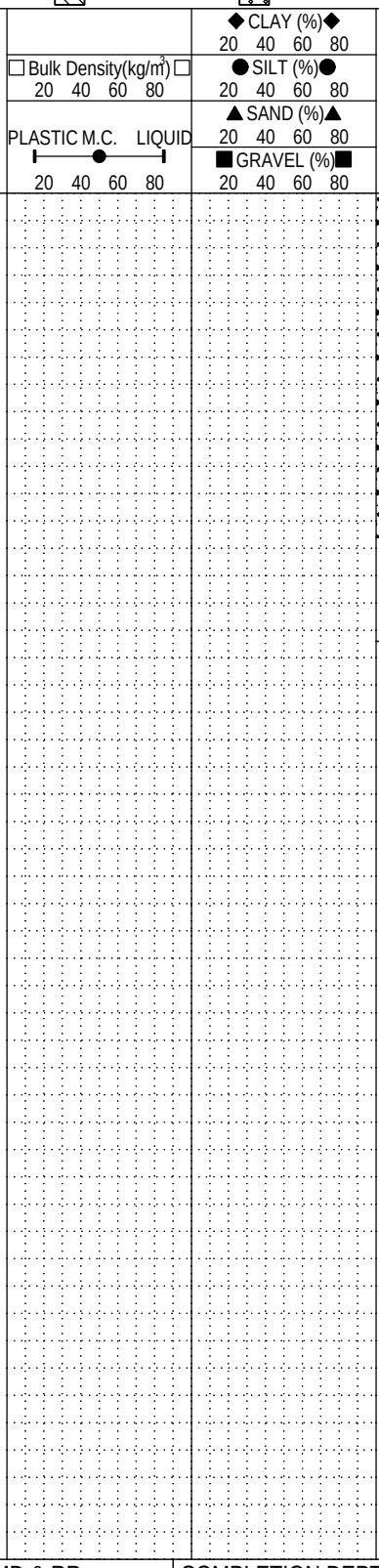
Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
25	CLAY (TILL) - silty, trace sand, medium plastic, dark grey, occasional gravel		G17	- Nbn - Ice and soil intermixed - Ice lense 25 mm, clear				785.0
26								
27	- laminated layers with browny grey clay, blocky							784.0
28	- medium-high plastic, slickensided		G18					783.0
29	SILT (TILL) - sandy, some clay, non-plastic, dark grey, occasional cobble			- Nbn				782.0
			G19					781.0
30	SILT (TILL) - trace clay, laminated, low-medium plastic, dark grey and browny grey, occasional cobble		G20	- Nbn - Vs < 15 mm thick, clear				
31								780.0
32	- trace sand			- Ice and soil lenses < 30 mm, clear				779.0
33	- trace gravel		G21	- Nbn, occasional Vs < 20 mm lenses, clear				778.0
34			G22					777.0
35			G23					776.0
36				- Nbn				775.0
37			G24					774.0
38			G25	- Nbn				773.0
39				- Ice 50 mm thick				772.0
40			G26	- Vr 10 mm thick				771.0
41			G27	- Vr 5 mm thick				770.0
42								769.0
43								768.0
44								767.0
45			G29					766.0
46								765.0
	- boulder, grey							764.0
47	SILT (TILL)- trace clay, trace sand, frozen, dark grey		G30					
48								763.0
49								762.0
50								761.0

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-9
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944775N; 384431.1E; Zone 8	ELEVATION: 810.703m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
50	CLAY (TILL)- silty, trace sand, medium plastic, dark grey		G31	
51				
52			G32	
53				
54	BEDROCK - 100 mm boulder, then highly weathered, dark grey			
55				
56				
57				
58				
59	END OF BOREHOLE at 58.5 m - installed inclinometer to 754.4 m - azimuth of A+ direction is 29°			
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				



Elevation (m)
760.0
759.0
758.0
757.0
756.0
755.0
754.0
753.0
752.0
751.0
750.0
749.0
748.0
747.0
746.0
745.0
744.0
743.0
742.0
741.0
740.0
739.0
738.0
737.0
736.0

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-10
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944856N; 384435.8E; Zone 8	ELEVATION: 810.014m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
0	No recovery			
1				
2				
2.5	SILT - some clay, some sand, trace gravel, medium plastic, dark grey, occasional gravel			- Nbn, abundant ice lenses <50 mm, clear
3				
4			G1	
5				- Nbe
6				- Abundant ice lenses <100 mm, clear
6.5			G2	
7	- slickensided			- Occasional ice lenses <30 mm, clear
8			G3	
8.5	SAND (TILL) - silty, some to trace gravel, trace clay, poorly graded, dark grey			- Occasional ice lenses <20 mm, clear
9				- Nbe
9.5			G4	
10	- some gravel, angular			- Nbn
11			G5	- Ice lens, clear - Vr, <10 mm
12				- Nbn, occasional ice lenses <15 mm thick, clear
12.5			G6	
13				- Nbn, occasional ice lenses <15 mm thick, clear
14			G7	
14.5				- Nbn
15				
15.5			G8	- 15 mm ice lens, clear
16				- Vr <2 mm thick
16.5	SILT and SAND (TILL) - trace clay, trace gravel, frozen, dark brown		G9	
17				
18			G10	- 25 mm ice lens, clear
19				
19.5	- occasional gravel		G11	
20				

Bulk Density(kg/m³) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Slope Indicator

Elevation (m): 810.0, 809.0, 808.0, 807.0, 806.0, 805.0, 804.0, 803.0, 802.0, 801.0, 800.0, 799.0, 798.0, 797.0, 796.0, 795.0, 794.0, 793.0, 792.0, 791.0

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-10
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944856N; 384435.8E; Zone 8	ELEVATION: 810.014m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
20								790.0
21			G12					789.0
22				- 25 mm ice lens, clear				788.0
23	- granite pieces <100 mm		G13					787.0
24			G14	- Nbn, ice lenses				786.0
25			G15					785.0
26	- occasional gravel							784.0
27			G16					783.0
28			G17	- Ice lens				782.0
29								781.0
30			G18					780.0
31			G19					779.0
32								778.0
33			G20					777.0
34								776.0
35			G21					775.0
36			G22	- 75 mm ice lens, clear				774.0
37								773.0
38								772.0
39			G23					771.0
40								

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-10
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944856N; 384435.8E; Zone 8	ELEVATION: 810.014m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) / SILT (%) / SAND (%) / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
40								770.0
41	CLAY (TILL)- sandy, silty, trace gravel, frozen, high plastic, dark grey		G24					769.0
42			G25					768.0
43								767.0
44			G26					766.0
45			G27					765.0
46								764.0
47			G28					763.0
48	SAND (TILL)- silty, clayey, trace gravel, medium plastic		G29	- Nbe				762.0
49			G30					761.0
50								760.0
51			G31					759.0
52								758.0
53	BEDROCK - highly weathered, dark grey							757.0
54								756.0
55								755.0
56								754.0
57	END OF BOREHOLE @ 57.0 m - installed inclinometer to 756.8 m - azimuth of A+ direction is 9°							753.0
58								752.0
59								751.0
60								

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-11
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944847N; 384308.2E; Zone 8	ELEVATION: 827.565m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	MUSKEG							827.0
1								
2								826.0
3	ORGANICS - muskeg, some silt, some sand, frequent angular gravel, rootlets			- Nbe, Vc <10%, V_i <2%				825.0
4			G1					824.0
5	- boulder							823.0
6								822.0
7	SAND (TILL) - silty, some gravel, poorly graded, dark grey			- Nf				821.0
8			G2					820.0
9	SILT (TILL) - sandy, some gravel, trace clay, non plastic, dark grey, occasional cobble			- Nf				819.0
10			G3					818.0
			G4	- Nf, occasional Vs <20 mm thick, clear				
11								817.0
12			G5	- Nf, Vx <1%				816.0
13	- sand, frequent cobbles <150 mm		G6	- Occasional Vs <15 mm thick, clear				815.0
14								814.0
15			G7					813.0
16	- frequent cobbles		G8	- 80 mm ice lens, clear - Nbn, frequent ice lenses <30 mm				812.0
17								811.0
18	- sand		G9	- Nbn				810.0
19			G10	- Nbn, Vr <1%				809.0
20								808.0
21				- Nbn				807.0
22			G11	- 20 mm ice lens, verticle, clear				806.0
23			G12	- Occasional ice lens <15 mm thick	●			805.0
24	- low plastic		G13		●⊣	■ ▲ ●		804.0
25								803.0

EBA Engineering Consultants Ltd.

LOGGED BY: MD & RR	COMPLETION DEPTH: 67.7m
REVIEWED BY: BC & JGD	COMPLETE: 11/6/2010
DRAWING NO:	Page 1 of 3

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-11
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944847N; 384308.2E; Zone 8	ELEVATION: 827.565m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) / SILT (%) / SAND (%) / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
25				- Nbn				802.0
26			G14					801.0
27								800.0
28			G15					799.0
			G16	- Nbn				
29								798.0
30			G17					797.0
31				- 15 mm ice lens				
			G18					796.0
32								795.0
33			G19	- Nbn				794.0
34								793.0
			G20					
35	- slight increase in clay content							792.0
36			G21					791.0
37								790.0
38	- boulder, granite ~150 mm		G22					789.0
39			G23					788.0
40								787.0
			G24	- Ice lens, clear				
41								786.0
42				- 75 mm ice lens, clear				785.0
			G25					
43			G26		●	■ ▲ ● ◆		784.0
44				- Nbn				783.0
45			G27					782.0
46								781.0
47			G28					780.0
48	CLAY (TILL)- sandy, silty, trace gravel, medium plastic, frozen, grey, occasional weathered bedrock particles ~ 150 mm long		G29		●	■ ● ▲		779.0
49								778.0
			G30					
50								

Winter 2010 Instrumentation Program	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 10-SWFI-11
Dry Stack Tailings Storage Facility	DRILL: Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.012
Minto Mine, YT	6944847N; 384308.2E; Zone 8	ELEVATION: 827.565m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
50								777.0
51			G31					776.0
52								
53			G32	- Vx				775.0
54			G33					774.0
55	- weathered rock		G34					773.0
56								772.0
57			G35	- Vx				771.0
58								770.0
59			G36	- Vx				769.0
60	- becomes gravelly		G37					768.0
61								767.0
62	BEDROCK - weathered, frozen, light brown							766.0
63								765.0
64								764.0
65								763.0
66								762.0
67								761.0
68	END OF BOREHOLE @ 67.7 m - installed inclinometer to 762.3 m - azimuth of A+ direction is 350°							760.0
69								759.0
70								758.0
71								757.0
72								756.0
73								755.0
74								754.0
75								753.0

Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G05b
Pelly Laydown (SW Waste Dump)	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6944820N; 383817E; Zone 8	ELEVATION: 861.7m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	ROCK FILL - no samples taken due to problems with coring						861.0
1							860.0
2							859.0
3							858.0
4							857.0
5							856.0
6							855.0
7							854.0
8							853.0
9							852.0
10							851.0
11							850.0
12							849.0
13							848.0
14							847.0
15							846.0
16							845.0
17			G1				844.0
18	SAND - gravelly, silty, trace clay, angular to sub-angular, brownish grey						843.0
19			G2		●	◆ ● ■	842.0
20							841.0
21			G3				

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 39.2m
	REVIEWED BY: JGD	COMPLETE: 1/18/2011
	DRAWING NO:	Page 1 of 2

Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G05b
Pelly Laydown (SW Waste Dump)	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6944820N; 383817E; Zone 8	ELEVATION: 861.7m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
21							
22	GRAVEL - sandy, trace silt, trace clay, angular to sub-angular, greyish brown		G4				840.0
23							839.0
24	- poor recovery, only gravel and cobbles in core barrel, fines washed for 150 mm						838.0
25							837.0
26	GRAVEL AND SAND - some silt, trace clay, sub-rounded to sub-angular, light grey - poor recovery, only gravel in core barrel		G5				836.0
27							835.0
28							834.0
29							833.0
30	SILT - sandy, some gravel, sub-rounded to sub-angular, light grey						832.0
31							831.0
32	SAND - gravelly, silty, trace clay, occasional cobbles, angular to sub-angular, light grey		G7				830.0
33							829.0
34			G8				828.0
35			G9				827.0
36	- some cobbles						826.0
37			G10				825.0
38			G11	- ice lens 10 mm, clear - ice lens 10 mm, clear			824.0
39			G12				823.0
40	END OF BOREHOLE @ 39.2 m (Refusal) NOTE: Refusal likely due to friction or sloughing in rock fill. Approximate location and elevation obtained from drawings; survey not available in the field.						822.0
41							821.0
42							820.0

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LOGGED BY: AT & SMC	COMPLETION DEPTH: 39.2m
REVIEWED BY: JGD	COMPLETE: 1/18/2011
DRAWING NO:	Page 2 of 2

Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G06
Pelly Laydown (SW Waste Dump)	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6944819N; 383970E; Zone 8	ELEVATION: 860.5m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	SAND FILL		G1				860.0
1	ROCK FILL						859.0
2							858.0
3							857.0
4							856.0
5							855.0
6							854.0
7							853.0
8							852.0
9							851.0
10							850.0
11							849.0
12							848.0
13	SILT - some sand, some gravel, gravel <10 mm in diameter, angular to sub-angular, low plastic, dark brown, frequent organic peat inclusions		G2		138		847.0
14							846.0
15							845.0
16	GRAVEL - silty, sandy, some clay, rounded to sub-angular, dark brown		G3				844.0
17							843.0
18			G4				842.0
19	SAND - gravelly, trace silt and clay, dark brown		G5				841.0
20	- boulder						840.0
21	- some cobbles, rounded to sub-rounded - hard drilling						839.0
22							838.0
23	SILT - sandy, some gravel, trace clay, compact to dense, non to low plastic, dark brown		G6				837.0
24							836.0
25							835.0
26			G7				834.0
27			G8				833.0
28	END OF BOREHOLE @ 27.2 m (Refusal)						832.0
29							831.0
30							

eba A TETRA TECH COMPANY

LOGGED BY: AT & SMC	COMPLETION DEPTH: 27.15m
REVIEWED BY: JGD	COMPLETE: 1/22/2011
DRAWING NO:	Page 1 of 1

Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G07
Pelly Laydown (SW Waste Dump)	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6944805.928N; 384054.999E; Zone 8	ELEVATION: 858.878m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	ROCK FILL						858.0
1							
2							857.0
3							856.0
	- boulder						
4							855.0
5							854.0
6							853.0
7							852.0
8							851.0
9	SILT - sandy, some gravel, low plastic, dark blackish grey						850.0
	- cobble		G1	- Nbn			
10	SAND - silty, some gravel, fine grained sand, poorly graded, dark grey		G2				849.0
	- trace gravel						
11							848.0
12				- Nbn			847.0
13	CLAY - silty, medium plastic, dark grey		G3	- Nbn			846.0
	SAND - silty, some gravel, fine grained sand, poorly graded, dark grey						
14							845.0
15			G4				844.0
16							843.0
17	CLAY - silty, trace sand, medium plastic, dark grey		G5	- Vs <30%, clear			842.0
			G6				
18	- trace gravel						841.0
19			G7				840.0
20	SILT - some sand, trace clay, trace gravel, non plastic, brownish grey			- 20 mm ice lens, clear			839.0
21			G8	- Nbn			838.0
22							837.0
	- sandy, some gravel, sub-angular to angular gravel, occasional cobbles			- Nbn, Vs			
23	- cobble		G9				836.0
				- 20 mm ice lens, clear			
24							835.0
25	- gravelly		G10	- Nbn - Vx <2%			834.0
26	- cobble						833.0
			G11	- 15 mm ice lens, clear			
27	- some clay		G12	- 50 mm ice lens, clear			832.0
28							831.0
29	- cobble		G13	- 40 mm ice lens, clear			830.0
30				- 10 mm ice			829.0

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 55.47m
	REVIEWED BY: JGD	COMPLETE: 1/22/2011
	DRAWING NO:	Page 1 of 2

Winter 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G07
Pelly Laydown (SW Waste Dump)	DRILL: 3000 Diamond Drill, HQ Core	PROJECT NO: W14101068.033
Minto Mine, YT	6944805.928N; 384054.999E; Zone 8	ELEVATION: 858.878m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
30	- cobble		G14	lens, clear			828.0
31							
32			G15	- 20 mm ice lens, clear			827.0
33	- cobble - some gravel, angular, medium plastic, grey			- 10 mm ice lens, clear			826.0
34			G16	- 30 mm ice lens, clear			825.0
35			G17	- Vs <1%			824.0
36	- gravelly, some cobbles			- 60 mm ice lens, clear			823.0
37				- 90 mm ice lens, clear			822.0
38	- boulder		G19	- ice lens, clear			821.0
39				- 20 mm ice lens, clear			820.0
40			G20				819.0
41							818.0
42			G21				817.0
43	- strong odour, frequent brown organics						816.0
44	SAND and SILT - trace gravel, trace clay, angular, non plastic, dark blackish grey		G22	- Nbn, Vx <1%			815.0
45	- abundant coarse sand seams		G23				814.0
46	- cobble		G24	- 40 mm ice lens, clear			813.0
47				- 100 mm ice lens, clear			812.0
48	- cobble - some gravel, sub-rounded to sub-angular		G25				811.0
49			G26				810.0
50	- increased sand content		G27				809.0
51	- gravelly, sub-angular to sub-rounded, dark grey						808.0
52			G28				807.0
53	- boulder		G29	- Nbn			806.0
54	SAND (RESIDUUM)- silty, gravelly, trace clay, poorly graded, gravel <30 mm in diameter, sub-angular to angular, grey WEATHERED BEDROCK						805.0
55	- fractured bedrock						804.0
56	END OF BOREHOLE @ 55.5 m - CONFIRMED BEDROCK						803.0
57							802.0
58							801.0
59							800.0
60							799.0

eba A TETRA TECH COMPANY	LOGGED BY: AT & SMC	COMPLETION DEPTH: 55.47m
	REVIEWED BY: JGD	COMPLETE: 1/22/2011
	DRAWING NO:	Page 2 of 2

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-1
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944770.078N; 384174.608E; Zone 8	ELEVATION: 836.457m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
0	WASTE ROCK FILL			
2	ORGANICS: peat, some fine fibers, trace wood pieces and rootlets, dark brown		G1	- Nbe - Vr < 2%, 1 mm thick lenses
3	SAND: some gravel, trace silt, well graded sand, gravel < 20 mm subangular, brown - cobbles < 100 mm, angular		G2	- Nbn - Vx < 2%
4			G3	
	- 300 mm boulder			
6	- 200 mm cobble			
7	SAND (TILL): silty, some gravel, trace sand, gravel < 20 mm subangular, greyish brown, frequent 100-200 mm cobbles		G4	- Nbn - Vx < 1-2%
8			G5	
9	- clayey			
10			G6	- Vr < 5%, approx. 1 mm thick lenses
11			G7	
12			G8	- Vs, 1-2 mm thick ice lenses
13	- some clay			
14			G9	- Vs, 5-15 mm thick ice lenses
15			G10	
16				

Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80

Slope Indicator

Elevation (m): 836.0, 835.0, 834.0, 833.0, 832.0, 831.0, 830.0, 829.0, 828.0, 827.0, 826.0, 825.0, 824.0, 823.0, 822.0, 821.0

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-1
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944770.078N; 384174.608E; Zone 8	ELEVATION: 836.457m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
16	- 300 mm boulder							820.0
17			G11					
	- 300 mm boulder							819.0
18				-100 mm thick ice lens				818.0
19				-110 mm thick ice lens				
			G12					
	SILT (TILL): sandy, some clay, some gravel, low plastic, gravel < 10 mm subangular, greyish brown			- Nbn - Vx 1-2%				817.0
20				- Vs, frequent 10-30 mm ice lenses				
			G13	- frequent 10-120 mm ice lenses				816.0
21								
								815.0
22								
								814.0
23								
			G15					813.0
24								
			G16					812.0
25								
			G17		●	■ ▲ ●		811.0
26								
								810.0
27								
			G18					809.0
28								
								808.0
29			G19					
								807.0
30	- clayey, some gravel < 20 mm subangular			- Vs, 10-40 mm thick ice lenses, irregularly spaced				
								806.0
31								
			G20					805.0
	- gravel < 40 mm subangular							
32								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-1
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944770.078N; 384174.608E; Zone 8	ELEVATION: 836.457m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
32			G21					804.0
33								803.0
34			G22					802.0
35								801.0
36	- some sand, fine grained sand, massive to thinly bedded, low plastic, dark grey - trace slickensides		G24	- Nbn				800.0
37	- coarse sand lens, clean, well graded, medium grained, dark grey			- trace clear ice infill				799.0
38	CLAY (TILL): silty, some sand, trace coarse grained gravel, gravel < 50 mm subangular - sand pocket, well graded, medium grained, black		G23					798.0
39	- high plastic			- Nbn				797.0
40				- Vs, 4-5 mm thick ice lenses				
	- clayey, some fine sand, trace fine gravel, dark grey		G25	- Vs, 6 mm thick ice lens				796.0
41				- Nbn				
			G26					795.0
42	- intermitent clayey silt pockets			- Vs, 5 mm thick ice lens				
43			G27					794.0
44	- 120 mm cobble							793.0
			G28					792.0
45	- some medium to fine grained sand							791.0
46								790.0
47	- 100 mm cobbles, intermitent clayey silt bedding planes - some clay							789.0
48								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-1
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944770.078N; 384174.608E; Zone 8	ELEVATION: 836.457m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80; PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80; SILT (%) 20 40 60 80; SAND (%) 20 40 60 80; GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
48								788.0
49	- 70 mm thick sand seam							787.0
50	SAND: gravely, some to trace silt, coarse grained sand, brown							786.0
51	- gravel < 60 mm			- Nf				785.0
52								784.0
53	- gravelly - oxidized zone, reddish brown							783.0
54	- grey GRAVEL (RESIDUUM): sandy, trace silt, coarse grained, angular, matrix supported BEDROCK: granite, diagonal fracture, oxide staining 500 mm							782.0
55	- granite, medium strong, faintly weathered, close spaced discontinuities, good quality, grey, diagonal fractures, coarse grained infill 3-20 mm thick							781.0
56	- occasional quartz inclusions							780.0
57								779.0
58								778.0
59	- medium grained, weak to very weak, slightly weathered							777.0
60	END OF BOREHOLE at 60.0 m - set HW casing 1.2 m below OG - installed inclinometer to 776.4 m							776.0
61	- azimuth of A+ direction is 0°							775.0
62								774.0
63								773.0
64								

EBA Engineering Consultants Ltd.

LOGGED BY: JSB & MD	COMPLETION DEPTH: 60m
REVIEWED BY: JPB	COMPLETE: 2/3/2010
DRAWING NO:	Page 4 of 4

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-2
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944591.1101N; 383965.995E; Zone 8	ELEVATION: 847.419m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) / SILT (%) / SAND (%) / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
0	WASTE ROCK FILL							847.0
1								846.0
2	ORGANICS: moss, rootlets, dark brown		G1	- Nbe				845.0
3	SAND AND SILT: trace gravel, trace clay, fine to medium grained sand, gravel < 30 mm subangular, brown			- Vx < 3%				844.0
4			G2	- Vs < 10%, lenses < 1 mm thick				843.0
5			G3					842.0
6								841.0
7	SILT (TILL): sandy, some gravel, some clay, coarse grained sand, subangular gravel, occasional cobbles < 200 mm, dark greyish brown		G4	- Nbn - Vx < 2%				840.0
8	- frequent cobbles < 250 mm							839.0
9								838.0
10			G5					837.0
11			G6					836.0
12				- Vs, lenses 5-15 mm thick				835.0
13			G7					834.0
14								833.0
15			G8					

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-2
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944591.1101N; 383965.995E; Zone 8	ELEVATION: 847.419m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) / SILT (%) / SAND (%) / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
15								832.0
16			G9	- Nbn - Vx < 5%				831.0
17								830.0
18			G10					829.0
19			G11					828.0
20								827.0
21			G12					826.0
22								825.0
23								824.0
24	- cobble		G13 G14	- Nbn - Vx trace - Vs, lenses 4-25 mm thick				823.0
25			G15					822.0
26								821.0
27								820.0
28			G16					819.0
29								818.0
30			G17					

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-2
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944591.1101N; 383965.995E; Zone 8	ELEVATION: 847.419m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) / SILT (%) / SAND (%) / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
30								817.0
31	CLAY (TILL): silty, some gravel, trace sand, medium plastic, fine grained sand, dark grey - occasional cobbles		G18	- Nbn				816.0
32				- Vs, lenses 5-30 mm thick				815.0
33	- trace to some gravel, fine to medium grained, subrounded		G19	- Vx trace				814.0
34			G20					813.0
35			G21					812.0
36								811.0
37			G22					810.0
38				- Vs, 30-40 mm thick ice lens				809.0
39			G23	- Vs, 40-50 mm thick ice lens				808.0
40			G24					807.0
41								806.0
42	SILT (TILL): sandy, gravelly, trace clay, low to medium plastic, dark grey		G25	- Nf				805.0
43								804.0
44	SAND (RESIDUUM): trace fines, trace gravel, well graded, angular, frequent cobbles and boulders		G26 G27					803.0
45								

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-2
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944591.1101N; 383965.995E; Zone 8	ELEVATION: 847.419m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
45								802.0
46								801.0
47								800.0
48		G	G28		●	▲		799.0
49								798.0
50	BEDROCK: poor quality, highly friable, highly weathered	G	G29					797.0
51								796.0
52								795.0
53								794.0
54								793.0
55	END OF BOREHOLE at 54.3 m - set HW casing 1.2 m below OG - installed inclinometer to 796.3 m - azimuth of A+ direction is134°							792.0
56								791.0
57								790.0
58								789.0
59								788.0
60								

EBA Engineering Consultants Ltd.	LOGGED BY: JSB & MD	COMPLETION DEPTH: 54.3m
	REVIEWED BY: JPB	COMPLETE: 1/31/2010
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Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-3
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944328.868N; 383823.168E; Zone 8	ELEVATION: 860.573m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
0	WASTE ROCK FILL			
5	ORGANICS: abundant rootlets, dark brown			- Nbe
	SILT: sandy, some gravel, trace clay, gravel < 40 mm subangular, dark greyish brown			- Nbn - Vr < 30%, < 3 mm thick ice lenses
7			G1	
8	- 300 mm cobble			
9				- Vx < 3% - Vc < 10%, 1 mm thick coatings
10			G2	- Vr < 5%, 2 mm thick ice lenses
	SAND (TILL): gravelly, trace silt, trace clay, gravel < 30 mm subangular, dark brown			- Nbn - Vx, < 3-5%
11			G3	- Vr, < 5-8%, 2-5 mm thick lenses
12	- occasional cobbles			
13			G4	
16			G5	- Vs, frequent 10-30 mm

Bulk Density(kg/m³) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Slope Indicator

Elevation (m): 860.0, 859.0, 858.0, 857.0, 856.0, 855.0, 854.0, 853.0, 852.0, 851.0, 850.0, 849.0, 848.0, 847.0, 846.0, 845.0

EBA Engineering Consultants Ltd.	LOGGED BY: JSB & MD	COMPLETION DEPTH: 46.6m
	REVIEWED BY: JPB	COMPLETE: 1/29/2010
	DRAWING NO:	Page 1 of 3

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-3
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944328.868N; 383823.168E; Zone 8	ELEVATION: 860.573m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) SILT (%) SAND (%) GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
16				thick ice lenses				
17								844.0
18			G6					843.0
19			G7					842.0
20			G8					841.0
21								840.0
22			G9					839.0
23			G10					838.0
24			G11					837.0
25	- 200 mm cobble							836.0
26	- gravelly < 15 mm, subangular							835.0
27	- gravel < 40 mm, subangular		G12					834.0
28								833.0
29				- Nbn - Vx 2% - Vs < 5%, 20 mm thick ice lenses				832.0
30			G13					831.0
31								830.0
32	- trace to no gravel			- Nbn - Vx < 5%				829.0

EBA Engineering Consultants Ltd.	LOGGED BY: JSB & MD	COMPLETION DEPTH: 46.6m
	REVIEWED BY: JPB	COMPLETE: 1/29/2010
	DRAWING NO:	Page 2 of 3

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDI-3
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944328.868N; 383823.168E; Zone 8	ELEVATION: 860.573m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Slope Indicator	Elevation (m)
32				- Vs, frequent 5-75 mm thick ice lenses				828.0
33			G14					
34			G15					827.0
35	- no gravel, fine grained sand							826.0
36			G16					825.0
37	- gravelly, subrounded, well graded angular sand		G17	- Vx < 10%				824.0
38				- Vx < 5%				823.0
39	- silty, some gravel, some clay - some gravel, fine to medium grained		G18		●	◆■▲●		822.0
40			G19					821.0
41								820.0
42								819.0
43	BEDROCK: highly fractured, poor to fair quality		G20					818.0
44								817.0
45								816.0
46								815.0
47			G21					814.0
48	END OF BOREHOLE at 46.6 m - set HW casing 1.0 m below OG - installed inclinometer to 814.1 m - azimuth of A+ direction is 90°							813.0

EBA Engineering Consultants Ltd.	LOGGED BY: JSB & MD	COMPLETION DEPTH: 46.6m
	REVIEWED BY: JPB	COMPLETE: 1/29/2010
	DRAWING NO:	Page 3 of 3

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDT/P-2
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944595.056N; 383971.298E; Zone 8	ELEVATION: 847.114m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Vibrating Wire	Vibrating Wire	Thermistor	Elevation (m)
0	WASTE ROCK FILL									847.0
1										846.0
2										845.0
3			G1							844.0
	ORGANICS: moss rootlets, dark brown			- Nbn						
	SAND: gravelly, silty, well graded, subrounded gravel, medium brown			- Vx < 5% - Nbn						
4			G2	- Vx < 5%						843.0
5	- no gravels below 4.5 m, fine to medium grained sand, olive grey to blackish		G3							842.0
6	- gravelly fine to medium grained subrounded, sand angular, some cobbles									841.0
7			G4	- Nbn - Vx < 5%, lenses 10-15 mm thick						840.0
	SAND (TILL): some gravel, trace silt, fine grained sand, gravel < 20 mm, subangular, dark greyish brown			- Nbn						
8			G5	- Vx < 2% - Vs < 5%, lenses 5-10 mm thick						839.0
9										838.0
10			G6							837.0
11										836.0
12			G7	- Vs, lenses 10-25 mm thick						835.0
13			G8							834.0
14										833.0
15			G9							832.0
	END OF BOREHOLE at 14.6 m - backfilled with grout from 14.6 m to 2.7 m - backfilled with bentonite chips from 0.4 m to surface -SDP-2A tip elevation at 843.4 m -SDP-2B tip elevation at 842.7 m -SDT-2 beads between 845.4 m and 834.4 m									
16										831.0
17										

EBA Engineering Consultants Ltd.

LOGGED BY: JSB & MD	COMPLETION DEPTH: 14.6m
REVIEWED BY: JPB	COMPLETE: 1/31/2010
DRAWING NO:	Page 1 of 1

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Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDT/P-3
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944333.873N; 383824.672E; Zone 8	ELEVATION: 860.166m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS
0	WASTE ROCK FILL			
5	SAND AND SILT: well graded sand, blackish brown		G1	- Nbn
6				
7	SAND (TILL): gravelly, silty, trace of clay, well graded subangular sand, subrounded gravel, medium to dark grey		G2	- Vs, 2-3 mm thick ice lenses - Nbn
8			G3	
9	- boulder			
10	- some cobbles		G4	- Nbn - Vs, 3-5 mm thick ice lenses
11	- some silt to silty			- Nbn
12			G5	
13	- trace cobbles			- Vx, 5-10%
14				
15			G6 G7	- Vs, 5-10 mm thick ice lenses, spaced 300-400 mm
16	END OF BOREHOLE at 15.2 - backfilled with cement from 15.2 m to 4.9 m - backfilled with bentonite chips from 0.5 m to surface - SDP-3A tip elevation at 854.3 - SDP-3B tip elevation at 853.6 - SDT-3 beads between 858.4 m and 845.4 m			
17				

Bulk Density(kg/m³) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

Vibrating Wire

Vibrating Wire

Thermistor

Elevation (m): 860.0, 859.0, 858.0, 857.0, 856.0, 855.0, 854.0, 853.0, 852.0, 851.0, 850.0, 849.0, 848.0, 847.0, 846.0, 845.0, 844.0

EBA Engineering Consultants Ltd.	LOGGED BY: JSB	COMPLETION DEPTH: 15.2m
	REVIEWED BY: JPB	COMPLETE: 1/28/2010
	DRAWING NO:	Page 1 of 1

MGP W14101068.005.GPJ EBA.GDT 3/7/11

Winter 2010 Instrumentation Program	Minto Explorations Ltd.	BOREHOLE NO: 10-SDT/P-4
Southwest Waste Dump	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.005
Minto Mine, YT	6944163.622N; 383783.542E; Zone 8	ELEVATION: 860.994m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	WASTE ROCK FILL				
1					860.0
2	ORGANICS: peat, abundant rootlets, very dark brown			- Nbe	859.0
3	SAND: gravelly, trace silt, gravel < 30 mm subrounded, brown			- Nbn - Vr < 10%, 2-3 mm thick lenses	858.0
4			G1		857.0
5					856.0
6	- increasing gravel content, frequent cobbles < 150 mm, subangular		G2		855.0
7					854.0
8	SAND (TILL): some gravel, trace silt, gravel < 20 mm subangular, dark greyish brown		G3		853.0
9	- 100 mm cobble		G4		852.0
10	- 150 mm cobble - gravelly				851.0
11					850.0
12			G5		849.0
13			G6		848.0
14	END OF BOREHOLE at 13.1 m - backfilled with cement fom 11.6 m to 1.5 m - SDP-4A tip elevation at 858.5 m - SDP-4B tip elevation at 862.4 m - SDT-4 beads between 860.6 m and 849.4 (one bead located above OG)				847.0
15					846.0

Bulk Density(kg/m³) 20 40 60 80 | PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80 | SILT (%) 20 40 60 80 | SAND (%) 20 40 60 80 | GRAVEL (%) 20 40 60 80

Vibrating Wire | Vibrating Wire | Thermistor

EBA Engineering Consultants Ltd.	LOGGED BY: MD	COMPLETION DEPTH: 13.1m
	REVIEWED BY: JPB	COMPLETE: 1/30/2010
	DRAWING NO:	Page 1 of 1

Water Conveyance Network	Minto Explorations Ltd.	BOREHOLE NO: 10-MCDS-01
Minto Creek Detention Structure	Driftwood 3000 Diamond Drill-HQ Core	PROJECT NO: W14101068.013
Minto Mine, YT	6945193.251N; 385882.288E; Zone 8	ELEVATION: 730.668m

SAMPLE TYPE: GRAB SAMPLE | NO RECOVERY | BULK | CRREL CORE | SHELBY TUBE | GRAB CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	LITHOLOGICAL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	GROUND ICE DESCRIPTION AND COMMENTS	Bulk Density(kg/m³) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Monitoring well	Elevation (m)
0	ROCK FILL							730.0
1				- Nbe				
2	PEAT - trace sand, fine fibrious, brown		G1					729.0
	SAND - some gravel, some silt, medium grained, brown		G2	- Nbe				
	- poor recovery from 2. 4 to 9.1 m		G3	- 5 mm thick ice lens, clear				728.0
3	- only cobbles and coarse gravel recovered, fines washed away							727.0
4								726.0
5	- cobbles and gravel subangular to subrounded							725.0
6								724.0
7								723.0
8								722.0
9								721.0
	BEDROCK - highly weathered, closely spaced joints, oxide stained joints							
10								720.0
11	- becomes more competent, less staining							719.0
	END OF BOREHOLE 11.6 m							
12								718.0
13								717.0
14								716.0
15								

EBA Engineering Consultants Ltd.

LOGGED BY: JGD	COMPLETION DEPTH: 11.6m
REVIEWED BY: JPB	COMPLETE:
DRAWING NO:	Page 1 of 1

MGP W14101068.013.GPJ EBA.GDT 2/11/11

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G13
Pelly Laydown	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944734N; 383997.9E; Zone 8	ELEVATION: 859.9m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	GRAVEL (WASTE ROCK FILL) - sandy, some silt, some cobbles, angular, well graded, <75 mm, loose, brown						859.0
1	- boulder		G1				
2	GRAVEL and SAND - trace silt, trace cobbles, sub-angular, well graded, <20 mm, damp, brown						858.0
3			G2				857.0
4	- boulders, sample washed to 6.1 m						856.0
5							855.0
6							854.0
7	- becomes silty, some cobbles, some sand, trace clay, sub-rounded, <30 mm, moist		G3				853.0
8	- becomes grey SAND (FILL) - silty, some gravel, trace clay, fine to medium grained, moist, loose, brown		G4				852.0
9	- cobble, 200 mm thick - becomes some silt						851.0
10							850.0
11							849.0
12			G5				848.0
13	- sample washed, high boulder content						847.0
14							846.0
15							845.0
16	ORGANICS - root inclusions SAND - some clay, some gravel, well graded, wet, loose, brown		G6 G7				844.0
17	SAND and SILT (TILL) - trace gravel, trace clay, well graded, firm, low plastic, brown, frozen		G8				843.0

SALINITY (ppt): 6 12 18 24

SPT (N): 20 40 60 80

PLASTIC M.C. LIQUID: 20 40 60 80

CLAY (%): 20 40 60 80

SILT (%): 20 40 60 80

SAND (%): 20 40 60 80

GRAVEL (%): 20 40 60 80

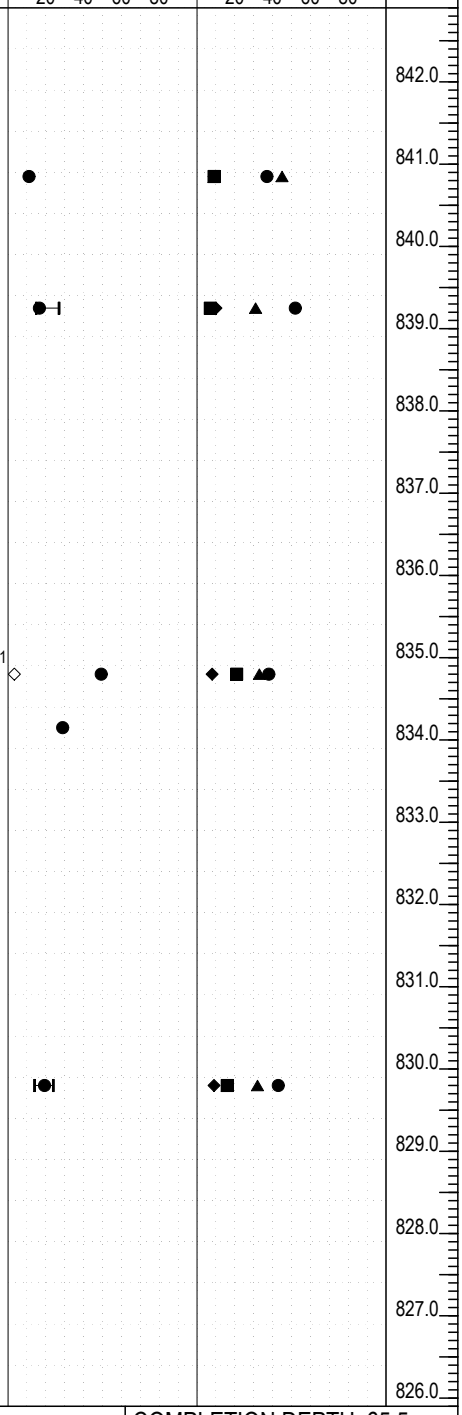
eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 9/23/2011
	DRAWING NO:	Page 1 of 4

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G13
Pelly Laydown	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944734N; 383997.9E; Zone 8	ELEVATION: 859.9m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
17	- some gravel					- Vs, 10 mm thick by 10 mm spacing to 17.8 m, white, 50% ice content	
18			G9				842.0
19			G10			- ice lens 10 mm thick	841.0
20	CLAY (TILL) - silty, sandy, trace clay, trace gravel, low plastic, greyish brown, frozen						840.0
			G11	CL			839.0
21							
22							838.0
			G12			- ice lens 10 mm thick, white	
23							837.0
			G13				
24							836.0
			G14				
25	- becomes some gravel		G15			- Vx/Vr/Vs 40% from 24.4 to 26.0 m	835.0
26			G16				834.0
			G17			- ice lens 100 mm, white	
27			G18			- Vx, 20%, to 27.4 m	833.0
	- ICE and SILT (TILL), to 29.0 m						
28			G19				832.0
			G20				
29	- becomes stiff, grey						831.0
30						- ice lens 50 mm thick	830.0
			G21	CL			
31			G22			- Vs, 10 mm thick at 50 mm spacing to 30.5 m, 20% ice content	829.0
32						- ice lens 50 mm thick, clear	828.0
	- ICE and CLAY (TILL) lenses, 45 mm thick at 800 mm spacing to 35.7 m						
33			G23			- ice lenses 30 mm thick at 200 mm spacing to 32.6 m, clear,	827.0
34							826.0



	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 9/23/2011
	DRAWING NO:	Page 2 of 4

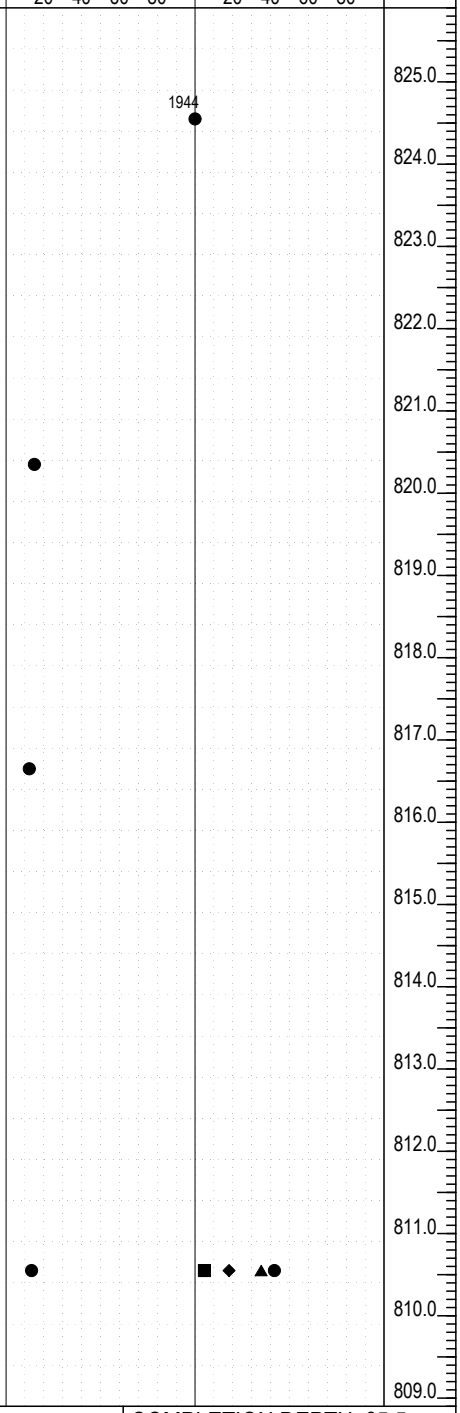
eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G13
Pelly Laydown	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944734N; 383997.9E; Zone 8	ELEVATION: 859.9m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
34			G24			ice content 15%	
	- becomes gravelly		G25				
35							825.0
			G27			- Vr/Vc, 5%, to 35.5 m	
	ICE and CLAY (TILL) lense						
36	- becomes very stiff		G28				824.0
			G26			- ice lenses 25 mm thick at 400 mm spacing to 39.6 m, ice content 5%	
37							823.0
			G29				
38							822.0
	- ICE and CLAY (TILL), 100 mm thick		G30				
39							821.0
			G31				
40							820.0
	- ICE and CLAY (TILL), 100 mm thick						
41			G32				819.0
			G33				
42							818.0
43							817.0
	- becomes trace gravel		G34				
44							816.0
	- ICE and CLAY (TILL), 100 mm thick						
45						- ice lens 100 mm thick, clear	815.0
			G35				
46						- ice lens 100 mm thick, white	814.0
47							813.0
	- sand seam, silty, trace gravel, well graded, wet, dark grey to 48.5 m		G36			- sample likely thawed due to drilling action, Nf	
48			G37				812.0
49						- ice lens 30 mm thick, clear	811.0
			G38				
50						- ice lenses 50 mm thick at 300 mm spacing	810.0
51							809.0



	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 9/23/2011
	DRAWING NO:	Page 3 of 4

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G13
Pelly Laydown	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944734N; 383997.9E; Zone 8	ELEVATION: 859.9m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
51	- very stiff		G39				
52	- becomes some sand, no gravel, dark grey - sand seam 20 mm thick						808.0
			G40			- ice lens 10 mm thick, clear	
53							807.0
			G42			- Vs, 5 mm thick at 10 mm spacing tp 53.4 m; 35% ice content	
54			G41				806.0
	- becomes sandy, some gravel, trace cobbles, stiff						
55	- becomes very stiff		G43			- ice lens 10 mm thick, clear	805.0
56						- sample likely thawed due to drilling action	804.0
			G44	CL		- ice lenses up to 200 mm thick at 300 mm spacing to 61.1 m, 35% ice content	
57							803.0
58							802.0
	SILT (TILL) - sandy, some clay, some gravel, very stiff, low to non-plastic, dark grey, frozen						
59							801.0
			G45				
60							800.0
61							799.0
62			G46				798.0
63			G47				797.0
64							796.0
65							795.0
			G48				
	END OF BOREHOLE @ 65.5 m (maximum depth of drill)						
66	NOTE: Modified USC Symbols shown where data available.						794.0
67							793.0
68							792.0

◇ SALINITY (ppt) ◇ 6 12 18 24
■ SPT (N) ■ 20 40 60 80
PLASTIC M.C. LIQUID 20 40 60 80
◆ CLAY (%) ◆ 20 40 60 80
● SILT (%) ● 20 40 60 80
▲ SAND (%) ▲ 20 40 60 80
■ GRAVEL (%) ■ 20 40 60 80

LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
REVIEWED BY: JGD	COMPLETE: 9/23/2011
DRAWING NO:	Page 4 of 4

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G14
Southwest Dump	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944414N; 383801E; Zone 8	ELEVATION: 869.5m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	GRAVEL and SAND (WASTE ROCK FILL) - some boulders, trace silt, well graded, gravel <75 mm, light brown, some cobbles								869.0
1			G1						
	- boulder, 800 mm thick								868.0
2									
									867.0
3									
									866.0
4									
									865.0
5									
									864.0
6									
									863.0
7									
									862.0
8	- boulder, 700 mm thick								
									861.0
9									
	- poor recovery								860.0
10									
									859.0
11									
	- boulder, 300 mm thick								858.0
12									
									857.0
13									
									856.0
14									
									855.0
15									
	SAND (TILL) - gravelly, silty, trace clay, trace cobbles, well graded, moist, low plastic, brown								854.0
16			G2	GW-GM					
									853.0
17	- becomes some gravel, gravel <50 mm, sub-rounded to angular, damp		G3						
									852.0
18									
	CLAY (TILL) - silty, sandy, some gravel, damp, low plastic, brownish grey								851.0
19			G4	CL					
									850.0
20									

LOGGED BY: KAE	COMPLETION DEPTH: 36.6m
REVIEWED BY: JGD	COMPLETE: 9/18/2011
DRAWING NO:	Page 1 of 2

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G14
Southwest Dump	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944414N; 383801E; Zone 8	ELEVATION: 869.5m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
20							849.0
21			G5				848.0
22			G6				847.0
23			G7				846.0
24							845.0
25			G8			- Vx <5%	844.0
26							843.0
27			G9				842.0
28	- becomes some gravel		G10 G11			- ice lenses and inclusions up to 15 mm to 29.1 m, 30-35% ice content, clear	841.0
29							840.0
30	- cobble, 200 mm thick						839.0
31	SAND - silty, some gravel, trace clay, well graded, moist, dark brown, some oxidization, frozen		G13				838.0
32			G14				837.0
33	CLAY - sandy, some gravel, damp, medium plastic, grey						836.0
34	- slow, hard drilling @ 30.7 m - switched to wet coring		G15				835.0
35	BEDROCK - fractured, sample washed of fines						834.0
36							833.0
37	END OF BOREHOLE @ 36.6 m						832.0
38	Note: installed 25 mm PVC to 15.2 m; hole sloughed at 15.2 m; 60 gal of grout tremmied into hole						831.0
39							830.0
40							

SPT (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

LOGGED BY: KAE	COMPLETION DEPTH: 36.6m
REVIEWED BY: JGD	COMPLETE: 9/18/2011
DRAWING NO:	Page 2 of 2

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G16
W15, Upper Minto Valley	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944633N; 384122.2E; Zone 8	ELEVATION: 839.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	WASTE ROCK FILL						839.0
	ORGANICS - root inclusions						
1							
2	- no roots		G1			- Nbe	838.0
3							837.0
	- gravel seam					- Vc, 5%	
4	SILT - sandy, trace gravel, trace clay, low to non-plastic, brown, faint organic odor, frozen		G2				836.0
	- becomes some cobbles		G3				
5	- becomes no gravel, organic odour						835.0
			G4				
6							834.0
7							833.0
			G5				
8			G6				832.0
			G7				
9	CLAY (TILL) - silty, sandy, trace gravel, trace cobbles, firm, medium plastic, brown, frozen		G8			- Vx/Vs 5% ice lenses up to 30 mm thick at 600 mm spacing	831.0
10							830.0
			G9				
11			G10			- Vs, 5 mm thick at 20 mm spacing, 20% ice content	829.0
12			G11			- ice inclusion, 10 mm thick	828.0
13						- ice inclusion, 30 mm thick	827.0
	- becomes some gravel, stiff, medium plastic, grey		G12				
14	- ICE and CLAY (TILL) lens, 200 mm thick		G13			- Vs, 5 mm thick at 15 mm spacing, 25% ice content	826.0
15							825.0
	- becomes low plastic		G14				
			G15				
16							824.0
			G16			- ice and inclustions up to 50 mm to 21.2 m, <5% ice content	
17			G17				823.0
18			G18				822.0

SALINITY (ppt) ◇ 6 12 18 24 | SPT (N) ■ 20 40 60 80 | PLASTIC M.C. LIQUID 20 40 60 80 | CLAY (%) ◆ 20 40 60 80 | SILT (%) ● 20 40 60 80 | SAND (%) ▲ 20 40 60 80 | GRAVEL (%) ■ 20 40 60 80

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	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 9/26/2011
	DRAWING NO:	Page 1 of 4

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G16
W15, Upper Minto Valley	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944633N; 384122.2E; Zone 8	ELEVATION: 839.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
18							
19			G19				821.0
	SAND and SILT (TILL) - some clay, trace gravel, well graded sand, stiff, non-plastic silt, brown, frozen		G20				
20			G21				820.0
21			G22				819.0
	- varved		G23			- ice lens, cloudy	
22			G24				818.0
23							817.0
	- organic seam, 30 mm thick - becomes trace gravel, very stiff, low to medium plastic		G25				816.0
24	- ICE and SAND and SILT (TILL) lens, 100 mm thick						
	CLAY (TILL) - silty, sandy, trace gravel, very stiff, low to medium plastic, brown, frozen		G26			- Vx/Vs, 10% [1]	815.0
25			G27				
26							814.0
27			G28				813.0
28			G29				812.0
	- sand seam, coarse						
29							811.0
			G30			- ice lens, 35 mm thick, clear	
30							810.0
31							809.0
			G31			- ice inclusion, 40 mm thick, wihite	808.0
32							
33			G32			- ice lenses up to 40 mm thick at 500 mm spacing, to 35.4 m, <10% ice content	807.0
34							806.0
35			G33			- Vs, 4 mm thick at 25 mm spacing, 100 mm thick, 15% ice	805.0
	SILT - sandy, some clay, trace gravel, very stiff, low to medium plastic, brown, frozen						
36							804.0

SALINITY (ppt) ◇ 6 12 18 24 | SPT (N) ■ 20 40 60 80 | PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) ◆ 20 40 60 80 | SILT (%) ● 20 40 60 80 | SAND (%) ▲ 20 40 60 80 | GRAVEL (%) ■ 20 40 60 80

eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 9/26/2011
	DRAWING NO:	Page 2 of 4

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G16
W15, Upper Minto Valley	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944633N; 384122.2E; Zone 8	ELEVATION: 839.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
36			G34			content, Nbn following	
37	-clay seam, silty, some sand, soft, high plastic, brown, 100 mm thick		G35				803.0
38	- clay seam, silty, some sand, soft, high plastic, brown, 100 mm thick - becomes dark grey		G36				802.0
39	- boulder						801.0
40	- clay seam, silty, some sand, soft, high plastic, brown		G37 G38				800.0
41			G39				799.0
42	- cobble - becomes some cobbles, some oxidization staining		G40				798.0
43			G41 G42				797.0
44	- becomes trace cobbles, low to non-plastic, dark grey						796.0
45			G43				795.0
46			G44				794.0
47	- becomes sandy, gravelly						793.0
48							792.0
49							791.0
50							790.0
51							789.0
52	- becomes some sand, some clay - sandy seams, 30 mm thick at 400 mm spacing to 59.4 m					- Nbe	788.0
53			G45				787.0
54							786.0

SALINITY (ppt) ◇ 6 12 18 24 | SPT (N) ■ 20 40 60 80 | PLASTIC M.C. LIQUID 20 40 60 80 | CLAY (%) ◆ 20 40 60 80 | SILT (%) ● 20 40 60 80 | SAND (%) ▲ 20 40 60 80 | GRAVEL (%) ■ 20 40 60 80

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G16
W15, Upper Minto Valley	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944633N; 384122.2E; Zone 8	ELEVATION: 839.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
54			G46				
55						- Nbn	785.0
56	- becomes trace gravel		G47				784.0
57							783.0
58	- becomes brown						782.0
59			G48				781.0
60	- becomes stiff, dark grey		G49				780.0
61	CLAY (TILL) - some silt, trace sand, trace gravel, firm, high plastic, brown, frozen		G50				779.0
62			G51				778.0
63	SILT (TILL) - sandy, some clay, trace gravel, stiff, low to medium plastic, dark grey, frozen		G52				777.0
64	- becomes some sand, trace clay, low plastic, very stiff						776.0
65			G53	CL-ML			775.0
66	END OF BOREHOLE @ 65.5 m (maximum depth of drill) NOTE: Modified USC Symbols shown where data available						774.0
67							773.0
68							772.0
69							771.0
70							770.0
71							769.0
72							768.0

SALINITY (ppt) ◇ 6 12 18 24 | SPT (N) ■ 20 40 60 80 | PLASTIC M.C. — LIQUID 20 40 60 80

CLAY (%) ◆ 20 40 60 80 | SILT (%) ● 20 40 60 80 | SAND (%) ▲ 20 40 60 80 | GRAVEL (%) ■ 20 40 60 80

eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 9/26/2011
	DRAWING NO:	Page 4 of 4

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G15
Southwest Dump	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944235N; 383762.8E; Zone 8	ELEVATION: 869.5m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	SAND and GRAVEL (WASTE ROCK FILL) - some silt, some cobbles, damp, light brown						869.0
1			G1	SW-SM			868.0
2							867.0
3							866.0
4							865.0
5							864.0
6			G2				863.0
7							862.0
8							861.0
9	SILT - gravelly, some sand, moist, soft, low plastic, brown, organic inclustions		G3				860.0
10	ORGANIC SILT (TILL) - sandy, some clay, trace gravel, dark brown		G4			- Vs, <30%	859.0
11	SILT - sandy, some gravel, some clay, firm, low to non-plastic, brown, trace organic odour, frozen		G5			- Vr/Vx, 30%	858.0
12			G6			- Vs, 2 mm thick at 10 mm spacing, 15-20%	857.0
13	- becomes sandy, some gravel, medium plastic, fine to medium grained sand		G7				856.0
14	- boulder, 200 mm - sand seam		G8				855.0
15			G9				854.0
16	SAND - silty, gravelly, trace clay, some cobbles <150 mm, well graded, damp, firm, dark brown, frozen		G10				853.0
17							852.0
18			G11	SM			851.0
19	- switched to 5 ft runs - becomes some gravel		G12			- Vx, <5% - ice inclusions 15 mm diameter	850.0
20	- becomes coarse grained, trace gravel, no clay		G13				849.0
21			G14				

SALINITY (ppt) ◇ 6 12 18 24 | SPT (N) ■ 20 40 60 80 | PLASTIC M.C. LIQUID 20 40 60 80 | CLAY (%) ◆ 20 40 60 80 | SILT (%) ● 20 40 60 80 | SAND (%) ▲ 20 40 60 80 | GRAVEL (%) ■ 20 40 60 80

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eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 57.9m
	REVIEWED BY: JGD	COMPLETE: 9/19/2011
	DRAWING NO:	Page 1 of 3

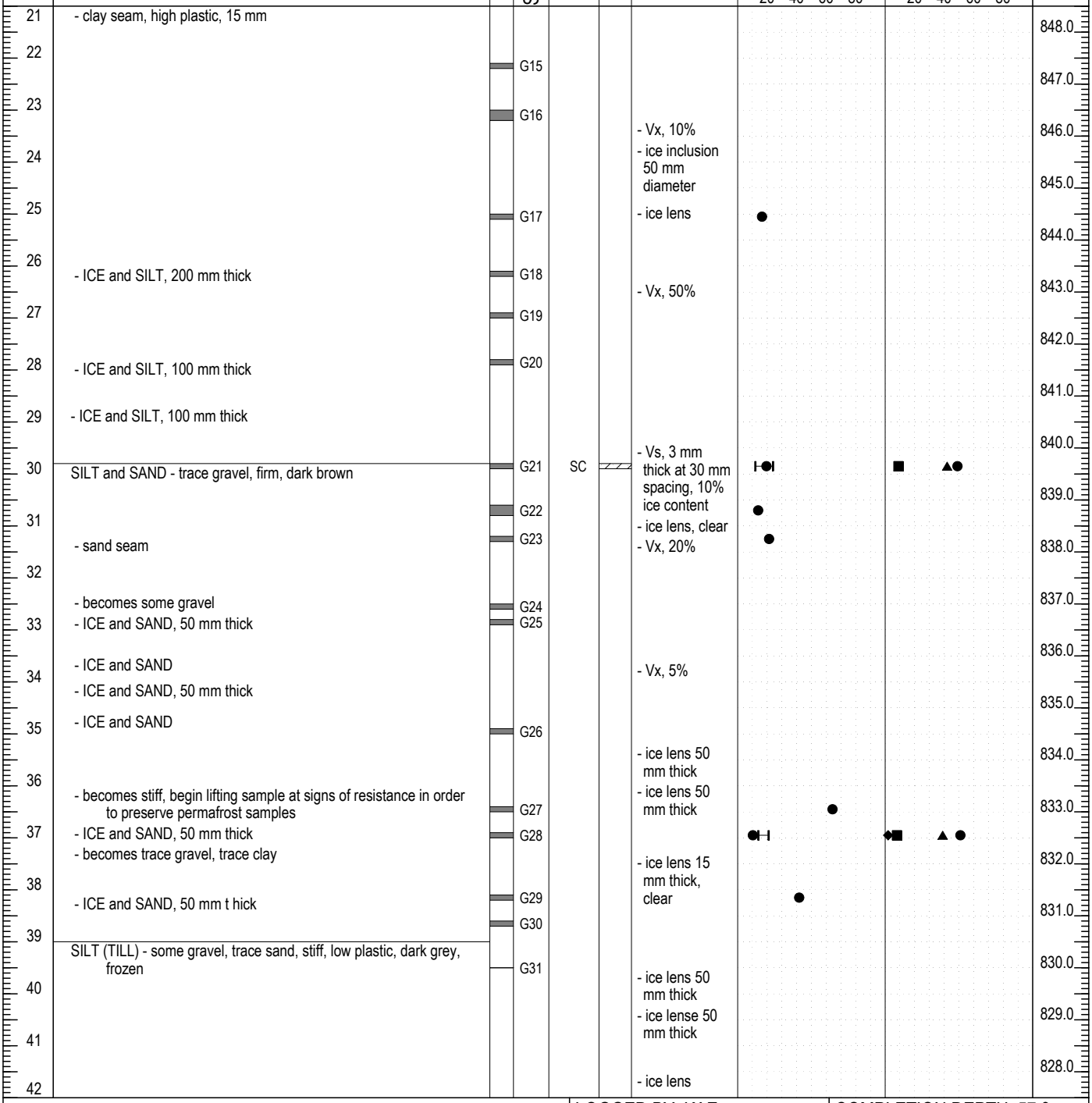
Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G15
Southwest Dump	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944235N; 383762.8E; Zone 8	ELEVATION: 869.5m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
21	- clay seam, high plastic, 15 mm						848.0
22			G15				847.0
23			G16			- Vx, 10% - ice inclusion 50 mm diameter	846.0
24							845.0
25			G17			- ice lens	844.0
26	- ICE and SILT, 200 mm thick		G18			- Vx, 50%	843.0
27			G19				842.0
28	- ICE and SILT, 100 mm thick		G20				841.0
29	- ICE and SILT, 100 mm thick						840.0
30	SILT and SAND - trace gravel, firm, dark brown		G21	SC		- Vs, 3 mm thick at 30 mm spacing, 10% ice content	839.0
31	- sand seam		G22 G23			- ice lens, clear - Vx, 20%	838.0
32	- becomes some gravel		G24				837.0
33	- ICE and SAND, 50 mm thick		G25				836.0
34	- ICE and SAND - ICE and SAND, 50 mm thick					- Vx, 5%	835.0
35	- ICE and SAND		G26			- ice lens 50 mm thick	834.0
36	- becomes stiff, begin lifting sample at signs of resistance in order to preserve permafrost samples		G27			- ice lens 50 mm thick	833.0
37	- ICE and SAND, 50 mm thick - becomes trace gravel, trace clay		G28				832.0
38	- ICE and SAND, 50 mm t hick		G29			- ice lens 15 mm thick, clear	831.0
39			G30				830.0
40	SILT (TILL) - some gravel, trace sand, stiff, low plastic, dark grey, frozen		G31			- ice lens 50 mm thick - ice lense 50 mm thick	829.0
41							828.0
42						- ice lens	

SALINITY (ppt): 6 12 18 24 | SPT (N): 20 40 60 80 | PLASTIC M.C. LIQUID: 20 40 60 80 | CLAY (%): 20 40 60 80 | SILT (%): 20 40 60 80 | SAND (%): 20 40 60 80 | GRAVEL (%): 20 40 60 80



eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 57.9m
	REVIEWED BY: JGD	COMPLETE: 9/19/2011
	DRAWING NO:	Page 2 of 3

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G18
W15, Upper Minto Valley	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944482N; 384008.9E; Zone 8	ELEVATION: 848.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	GRAVEL WASTE ROCK FILL) - sandy, trace silt, well graded, sub-rounded, dry, loose, grey						848.0
1							
2	- root inclusions - boulder 600 mm diameter		G1	GW			847.0
3	ORGANICS - wood and root inclusions, frozen		G2			- Nbe	846.0
4	SILT - some sand, trace clay, stiff, low plastic, dark grey, organic odor, frozen		G3			- Vs, 1 mm thick at 10 mm spacing, 10% to 4.7 m	845.0
5							844.0
6			G4				843.0
7	SAND - silty, some gravel, trace clay, well graded, moist, soft, low plastic, tan, frozen					- sample likely frozen but thawed by drill aciton	842.0
8	- becomes some gravel - becomes sandy, some silt, low to medium plastic		G5 G6	SM			841.0
9							840.0
10	CLAY (TILL) - sitly, sandy, trace gravel, firm, low to non-plastic, dark grey, frozen		G7	CL			839.0
11	- becomes some sand, some silt, trace gravel, stiff, medium plastic					- sample likely frozen but thawed by drill action	838.0
12			G8				837.0
13			G9			- ice lens 40 mm thick, clear	836.0
14							835.0
15			G10			- Vx/Vs, 10% to 14.5 m - ice inclusions, 40 mm thick, white	834.0
16			G11			- ice lens 5 mm thick, white	833.0
17	- ICE and CLAY (TILL), 100 mm thick					- ice lens 50 mm thick,	832.0

SALINITY (ppt) ◇ 6 12 18 24 | SPT (N) ■ 20 40 60 80 | PLASTIC M.C. LIQUID 20 40 60 80 | CLAY (%) ◆ 20 40 60 80 | SILT (%) ● 20 40 60 80 | SAND (%) ▲ 20 40 60 80 | GRAVEL (%) ■ 20 40 60 80

eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 10/1/2011
	DRAWING NO:	Page 1 of 4

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G18
W15, Upper Minto Valley	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944482N; 384008.9E; Zone 8	ELEVATION: 848.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
17						clear	
18			G12			- Vx, 30% to 17.7 m - ice lens 40 mm thick, clear	831.0
19						- Vx, 5% to 19.0 m	830.0
20			G13				829.0
	- ICE and CLAY (TILL), 100 mm thick		G14			- ice lenses 50 mm thick at 500 mm spacing, 10% ice content	
21	- becomes some gravel						828.0
22							827.0
23							826.0
24			G16				825.0
25			G15				824.0
26	- becomes trace gravel, medium to high plastic		G17				823.0
	- ICE and CLAY (TILL), 200 mm thick						
27							822.0
28			G18				821.0
29							820.0
30			G19				819.0
31	- becomes low plastic		G20				818.0
32	- ICE and CLAY (TILL), 100 mm thick						817.0
	- ICE and CLAY (TILL), 500 mm thick		G21				
33							816.0
			G22			- ice lens 30 mm thick, white	
34							815.0

SALINITY (ppt): 6 12 18 24 | SPT (N): 20 40 60 80 | PLASTIC M.C. LIQUID: 20 40 60 80 | CLAY (%): 20 40 60 80 | SILT (%): 20 40 60 80 | SAND (%): 20 40 60 80 | GRAVEL (%): 20 40 60 80

eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 10/1/2011
	DRAWING NO:	Page 2 of 4

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G18
W15, Upper Minto Valley	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944482N; 384008.9E; Zone 8	ELEVATION: 848.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
34			G23				
35						- ice lenses 20 mm thick at 500 mm spacing, clear to 37.7 m	814.0
36							813.0
37							812.0
	- becomes silty, sandy		G24				811.0
38	- ICE and CLAY (TILL), 70 mm thick						
39	- becomes medium plastic		G25			- ice inclusion 20 mm diameter	810.0
40	- cobble, 80 mm diameter		G26				809.0
41							808.0
42			G27				807.0
43	- becomes very stiff						806.0
			G28				
44							805.0
45			G29				804.0
46	- clay seam, high plastic		G30			- Nbe	803.0
	- sand seam, 50 mm thick, coarse						
47	- becomes sandy, organic odor						802.0
48	SAND - some gravel, some clay, trace silt, coarse, loose, grey, frozen					- Nf	801.0
			G31				
49	CLAY (TILL) - silty, some sand, trace gravel, stiff, medium plastic, grey, frozen						800.0
			G32	CI			
50	- ICE and CLAY (TILL), 300 mm thick		G33				799.0
	- varved clay, grey and olive brown, medium to high plastic						
51			G34				798.0

SALINITY (ppt) ◇ 6 12 18 24 | SPT (N) ■ 20 40 60 80 | PLASTIC M.C. — LIQUID 20 40 60 80

◆ CLAY (%) ◆ 20 40 60 80 | ● SILT (%) ● 20 40 60 80 | ▲ SAND (%) ▲ 20 40 60 80 | ■ GRAVEL (%) ■ 20 40 60 80

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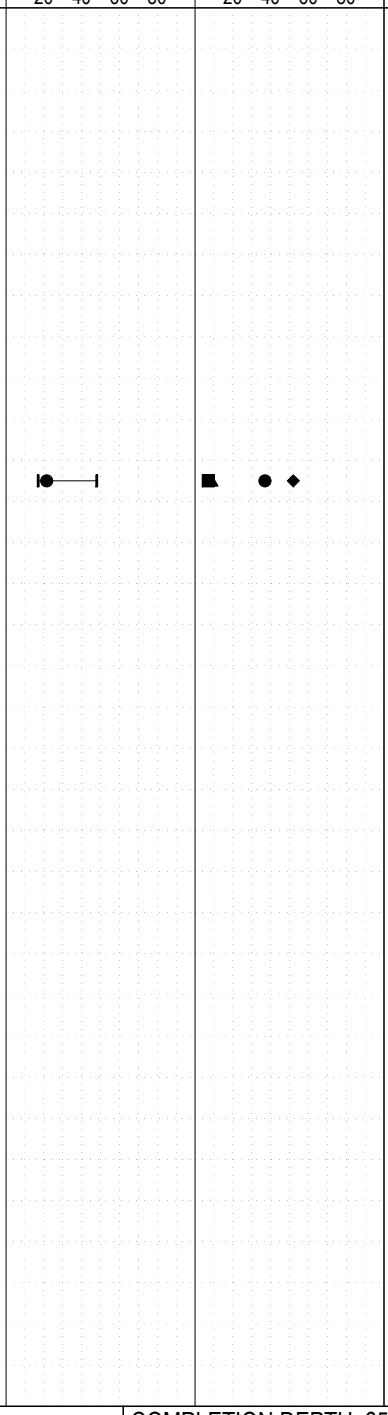
eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 10/1/2011
	DRAWING NO:	Page 3 of 4

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G18
W15, Upper Minto Valley	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944482N; 384008.9E; Zone 8	ELEVATION: 848.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
51	- becomes some gravel		G35				797.0
52							
53			G36			- sample likely frozen but thawed by drill action, likely Nbn	796.0
54			G37				795.0
55	SILT (TILL) - some sand, trace clay, trace gravel, damp, stiff, low to medium plastic, grey, likely frozen						794.0
56			G38			- sample likely frozen but thawed by drill action, likely Nbn	793.0
57	CLAY (TILL) - silty, trace gravel, trace sand, damp, stiff, medium plastic, grey, frozen		G39	CI		- sample likely frozen but thawed by drill action, likely Nbn	792.0
58							791.0
59			G40				790.0
60			G41				789.0
61	SILT - sandy, firm, non plastic, dark grey, likely frozen						788.0
62			G42				787.0
63	- becomes soft, organic odor		G43				786.0
64							785.0
65			G44				784.0
66	END OF BOREHOLE @ 65.5 m (maximum depth of drill) NOTE: Modified USC Symbols shown where data available						783.0
67							782.0
68							781.0



	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 10/1/2011
	DRAWING NO:	Page 4 of 4

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G19
Pelly Laydown	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944875N; 383826E; Zone 8	ELEVATION: 862.3m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	SAND (RESIDUUM FILL) - some gravel, some silt, trace cobbles, well graded, firm, reddish brown						862.0
1			G1				861.0
2							860.0
3							859.0
4							858.0
	ORGANICS - root inclusions						
5	SILT and SAND - some gravel, trace clay, wet, soft, low plastic, light brown		G2	SC			857.0
6							856.0
7	- becomes frozen		G3			- Nbn	855.0
8							854.0
9	- ICE with SILT and SAND, 300 mm thick		G4				853.0
			G5			- Vx, 5% to 10.3 m	
10							852.0
11	- becomes firm						851.0
	SILT (TILL) - sandy, some clay, trace gravel, very stiff, low to non-plastic, grey, frozen		G6				
12	- becomes firm, brown		G7			- ice inclustion, 20 mm thick	850.0
13							849.0
14	- sand seam, coarse, 200 mm thick		G8				848.0
15	- ICE and SILT, 30 mm thick - sand seam, coarse, 200 mm thick						847.0
16	- becomes some gravel		G9				846.0
17	- gravel seam, coarse, 500 mm thick		G10				845.0
18			G11				844.0
19			G12			- ice lens, 30 mm thick	843.0
20	SAND - silty, some gravel, trace clay, stiff, coarse, stiff, grey, frozen		G13				842.0
			G14				
21							841.0
22	- ICE and SAND lens, 20 mm thick		G15				840.0
23	SAND - silty, some gravel, trace clay, stiff, well graded, grey,		G16				

SALINITY (ppt) ◇ 6 12 18 24 | SPT (N) ■ 20 40 60 80 | PLASTIC M.C. — LIQUID 20 40 60 80 | CLAY (%) ◆ 20 40 60 80 | SILT (%) ● 20 40 60 80 | SAND (%) ▲ 20 40 60 80 | GRAVEL (%) ■ 20 40 60 80

eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 9/24/2011
	DRAWING NO:	Page 1 of 3

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G19
Pelly Laydown	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944875N; 383826E; Zone 8	ELEVATION: 862.3m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	◇ SALINITY (ppt) ◇ 6 12 18 24 / ■ SPT (N) ■ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	◆ CLAY (%) ◆ 20 40 60 80 / ● SILT (%) ● 20 40 60 80 / ▲ SAND (%) ▲ 20 40 60 80 / ■ GRAVEL (%) ■ 20 40 60 80	Elevation (m)
23	frozen								839.0
24	- becomes very stiff, trace cobbles		G17	SC		- ice lens, 10 mm thick			838.0
25			G18						837.0
26			G19						836.0
27	- ICE and SILT lens, 20 mm thick		G20						835.0
28	CLAY (TILL) - silty, some gravel, trace sand, firm, plastic, grey, frozen - becomes trace gravel		G21			- ice inclusions, 10 mm thick by 300 mm spacing to 29.0 m, Vs,Vx <5%			834.0
29									833.0
30	SILT (TILL) - sandy, some gravel, trace clay, very stiff, low to non-plastic, dark grey, frozen		G22						832.0
31	CLAY (TILL) - silty, some gravel, trace sand, firm, plastic, grey, frozen		G23						831.0
32									830.0
33	- silt (till) seam, 200 mm thick		G24						829.0
34									828.0
35			G25						827.0
36			G26						826.0
37	SILT and SAND (TILL) - trace clay, trace gravel, very stiff, low to non-plastic, dark grey, frozen - ICE and SILT inclusion, 50 mm thick		G27 G28	SC		- ice inclusion, 30 mm thick, clear			825.0
38			G30						824.0
39			G29			- ice lens, 120 mm thick, clear			823.0
40	CLAY (TILL) - silty, trace sand, trace gravel, firm, low to medium plastic, frozen		G31			- ice lens, 3 mm thick, clear			822.0
41	- becomes low to medium plastic		G32			- ice inclusion, 40 mm thick, clear			821.0
42	- becomes stiff		G33				2 ◇ ●	■ ▲ ◆ ●	820.0
43			G34						819.0
44	SILT (TILL) - sandy, some gravel, trace clay, very stiff, low to non-plastic, dark grey, frozen					- Nbn			818.0
45			G35						817.0
46	CLAY (TILL) - silty, some sand, trace gravel, stiff, low to medium plastic, dark grey, frozen		G36 G37						

LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
REVIEWED BY: JGD	COMPLETE: 9/24/2011
DRAWING NO:	Page 2 of 3

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G19
Pelly Laydown	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944875N; 383826E; Zone 8	ELEVATION: 862.3m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
46							816.0
47	- becomes sandy		G38				815.0
	- sand seam, coarse		G39				
48	- clay seam, trace sand, high plastic		G40				814.0
	- sand seam, coarse						
49							813.0
50							812.0
51	- boulder		G41				811.0
52	SILT (TILL) - sandy, some gravel, trace clay, very stiff, medium plastic, dark grey, frozen						810.0
53							809.0
54			G42				808.0
55							807.0
56							806.0
57							805.0
58	- becomes trace gravel		G43				804.0
59	- becomes some gravel - becomes gravelly						803.0
60	- becomes trace cobbles		G44				802.0
61	CLAY (TILL) - some sand, some silt, trace gravel, stiff, medium to high plastic, brown, frozen						801.0
62			G45				800.0
63	SILT (TILL) - sandy, some gravel, trace clay, very stiff, low to medium plastic, dark grey, some oxidization staining, frozen		G46				799.0
64	SAND - some clay, trace gravel, well graded, moist, loose, brown to reddish brown, frozen						798.0
65	- becomes silty, trace clay		G47				797.0
66	END OF BOREHOLE @ 65.5 m (maximum depth of drill) NOTE: Modified USC Symbols shown where data available						796.0
67							795.0
68							794.0
69							

SALINITY (ppt) 6 12 18 24 | SPT (N) 20 40 60 80 | PLASTIC M.C. LIQUID 20 40 60 80 | CLAY (%) 20 40 60 80 | SILT (%) 20 40 60 80 | SAND (%) 20 40 60 80 | GRAVEL (%) 20 40 60 80

eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 9/24/2011
	DRAWING NO:	Page 3 of 3

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G15
Southwest Dump	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944235N; 383762.8E; Zone 8	ELEVATION: 869.5m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
42			G32				827.0
43	- organic silt seam, sandy, trace clay, very stiff, low to non plastic, dark brown, organic odor		G33				
			G34				826.0
44	- becomes trace gravel, low plastic		G35				
							825.0
45							
							824.0
46	- becomes some clay, some sand, some gravel, low to medium plastic, dark grey, faint organic odour, frozen		G36			- ice lens 5 mm thick, Nbn following	
	- clay seam, firm high plastic, dark grey, frozen						823.0
47	- some cobbles						
							822.0
48	- becomes gravelly						
	- gravel seam		G37				821.0
49	SILT (LACUSTRINE) - trace sand, trace clay, stiff, medium plastic, dark grey, frozen		G38				
							820.0
50							
	- becomes some gravel						819.0
51	SAND - silty, trace gravel, trace clay, well graded, stiff, dark grey, likely frozen		G39			- sample likely frozen but thawed by drill action	
	- becomes trace clay		G40			- Vx, 30%	818.0
52							
							817.0
53							
							816.0
54	- frequent sand seams		G41			- Vx, 35% within sand seams	
			G42				815.0
55	- becomes tan in color						
	- becomes gravelly, some oxidazation staining						814.0
56							
	SAND AND GRAVEL (RESIDUUM) - some silt, well graded sand, gravel <25 mm, rust brown, likely frozen						813.0
57			G43			- sample likely frozen but thawed by drill action, likely Nbn or Nf	
	WEATHERED BEDROCK - highly fractured, weak						812.0
58	END OF BOREHOLE @ 57.9 m (confirmed depth to bedrock)						
							811.0
59	NOTE: Modified USC Symbols shown where data available						
							810.0
60							
							809.0
61							
							808.0
62							
							807.0
63							

SALINITY (ppt) ◇ 6 12 18 24 | SPT (N) ■ 20 40 60 80 | PLASTIC M.C. — LIQUID 20 40 60 80

CLAY (%) ◆ 20 40 60 80 | SILT (%) ● 20 40 60 80 | SAND (%) ▲ 20 40 60 80 | GRAVEL (%) ■ 20 40 60 80

LOGGED BY: KAE	COMPLETION DEPTH: 57.9m
REVIEWED BY: JGD	COMPLETE: 9/19/2011
DRAWING NO:	Page 3 of 3

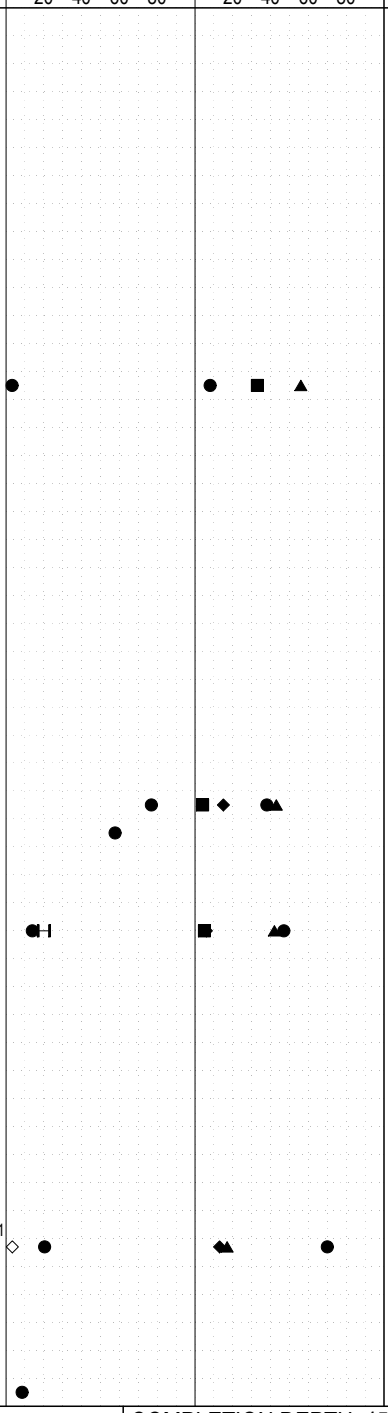
eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G20
Southwest Dump	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944312N; 383721.7E; Zone 8	ELEVATION: 875.3m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	SAND (WASTE ROCK FILL) - gravelly, trace silt, some boulders and cobbles, well graded, angular to sub-angular, grey						875.0
1			G1				874.0
2							873.0
3	- becomes reddish brown		G2				872.0
4							871.0
5							870.0
6							869.0
7			G3				868.0
8							867.0
9			G4				866.0
10							865.0
11			G5				864.0
12	- becomes wet, sub-rounded						863.0
13			G6				862.0
14	- organic odor SAND and SILT - some clay, trace gravel, soft, dark brown, organic odour, frozen, organic inclusions		G7				861.0
15			G8			- ICE with stratified organics, 5 mm thick at 5 mm spacing, 50% to 15.2 m	860.0
16	SILT - sandy, trace gravel, firm, low plastic, tan, frozen		G9				859.0
17	- gravel seam, sandy, sub-rounded, <10 mm, light tan, 100 mm thick SILT and SAND - trace clay, trace gravel, soft, low plastic, brown, frozen		G10	ML-CL		- Vs, 30% at 15.2 m 5 mm thick at 10 mm spacing to 15.6 m	858.0
18	- sand seam, 50 mm thick, coarse, some gravel, grey		G11				857.0
19			G12				856.0
20	- becomes grey						855.0
21			G13				854.0
22	- becomes tan SILT - some sand, some clay, soft, low to non-plastic, tan, frozen		G14				853.0
23							852.0
24			G15 G16				851.0
25			G17			- ice lens, 5 mm thick	



eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 45.7m
	REVIEWED BY: JGD	COMPLETE: 9/28/2011
	DRAWING NO:	Page 1 of 2

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G20
Southwest Dump	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944312N; 383721.7E; Zone 8	ELEVATION: 875.3m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
25						- ice inclusions, 10 mm thick	850.0
26	- cobble - becomes some gravel						849.0
27			G18				848.0
28						- ice lenes 30 mm thick at 400 mm spacing to 29.4 m, 5-10% ice content	847.0
29			G19				846.0
30			G20				845.0
31	SAND and SILT (TILL) - some gravel, some cobbles, trace clay, stiff, low plastic, brown, frozen					- ice lens, 70 mm thick, clear	844.0
32	- boulder		G21				843.0
33						- ice lenses, 30 mm thick at 300 mm spacing to 33.5 m, 10% ice content	842.0
34			G22	SM			841.0
35	- cobble 200 mm		G23			- Vs, 20 m thick at 50 mm spacing, ice lenses up to 50 mm thick, 30 % ice content to 37.0 m	840.0
36			G24				839.0
37			G25				838.0
38	SAND (TILL) - silty, some gravel, stiff, brown, frozen		G26				837.0
39	- cobble 100 mm - becomes gravelly						836.0
40	- gravel seam		G27				835.0
41	- gravelly, some weathered rock		G28				834.0
42	SAND and GRAVEL (RESIDUUM) - some silt, some cobbles, coarse grained, tan		G29				833.0
43	- oxidization staining						832.0
44							831.0
45			G30				830.0
46	WEATHERED BEDROCK - estimated weak, pulverized by drill END OF BOREHOLE @ 45.7 m (likely bedrock, drilling stopped due to slow, hard drilling and poor sample recovery)						829.0
47	NOTE: Modified USC Symbols shown where data available						828.0
48							827.0
49							826.0
50							

SALINITY (ppt) ◇ 6 12 18 24 | SPT (N) ■ 20 40 60 80 | PLASTIC M.C. — LIQUID 20 40 60 80 | CLAY (%) ◆ 20 40 60 80 | SILT (%) ● 20 40 60 80 | SAND (%) ▲ 20 40 60 80 | GRAVEL (%) ■ 20 40 60 80

LOGGED BY: KAE	COMPLETION DEPTH: 45.7m
REVIEWED BY: JGD	COMPLETE: 9/28/2011
DRAWING NO:	Page 2 of 2

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G23
Boulder Laydown	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944838N; 384839.6E; Zone 8	ELEVATION: 808.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
0	GRAVEL (FILL) - sandy, some cobbles, trace boulders, damp, angular, loose, brown								808.0
1			G1						
2	- root inclusions								807.0
	SILT and SAND (TILL) - some gravel, trace clay, gravel <30 mm, soft, low plastic, brown		G2	ML					
3									806.0
4									805.0
5			G3						804.0
6			G4						803.0
7			G5						802.0
8	- gravel <70 mm								801.0
	- becomes gravelly <60 mm								
9	- sand seam, gravelly, coarse, frozen		G6			- Nf			800.0
			G7						
10									799.0
11			G8						798.0
12	SAND (TILL) - silty, gravelly, trace clay, well graded, firm, low plastic, grey, frozen		G9			- Nbn			797.0
13			G10						796.0
14	- becomes some gravel, some clay								795.0
15	- stiff		G11	SM					794.0
16									793.0
17			G12						792.0
18	- becomes grey								791.0
19	- becomes stiff		G13						790.0
20									789.0
21			G14						788.0
22									787.0
23									786.0

LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
REVIEWED BY: JGD	COMPLETE: 9/30/2011
DRAWING NO:	Page 1 of 3

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G23
Boulder Laydown	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944838N; 384839.6E; Zone 8	ELEVATION: 808.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
23			G15						785.0
24									
25	CLAY (TILL) - silty, some gravel, trace sand, firm, likely low to medium plastic, dark grey		G16			- Vx, 5 %	●	▲ ■ ● ◆	784.0
26									783.0
27									782.0
28	- gravel seam <30 mm, oxidization staining SILT - sandy, trace gravel, trace clay, very wet, soft, low to non-plastic, tan		G17			- sample likely frozen but thawed from drill action, likely Nbe			781.0
29									780.0
30	SAND and SILT - trace gravel, trace clay, reddish brown		G18			- ice lens, 10 mm thick, clear			779.0
31	GRAVEL - some sand, some silt, occasional cobbles, gravel <30 mm, subrounded, loose, tan		G19						778.0
32	- becomes grey								777.0
33	SILT and SAND (TILL) - trace clay, trace gravel, stiff, non-plastic, dark grey, frozen		G20	ML			●	■ ▲ ●	776.0
34									775.0
35			G21						774.0
36						- Vx, 5% to 35.5 m			773.0
37			G22			- Vx, 10% to 37.7 m			772.0
38	CLAY (TILL) - silty, sandy, trace gravel, firm, medium plastic, dark grey, frozen								771.0
39									770.0
40			G23 G24	CI		- Vx, 5%	⊢ ●	■ ▲ ◆ ●	769.0
41						- Vx, 10% to 41.0 m - ice lens, 10 mm thick, white - Nbn			768.0
42			G25						767.0
43	- varved clay, grey and beige		G26						766.0
44									765.0
45									764.0
46	- sand seam, coarse, grey, 50 mm thick - becomes beige								763.0

eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 9/30/2011
	DRAWING NO:	Page 2 of 3

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G23
Boulder Laydown	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944838N; 384839.6E; Zone 8	ELEVATION: 808.8m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	SPT (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	CLAY (%) 20 40 60 80 / SILT (%) 20 40 60 80 / SAND (%) 20 40 60 80 / GRAVEL (%) 20 40 60 80	Elevation (m)
46									762.0
47	- becomes sitff								761.0
48			G27						760.0
49									759.0
50			G28						758.0
51									757.0
52	- trace gravel, grey								756.0
53			G29						755.0
54									754.0
55	- cobble 150 mm thick - becomes some gavel, some silt								753.0
56			G30						752.0
57						- sample likely frozen but thawed from drill action, likely Nbn	●	■◆▲ ●	751.0
58			G31						750.0
59									749.0
60	- boulder		G32						748.0
61									747.0
62						- sample likely frozen but thawed from drill action, likely Nbn			746.0
63			G33				●	■ ▲ ●	745.0
64	- cobble 75 mm thick - becomes silty - sample could not be retrieved, no recovery		G34						744.0
65									743.0
66	END OF BOREHOLE @ 65.5 m (maximum depth of drill) NOTE: Modified USC Symbols shown where data available.								742.0
67									741.0
68									740.0
69									

eba A TETRA TECH COMPANY	LOGGED BY: KAE	COMPLETION DEPTH: 65.5m
	REVIEWED BY: JGD	COMPLETE: 9/30/2011
	DRAWING NO:	Page 3 of 3

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: 11-G22
W37, Lower Minto Valley	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6945176N; 385893E; Zone 8	ELEVATION: 730.1m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	SAND and GRAVEL (RESIDUUM FILL) - trace organics, well graded sand, gravel <30 mm, sub-angular, wet, loose, brown, slight organic odor		G1				730.0
1	SAND and SILT (TILL) - some clay, some gravel, low plastic, brown, frozen					- Vx, 15%	729.0
2							728.0
3	SAND (TILL) - silty, trace clay, trace gravel, frozen, organic odour and inclusions		G2	SM		- Nbe	727.0
4	- cobbles <200 mm diameter, some high plastic clay within voids of cobbles		G3				726.0
5	SAND (TILL) - gravelly, some silt, trace clay, well graded, moist, brown, frozen		G4				725.0
6	SAND and GRAVEL (RESIDUUM) - trace clay, well graded sand, gravel <30 mm, loose, brown to reddish brown, frozen					- Nf	724.0
7	BEDROCK - highly weathered, estimated weak, pulverized by drill, reddish brown - cobble in BIR		G5				723.0
8			G6				722.0
9			G7				721.0
10			G8				720.0
11	END OF BOREHOLE @ 10.7 m (confirmed depth to bedrock) NOTE: Modified USC Symbols shwn wehre data available						719.0
12							

SPT (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

CLAY (%) 20 40 60 80

SILT (%) 20 40 60 80

SAND (%) 20 40 60 80

GRAVEL (%) 20 40 60 80

LOGGED BY: KAE	COMPLETION DEPTH: 10.7m
REVIEWED BY: JGD	COMPLETE: 9/30/2011
DRAWING NO:	Page 1 of 1

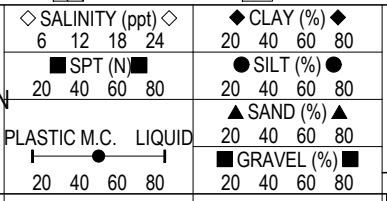
eba A TETRA TECH COMPANY

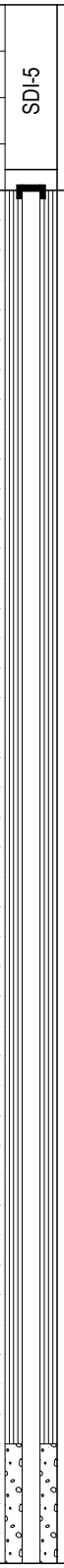
Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: SDI-5
Southwest Dump	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944582N; 383895E; Zone 8	ELEVATION: 869.2m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
0	GRAVEL (WASTE ROCK FILL) - sandy, trace silt, some cobbles, occasional boulders, dry, brown		G1	GP			869.0
1							868.0
2							867.0
3							866.0
4							865.0
5	- cobble 200 mm thick		G2				864.0
6							863.0
7							862.0
8							861.0
9	- becomes trace cobbles						860.0
10			G3				859.0
11							858.0
12			G4				857.0
13	- becomes some cobbles		G5				856.0
14			G6				855.0
15							854.0
16	- becomes some silt, damp		G7				853.0
17							852.0
18	- becomes frozen		G8			- ice inclusions, 20 mm thick, clear	851.0
19	- boulder 300 mm thick						850.0
20							849.0
21	- ICE and GRAVEL, 100 mm thcik		G9			- Vx, 40%	848.0
	ORGANICS - silty, moist, root and wood inclusions, frozen						
22	SAND and SILT (TILL) - some clay, trace gravel, stiff, non-plastic, dark brown, frozen		G10	SM			847.0
23							





	LOGGED BY: KAE	COMPLETION DEPTH: 61m
	REVIEWED BY: JGD	COMPLETE: 9/21/2011
	DRAWING NO:	Page 1 of 3

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: SDI-5
Southwest Dump	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944582N; 383895E; Zone 8	ELEVATION: 869.2m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
23							846.0
24			G11				845.0
25	- becomes trace clay, trace cobble, soft - clay seam, high plastic, brown		G12				844.0
26	- becomes non-plastic		G13				843.0
27			G14				842.0
28	- becomes gravelly		G16				841.0
29	- becomes some gravel, low to medium plastic		G15 G17			- Vx, 5% to 28.7 m	840.0
30							839.0
31			G18				838.0
32			G19			- Vx, 5% to 33.0 m	837.0
33			G20			- ice lens, 5 mm thick, clear	836.0
34	- becomes stiff		G21				835.0
35			G22				834.0
36	SAND (TILL) - silty, some gravel, some clay, well graded, low plastic, stiff, brown, frozen		G23	SM		- Vx, 5%	833.0
37	- becomes soft		G24				832.0
38	- becomes very stiff, grey					- ice inclusion, 20 mm thick, clear	831.0
39	- gravel seam, <20 mm, sandy, some silt, angular		G26			- ice inclusion, 30 mm thick, clear	830.0
40	- becomes trace gravel		G25				829.0
41	- ICE and SAND (TILL), 20 mm thick - becomes some gravel, soft		G27 G28 G29			- ice lens, 60 mm thick, clear - Vx, 10%	828.0
42	- becomes very stiff		G30			- Vr, 10%	827.0
43			G31				826.0
44	- cobble 90 mm thick		G32				825.0
45	- gravelly seam 10 mm thick - gravelly seam 10 mm thick		G33 G34			- ice inclusion, clear	824.0
46							

SALINITY (ppt) 6 12 18 24 | SPT (N) 20 40 60 80 | PLASTIC M.C. LIQUID 20 40 60 80 | CLAY (%) 20 40 60 80 | SILT (%) 20 40 60 80 | SAND (%) 20 40 60 80 | GRAVEL (%) 20 40 60 80

SDI-5

LOGGED BY: KAE	COMPLETION DEPTH: 61m
REVIEWED BY: JGD	COMPLETE: 9/21/2011
DRAWING NO:	Page 2 of 3

eba A TETRA TECH COMPANY

Fall 2011 Geotechnical Drilling	CLIENT: Minto Explorations Ltd.	BOREHOLE NO: SDI-5
Southwest Dump	DRILL: Mini Sonic	PROJECT NO: W14101068.033
Minto Mine, YT	6944582N; 383895E; Zone 8	ELEVATION: 869.2m

SAMPLE TYPE: DISTURBED | NO RECOVERY | SPT | A-CASING | SHELBY TUBE | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	USC	SOIL SYMBOL	GROUND ICE DESCRIPTION AND COMMENTS	Elevation (m)
46							823.0
47			G35				822.0
48			G36				821.0
49			G37				820.0
50	- becomes trace gravel, coarse sand		G38				819.0
51	- sample thawing from drilling action, switched to 5 ft runs						818.0
52							817.0
53			G39				816.0
54	- becomes well graded - becomes reddish brown, some oxidization		G40 G41				815.0
55	- sample liquified, likely due to drilling action and excess drilling fluid, possibly melted ice, hard drilling at this depth						814.0
56			G42 G43				813.0
57	- becomes tan						812.0
58	SAND (RESIDUUM) - gravelly, trace silt, coarse grained, angular, oxide stained, heavily weathered, broken down with drilling action						811.0
59			G44				810.0
60	WEATHERED BEDROCK - estimated weak						809.0
61	END OF BOREHOLE @ 61.0 m (Confirmed Bedrock)						808.0
62	NOTE: installed SDI-5, backfilled with grout to original ground, slough to surface of waste rock; azimuth of A^{-1} direction is 41°						807.0
63	Modified USC Symbols shown where data available						806.0
64							805.0
65							804.0
66							803.0
67							802.0
68							801.0
69							

SALINITY (ppt) ◇ 6 12 18 24 | CLAY (%) ◆ 20 40 60 80

SPT (N) ■ 20 40 60 80 | SILT (%) ● 20 40 60 80

SAND (%) ▲ 20 40 60 80

PLASTIC M.C. — LIQUID 20 40 60 80 | GRAVEL (%) ■ 20 40 60 80

SDI-5

LOGGED BY: KAE	COMPLETION DEPTH: 61m
REVIEWED BY: JGD	COMPLETE: 9/21/2011
DRAWING NO:	Page 3 of 3

eba A TETRA TECH COMPANY

MW09-1

overburden | weathered bedrock | fresh bedrock

Geotechnical log (basic+)

* 10ft rods were used, with 5ft core barrel,
HQ3 bit, with split tubes; casing depth 10ft

Run #	Run Interval				TCR										IRS				comment
	From	To	From	To															
	ft	ft	m	m	ft	inches	decimal ft	m	%						strong	weak			
1	**10**	**15**	3.05	4.57	1.5		1.50	0.46	30										
2	**15**	**20**	4.57	6.10	2		2.00	0.61	40										
3	**20**	**25**	6.10	7.62	3	2	3.17	0.97	63						S2				
4	**25**	**30**	7.62	9.14	1.5		1.50	0.46	30						S3				diamicton material (possibly reworked till)
5	**30**	**35**	9.14	10.67	1		1.00	0.30	20										
6	**35**	**40**	10.67	12.19	1	3	1.25	0.38	25										
7	**40**	**45**	12.19	13.72		8	0.67	0.20	13										
8	**45**	**50**	13.72	15.24	0		0.00	0.00	0										
9	**50**	**55**	15.24	16.76	1	9	1.75	0.53	35										
10	**55**	**60**	16.76	18.29	2	10	2.83	0.86	57						S1				
11	**60**	**65**	18.29	19.81		5	0.42	0.13	8										
12	**65**	**70**	19.81	21.34		5	0.42	0.13	8										
13	**70**	**75**	21.34	22.86	1		1.00	0.30	20										
14	**75**	**77.5**	22.86	23.62	4.5		4.50	1.37	180										sluff from drilling (c.sand), not actual recovery
15	**77.5**	**85**	23.62	25.91	2.5		2.50	0.76	33										overburden bottom

Run #	Run Interval				TCR					OF	J	CJ	+J from RZ	RQD		IRS		micro def.	J - properties	comment
	From	To	From	To																
	ft	ft	m	m	ft	inches	decimal ft	m	%					cm	%	strong	weak	0 to 3		
16	**85**	**88**	25.91	26.82	3.5		3.50	1.07	117	10	10			0.70	66%	R3			rusty colour fill + clay, J surface rough undulating	weathered bedrock, jointed, altered near joints and stained, but fresh away from joints, high FF
18	**88**	**97**	26.82	29.57	3	6	3.50	1.07	39						65%	R3				poor recovery
19	**97**	**100**	29.57	30.48	3		3.00	0.91	100	10	10			0.56	61%	R3				
20	**100**	**105**	30.48	32.00	5		5.00	1.52	100	7	6				90%	R4	R0		at 104.6ft v.weathered near Js, R0 near Js, clay in Js, orange colour	
21	**105**	**110**	32.00	33.53	5		5.00	1.52	100	8	7	1			90%	R4			same as above	
22	**110**	**115**	33.53	35.05	5		5.00	1.52	100	18	14	3		1.20	79%	R4	R0		same as above	10 cm R0 zone at 112.5ft
23	**115**	**120**	35.05	36.58	5		5.00	1.52	100	11	7				60%	R4			same as above	Qz vein present
24	**120**	**125**	36.58	38.10	5		5.00	1.52	100	8	7			1.40	92%	R4			high weathering at 3 J's; other Js only stained rusty or black	felsic dike present at 120.3ft
25	**125**	**130**	38.10	39.62	5		5.00	1.52	100	7	5			1.45	95%	R4			rusty stained Js	
26	**130**	**135**	39.62	41.15	5		5.00	1.52	100	12	12			1.25	82%	R4			rusty stained Js	
27	**135**	**140**	41.15	42.67	5		5.00	1.52	100	7	5			1.47	96%	R4			rusty stained Js, or weathered Js	
28	**140**	**145**	42.67	44.20	4	9	4.75	1.45	95	8	5				100%	R4			black or rusty staining on Js	
29	**145**	**150**	44.20	45.72	5		5.00	1.52	100	6	4	2		1.35	89%	R4			black staining on Js	pink alteration colour at 148ft
30	**150**	**155**	45.72	47.24	5		5.00	1.52	100	7	6	2		1.40	92%	R4			clean J walls, no weathering	
31	**155**	**160**	47.24	48.77	5		5.00	1.52	100	8	7			1.25	82%	R4			rusty/black stained Js, some weathered J walls	
32	**160**	**165**	48.77	50.29	5		5.00	1.52	100	4					100%	R4			rusty/black staining	EOH

MW09-1

Overburden Properties

* core runs with the same properties were combined

Domain interval				description	permafrost	samples	clay plasticity	clay hardness	
From	To	From	To					description (as found)	ISRM code
ft	ft	m	m						
10	25	3.05	7.62	artificial fill of cobbles, boulders, gravel, soil/reworked till	core hot from drilling, cannot determine ice presence in this borehole			soft	S2
25	30	7.62	9.14	fill: brown moit clayey sand (f-c), with f.gravel (angular) + c.gravel pieces, crumbly		S1 at 29.5ft			
30	55	9.14	16.76	fill: cobbles, boulders, gravel (voids found during drilling), fine gr. materials washed out if present			medium to low	very soft (reworked by drilling process)	S1
55	60	16.76	18.29	grey moist/wet diamict with silty clay matrix, containing angular to sub-round gravel, broken sharp rock pieces, and coarse sand		S2 at 59.5 ft	medium to low	very soft (reworked by drilling process)	S1
65	70	19.81	21.34	grey/white wet clean sub round to ang fine gravel					
70	75	21.34	22.86	sandy clay and grey wet clayey f-med sand with f-c gravel, sub ang to round			low	very soft (reworked by drilling process)	S1
75	85	22.86	25.91	m. gravel, rounded to sub ang, trace silt/clay (washed out)					

clay hardness - quantitative measurements

Tor Vane (* 0.1 kg/cm^2)	Penetrometer (kg/cm^2)	Tor Vane (MPa)	Penetrometer (MPa)
1.1		0.01	
1.1		0.01	
0.8		0.01	

ISRM Standard - Field Estimate of Rock Strength

Index	Description	Field Test	~ UCS (MPa)
S1	Very Soft Clay	Easily penetrated by fist (flows between fingers)	< 0.025
S2	Soft Clay	Easily penetrated by thumb (>1")	0.025 - 0.05
S3	Firm Clay	Penetrated by thumb with moderate effort (>1")	0.05 - 0.10
S4	Stiff Clay	Indented by thumb but penetrated with great effort	0.10 - 0.25
S5	Very Stiff Clay	Readily indented with thumbnail	0.25 - 0.50
S6	Hard Clay	Indented with difficulty by thumbnail	> 0.50
R0	Extremely Weak	indented by thumbnail, crumbles under soft blow of blunt end of hammer; breaks apart when crushed by fingers	0.25 - 1.0
R1	Very Weak	crumbles under firm blow of geologic hammer pick; peeled by knife	1.0 - 5.0
R2	Weak	shallow indentation under firm blow of pick end of geologic hammer	5.0 - 25
R3	Medium Strong	fractured with single firm blow of geologic hammer	25 - 50
R4	Strong	requires more than one blow of hammer to fracture	50 - 100
R5	Very Strong	requires many blows of hammer to fracture	100 - 250
R6	Extremely Strong	can only be chipped with strong blows of hammer	> 250

MW09-2

overburden | weathered bedrock | fresh bedrock

Geotechnical log (basic+)

* 10ft rods were used, with 5ft core barrel, HQ3 bit, with split tubes; casing depth 10ft

Run #	Run Interval				TCR					OF	J	CJ	+J from RZ	RQD		IRS		micro def.	J - properties	comment
	From	To	From	To																
	ft	ft	m	m	ft	inches	decimal ft	m	%					cm	%	strong	weak	0 to 3		
1	10	15	3.05	4.57	1.5		1.50	0.46	30						0%					
2	15	17	4.57	5.18	2	6	2.50	0.76	125						0%					
3	17	25	5.18	7.62	5	3	5.25	1.60	66						0%	S4				
4	25	30	7.62	9.14	5		5.00	1.52	100						0%					
5	30	35	9.14	10.67	5		5.00	1.52	100						0%	S5				
6	35	40	10.67	12.19	4	10	4.83	1.47	97						0%	S4				
7	40	45	12.19	13.72	5		5.00	1.52	100						0%	S4				
8	45	50	13.72	15.24	5	2	5.17	1.57	103						0%	S4				
9	50	55	15.24	16.76	5		5.00	1.52	100						0%	S4				
10	55	60	16.76	18.29	5		5.00	1.52	100						0%	S4				
11	60	65	18.29	19.81	5		5.00	1.52	100						0%	S4				
12	65	70	19.81	21.34	5		5.00	1.52	100						0%	S5				
13	70	75	21.34	22.86	4		4.00	1.22	80						0%	S5				
14	75	80	22.86	24.38	5		5.00	1.52	100						0%	S5				
15	80	85	24.38	25.91	5		5.00	1.52	100						0%	S5				
16	85	90	25.91	27.43	3.5		3.50	1.07	70						0%	S5				
18	90	95	27.43	28.96	5		5.00	1.52	100						0%	S5				
19	95	100	28.96	30.48	2	3	2.25	0.69	45						0%	S5				
20	100	105	30.48	32.00	5		5.00	1.52	100						0%	S5				
21	105	110	32.00	33.53	3.5		3.50	1.07	70						0%	S5				
22	110	115	33.53	35.05	0		0.00	0.00	0							S5				
23	115	120	35.05	36.58	5		5.00	1.52	100						0%	S5				
24	120	125	36.58	38.10	5		5.00	1.52	100						0%	S3				
25	125	130	38.10	39.62	5	2	5.17	1.57	103						0%	S3				
26	130	135	39.62	41.15	5		5.00	1.52	100						0%	S4				
27	135	140	41.15	42.67	5		5.00	1.52	100						0%	S5	S4			
28	140	145	42.67	44.20	4		4.00	1.22	80						0%	S3				
29	145	150	44.20	45.72	5		5.00	1.52	100						0%					
30	150	155	45.72	47.24	5		5.00	1.52	100		38		38		0%	R0				
31	155	160	47.24	48.77	0.5		0.50	0.15	10		6		6		0%	R0				grey brown highly weahered curmbly / jointed rock
32	160	165	48.77	50.29	4.9		4.90	1.49	98		30		30		0%	R2	R0		stained J's, smooth, no gouge	R0 crumbly to 163ft, then weak jointed
33	165	170	50.29	51.82	5		5.00	1.52	100	6	25		20		0%	R2	R0		red stained J's, weathered at J's	highly weathered rock
34	170	173	51.82	52.73	2		2.00	0.61	67		16		16		0%	R2	R0		red stained J's, weathered at J's	highly weathered rock
35	173	178	52.73	54.25	1	11	1.92	0.58	38	5	25		20		0%	R2	R0		red stained J's, weathered at J's	highly weathered rock + one Qz vein
36	178	180	54.25	54.86		9	0.75	0.23	38	4	8		4		0%	R3	R0		black staining	highly weathered rock
37	180	185	54.86	56.39		10	0.83	0.25	17		32		32		0%	R0				highly weathered rock
38	185	190	56.39	57.91		9	0.75	0.23	15	4	4				0%	R1				broken Qz pieces of Qz vein included
39	190	195	57.91	59.44	1	8	1.67	0.51	33		40		40		0%	R0			red stained J's	

MW09-2

Overburden Properties

* core runs with the same properties were combined

* descriptions were modified to match quantitative measurements (TorVane and Penetrometer)

** reworked clay (by drill bit) that is caked around harder inner core was ignored here - this soft watery clay does not represent in-situ conditions and is softened by drilling process

Domain interval				description	permafrost	samples	clay plasticity	clay hardness		
From	To	From	To					description (as found, usually frozen)	thawed only	ISRM code
ft	ft	m	m							
10.0	15.0	3.05	4.57	wet black/white subangular crs gravel (crs grained rock), rusty staining	N/A					
15.0	20.0	4.57	6.10	grey wet clay	N/A (core hot from drilling)		low-med			
20.0	20.5	6.10	6.25	grey moist clay with organic debris, fine gravel (sub round)	N/A					
20.5	24.0	6.25	7.32	dark grey-black frozen soil/clay with ice intervals	ice inclusions Nbe/Vr and some solid ice intervals		med-high	stiff		S4
24.0	25.0	7.32	7.62	light grey-brown silty clay, with crs gravel (angular clastsa at 25ft depth)	ice in clay	S1 at 22ft		stiff		S4
25.0	27.0	7.62	8.23	brown-grey frozen silty clay, with ice inclusions	ice inclusions (Vt)					
27.0	28.0	8.23	8.53	cobbles with frozen clay matrix	frozen					
28.0	30.0	8.53	9.14	grey frozen clayey fine sand with silt with ice inclusions	ice inclusions					
30.0	32.0	9.14	9.75	grey-brown clay with crs.sand and f.gravel (sub ang)	N/A	S2 at 31ft	med			
32.0	34.5	9.75	10.52	ice with dark grey frozen clay inclusions, with silt and sand	ice w clay inclusions		low-med			
34.5	35.0	10.52	10.67	grey frozen clay, some ice	some ice		med-high	v.stiff		S5
35.0	50.0	10.67	15.24	ice with grey clay inclusions	70 to 85% ice	S3 at 45ft	high	stiff		S4
50.0	60.0	15.24	18.29	ice with grey clay inclusions, more firm clay between ice	50 to 70% ice	S4 at 60ft	med-high	stiff		S4
60.0	65.0	18.29	19.81	ice with dark grey clay inclusions, 20cm frozen clay layers (no ice), cut with pure ice intervals	frozen		mod-high	stiff	firm	S4
65.0	70.0	19.81	21.34	dark grey frozen clay with ice inclusions	<20% ice, Vc/Vx		mod	v.stiff	firm-stiff	S5
70.0	80.0	21.34	24.38	dark grey frozen clay with ice inclusions	30% ice in large veins and smaller ice flakes in clay (Vc/Vs)	S5 at 77ft	mod-high	v.stiff	firm	S5
80.0	100.0	24.38	30.48	dark grey frozen clay with ice inclusions	few ice inclusions, but some up to 5cm clear ice, big Vc/Vx	S6 at 89ft	high	v.stiff	firm-stiff	S5
100.0	120.0	30.48	36.58	ice with frozen grey clay, and smaller ice inclusions in clay; near 110ft trace med. angular gravel	70% pure ice, especially from 102.5 to 105ft, some Vr ice incl in clay where clay dominant	S7 at 107ft	high	v.stiff	stiff	S5
120.0	125.0	36.58	38.10	grey moist clay with small lenses of clayey crs sand, trace f. gravel (sub round)	N/A	S8 at 120ft	high		firm-stiff	S3
125.0	128.0	38.10	39.01	grey frozen clay with f. sand, tracel sub.ang. f. gravel, and minor ice inclusions	Vt, small veins of ice			firm	v.soft	S3
128.0	129.0	39.01	39.32	frozen clay with sub.ang. to sub.round. f.gravel, with ice inclusions	Vx (minor)					
129.0	132.0	39.32	40.23	frozen clay with clayey f. sand interbeds, with trace gravel	Vx (minor)	S9 at 130ft		stiff	firm	S4
132.0	134.0	40.23	40.84	frozen clay diamict (with sand and f. gravel)	5% ice, Vx			stiff	firm	S4
134.0	135.0	40.84	41.15	grey-brown compacted frozen clayey fine sand with ice inclusions	Vx (minor)			v.stiff		S5
135.0	138.0	41.15	42.06	interbeds of brown med.sand (with trace clay + f.gravel) AND grey clay with ice inclusions	Vx	S10 at 137ft	mod	v.stiff	firm	S5
138.0	139.0	42.06	42.37	frozen clay diamict (with sand and f. gravel - angular) with ice inclusions	minor ice incl.			stiff	firm	S4
139.0	139.5	42.37	42.52	moist grey clay with f.sand	N/A		low (crumbly)		firm	
139.5	142.7	42.52	43.49	brown frozen slightly clayey f.-crs. sand, with ang.f.gravel	water in sand frozen holding sand grains together, when thawed sand is loose					
142.7	143.0	43.49	43.59	clay diamict (f.sand - f.ang-sub.round gravel)	N/A		med	firm	soft	S3
143.0	144.5	43.59	44.04	brown sandy clay (f.-crs. sand)	N/A			firm	soft	S3
144.5	145.0	44.04	44.20	grey clay with f.sand	N/A	S11 at 144ft	low	firm	soft	S3
145.0	147.0	44.20	44.81	grey frozen silty clay w. trace c.sand and f.gravel	frozen		low	stiff		
147.0	148.0	44.81	45.11	brown moist clay with f-crs. sand and silt, res. sand lens (clean) at 148ft (2cm)	N/A		low		firm	
148.0	150.0	45.11	45.72	interbeds of silty clay, f.silty sand, and clayeye crs. sand	N/A		med			
150.0	155.0	45.72	47.24	frozen coarse grained weathered bedrock fragments (crs.sand to f.gravel size), Qz frags, trace clay	rock core is cold inside but any ice was melted during drilling process and cannot assess	S12 at 153ft				R0
155.0	195.0	47.24	59.44	highly weathered crumbly very weak grey-brown/orange-brown stained rock, some joint structures preserved but mostly decomposed	rock core is cold inside and warm outside (from drilling) so its probably that it is frozen to this depth					R0

clay hardness - quantitative measurements

Tor Vane (* 0.1 kg/cm²)				Penetrometer (kg/cm²)				Tor Vane (MPa)				Penetrometer (MPa)			
frozen		thawed		frozen		thawed		frozen		thawed		frozen		thawed	
min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
				4.6								0.45			
10.0				2.0				0.10				0.20			
				2.5	3.5							0.25	0.34		
9.5				3.5				0.09				0.34			
				3.0	5.0							0.29	0.49		
				3.0	4.5	1.0	2.0					0.29	0.44	0.10	0.20
				5.0		1.5	2.8					0.49		0.15	0.27
		5.0	9.0			0.7	3.5			0.05	0.09			0.07	0.34
						1.0	2.0							0.10	0.20
				2.0								0.20			
		5.5		5.0		1.0	1.5			0.05		0.49		0.10	0.15
4.5								0.04							
3.0								0.03							
4.0								0.04							

MW09-3

overburden | weathered bedrock | fresh bedrock

Geotechnical log (basic+)

* 10ft rods were used, with 5ft core barrel, HQ3 bit, with split tubes; casing depth 10ft

Run #	Run Interval				TCR					OF	J	CJ	+J from RZ	RQD		IRS		micro def.	J - properties	comment
	From	To	From	To																
	ft	ft	m	m	ft	inches	decimal ft	m	%					cm	%	strong	weak	0 to 3		
1	10	15	3.05	4.57	3.5		3.50	1.07	70	8	28	0	24	15	14%	R2	R0	2	brown stained J's	crumbly R0 zones, highly weathered
2	15	20	4.57	6.10	3	1	3.08	0.94	62	7	12	0	6	30	32%	R3	R0	2	planar rough, stained, alpha 45 deg	weathered rock, jointed, RZ (15cm) R0, minor Qz vein
3	20	25	6.10	7.62	5		5.00	1.52	100	13	9	0		123	81%	R3		2	7, 4 | 9 | 0 staining only; alpha 50 to 60 degrees	weathered rock, jointed
4	25	30	7.62	9.14	5	1	5.08	1.55	102	10	9	0		145	94%	R4	R3	1	4, 7, 8 | 1, 3, 0 | 0 brown non softening fill, alpha 60 to 80 degrees	slithly weathered rock / competent rock
5	30	35	9.14	10.67	5		5.00	1.52	100	6	3	0		147	96%	R4	R3	0	4 to 7 | 0 | 0, stained brown-orange	1 Qz vein
6	35	40	10.67	12.19	5		5.00	1.52	100	8	5	0		150	98%	R4	R3	0	4 to 8 | 0 | 0, stained brown-orange, alpha 50 to 70 degrees	
7	40	45	12.19	13.72	4	9	4.75	1.45	95	12	10	0		108	75%	R4	R3	0	7 | 0 to 3 | 0 stained orange, alpha 30 to 70 degrees	slightly altered from 41 to 43'
8	45	50	13.72	15.24	5	3	5.25	1.60	105	9	7	1		148	92%	R4	R3	0	7 | 0 | 0 stained orange, alpha 45	
9	50	55	15.24	16.76	5		5.00	1.52	100	6	3	0		150	98%	R5	R4	0	4 to 7 | 0 | 0, stained, alpha 45 to 70 degrees	
10	55	60	16.76	18.29	4	10.5	4.88	1.49	98	7	4	0		149	100%	R5	R4	0	4 to 7 | 0 | 0, slightly stained	very competent fresh rock, crs grained, 1 large vein
11	60	65	18.29	19.81	4	10.5	4.88	1.49	98	6	5	0		149	100%	R5	R4	0	4 to 7 | 0 | 0, no staining	
12	65	67	19.81	20.42	2	2	2.17	0.66	108	5	4	1		66	100%	R5	R3	0		competent grey/pink rock (logged from photo)
13	67	70	20.42	21.34	3	6	3.50	1.07	117	2	1	0		100	94%	R5	R4	0		
14	70	75	21.34	22.86	4	10	4.83	1.47	97	6	3	0		148	100%	R5	R4	0	J walls planar, undulating, rough, brown & altered; alpha 30 to 80 degrees	
15	75	80	22.86	24.38	4	10	4.83	1.47	97	6	5	0		138	94%	R5	R4	0	stained J's	grey brown rock, slightly altered
16	80	85	24.38	25.91	4	7.5	4.63	1.41	93	6	3	0		141	100%	R5	R4	0	all J's weathered with non softening fill, altered J wall; alpha 45 to 90 degrees	fluid flow evidence
18	85	90	25.91	27.43	5	2	5.17	1.57	103	4	4	0		149	95%	R5	R4	1		
19	90	95	27.43	28.96	5		5.00	1.52	100	11	6	4		149	98%	R5	R4	1	1 J with soft fill 0.5mm brown clay, alpha 15 degrees	
20	95	100	28.96	30.48	5	2	5.17	1.57	103	12	13	0	4	133	84%	R4	R2	0	1 J at 99' has 1 cm brown clay gauge fill (alpha 50 degrees)	RZ (10cm) jointed at 96'; R2 rock highly altered, brown from 95-96'
21	100	105	30.48	32.00	5		5.00	1.52	100	6	5	1		150	98%	R5	R4	0		
22	105	110	32.00	33.53	5	2	5.17	1.57	103	7	5	1		146	93%	R5	R4	1	1 J has 0.5mm soft fill	
23	110	115	33.53	35.05	5	1	5.08	1.55	102	10	11	3		122	79%	R5	R4	0		mineralization around micro defects at 111.5'
24	115	120	35.05	36.58	5	1	5.08	1.55	102	12	7	1		103	66%	R5	R4	1	hard fill in Js	
25	120	125	36.58	38.10	5	2	5.17	1.57	103	12	6	2		140	89%	R5	R4	1		
26	125	130	38.10	39.62	4	11	4.92	1.50	98	10	5	1		135	90%	R5	R4	1	1 J has 2mm soft fill	
27	130	135	39.62	41.15	5		5.00	1.52	100	14	14	0		62	41%	R5	R3	1		
28	135	140	41.15	42.67	5	2	5.17	1.57	103	8	6	1		141	90%	R5	R4	1		
29	140	145	42.67	44.20	5		5.00	1.52	100	9	7	0		150	98%	R5	R4	1		
30	145	150	44.20	45.72	5		5.00	1.52	100	7	5	0		137	90%	R5	R4	1		
31	150	155	45.72	47.24	5		5.00	1.52	100	7	4	1		144	94%	R5	R4	0		
32	155	160	47.24	48.77	4	10	4.83	1.47	97	10	5	1		133	90%	R5	R4	1	1 J has 2mm soft fill	
33	160	165	48.77	50.29	4	9	4.75	1.45	95	9	7	0		139	96%	R5	R4	0	Js betw 162-163' have 2mm of soft fill	

MW09-4

overburden | weathered bedrock | fresh bedrock

Geotechnical log (basic+)

* 10ft rods were used, with 5ft core barrel, HQ3 bit, with split tubes; casing depth 10ft

Run #	Run Interval				TCR					OF	J	CJ	+J from RZ	RQD		IRS		micro def.	J - properties	comment
	From	To	From	To																
	ft	ft	m	m	ft	inches	decimal ft	m	%					cm	%	strong	weak	0 to 3		
1	5	6	1.52	1.83	1		1.00	0.30	100						0%	S3				
2	6	11	1.83	3.35	2.2		2.20	0.67	44						0%	S4				
3	11	15	3.35	4.57	3		3.00	0.91	75						0%	S4				
4	15	20	4.57	6.10	3.6		3.60	1.10	72						0%	S3				
5	20	25	6.10	7.62	5		5.00	1.52	100						0%	S4	S2			
6	25	30	7.62	9.14	5		5.00	1.52	100						0%	S4				
7	30	35	9.14	10.67	5		5.00	1.52	100						0%	S4				
8	35	40	10.67	12.19	5		5.00	1.52	100						0%	S4	S3			
9	40	45	12.19	13.72	4		4.00	1.22	80						0%	S4				
10	45	50	13.72	15.24	5		5.00	1.52	100						0%	S4				
11	50	55	15.24	16.76	4.2		4.20	1.28	84						0%	S4				
12	55	60	16.76	18.29	5		5.00	1.52	100						0%	S4				
13	60	65	18.29	19.81	5		5.00	1.52	100						0%	S4				
14	65	70	19.81	21.34	5		5.00	1.52	100						0%	S4	S3			
15	70	75	21.34	22.86	5		5.00	1.52	100						0%	S4				
16	75	80	22.86	24.38	5		5.00	1.52	100						0%	S4				
18	80	85	24.38	25.91	5		5.00	1.52	100						0%	S4				
19	85	90	25.91	27.43	5		5.00	1.52	100						0%	S4				
20	90	95	27.43	28.96	0		0.00	0.00	0							S4				
21	95	100	28.96	30.48	5		5.00	1.52	100						0%	S4				
22	100	105	30.48	32.00	3		3.00	0.91	60						0%	S4				
23	105	110	32.00	33.53	5.2		5.20	1.58	104						0%	S4				
24	110	115	33.53	35.05	5		5.00	1.52	100						0%	S4				
25	115	120	35.05	36.58	5		5.00	1.52	100						0%	S4				
26	120	125	36.58	38.10	5		5.00	1.52	100						0%	S4				
27	125	130	38.10	39.62	5		5.00	1.52	100						0%	S4				
28	130	135	39.62	41.15	5		5.00	1.52	100						0%	S4				
29	135	140	41.15	42.67	5		5.00	1.52	100						0%	S4				
30	140	145	42.67	44.20	4.2		4.20	1.28	84						0%	S4				
31	145	150	44.20	45.72	4.8		4.80	1.46	96		60		60	0	0%	R0	S4			highly weathered rock (brown and pink rock fragments, light brown-orange crs.sand and f.gravel), low clay content (10%)
32	150	155	45.72	47.24	5		5.00	1.52	100	51	51	0	48	0	0%	R2	R0	1	R0 rock most of this run	highly wethered rock (brown-orange c.sand, clayey, altered rock frags, Qz vein, very weak rock)
33	155	160	47.24	48.77	5		5.00	1.52	100	7	9	0	8	152	100%	R3	R0	1	R0 zone 20cm (also jointed)	highly wethered rock, orange-brown alteration, black/white coarse grains remaining of rock; competent rock at 159ft
34	160	165	48.77	50.29	3	4	3.33	1.02	67	7	6	0		24	24%	R3	R1	1	soft/hard fill in J's	very weathered jointed rock
35	165	170	50.29	51.82	5		5.00	1.52	100	6	5	0		80	52%	R3	R2	1	soft fill in J's or red staining,	weathered jointed rock
36	170	175	51.82	53.34	5		5.00	1.52	100	9	4	0		140	92%	R3		0	crs. fill in J's, red staining	weathered jointed rock
37	175	180	53.34	54.86	5	3	5.25	1.60	105	8	7	0		136	85%	R4	R2	0		
38	180	185	54.86	56.39	4	10	4.83	1.47	97	9	8	0	4	137	93%	R4	R0	2	black stained J's or crs.fill	RZ (10cm) at litho change, R0 rock
39	185	190	56.39	57.91	5	2	5.17	1.57	103	8	2	0		140	89%	R4	R2	0	black rusty staining on all J's	
40	190	195	57.91	59.44	5	1	5.08	1.55	102	10	8	0		143	92%	R4		0	black rusty staining on all J's	
41	195	199.5	59.44	60.81	4	5	4.42	1.35	98	12	8	0		82	61%	R4		0	stained J's, various colours and minerals	
42	199.5	205	60.81	62.48	5	3	5.25	1.60	95	9	6	1		136	85%	R5	R3	0	hard fill on J surfaces	
43	205	210	62.48	64.01	5		5.00	1.52	100	9	7	0		137	90%	R5	R4	0	hard fill on J surfaces	
44	210	215	64.01	65.53	5		5.00	1.52	100	10	10	0		78	51%	R4	R3	0	hard fill on J surfaces	
45	215	220	65.53	67.06	5	2	5.17	1.57	103	14	10	0		93	59%	R4	R1	0	hard fill on J surfaces	
46	220	225	67.06	68.58	5	2	5.17	1.57	103	7	5	0		158	100%	R4	R3	0	hard fill on J surfaces	
47	225	230	68.58	70.10	5		5.00	1.52	100	11	8	0		135	89%	R4		1		
48	230	235	70.10	71.63	5		5.00	1.52	100	13	9	0		85	56%	R4	R2			
49	235	240	71.63	73.15	4	11	4.92	1.50	98	6	1	0		150	100%	R5				
50	240	245	73.15	74.68	5		5.00	1.52	100	10	9	0		132	87%	R4	R3			
51	245	250	74.68	76.20	4	9	4.75	1.45	95	10	8	0		70	48%	R4			bright green mineralization on J surfaces	

MW09-4

Overburden Properties

* core runs with the same properties were combined

* descriptions were modified to match quantitative measurements (TorVane and Penetrometer)

** reworked clay (by drill bit) that is caked around harder inner core was ignored here - this soft watery clay does not represent in-situ conditions and is softened by drilling process

Domain interval				description	permafrost	samples	clay plasticity	clay hardness		
From	To	From	To					description (as found, usually frozen)	thawed only	ISRM code
ft	ft	m	m							
5.0	6.0	1.52	1.83	cobble						
6.0	11.0	1.83	3.35	dark brown silty clay with fine gravel (sub round)		S1 at 10ft	low	firm		**S3**
11.0	15.0	3.35	4.57	frozen grey clay with ice inclusions (includes 0.5ft layer of d.brown clay with f.gravel)	Vx / Vr small lenses	S2 at 14ft	med	stiff	soft	**S4**
15.0	20.0	4.57	6.10	dark grey frozen clay, with ice inclusions	20 to 30% ice, Vr / Vx / Nbe		med	firm	v.soft	**S3**
20.0	21.5	6.10	6.55	dark grey frozen clay, with ice inclusions	frozen		med	stiff	v.soft	**S4**
21.5	25.0	6.55	7.62	soft watery clay (reworked by drilling process)	N/A	S3 at 24ft	high		soft	**S2**
25.0	32.5	7.62	9.91	dark grey frozen clay, with ice inclusions	10 to 15% ice		med	stiff		**S4**
32.5	35.0	9.91	10.67	dark grey frozen clay	frozen	S4 at 33ft	med-high	stiff	firm	**S4**
35.0	40.0	10.67	12.19	grey frozen clay, with ice inclusions AND zones of ice with clay inclusions	Vr, Vx, zones of ice		mod-high	stiff	firm	**S3**
40.0	55.0	12.19	16.76	ice with grey clay inclusions	>50% ice, random pattern, some stiff clay inclusions	S5 at 45ft	mod-high	stiff	soft	**S4**
55.0	63.0	16.76	19.20	grey frozen clay, with ice inclusions	5% ice, Vx, Vr	S6 at 58ft	high	stiff	firm	**S4**
63.0	64.5	19.20	19.66	grey frozen clay, with fine sand and fine gravel (sub ang to angular)	frozen	S7 at 63ft	low	stiff	soft	**S4**
64.5	64.8	19.66	19.75	black-grey moist clay			mod	stiff		**S4**
64.8	65.0	19.75	19.81	wet clayey coarse sand with fine gravel (sub-ang)						
65.0	69.0	19.81	21.03	clay diamict (f.-crs. sand, f.-crs. gravel (and - sub ang.), + cobble), frozen	frozen			stiff		**S4**
69.0	70.0	21.03	21.34	clay with ice inclusions	some ice			firm		**S3**
70.0	73.1	21.34	22.28	clay diamict (f.-crs. gravel, ang.-round, cobble)				stiff		**S4**
73.1	74.1	22.28	22.59	ice	ice	S8 at 74ft				
74.1	74.8	22.59	22.80	clay				stiff		**S4**
74.8	84.7	22.80	25.82	grey frozen clay interbeds with clay containing ice inclusions and interbeds of pure ice	frozen, 5% ice, Vr/Vs, some pure ice			stiff		**S4**
84.7	85.0	25.82	25.91	clay diamict (f.gravel)				stiff		**S4**
85.0	90.0	25.91	27.43	frozen clay with ice inclusions and with f.-crs.gravel	more ice content than above	S9 at 89ft		stiff		**S4**
90.0	95.0	27.43	28.96	N/A						
95.0	124.0	28.96	37.80	frozen grey clay with ice inclusions (Vr, Vt) and with trace of crs.gravel (sub-ang.) and few beds of clay diamict (with crs. sand / f.gravel)	frozen, once 10cm ice layer,	S10 at 103ft		stiff		**S4**
124.0	125.0	37.80	38.10	frozen clayey f.sand	frozen	S11 at 119ft				
125.0	141.0	38.10	42.98	clay diamict (c.sand-f.gravel) and beds of clayey f.sand, c.gravel and cobble fragments at 135ft, ice inclusions and small ice layers	ice inclusions	S12 at 130ft	low	stiff		**S4**
141.0	141.5	42.98	43.13	grey brown clay (thawed) and frozen black/grey clay	frost "flakes" in clay			stiff	soft	**S4**
141.5	144.0	43.13	43.89	brown moist clayey crs.sand with f.gravel (angular) and trace crs.gravel		S13 at 143ft				
144.0	145.0	43.89	44.20	frozen dark grey clay with crs.sand and f.gravel	frozen			stiff		**S4**
145.0	146.0	44.20	44.50	clay diamict (f.gravel grey rock pieces) and interbeds of medium clayey brown sand	N/A			stiff		**S4**
146.0	153.5	44.50	46.79	highly weathered rock (brown and pink rock fragments, light brown-orange crs.sand and f.gravel), low clay content (10%)	N/A	S14 at 151ft				**R0**
153.5	155.0	46.79	47.24	weathered altered rock, Qz vein, very weak						**R0/R2**
155.0	159.0	47.24	48.46	weathered altered rock, black/white crs.grains, orange-rusty alteration	warm core from drilling process in rock					**R0/R1**

clay hardness - quantitative measurements

Tor Vane (* 0.1 kg/cm²)				Penetrometer (kg/cm²)				Tor Vane (MPa)				Penetrometer (MPa)			
frozen		thawed		frozen		thawed		frozen		thawed		frozen		thawed	
min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
3								0.03							
	4.5		1			0.3	0.5		0.04		0.01			0.03	0.05
	2.5				1.5		0.0		0.02				0.15		0.00
	7				3.2		0.5		0.07				0.31		0.05
	3.5				4.5		1.5		0.03				0.44		0.15
				1.9	2		1.0					0.19	0.20		0.10
	7.5		0.5	2	4		0.3		0.07		0.00	0.20	0.39		0.03
			4				1.5				0.04				0.15
		7.8	8	3	3.5					0.08	0.08	0.29	0.34		
							2.0								0.20
							1.0								0.10
	10				3				0.10				0.29		
				1.5	5	0.5	2.0					0.15	0.49	0.05	0.20
				2	2.5							0.20	0.25		
			8	4	5	1.5	3.0				0.08	0.39	0.49	0.15	0.29
				2.5	5		1.5					0.25	0.49		0.15
			3.5								0.03				
					4.5	0.5	1.0						0.44	0.05	0.10

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PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-05
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 17-Oct-2012 **DATE COMPLETE:** 21-Oct-2012
DIP: -90 **AZIMUTH:** 0
COORDINATES: 387001 6945779 **DATUM:** NAD83

TOTAL DEPTH (m): 152.2
PAGE: 1 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

STRATIGRAPHY

DEPTH (m)	SYMBOL	Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black)	Fracture Frequency (FF/m)	Aperture (mm)	Rock Strength (R0-R5)
0		Casing set in bedrock			0 25 50 75 100	0.0 2.0 4.0 6.0	0 1 2 3 4 5	0 1 2 3 4 5
10		Gouge with cobbles and gravel Jointed and highly weathered zone Minor feldspathic veining						
20								

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HOLE ID: MW12-05
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PROJECT No: 1CM002.008
DATE START: 17-Oct-2012 **DATE COMPLETE:** 21-Oct-2012
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TOTAL DEPTH (m): 152.2
PAGE: 2 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

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Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

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gouge; broken gouge; broken; contact; jointed

STRATIGRAPHY

DEPTH (m)	SYMBOL	Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black)	Fracture Frequency (FF/m)	Aperture (mm)	Rock Strength (R0-R5)
30		Core grading to stick rock			0 25 50 75 100	0.0 2.0 4.0 6.0	0 1 2 3 4 5	0 1 2 3 4 5
40		Run blocked at 39.4 m						
50		Very jointed zone						

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CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-05
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DATE START: 17-Oct-2012 **DATE COMPLETE:** 21-Oct-2012
DIP: -90 **AZIMUTH:** 0
COORDINATES: 387001 6945779 **DATUM:** NAD83

TOTAL DEPTH (m): 152.2
PAGE: 3 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
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Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY SYMBOL	Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black) 0 25 50 75 100	Fracture Frequency (FF/m) 0.0 2.0 4.0 6.0	Aperture (mm) 0 1 2 3 4 5	Rock Strength (R0-R5) 0 1 2 3 4 5
60		Increasing feldspathic minerals						
70								

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CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-05
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 17-Oct-2012 **DATE COMPLETE:** 21-Oct-2012
DIP: -90 **AZIMUTH:** 0
COORDINATES: 387001 6945779 **DATUM:** NAD83

TOTAL DEPTH (m): 152.2
PAGE: 4 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black)	Fracture Frequency (FF/m)	Aperture (mm)	Rock Strength (R0-R5)
80		Minor feldspathic veining			0 25 50 75 100	0.0 2.0 4.0 6.0	0 1 2 3 4 5	0 1 2 3 4 5
90								
100		Brittle mechanical breaks - may be due to core freezing overnight						

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PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-05
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 17-Oct-2012 **DATE COMPLETE:** 21-Oct-2012
DIP: -90 **AZIMUTH:** 0
COORDINATES: 387001 6945779 **DATUM:** NAD83

TOTAL DEPTH (m): 152.2
PAGE: 5 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black; 0 25 50 75 100)	Fracture Frequency (FF/m; 0.0 2.0 4.0 6.0)	Aperture (mm; 0 1 2 3 4 5)	Rock Strength (R0-R5; 0 1 2 3 4 5)
110		Brittle mechanical breaks - may be due to core freezing overnight						
120								
130		Lots of small microdefects						

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PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-05
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 17-Oct-2012 **DATE COMPLETE:** 21-Oct-2012
DIP: -90 **AZIMUTH:** 0
COORDINATES: 387001 6945779 **DATUM:** NAD83

TOTAL DEPTH (m): 152.2
PAGE: 6 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

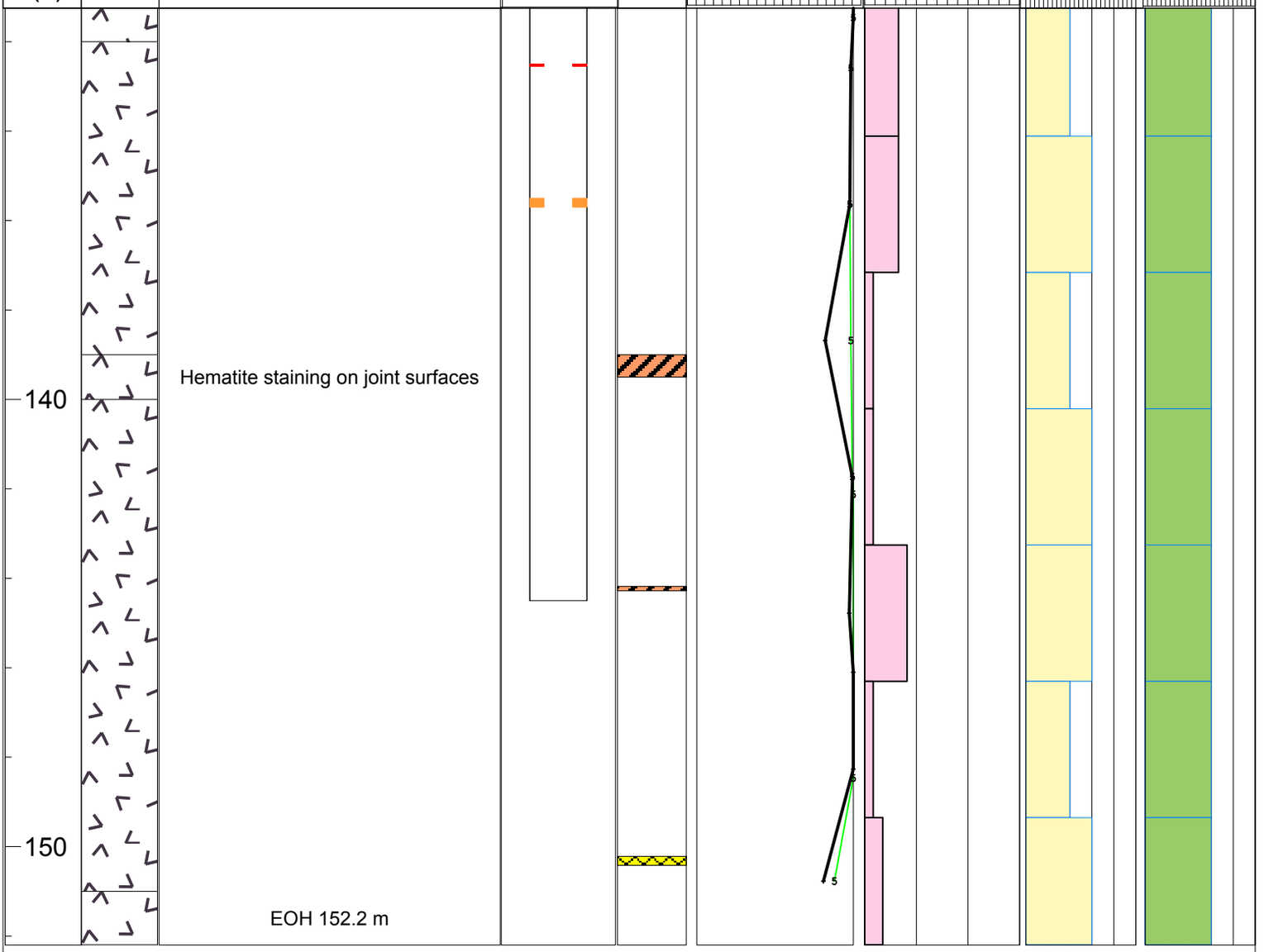
DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black; 0 25 50 75 100)	Fracture Frequency (FF/m) (0.0 2.0 4.0 6.0)	Aperture (mm) (0 1 2 3 4 5)	Rock Strength (R0-R5) (0 1 2 3 4 5)
140		Hematite staining on joint surfaces						
150		EOH 152.2 m						



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PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-06
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 21-Oct-2012 **DATE COMPLETE:** 24-Oct-2012
DIP: -90 **AZIMUTH:** 0
COORDINATES: 386113 6945336 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4
PAGE: 1 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black; 0 25 50 75 100)	Fracture Frequency (FF/m) (0.0 2.0 4.0 6.0)	Aperture (mm) (0 1 2 3 4 5)	Rock Strength (R0-R5) (0 1 2 3 4 5)
0		Casing removed from bedrock, one piece anchored in ground for well completion.						
10								
20								

srk consulting

PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-06
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 21-Oct-2012 **DATE COMPLETE:** 24-Oct-2012
DIP: -90 **AZIMUTH:** 0
COORDINATES: 386113 6945336 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4
PAGE: 2 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black; 0 25 50 75 100)	Fracture Frequency (FF/m) (0.0 2.0 4.0 6.0)	Aperture (mm) (0 1 2 3 4 5)	Rock Strength (R0-R5) (0 1 2 3 4 5)
30		Very weak, weathered bedrock with lots of microdefects						
40								
50		Hematite on joint surfaces						

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PROJECT: Minto Mine

CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-06

LOCATION: Minto, Yukon, Canada

PROJECT No: 1CM002.008

DATE START: 21-Oct-2012 **DATE COMPLETE:** 24-Oct-2012

DIP: -90 **AZIMUTH:** 0

COORDINATES: 386113 6945336 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4

PAGE: 3 **OF** 6

DRILL TYPE: HQ

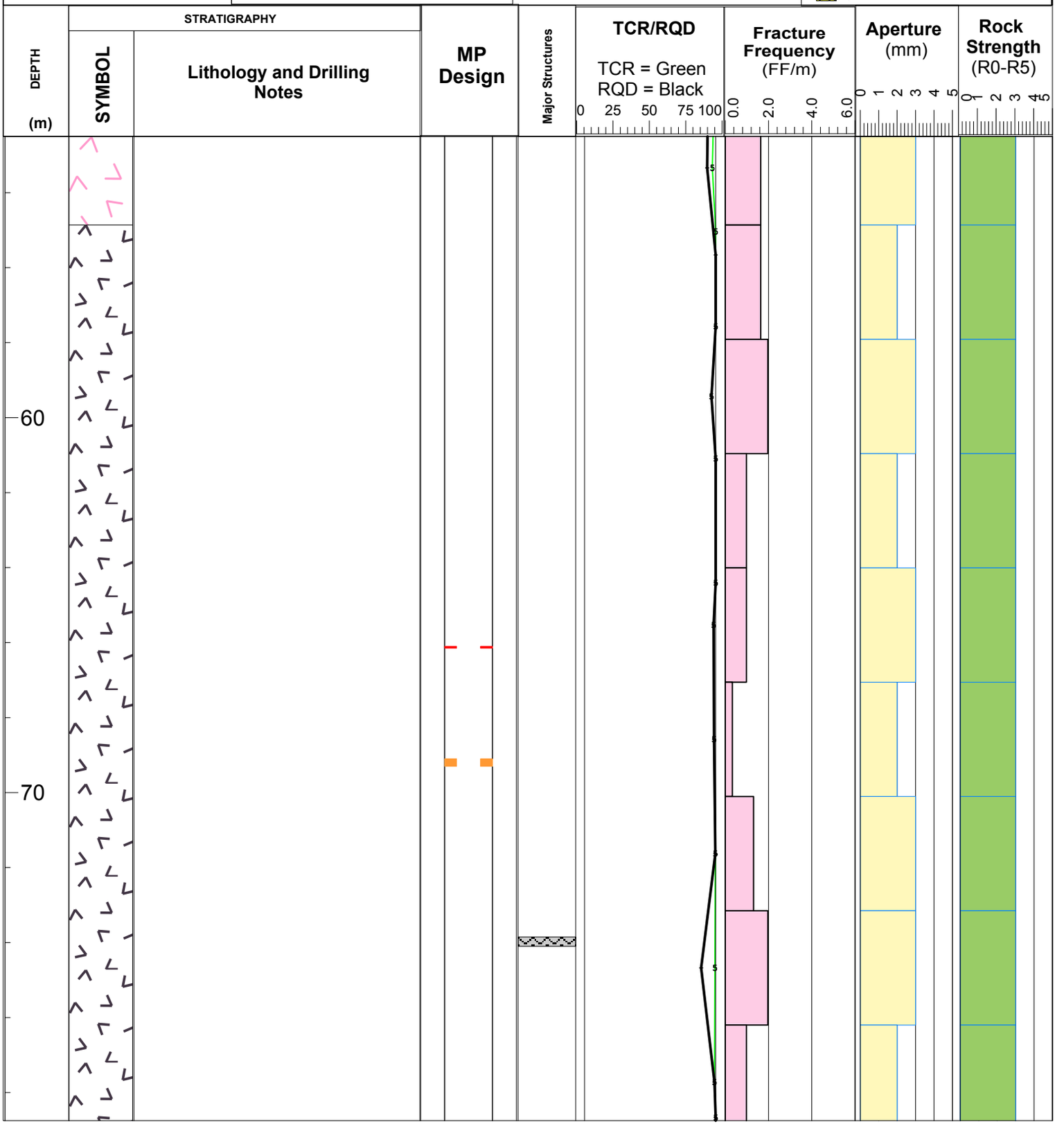
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden
Weathered Granodiorite
Mafic Intrusive
Granodiorite

MP components
Casing
PVC
PPort
Packer
MPort

Major Structures Legend
gouge
broken gouge
broken
contact
jointed



srk consulting

PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-06
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 21-Oct-2012 **DATE COMPLETE:** 24-Oct-2012
DIP: -90 **AZIMUTH:** 0
COORDINATES: 386113 6945336 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4
PAGE: 4 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black; 0 25 50 75 100)	Fracture Frequency (FF/m) (0.0 2.0 4.0 6.0)	Aperture (mm) (0 1 2 3 4 5)	Rock Strength (R0-R5) (0 1 2 3 4 5)
80		Feldspathic veining						
90								
100								

srk consulting

PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-06
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 21-Oct-2012 **DATE COMPLETE:** 24-Oct-2012
DIP: -90 **AZIMUTH:** 0
COORDINATES: 386113 6945336 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4
PAGE: 5 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

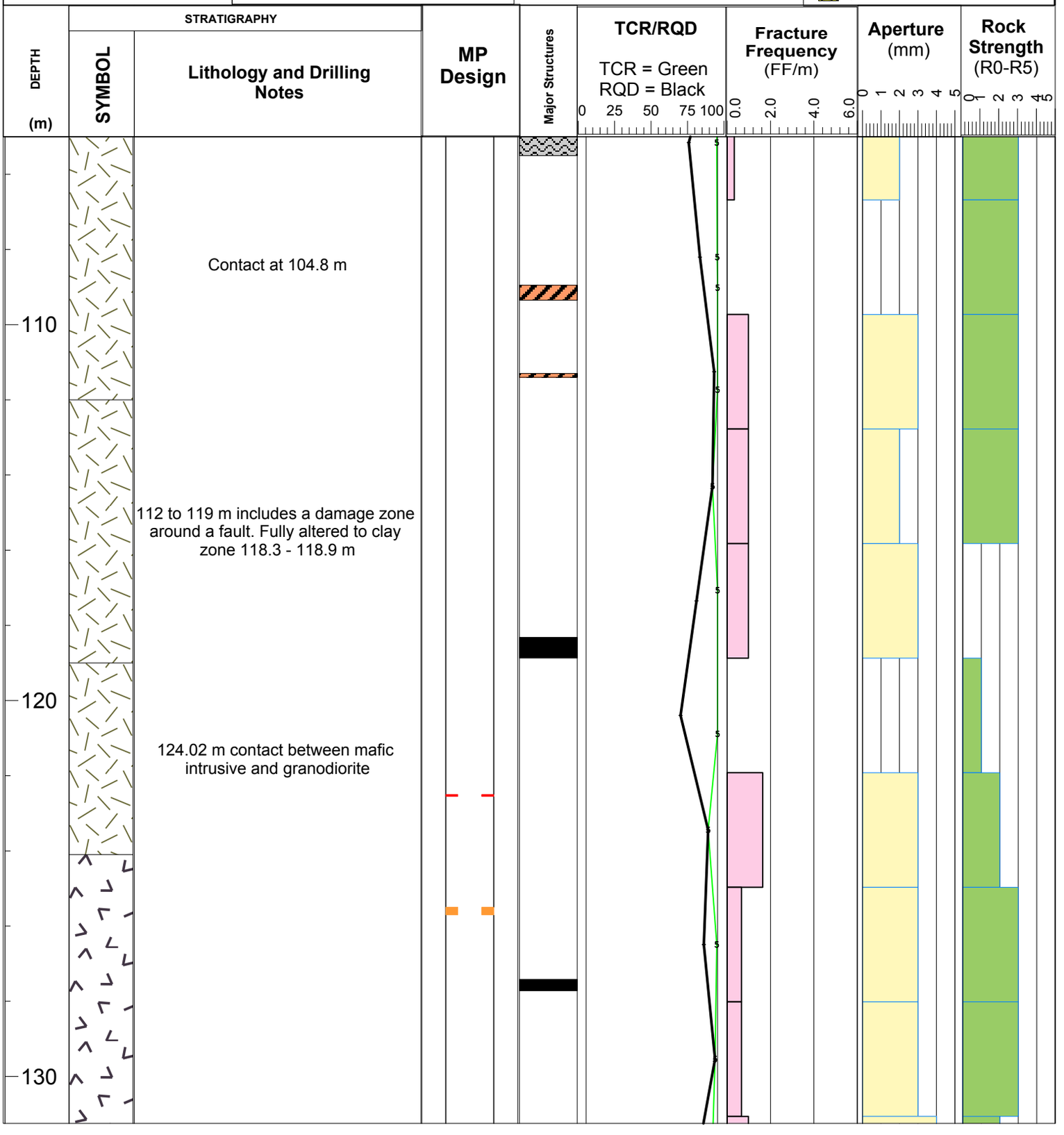
DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	SYMBOL	Lithology and Drilling Notes
110		Contact at 104.8 m
		112 to 119 m includes a damage zone around a fault. Fully altered to clay zone 118.3 - 118.9 m
120		124.02 m contact between mafic intrusive and granodiorite
130		



srk consulting

PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-06
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 21-Oct-2012 **DATE COMPLETE:** 24-Oct-2012
DIP: -90 **AZIMUTH:** 0
COORDINATES: 386113 6945336 **DATUM:** NAD83

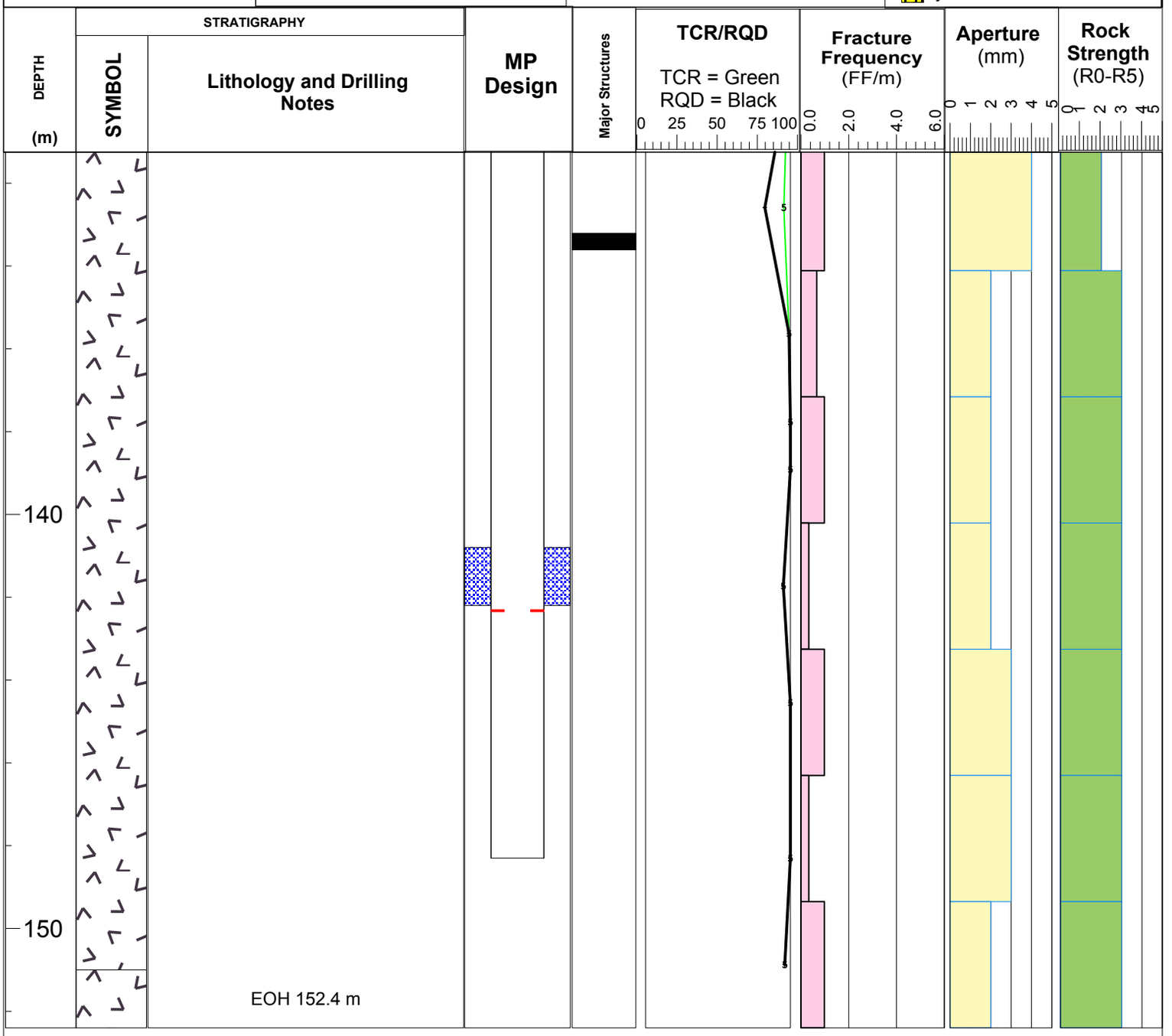
TOTAL DEPTH (m): 152.4
PAGE: 6 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed



srk consulting

PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-07
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 25-Oct-2012 **DATE COMPLETE:** 27-Oct-2012
DIP: -60 **AZIMUTH:** 352
COORDINATES: 385132 6945040 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4
PAGE: 1 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black; 0 25 50 75 100)	Fracture Frequency (FF/m; 0.0 2.0 4.0 6.0)	Aperture (mm; 0 1 2 3 4 5)	Rock Strength (R0-R5; 0 1 2 3 4 5)
0		No data collected in overburden due to significant depth of fill and difficult drilling conditions that could cause loss of hole.						
10								
20								

srk consulting

PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-07
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 25-Oct-2012 **DATE COMPLETE:** 27-Oct-2012
DIP: -60 **AZIMUTH:** 352
COORDINATES: 385132 6945040 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4
PAGE: 2 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black; 0 25 50 75 100)	Fracture Frequency (FF/m) (0.0 2.0 4.0 6.0)	Aperture (mm) (0 1 2 3 4 5)	Rock Strength (R0-R5) (0 1 2 3 4 5)
30								
40		Casing into bedrock. Could not remove casing after MP installation, so it was left in the ground.						
50								

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PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-07
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 25-Oct-2012 **DATE COMPLETE:** 27-Oct-2012
DIP: -60 **AZIMUTH:** 352
COORDINATES: 385132 6945040 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4
PAGE: 3 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

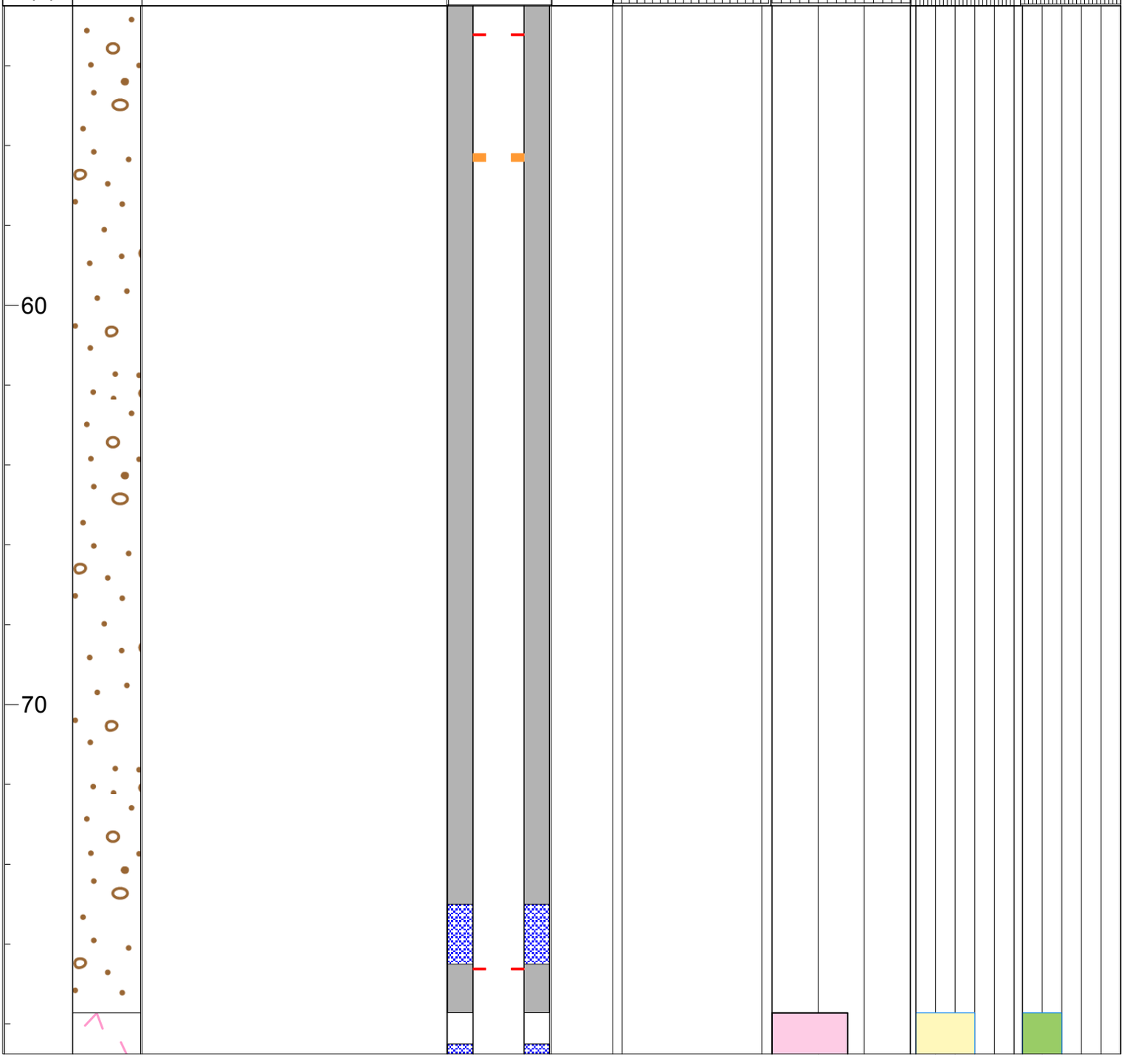
DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden
Weathered Granodiorite
Mafic Intrusive
Granodiorite

MP components
Casing
PVC
PPort
Packer
MPort

Major Structures Legend
gouge
broken gouge
broken
contact
jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black) 0 25 50 75 100	Fracture Frequency (FF/m) 0.0 2.0 4.0 6.0	Aperture (mm) 0 1 2 3 4 5	Rock Strength (R0-R5) 0 1 2 3 4 5
60								
70								



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PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-07
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 25-Oct-2012 **DATE COMPLETE:** 27-Oct-2012
DIP: -60 **AZIMUTH:** 352
COORDINATES: 385132 6945040 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4
PAGE: 4 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black)	Fracture Frequency (FF/m)	Aperture (mm)	Rock Strength (R0-R5)
80		Increased mica content			0 25 50 75 100	0.0 2.0 4.0 6.0	0 1 2 3 4 5	0 1 2 3 4 5
90								
100								

srk consulting

PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-07
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 25-Oct-2012 **DATE COMPLETE:** 27-Oct-2012
DIP: -60 **AZIMUTH:** 352
COORDINATES: 385132 6945040 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4
PAGE: 5 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY: SYMBOL	STRATIGRAPHY: Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black; 0 25 50 75 100)	Fracture Frequency (FF/m; 0.0 2.0 4.0 6.0)	Aperture (mm; 0 1 2 3 4 5)	Rock Strength (R0-R5; 0 1 2 3 4 5)
110		Decreased mica content						
		Feldspathic veining						
120		Sub-axial joint runs for 1.4 m						
130								

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PROJECT: Minto Mine
CLIENT: Capstone Mining

CAPSTONE MINING CORP. MINTO MINE

HOLE ID: MW12-07
LOCATION: Minto, Yukon, Canada
PROJECT No: 1CM002.008
DATE START: 25-Oct-2012 **DATE COMPLETE:** 27-Oct-2012
DIP: -60 **AZIMUTH:** 352
COORDINATES: 385132 6945040 **DATUM:** NAD83

TOTAL DEPTH (m): 152.4
PAGE: 6 **OF** 6
DRILL TYPE: HQ
CORE DIA. (mm): 61.1

DEFINITIONS
FF/m: Fracture Frequency per metre
TCR: Total Core Recovery
RQD: Rock Quality Designation
IRS: Intact Rock Strength (field est.)

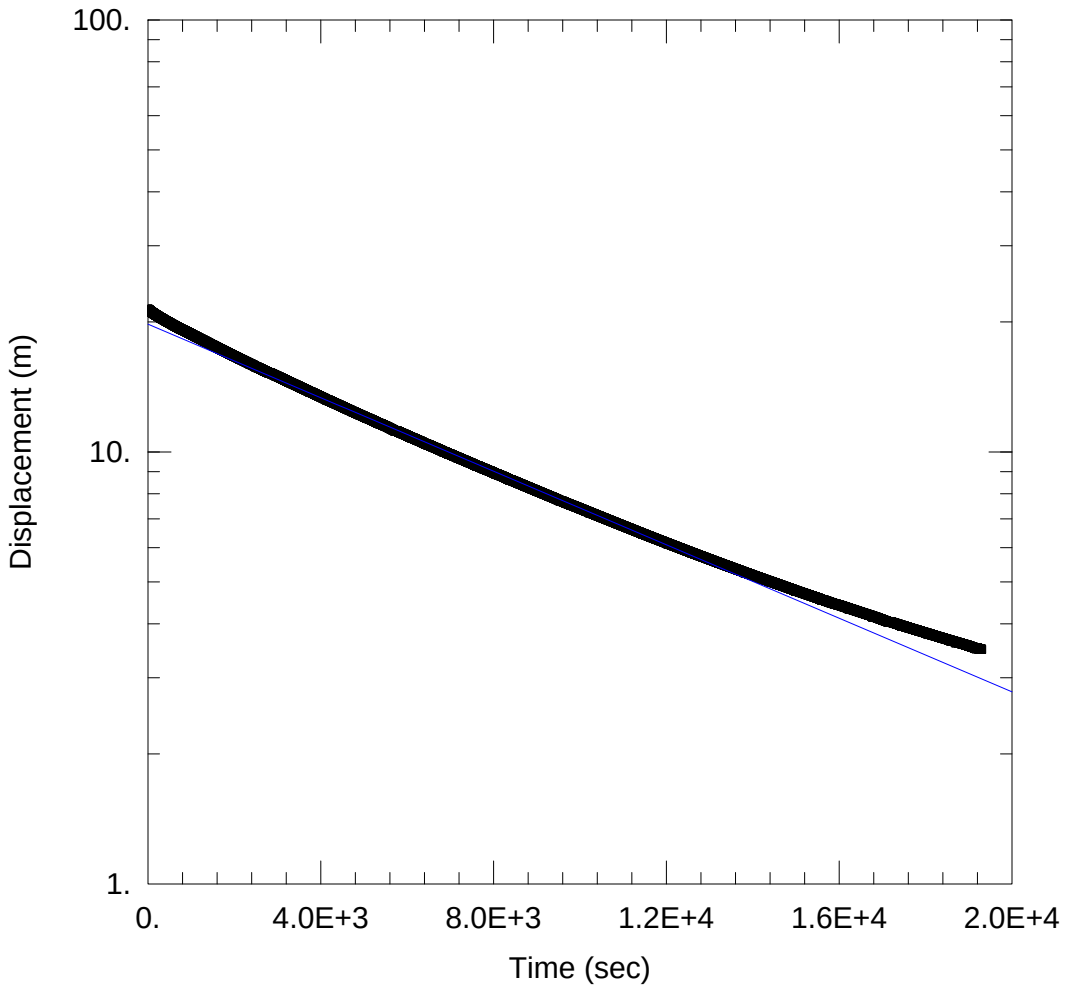
Lithology
Overburden; Weathered Granodiorite; Mafic Intrusive; Granodiorite

MP components
Casing; PVC; PPort; Packer; MPort

Major Structures Legend
gouge; broken gouge; broken; contact; jointed

DEPTH (m)	STRATIGRAPHY SYMBOL	Lithology and Drilling Notes	MP Design	Major Structures	TCR/RQD (TCR = Green, RQD = Black)	Fracture Frequency (FF/m)	Aperture (mm)	Rock Strength (R0-R5)
140		Feldspathic veining			0 25 50 75 100	0.0 2.0 4.0 6.0	0 1 2 3 4 5	0 1 2 3 4 5
		0.5 m of core loss with no obvious explanation in run						
		Increased mica content						
150		EOH 152.4 m						

Appendix B: Rising Head Test Analyses



WELL TEST ANALYSIS

Data Set: \...\Aqtw1 MW12-05-01 Test1 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:41:40

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

Saturated Thickness: 141.1 m Anisotropy Ratio (Kz/Kr): 1.

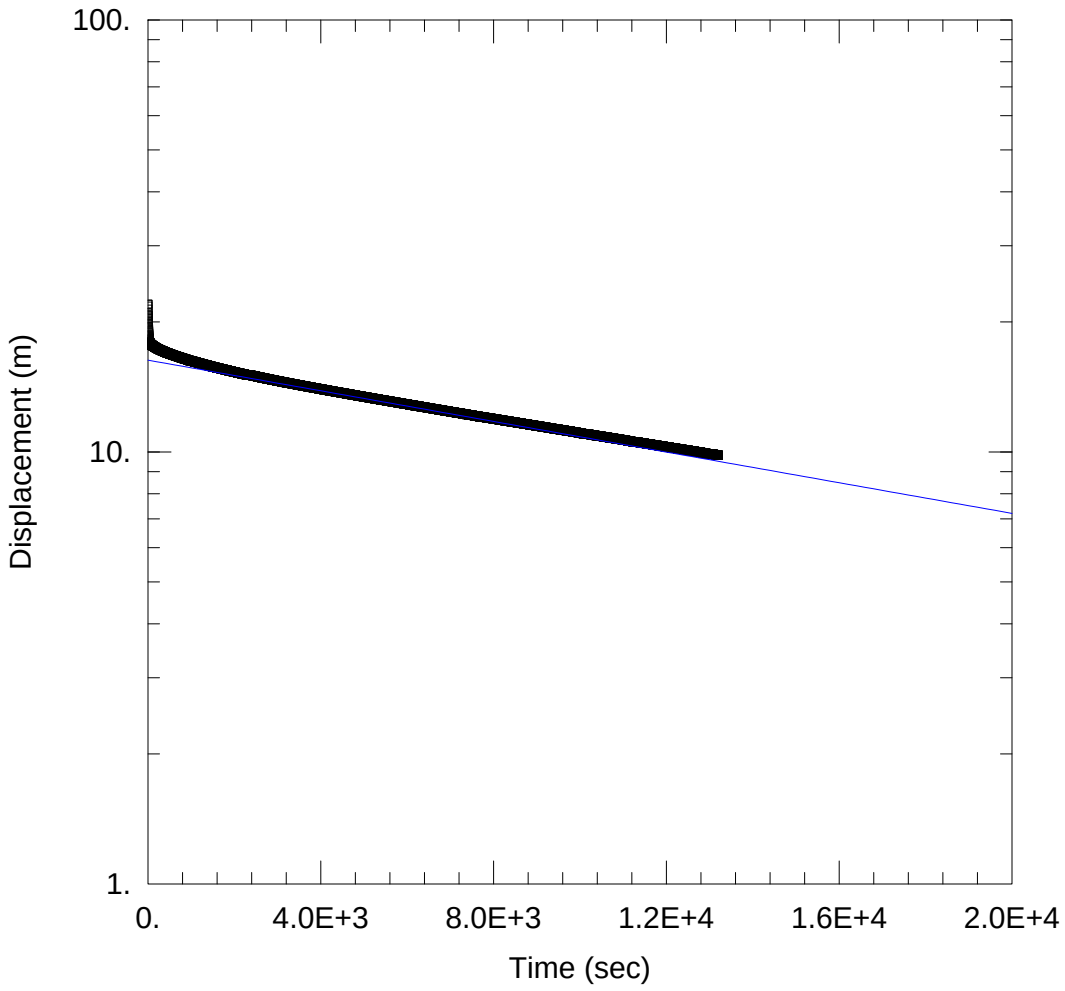
WELL DATA (MW12-05-01)

Initial Displacement: 21.41 m
Total Well Penetration Depth: 141.1 m
Casing Radius: 0.019 m
Static Water Column Height: 141.1 m
Screen Length: 18.5 m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 4.144E-9 m/sec
y0 = 19.76 m



WELL TEST ANALYSIS

Data Set: \...\Aqtw1 MW12-05-02 Test1 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:44:12

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

Saturated Thickness: 104.5 m Anisotropy Ratio (Kz/Kr): 1.

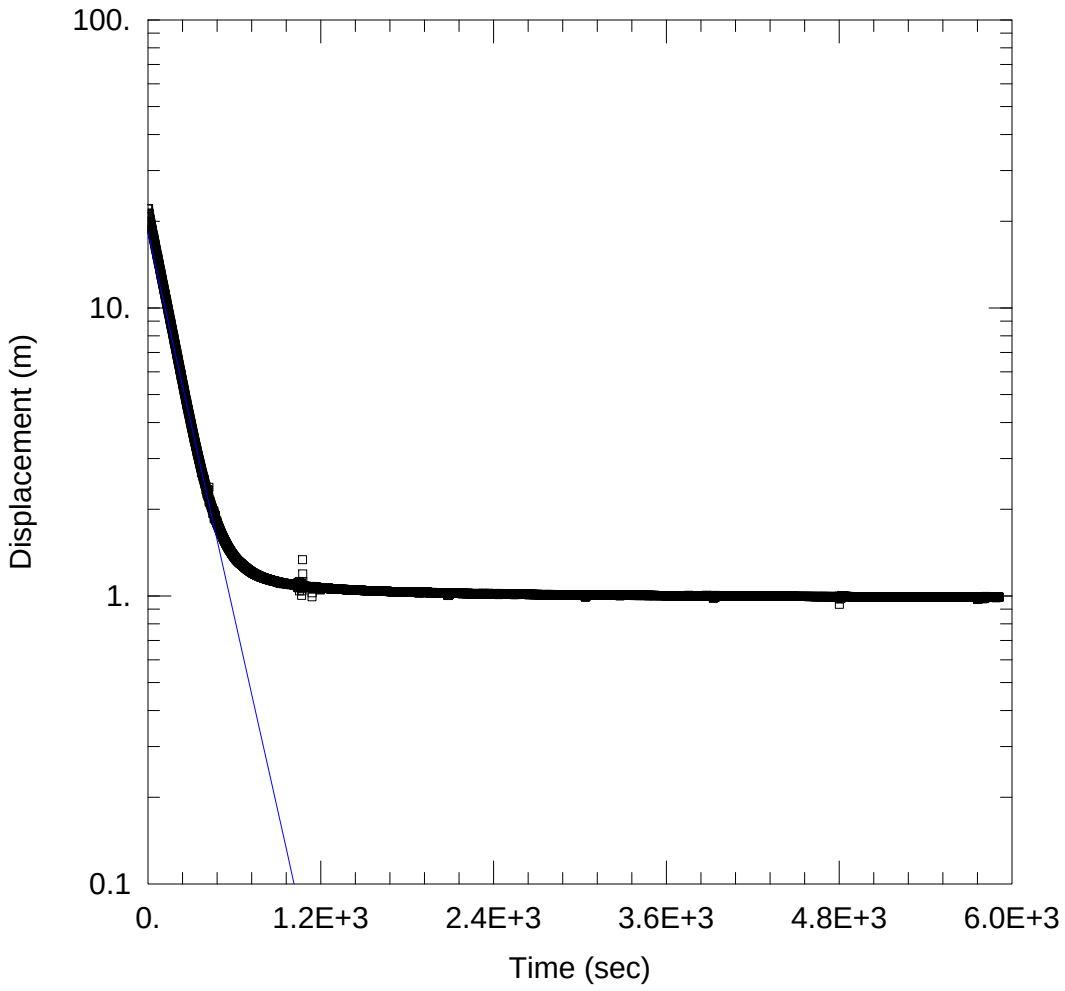
WELL DATA (MW12-05-02 T1)

Initial Displacement: 21.98 m
Total Well Penetration Depth: 104.5 m
Casing Radius: 0.019 m
Static Water Column Height: 104.5 m
Screen Length: 23. m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.352E-9 m/sec
y0 = 16.31 m



WELL TEST ANALYSIS

Data Set: C:\...\Aqtw1 MW12-05-02 Test2 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:45:45

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

Saturated Thickness: 104.5 m Anisotropy Ratio (Kz/Kr): 1.

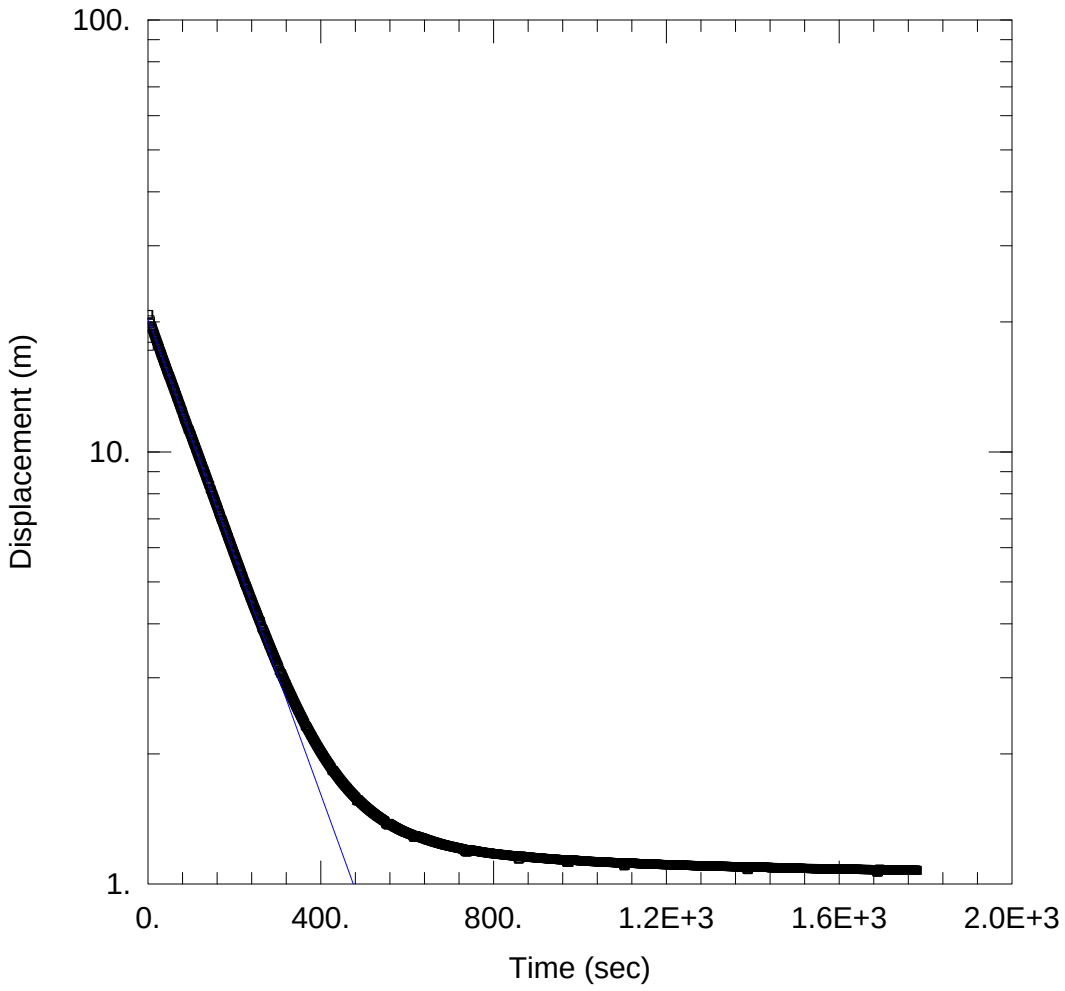
WELL DATA (MW12-05-02 T2)

Initial Displacement: 22.12 m
Total Well Penetration Depth: 104.5 m
Casing Radius: 0.019 m
Static Water Column Height: 104.5 m
Screen Length: 23. m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.7E-7 m/sec
y0 = 18.35 m



WELL TEST ANALYSIS

Data Set: C:\...\Aqtw1 MW12-05-02 Test3 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:46:03

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

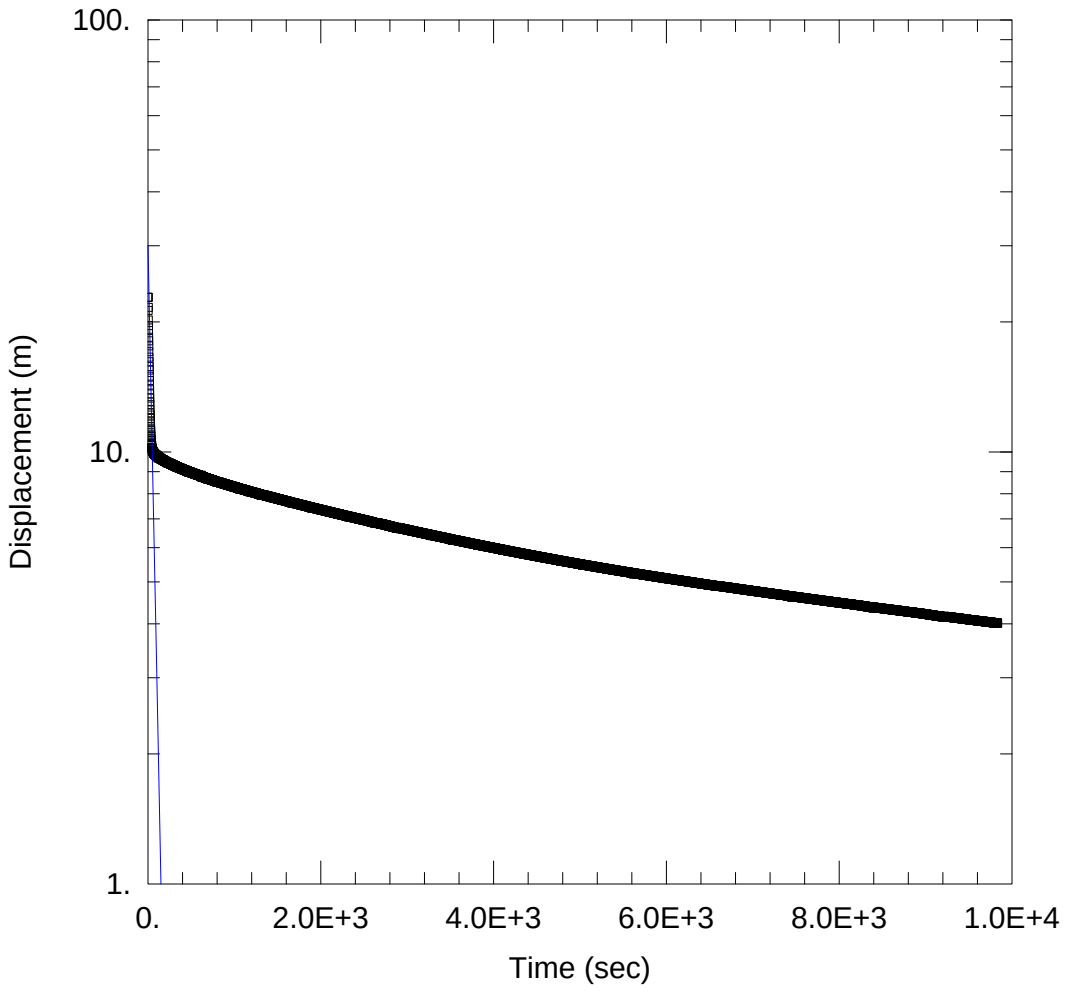
Saturated Thickness: 104.5 m
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW12-05-02 T3)

Initial Displacement: 20.79 m
Total Well Penetration Depth: 104.5 m
Casing Radius: 0.019 m
Static Water Column Height: 104.5 m
Screen Length: 23. m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.099E-7 m/sec
y0 = 20.34 m



WELL TEST ANALYSIS

Data Set: C:\...\Aqtw1 MW12-05-03 Test1 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:47:00

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

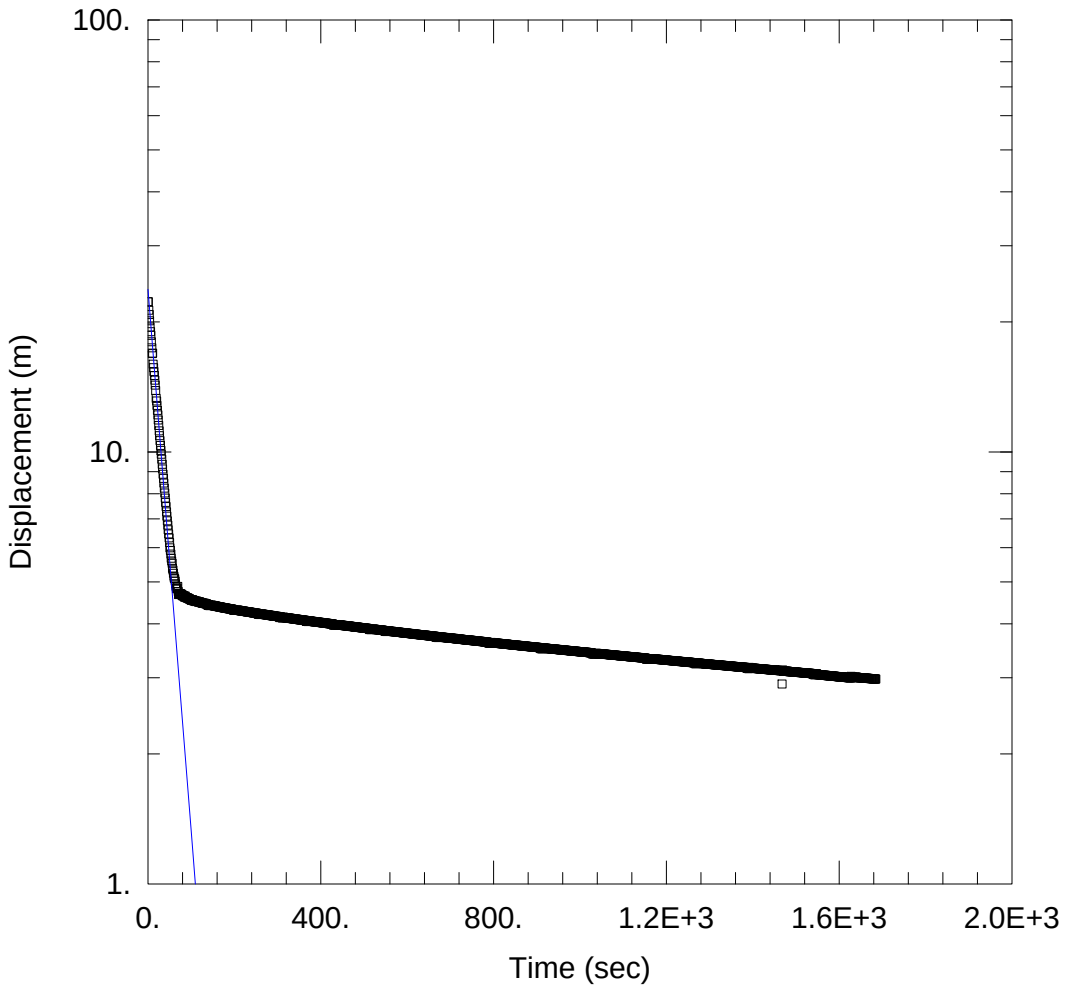
Saturated Thickness: 63.7 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW12-05-03 T1)

Initial Displacement: 22.81 m
Total Well Penetration Depth: 63.7 m
Casing Radius: 0.019 m
Static Water Column Height: 63.7 m
Screen Length: 31. m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.199E-7 m/sec
y0 = 30.05 m



WELL TEST ANALYSIS

Data Set: C:\...\Aqtw1 MW12-05-03 Test3 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:47:22

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

Saturated Thickness: 63.7 m Anisotropy Ratio (Kz/Kr): 1.

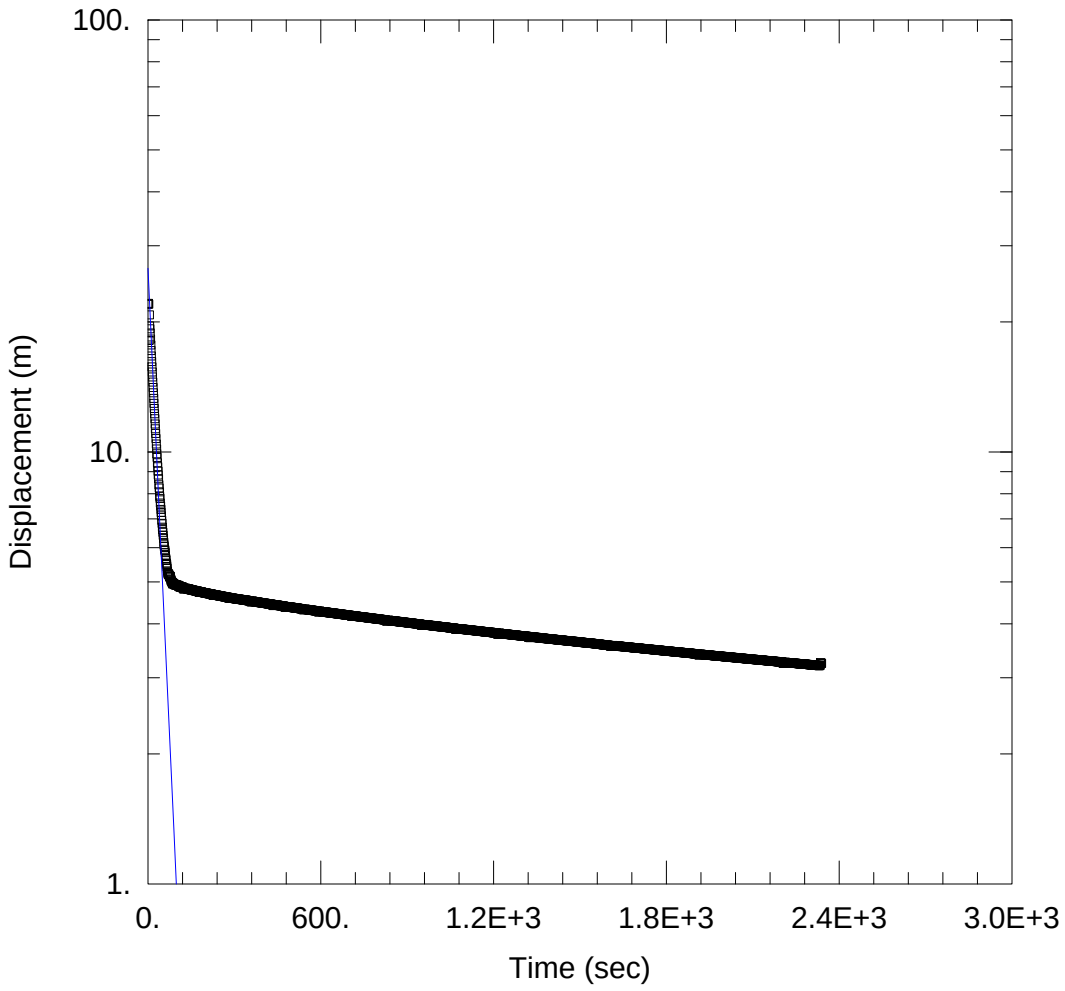
WELL DATA (MW12-05-03 T3)

Initial Displacement: 22.26 m
Total Well Penetration Depth: 63.7 m
Casing Radius: 0.019 m
Static Water Column Height: 63.7 m
Screen Length: 31. m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 6.69E-7 m/sec
y0 = 23.77 m



WELL TEST ANALYSIS

Data Set: C:\...\Aqtw1 MW12-05-03 Test4 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:47:34

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

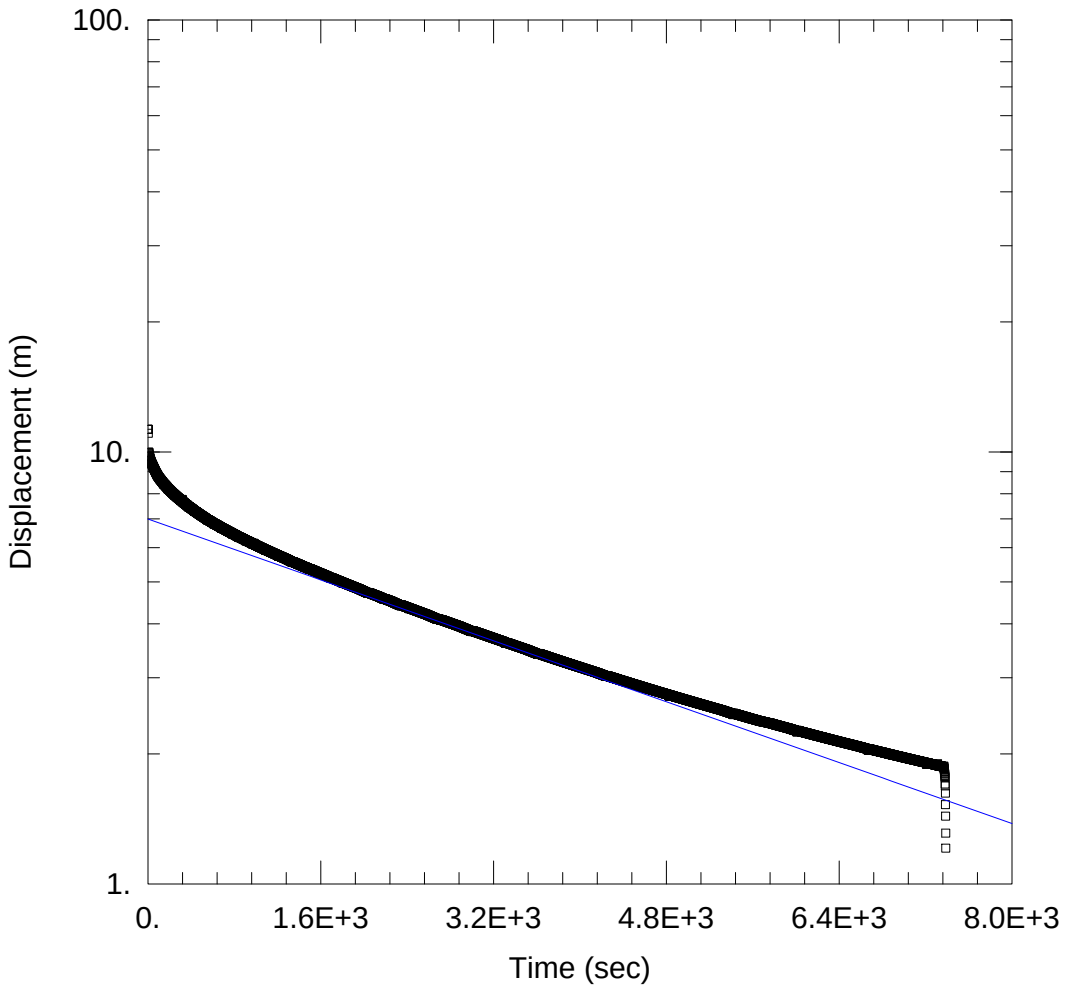
Saturated Thickness: 63.7 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW12-05-03 T4)

Initial Displacement: 21.99 m
Total Well Penetration Depth: 63.7 m
Casing Radius: 0.019 m
Static Water Column Height: 63.7 m
Screen Length: 31. m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 7.715E-7 m/sec
y0 = 26.6 m



WELL TEST ANALYSIS

Data Set: C:\...\Aqtw1 MW12-05-04 Test1 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:48:39

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

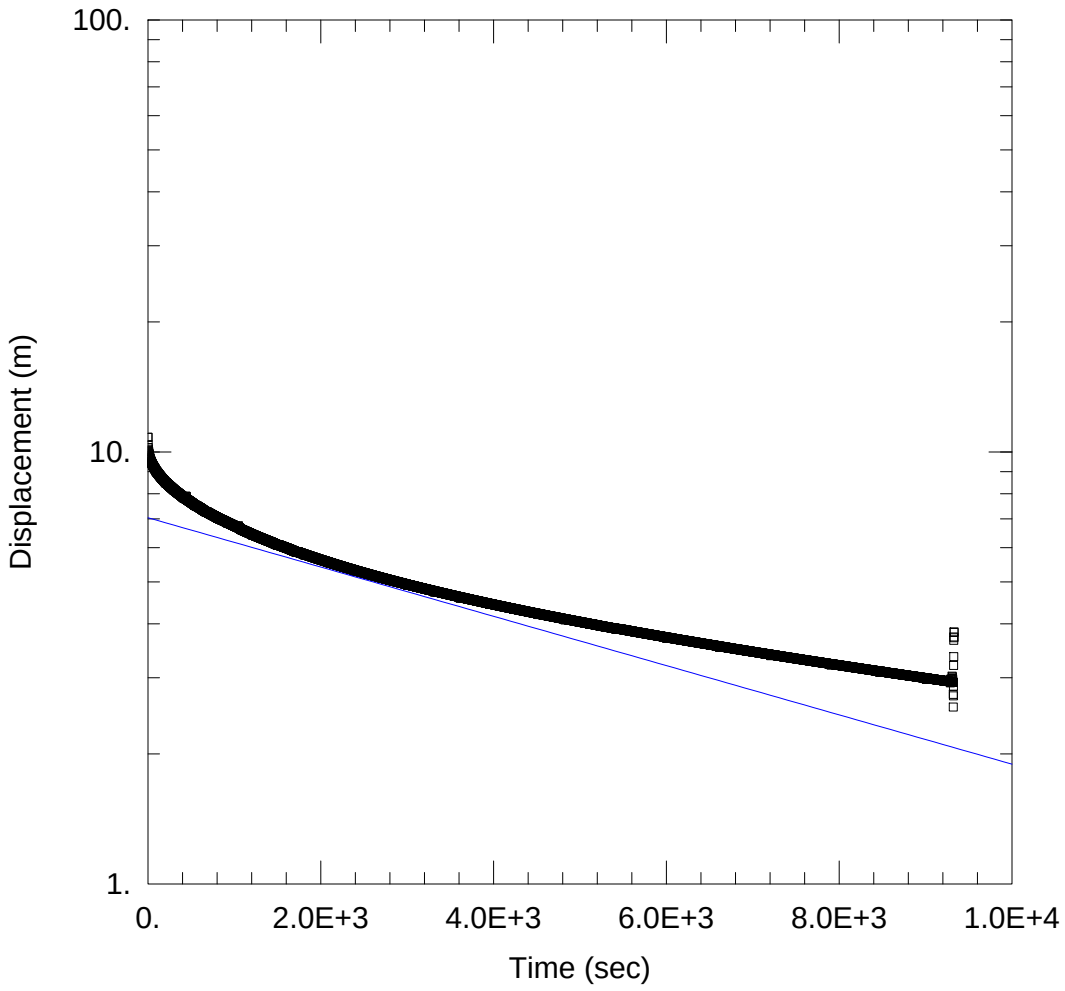
Saturated Thickness: 20.9 m
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW12-05-04 T1)

Initial Displacement: 11.28 m
Total Well Penetration Depth: 20.9 m
Casing Radius: 0.019 m
Static Water Column Height: 20.9 m
Screen Length: 12. m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 9.49E-9 m/sec
y0 = 6.993 m



WELL TEST ANALYSIS

Data Set: C:\...\Aqtw1 MW12-05-04 Test2 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:49:00

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

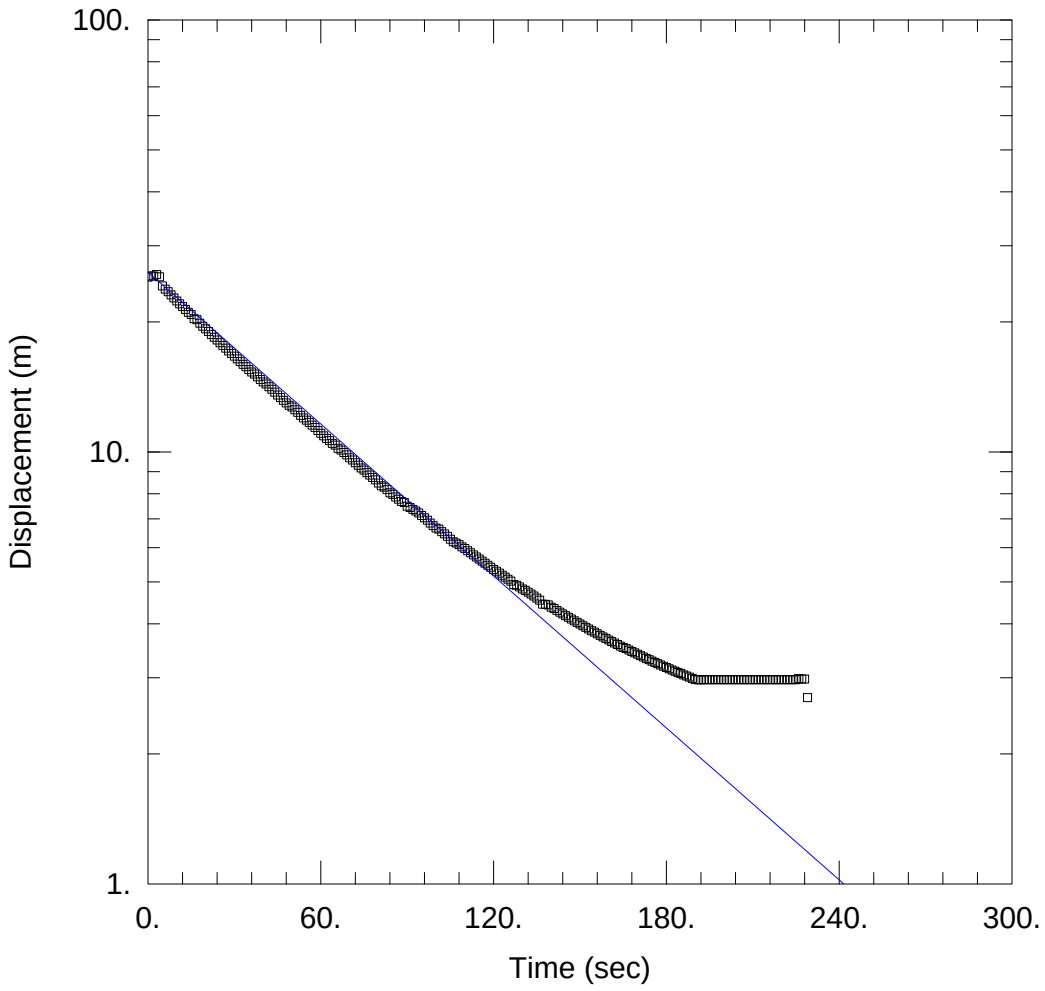
Saturated Thickness: 20.9 m
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW12-05-04 T1)

Initial Displacement: 10.82 m
Total Well Penetration Depth: 20.9 m
Casing Radius: 0.019 m
Static Water Column Height: 20.9 m
Screen Length: 12. m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 6.144E-9 m/sec
y0 = 7.04 m



RISING HEAD TEST

Data Set: C:\...\Aqtw1 MW12-06-01 Test1 PosDisp Cut rev1.aqt
Date: 03/15/13 Time: 09:50:14

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: October 31, 2012

AQUIFER DATA

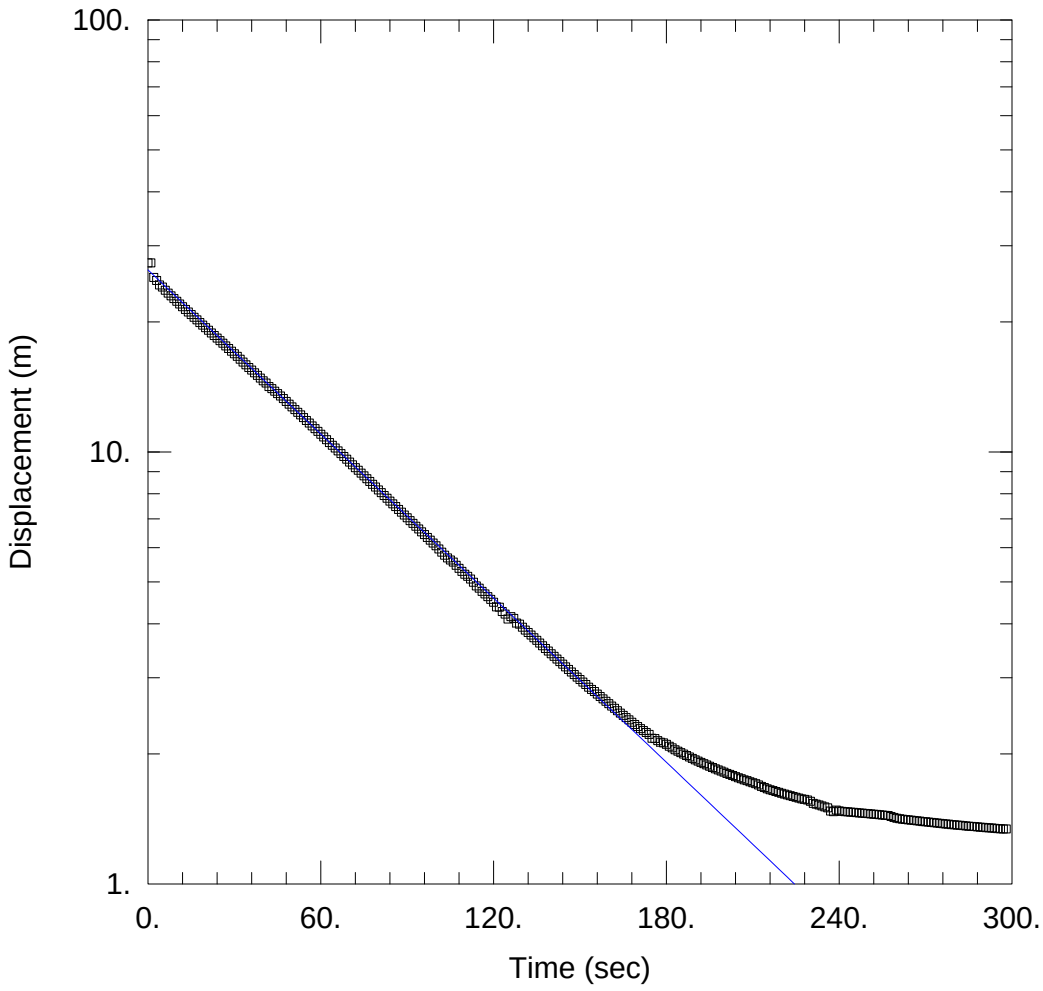
Saturated Thickness: 146.7 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW12-06-01)

Initial Displacement: 25.39 m
Total Well Penetration Depth: 144.7 m
Casing Radius: 0.019 m
Static Water Column Height: 146.7 m
Screen Length: 38. m
Well Radius: 0.03175 m

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
K = 4.311E-7 m/sec
y0 = 26.08 m



WELL TEST ANALYSIS

Data Set: C:\...\Aqtw1 MW12-06-02 Test1 PosDisp Cut rev1.aqt
Date: 03/15/13 Time: 09:50:55

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

Saturated Thickness: 94.3 m Anisotropy Ratio (Kz/Kr): 1.

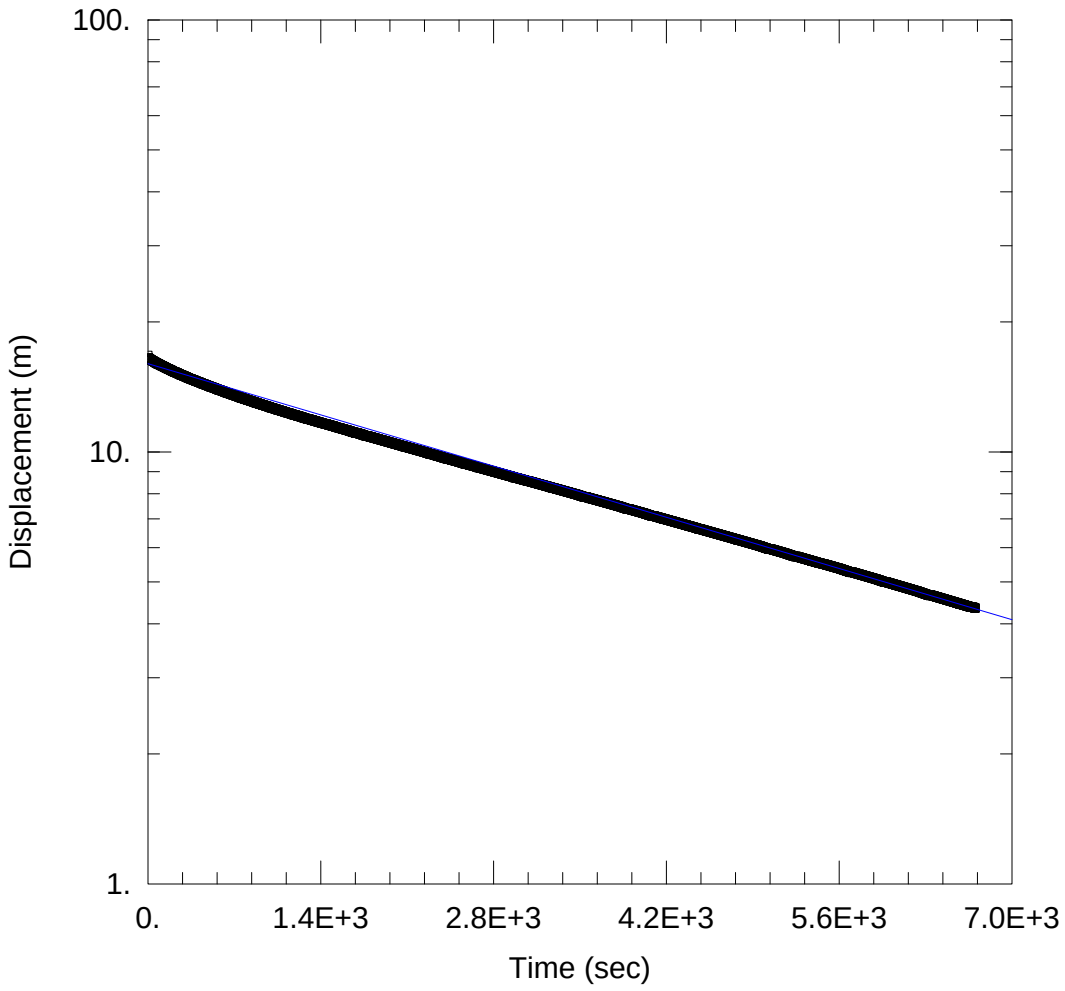
WELL DATA (MW12-06-02)

Initial Displacement: 27.4 m
Total Well Penetration Depth: 94.3 m
Casing Radius: 0.019 m
Static Water Column Height: 94.3 m
Screen Length: 52. m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 2.196E-7 m/sec
y0 = 26.38 m



WELL TEST ANALYSIS

Data Set: C:\...\Aqtw1 MW12-06-03 Test1 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:51:42

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

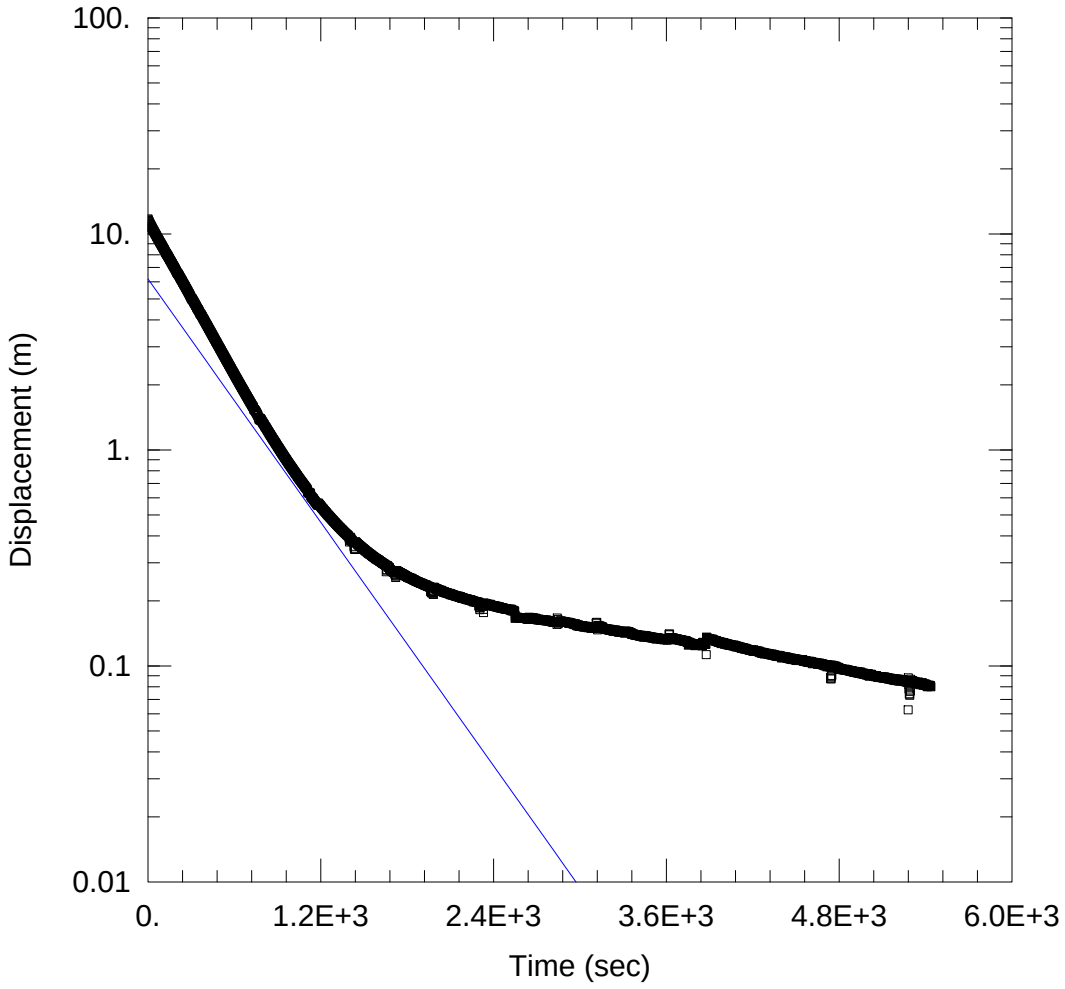
Saturated Thickness: 32.5 m
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW12-06-03)

Initial Displacement: 16.75 m
Total Well Penetration Depth: 32.5 m
Casing Radius: 0.019 m
Static Water Column Height: 32.5 m
Screen Length: 28. m
Well Radius: 0.3175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 4.45E-9 m/sec
y0 = 16.01 m



RISING HEAD TEST

Data Set: C:\...\Aqtw1 MW12-07-01 Test2 PosDisp Cut rev3.aqt
Date: 03/15/13 Time: 09:52:21

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: October 31, 2012

AQUIFER DATA

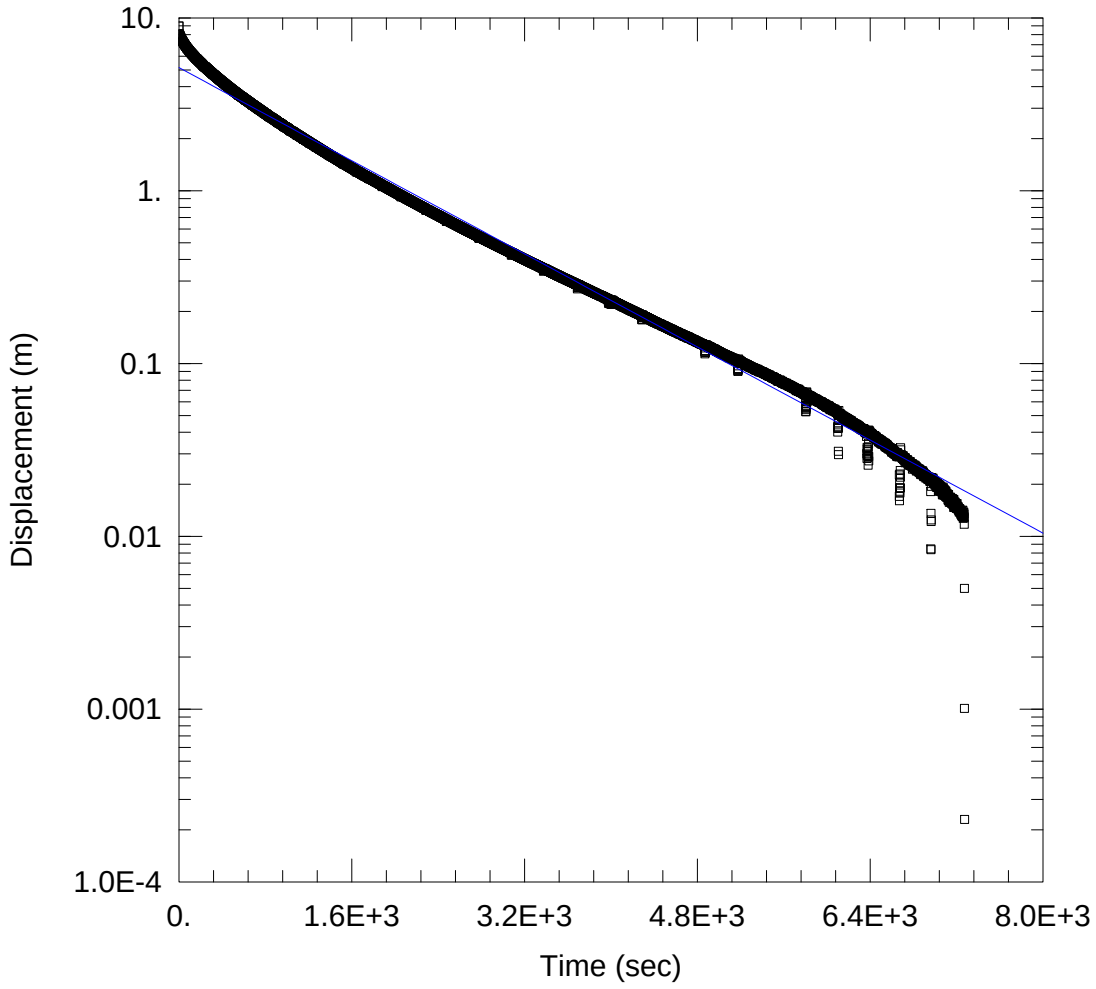
Saturated Thickness: 111. m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW12-07-01)

Initial Displacement: 11.7 m
Total Well Penetration Depth: 111. m
Casing Radius: 0.019 m
Static Water Column Height: 111. m
Screen Length: 19. m
Well Radius: 0.03175 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.338E-7 m/sec
y0 = 6.188 m



WELL TEST ANALYSIS

Data Set: C:\...\Aqtw1 MW12-07-02 Test1 PosDisp Cut.aqt
Date: 03/15/13 Time: 09:52:53

PROJECT INFORMATION

Company: SRK
Client: Capstone - Minto
Project: 1CM002.008
Location: Minto Mine, YT
Test Well: MW12-07-01
Test Date: November 3, 2012

AQUIFER DATA

Saturated Thickness: 86.42 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW12-07-02)

Initial Displacement: 8.983 m
Total Well Penetration Depth: 86.42 m
Casing Radius: 0.019 m
Static Water Column Height: 86.42 m
Screen Length: 31. m
Well Radius: 0.3175 m

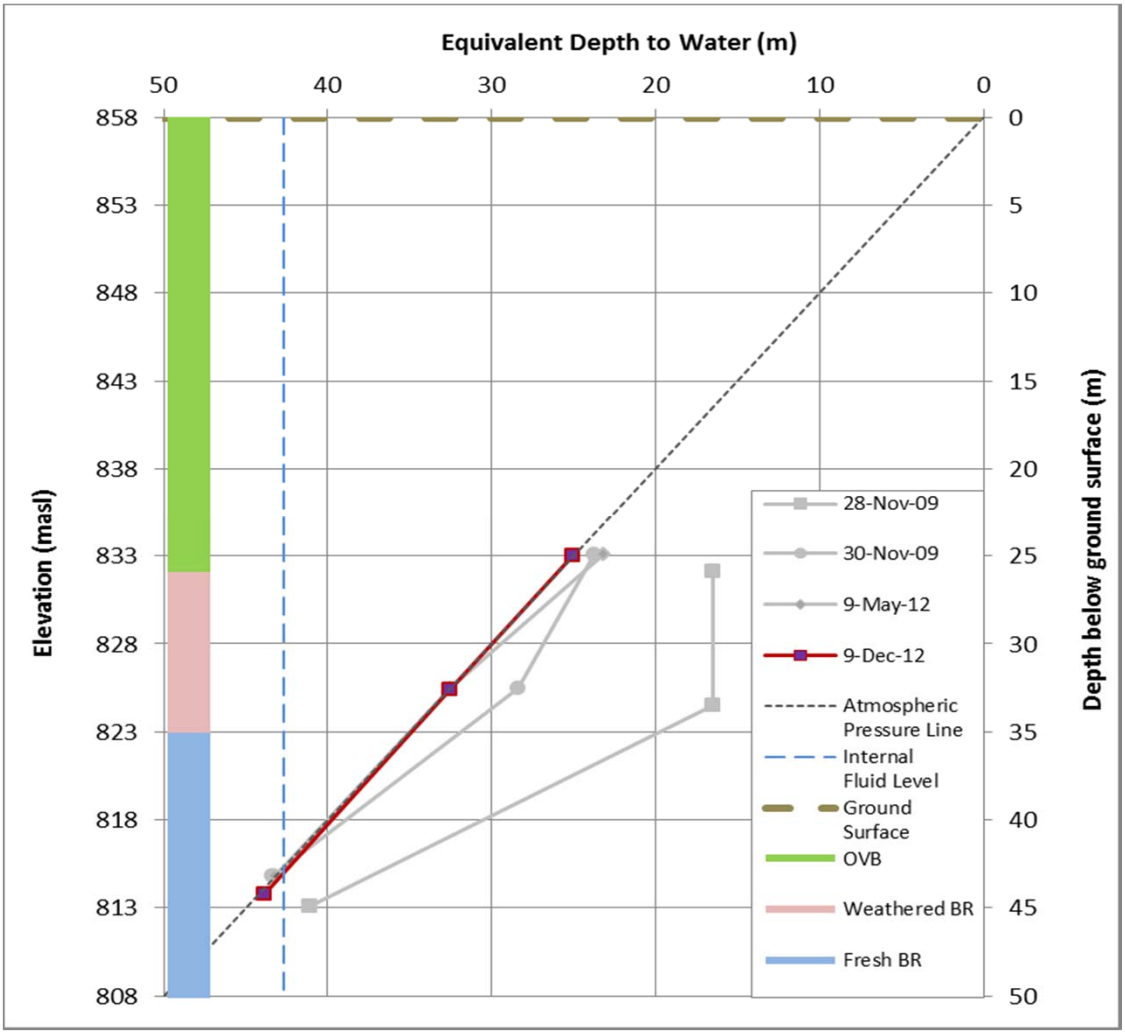
SOLUTION

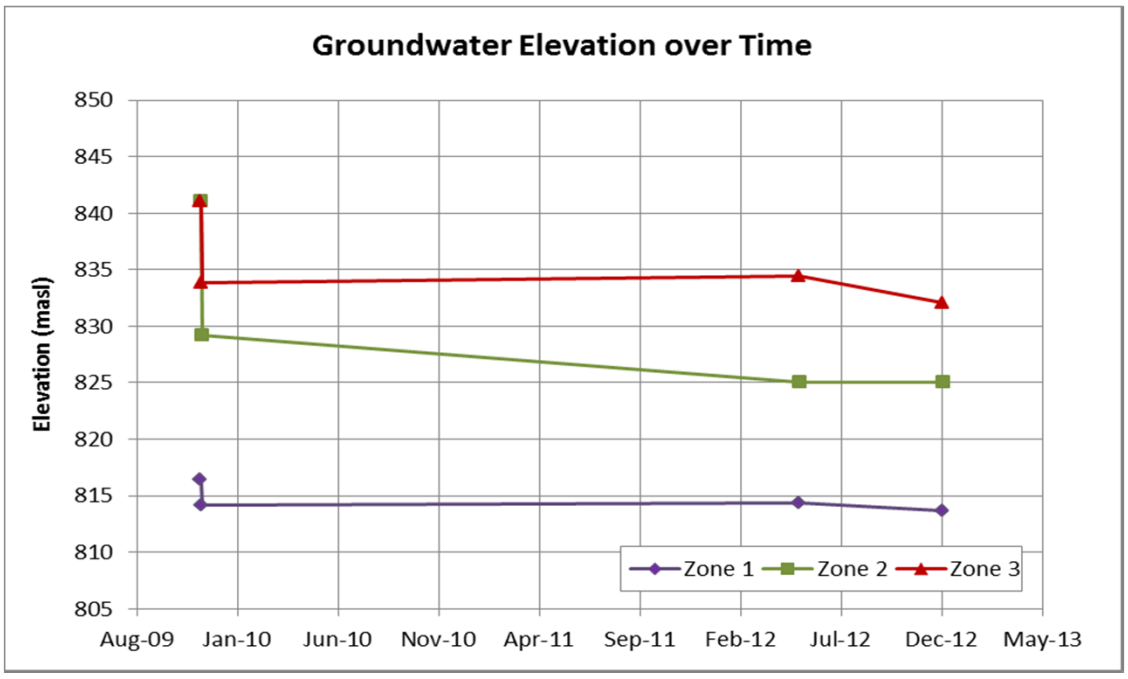
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.883E-8 m/sec
y0 = 5.156 m

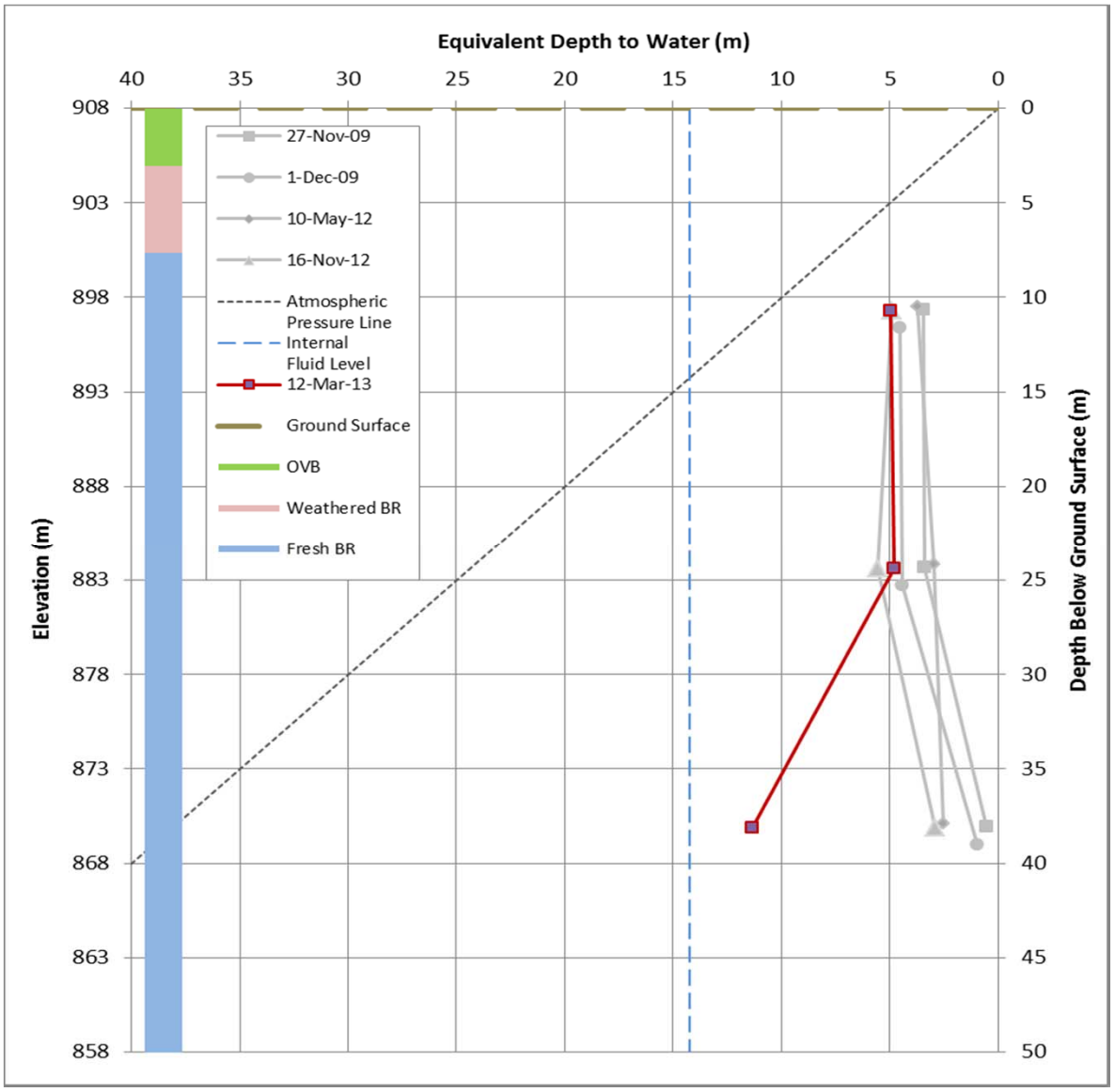
Appendix C: Depth to Water Pressure Profiles in Multi-Port Monitoring Wells

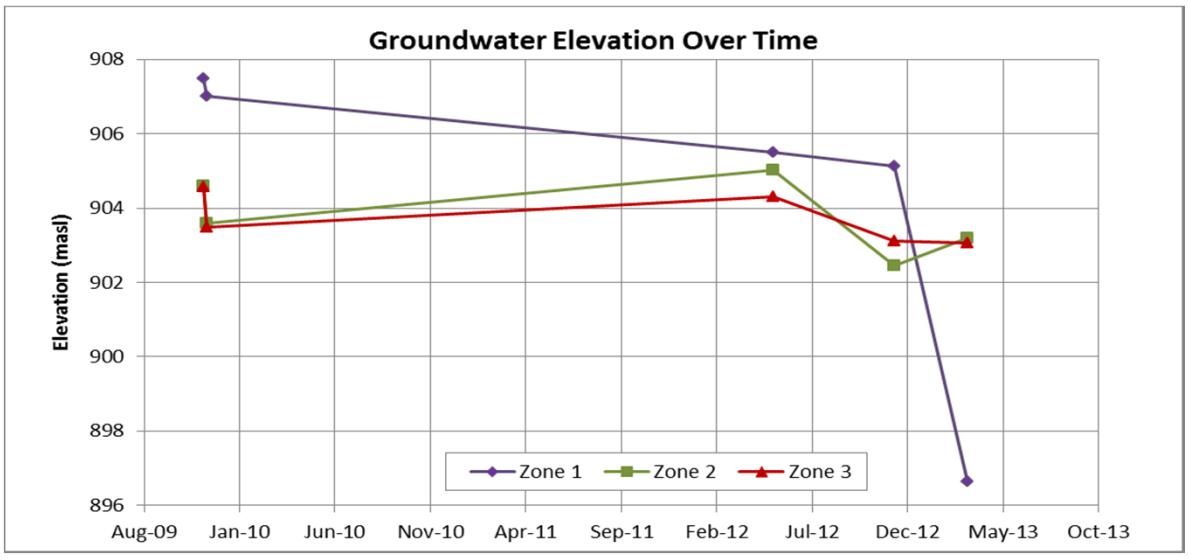
Hole ID : MW-09-01



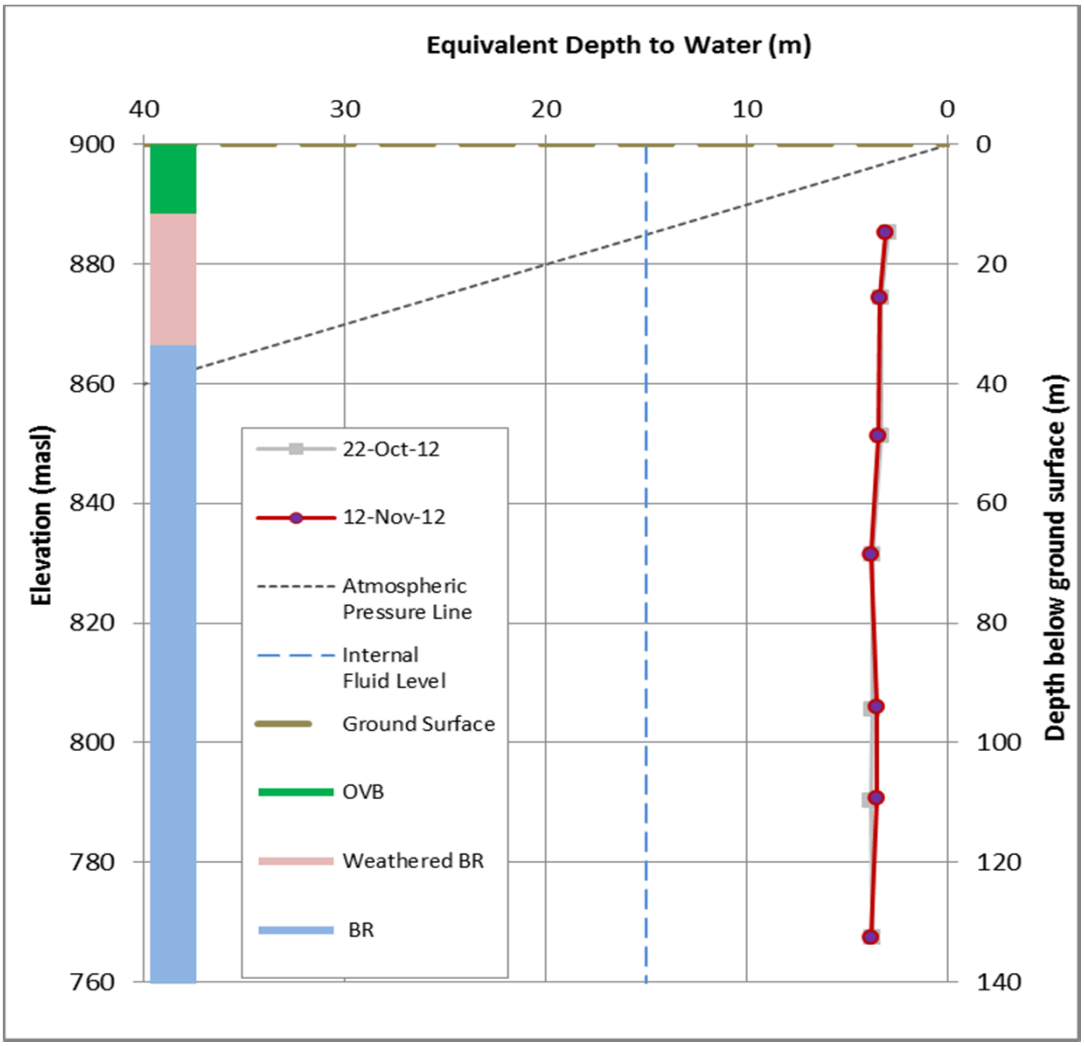


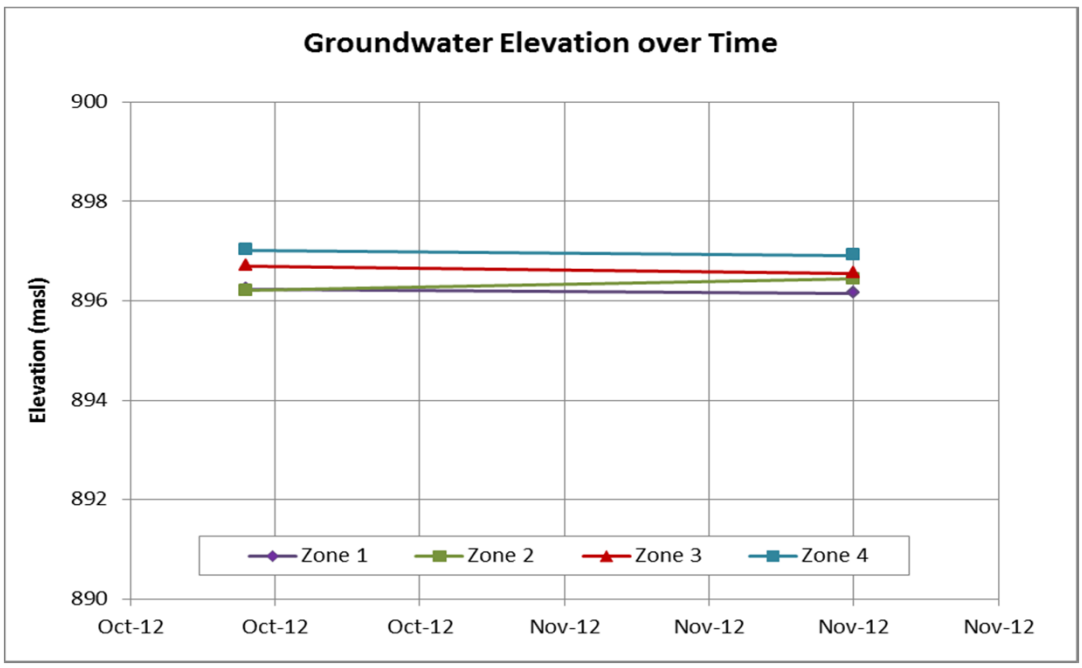
Hole ID : MW-09-03



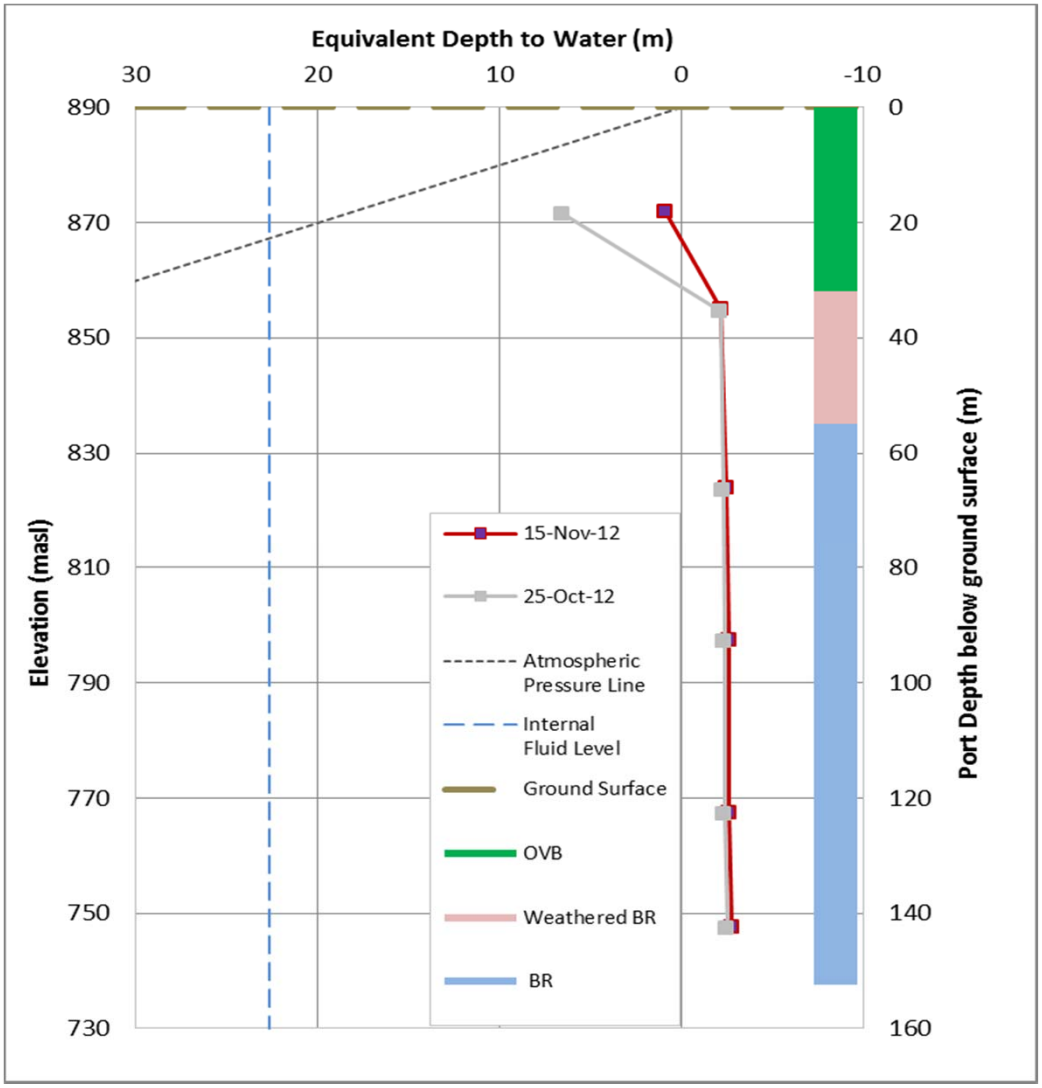


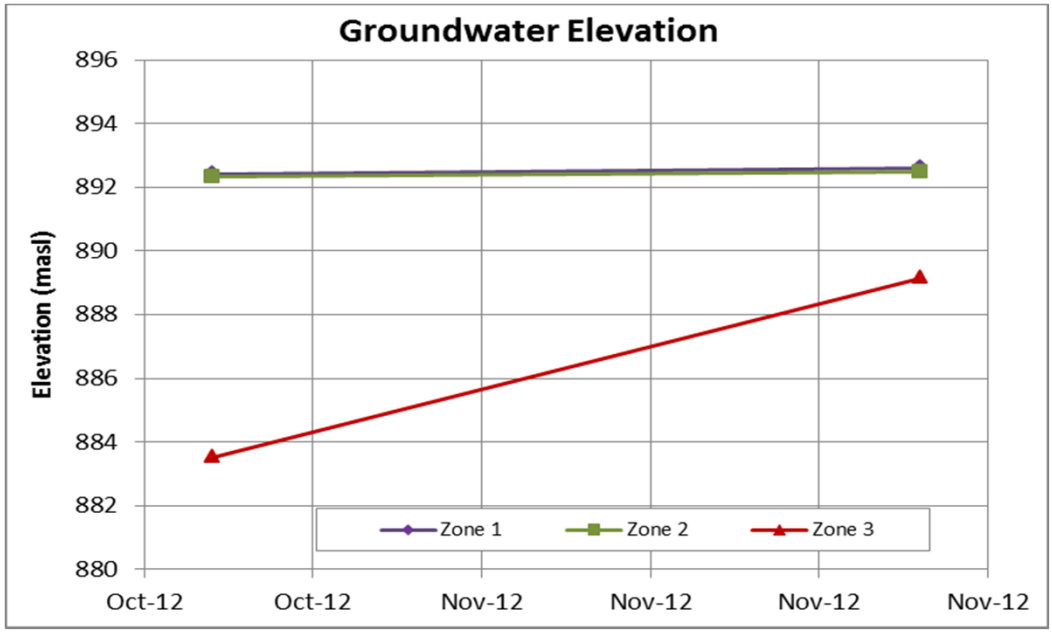
Hole ID : MW-12-05



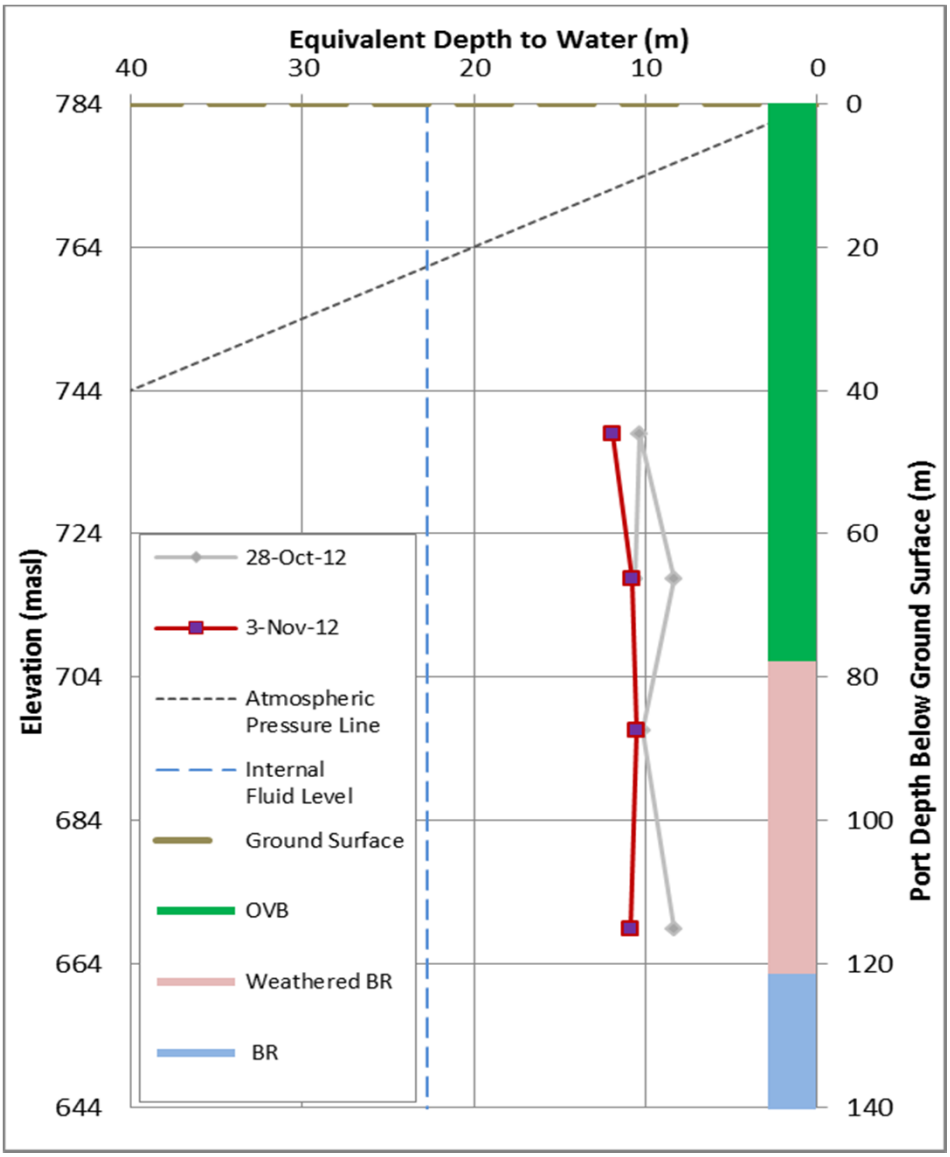


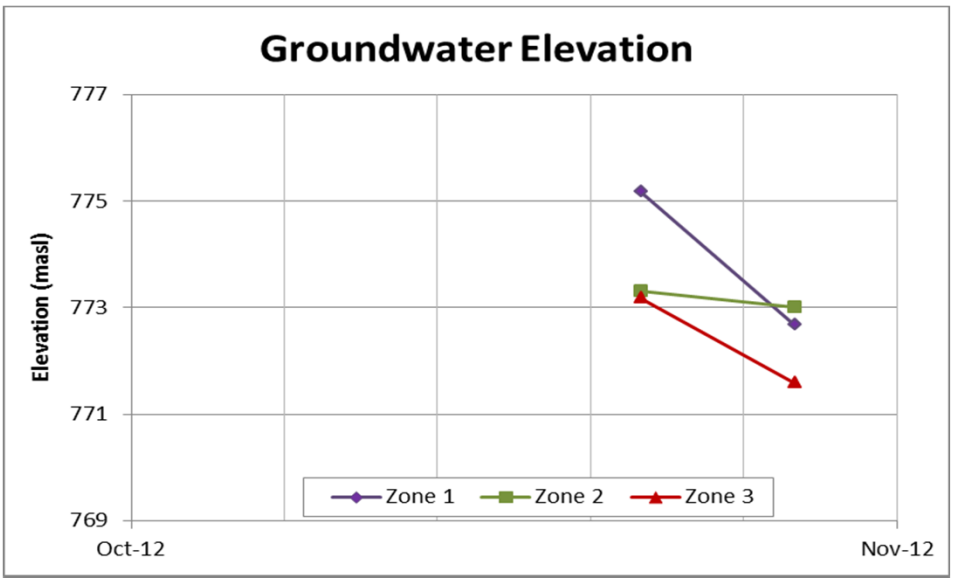
Hole ID : MW-12-06





Hole ID : MW-12-07





Appendix D: Multi-Port Monitoring Well Design

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MP System Casing Installation Log

Sheet 1 of 2

Project: MINTO 2CM022.007.001.10 WB Ref.:

Location: WEST PIT Hole No.: MW09-1 Installed by: JS, CD

Hole Depth: 165 FT MP Depth: 165 FT Hole Diameter: HQ Date Installed: 28 NOV '09

Measurement Datum: GROUND SURFACE Datum Elevation: 857.6 m Date Drawn: 19 JAN '10

Depth, FT	Geological Description	Geologic Log	MP Casing Log	Serial No. Batch No.	Final Packer Pressure/Volume	Comments	Joint Install	Joint Test
			18			0.23 m from ground surface to top of piece 17.		
	FILL							
10			17					
20			16					
30			15					
40			14					
50			13					
60			12					
70			11					
80			10					
	WEATHERED BEDROCK		9	2801				
90								
			8	17025	600 PSI 6.5 L	VALVE OPEN 170 PSI		
100								

MP Casing | MP Packer | Magnetic Collar | Filter Sleeve | Measurement Port Coupling | Pumping Port Coupling | Regular Coupling

SRK Consulting
Engineers and Scientists

MP System Casing Installation Log

Sheet 2 of 2

Project: MINTO 2CM027.009.001.10 WB Ref.:

Location: WEST PIT Hole No.: MW09-1 Installed by: JS, CD

Hole Depth: 165 FT MP Depth: 165 FT Hole Diameter: HQ Date Installed: 28 NOV '09

Measurement Datum: GROUND SURFACE Datum Elevation: 857.6 m Date Drawn: 19 JAN '10

Depth, FT	Geological Description	Geologic Log	MP Casing Log	Serial No. Batch No.	Final Packer Pressure/Volume	Comments	Joint Install	Joint Test
100	WEATHERED BEDROCK		7					
			M					
110				2803				
			6					
	COMPETENT BEDROCK							
120				7955				
			5					
130								
			4	17026	670 PSI 40 L	VALVE OPEN 165 PSI		
140			3					
				2800				
150			2					
				7957				
160	END OF HOLE AT 165 FT		1					
170								

MP Casing | MP Packer | Magnetic Collar | Filter Sleeve | Measurement Port Coupling | Pumping Port Coupling | Regular Coupling

SRK Consulting
Engineers and Scientists

MP System
Casing Installation Log

Sheet 1 of 2

Project: MINTO 2CM022.007.001.10 WB Ref.:

Location: LOWER TAILINGS Hole No.: MW09-2 Installed by: JS, CD

Hole Depth: 195 FT MP Depth: 195 FT Hole Diameter: HQ Date Installed: 26 NOV '09

Measurement Datum: GROUND SURFACE Datum Elevation: 757.5 m Date Drawn: 19 JAN '10

Depth, FT	Geological Description	Geologic Log	MP Casing Log	Serial No. Batch No.	Final Packer Pressure/Volume	Comments	Joint Install	Joint Test
10			22					
20	CLAY + ICE PERMAFROST		21					
30			20					
40			19					
50			18					
60			17					
70			16					
80			15					
90			14					
100			13					

MP Casing | MP Packer | Magnetic Collar | Filter Sleeve | Measurement Port Coupling | Pumping Port Coupling | Regular Coupling

SRK Consulting
Engineers and Scientists

MP System Casing Installation Log

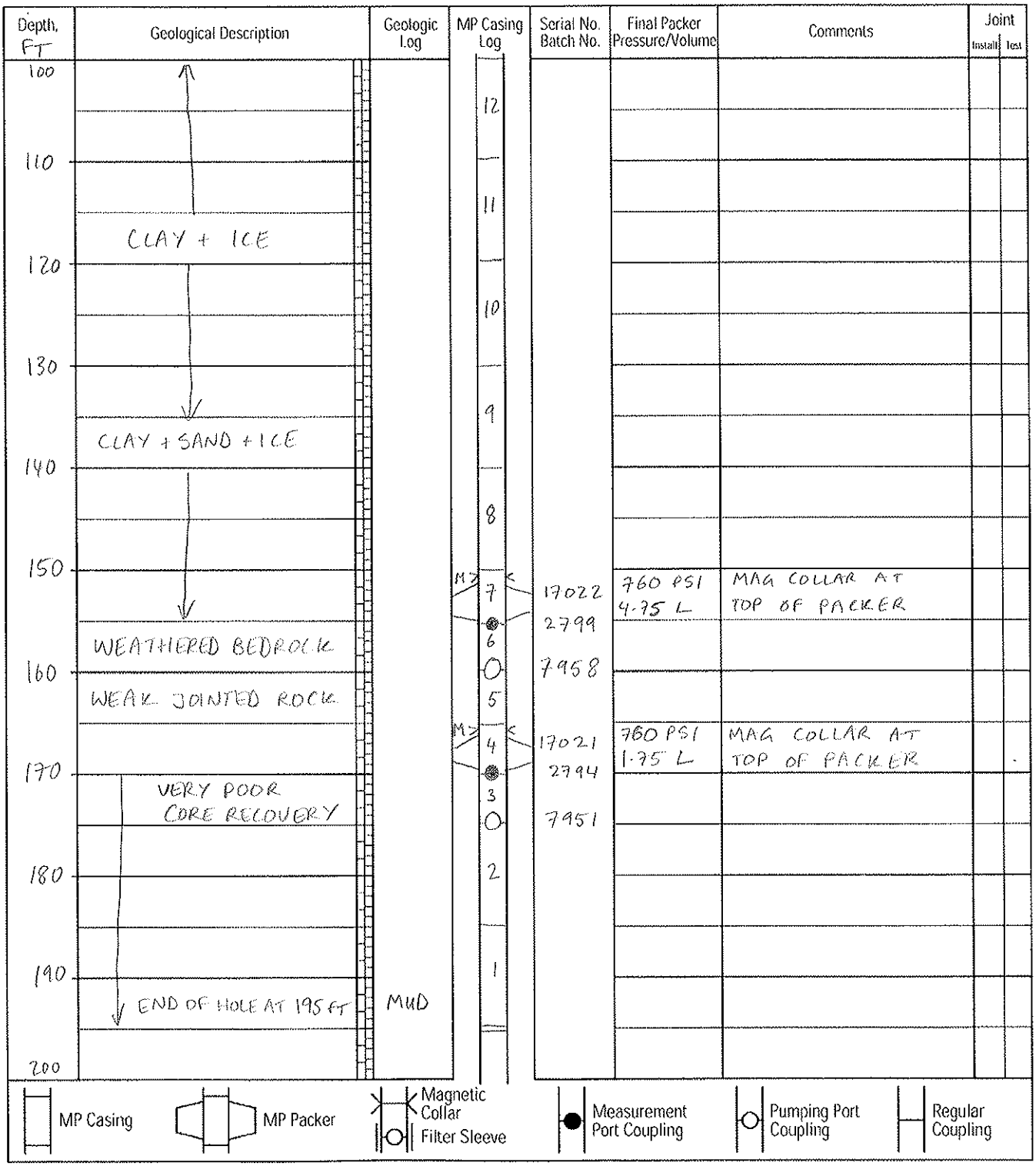
Sheet 2 of 2

Project: MINTO 2CM022.007.001.10 WB Ref.:

Location: LOWER TAILINGS Hole No.: MW09-2 Installed by: JS, CD

Hole Depth: 195 FT MP Depth: 195 FT Hole Diameter: HQ Date Installed: 26 NOV '09

Measurement Datum: GROUND SURFACE Datum Elevation: 757.5 m Date Drawn: 19 JAN '10



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MP System Casing Installation Log

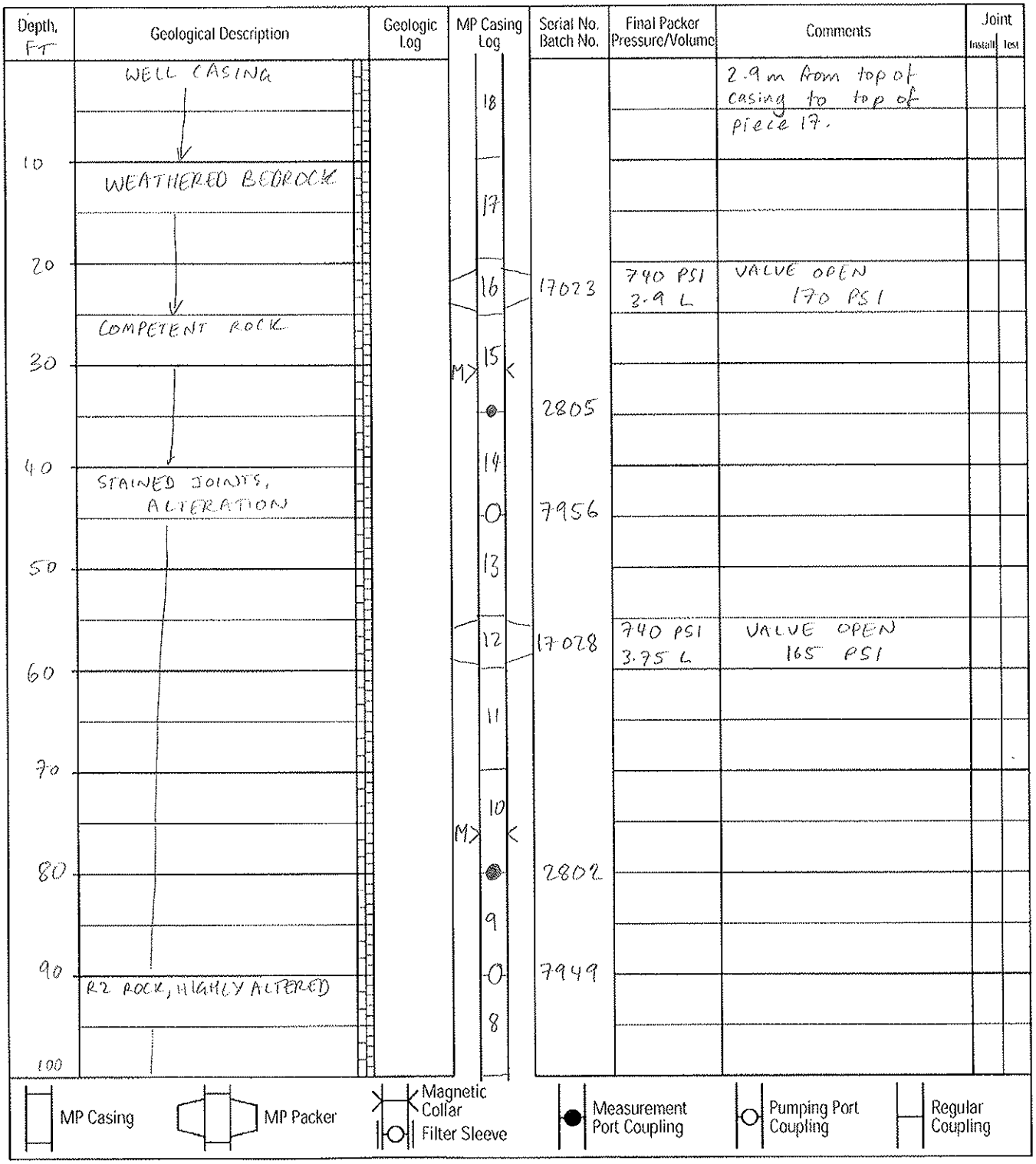
Sheet 1 of 2

Project: MINTO 2CM022.007.001.10 WB Ref.:

Location: MINTO NORTH Hole No.: MW09-3 Installed by: JS, CD

Hole Depth: 165 FT MP Depth: 165 FT Hole Diameter: HQ Date Installed: 27 NOV '09

Measurement Datum: GROUND SURFACE Datum Elevation: 908.0 m Date Drawn: 19 JAN '10



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MP System
Casing Installation Log

Sheet 2 of 2

Project: MINTO 2CM027.007.001.10 WB Ref.:

Location: MINTO NORTH Hole No.: MW09-3 Installed by: JS, CD

Hole Depth: 165 FT MP Depth: 165 FT Hole Diameter: HQ Date Installed: 27 NOV '09

Measurement Datum: GROUND SURFACE Datum Elevation: 908.0 m Date Drawn: 19 JAN '10

Depth,	Geological Description	Geologic Log	MP Casing Log	Serial No. Batch No.	Final Packer Pressure/Volume	Comments	Joint Install	Joint Test
100	COMPETENT BEDROCK		7	17027	750 PSI 3.75 L	VALVE OPEN 170 PSI		
110			6					
170			M 5					
				2804				
130			4					
				7950				
140			3					
150			2					
160	END OF HOLE 165'		1					
170								

MP Casing | MP Packer | Magnetic Collar | Filter Sleeve | Measurement Port Coupling | Pumping Port Coupling | Regular Coupling

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MP System Casing Installation Log

Sheet 1 of 3

Project: Minto 2CM022.007 WB Ref.:

Location: Phase 1 confluence Hole No.: MW09-4 Installed by: M. Royle / J. Scibek / C. Doughty

Hole Depth: 250 FT MP Depth: 250 FT Hole Diameter: HQ Date Installed: Nov 24 '09

Measurement Datum: Datum Elevation: Date Drawn: Nov 24 '09

Depth, m / FT	Geological Description	Geologic Log	MP Casing Log	Serial No. Batch No.	Final Packer Pressure/Volume	Comments	Joint Install	Joint Test
5		✓	27					
10								
15		✓	26					
20								
25		✓	25					
30								
35		✓	24					
40								
45		✓	23					
50								
55		✓	22					
60								
65		✓	21					
70								
75		✓	20					
80								
85		✓	19					
90								
95		✓	18					
100								

MP Casing | MP Packer | Magnetic Collar | Filter Sleeve | Measurement Port Coupling | Pumping Port Coupling | Regular Coupling

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Engineers and Scientists

MP System Casing Installation Log

Sheet 2 of 3

Project: Minto 2CM022.007.001.100 WB Ref.:

Location: Phase 1 confluence Hole No.: MW09-4 Installed by: M. Royle / J. Scibek (C. Doughty)

Hole Depth: 250 FT MP Depth: 250 FT Hole Diameter: HQ Date Installed: Nov 24 '09

Measurement Datum: ground surface Datum Elevation: Date Drawn: Nov 24 '09

Depth,	Geological Description	Geologic Log	MP Casing Log	Serial No. Batch No.	Final Packer Pressure/Volume	Comments	Joint Install	Joint Test
105		✓	17					
110	mostly diamict ("till")							
115	or firm frozen clay	✓	16					
120	with ice inclusions							
	note: clayey fine sand (frozen)					W.L. = 74.52 m - 5 FT after install (30 min)		stick up (below ground)
125		✓	15					
130								
135	small ice layer at 136.5'	✓	14					
140	firm clay diamict (compacted) - frozen	V_o = 165 V_r = 140	13					
145	highly weathered bedrock crumbly, clayey							
150		✓	12					
		✓ M				mag. collar		
155	weath. altered bedrock, R2 strength, core jointed	✓		2798				
160		✓	11					
165		✓		7954				
170		✓	10					
175		✓						
180	strong rock, jointed	✓ M	9	17031 2797		mag collar on bottom of packer		
185		✓	8					
190		✓		7953				
195		✓	7					
200								

HQ

Nov 25 16:35 bottom 2 packers inflate with HQ shoe at 160 ft

MP Casing | MP Packer | Magnetic Collar | Filter Sleeve | Measurement Port Coupling | Pumping Port Coupling | Regular Coupling

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MP System Casing Installation Log

Sheet 3 of 3

Project: Minto 2CM022.007 WB Ref.:

Location: Phase 1 confluence Hole No.: MW09-4 Installed by: M. Royle/J. Scibek/ C. Dongaly

Hole Depth: 250 FT MP Depth: 250 FT Hole Diameter: HQ Date Installed: Nov 24 09

Measurement Datum: ground surface Datum Elevation: Date Drawn: Nov 24 '09

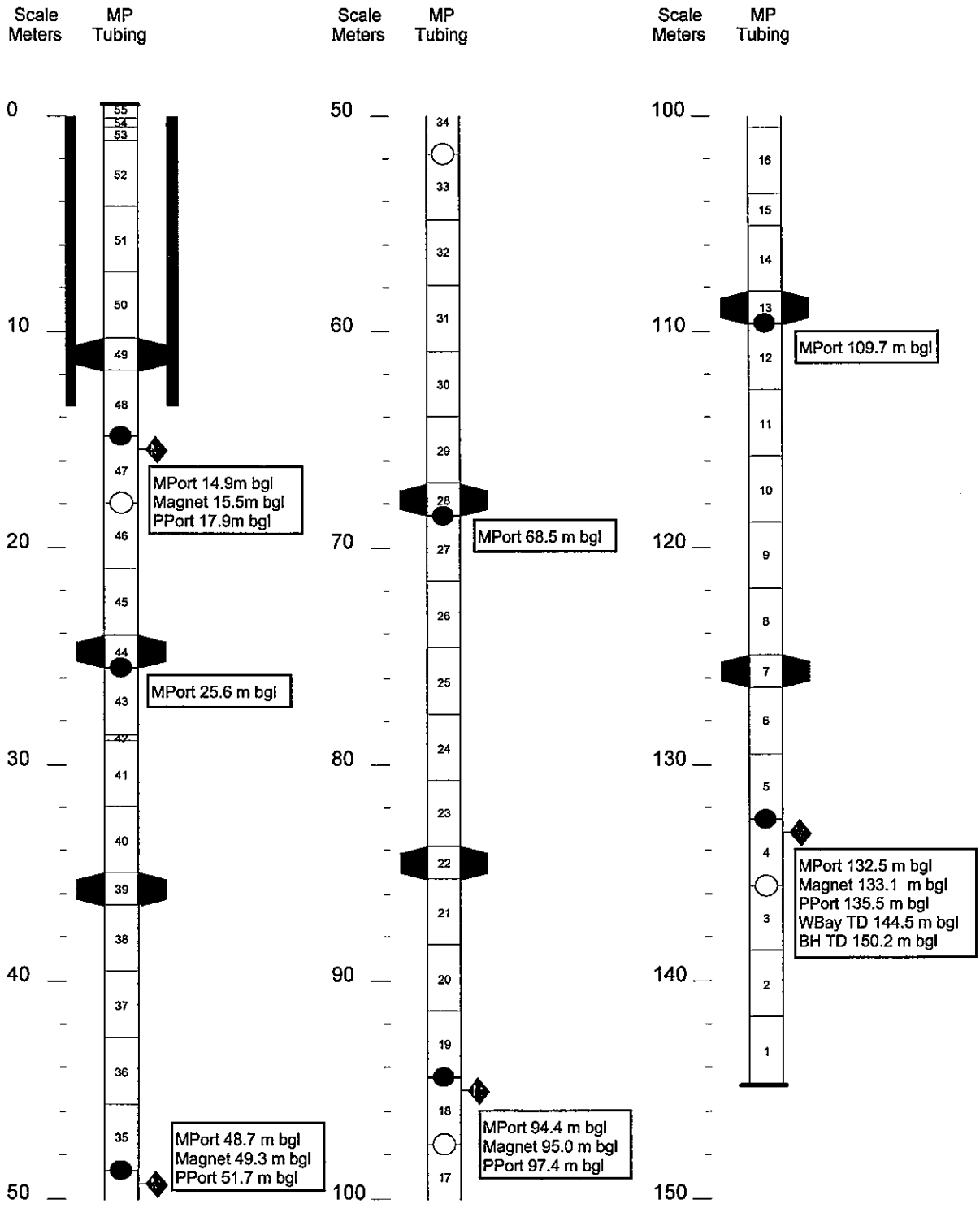
HQ

Depth,	Geological Description	Geologic Log	MP Casing Log	Serial No. Batch No.	Final Packer Pressure/Volume	Comments	Joint Install	Joint Test
205	strong rock, jointed	✓	6	17024				
210		1/6=70 1/2=150 ✓	5			don't put packer below 209'		
215								
220		✓	4					
225	✓	✓		M 2796		mag-collar		
230		✓	3					
235		✓	0	7952				
240	EOH at 243'	✓	1					
245		EOH			drill hole	end cap w.l. = ? measure before install		
250 EOH at 250'								
						probed hole = 243.1'		
						shortened orig design by 5' by removing #2 pipe (5ft)		

MP Casing | MP Packer | Magnetic Collar | Filter Sleeve | Measurement Port Coupling | Pumping Port Coupling | Regular Coupling

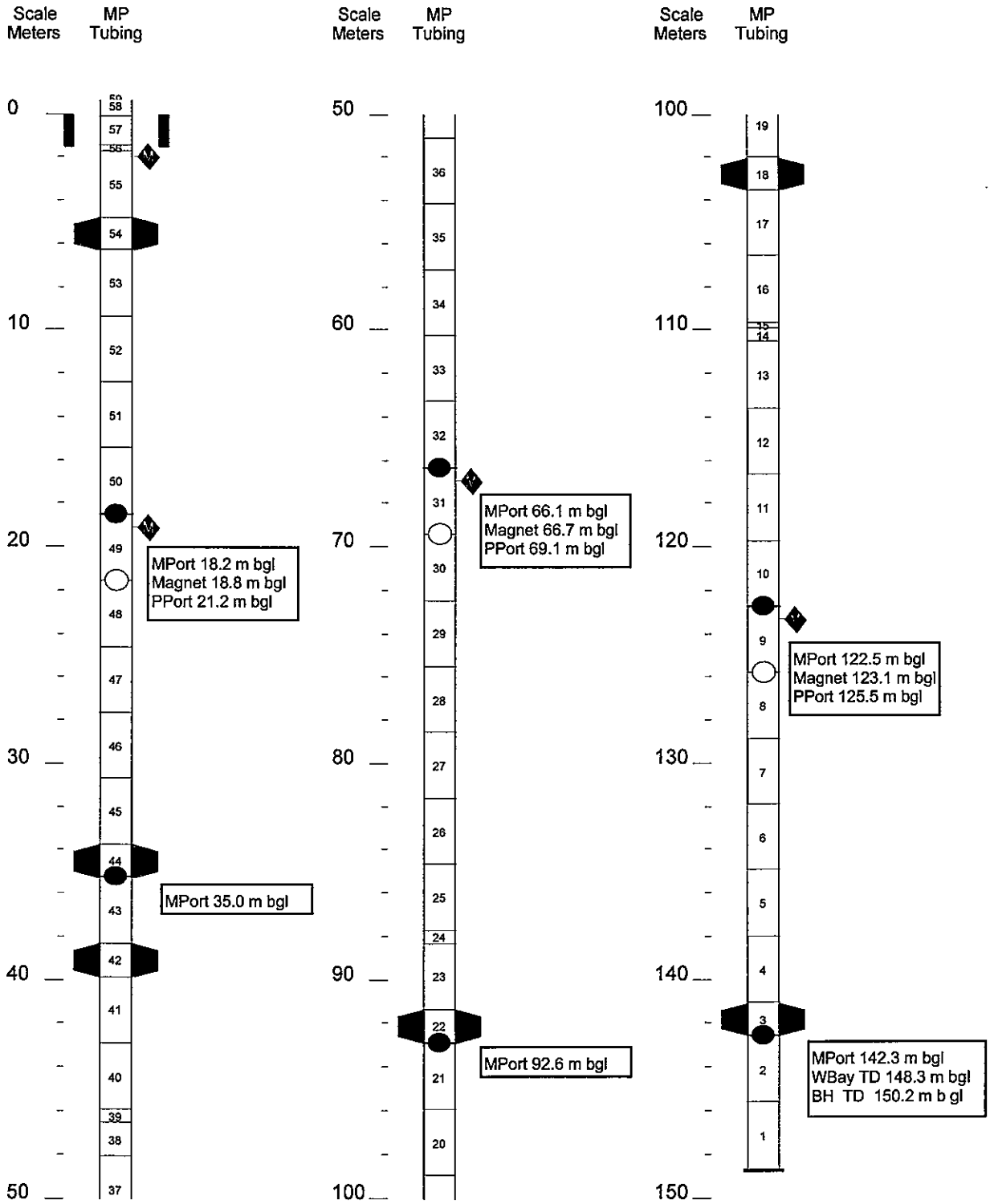
Summary Casing Log
Schlumberger/SRK

Job No: WB890
Well: MW12-05



Summary Casing Log
Schlumberger/SRK

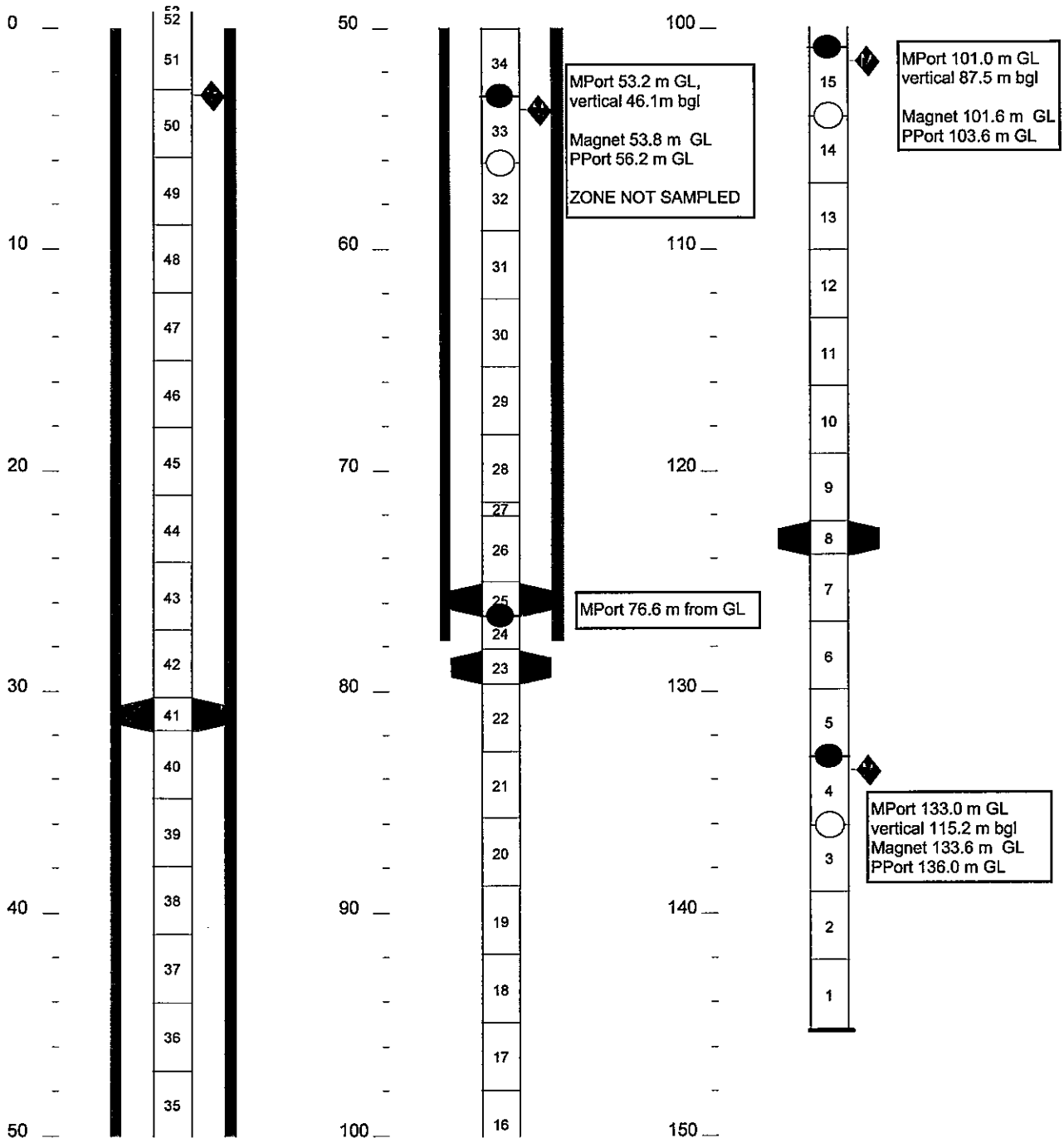
Job No: WB890
Well: MW12-06



Proposed Summary Casing Log
Schlumberger/SRK

Job No: WB890
Well: MW12-07

BOREHOLE PLUNGE ANGLE 60 DEGREES BELOW HORIZONTAL. PORT POSITIONS GIVEN ALONG PLUNGE LINE, EQUIVALENT VERTICAL DEPTH CALCULATED BASED ON PLUNGE ANGLE.



Sun Oct 28 19:40:37 2012

Appendix E: Groundwater Chemistry Data

Well ID	Zone	Date	Parameters (mg/L)														
			Ag-D	Ag-T	Al-D	Alk-Bicrb	Alk-Carb	Alk-OH	Alk-P	Alk-T	Al-T	Ammonia	Ammonium	As-D	As-T	Ba-D	Ba-T	B-D
MW09-01	2	11/30/2009	0.00019	0.00037	0.006	140	<6	<5		112	0.141		0.72	0.0002	0.0003	0.034	0.037	0.045
MW09-01	3	11/30/2009	<0.00001	0.00013	0.007	100	<6	<5		100	1.46		3.85	0.0002	0.0009	0.1	0.138	0.052
MW09-01	3	3/30/2010	<0.00001	0.00012	0.048	220	<6	<5		184	1.31		6.16	0.0007	0.0012	0.142	0.186	0.095
MW09-01	4	11/30/2009	0.00002	0.00013	<0.005	100	<6	<5		100	1.02		3.03	0.0003	0.0007	0.095	0.122	0.044
MW09-02	1	12/2/2009	<0.00001	0.00024	0.01	400	<6	<5		329	1.03		1.29	0.0041	0.0053	0.11	0.136	5.37
MW09-02	3	12/2/2009	<0.00001	0.00019	<0.005	410	<6	<5		333	0.765		1.26	0.0047	0.005	0.111	0.132	6.09
MW09-03	1	12/1/2009	0.00005	0.0104	0.01	100	<6	<5		93	15.3		5.79	0.0009	0.0068	0.106	1.35	0.32
MW09-03	1	3/29/2010	<0.00001	0.00006	<0.005	170	<6	<5		137	0.043		0.35	0.0002	0.0004	0.047	0.05	0.106
MW09-03	1	5/10/2012	<0.000020		0.0054	162	<0.50	<0.50	<0.50	133		0.073		<0.00010		0.0445		0.143
MW09-03	1	11/17/2012	<0.0000050		0.00492	164	<0.50	<0.50	<0.50	134		0.12		0.000037		0.0485		0.12
MW09-03	2	12/1/2009	0.00004	0.00613	0.008	100	<6	<5		85	3.85		5.32	0.0008	0.0007	0.088	0.183	0.218
MW09-03	2	3/29/2010	0.00001	0.00017	<0.005	160	<6	<5		130	0.03		0.99	0.0012	0.0015	0.035	0.036	1.99
MW09-03	2	5/10/2012	<0.000020		0.013	566	<0.50	<0.50	<0.50	464		0.23		0.00072		0.774		0.375
MW09-03	2	11/17/2012	<0.000025		0.0041	599	<0.50	<0.50	<0.50	491		0.23		0.00076		0.692		0.387
MW09-03	3	12/1/2009	0.00001	0.00154	0.007	70	<6	<5		55	0.681		0.26	0.0002	<0.0002	0.011	0.028	0.044
MW09-03	3	3/29/2010	<0.00001	0.00004	<0.005	80	<6	<5		63	0.01		<0.05	<0.0002	<0.0002	0.013	0.013	0.04
MW09-03	3	5/10/2012	<0.000020		0.0035	95.9	<0.50	<0.50	<0.50	78.6		<0.0050		<0.00010		0.0396		<0.05
MW09-03	3	11/17/2012	0.000009		0.00187	109	<0.50	<0.50	<0.50	89		0.0054		0.000103		0.0687		<0.05
MW09-03	5	5/10/2012	<0.000020		<0.0030	1.01	<0.50	<0.50	<0.50	0.83		0.0069		<0.00010		<0.0010		<0.05
MW09-03	5	11/17/2012	<0.0000050		0.00125	1.79	<0.50	<0.50	<0.50	1.47		<0.0050		<0.000020		0.00136		<0.05
MW12-05	1	11/11/2012	<0.000020	0.000095	0.0154	224	<0.50	<0.50	<0.50	183	0.183	<0.0050		0.00117	0.00098	0.463	0.429	0.146
MW12-05	3	11/12/2012	0.000005		0.0043	231	2.1	<0.50	1.75	193		0.019		0.000307		0.143		0.077
MW12-05	5	11/12/2012	<0.0000050		0.00459	269	<0.50	<0.50	<0.50	221		0.016		0.000329		0.0936		<0.05
MW12-05	7	11/12/2012	<0.0000050		0.00363	256	3.47	<0.50	2.89	216		0.21		0.000917		0.142		0.054
MW12-06	2	11/16/2012	0.000008		0.00317	380	<0.50	<0.50	<0.50	311		0.0074		0.00298		0.0519		0.115
MW12-06	4	11/16/2012	<0.0000050		0.0037	492	<0.50	<0.50	<0.50	403		0.0059		0.00163		0.0425		0.149
MW12-06	6	11/16/2012	<0.0000050		0.00239	421	<0.50	<0.50	<0.50	345		0.085		0.00009		0.0253		0.083
MW12-07	1	11/3/2012	<0.000020		0.0098	378	<0.50	<0.50	<0.50	310		0.012		0.00073		0.169		0.127
MW12-07	2	11/3/2012	<0.000020		0.006	240	<0.50	<0.50	<0.50	197		<0.0050		0.00024		0.0546		0.105

Well ID	Zone	Date	Parameters (mg/L)															
			Be-D	Be-T	Bi-D	Bi-T	B-T	Ca-D	Ca-T	Cd-D	Cd-T	Chloride	Co-D	Cond-L	Co-T	Cr-D	Cr-T	Cu-D
MW09-01	2	11/30/2009	<0.00004	<0.00004	<0.001	<0.001	0.046	89.7	85.9	0.00005	0.00004	7.22	0.00102	729	0.00109	<0.0004	0.0011	0.012
MW09-01	3	11/30/2009	<0.00004	<0.00004	<0.001	<0.001	0.068	75.4	73.2	0.00008	0.00008	7.28	0.00076	725	0.00156	<0.0004	0.0052	0.02
MW09-01	3	3/30/2010	<0.00004	0.00005	<0.001	<0.001	0.095	93.7	98.7	0.00015	0.00014	18.5	0.00045	941	0.00147	<0.0004	0.0072	0.021
MW09-01	4	11/30/2009	<0.00004	0.00004	<0.001	<0.001	0.048	78.2	70.9	0.00007	0.00008	7.27	0.00078	728	0.00145	<0.0004	0.0037	0.018
MW09-02	1	12/2/2009	<0.00004	0.00004	<0.001	<0.001	6.18	98.2	96	0.00009	0.00017	5.52	0.00065	1090	0.00144	0.0036	0.006	0.004
MW09-02	3	12/2/2009	<0.00004	<0.00004	<0.001	<0.001	6.25	99.2	95.1	0.00006	0.00016	5.73	0.00062	1090	0.00121	0.0038	0.0054	0.003
MW09-03	1	12/1/2009	<0.00004	0.00066	<0.001	<0.005	0.514	74.1	85.5	0.0002	0.00012	17.9	0.00045	976	0.0175	<0.0004	0.003	0.019
MW09-03	1	3/29/2010	<0.00004	<0.00004	<0.001	<0.001	0.29	41.2	42.5	0.00012	0.00011	0.4	0.00014	315	0.00019	0.001	0.0022	0.004
MW09-03	1	5/10/2012	<0.00010		<0.0010			42		0.000085		<0.50	<0.00050	302		<0.0010		0.00281
MW09-03	1	11/17/2012	<0.000010		<0.0000050			46.9		0.000683			0.000205	310		0.00014		0.00182
MW09-03	2	12/1/2009	<0.00004	0.00008	<0.001	<0.001	0.25	73.7	74	0.00008	0.00013	16	0.00057	932	0.00147	<0.0004	0.002	0.022
MW09-03	2	3/29/2010	<0.00004	<0.00004	<0.001	<0.001	1.92	56.3	59.3	0.00072	0.00004	3.82	0.0002	502	0.00022	0.0013	0.0014	0.006
MW09-03	2	5/10/2012	<0.00010		<0.0010			154		0.000028		4.3	0.00244	965		<0.0010		0.00107
MW09-03	2	11/17/2012	<0.000050		<0.000025			161		<0.000025			0.00123	979		0.00058		0.00073
MW09-03	3	12/1/2009	<0.00004	<0.00004	<0.001	<0.001	0.064	19.9	20.4	0.00007	0.00008	0.93	0.00024	158	0.00027	<0.0004	0.0013	0.005
MW09-03	3	3/29/2010	<0.00004	<0.00004	<0.001	<0.001	0.034	23.4	24.9	0.00002	0.00001	0.61	0.00009	158	0.00007	<0.0004	<0.0004	0.005
MW09-03	3	5/10/2012	<0.00010		<0.0010			28.1		0.000069		0.54	<0.00050	181		<0.0010		0.0032
MW09-03	3	11/17/2012	<0.000010		<0.0000050			31.9		0.000023			0.000149	200		0.00013		0.00174
MW09-03	5	5/10/2012	<0.00010		<0.0010			<0.050		<0.000010		<0.50	<0.00050	1.9		<0.0010		0.00022
MW09-03	5	11/17/2012	<0.000010		<0.0000050			<0.050		<0.0000050			<0.0000050	2.2		<0.00010		0.000107
MW12-05	1	11/11/2012	<0.00010	<0.00010	<0.0010	<0.0010	0.119	117	118	0.00014	0.000182		0.00379	1030	0.00353	<0.0010	<0.0010	0.00737
MW12-05	3	11/12/2012	<0.000010		<0.0000050			120		0.000214			0.00551	1240		<0.00010		0.0022
MW12-05	5	11/12/2012	<0.000010		<0.0000050			47.2		0.000016			0.000522	515		<0.00010		0.00154
MW12-05	7	11/12/2012	<0.000010		<0.0000050			49.4		<0.0000050			0.000249	486		<0.00010		0.000477
MW12-06	2	11/16/2012	0.00002		<0.0000050			111		0.000016			0.000309	957		<0.00010		0.000231
MW12-06	4	11/16/2012	0.000019		<0.0000050			97.2		0.000012			0.00021	1000		<0.00010		0.000106
MW12-06	6	11/16/2012	<0.000010		<0.0000050			81.2		0.000012			0.000218	905		<0.00010		0.000261
MW12-07	1	11/3/2012	<0.00010		<0.0010			176		0.000633			<0.00050	1250		<0.0010		0.0767
MW12-07	2	11/3/2012	<0.00010		<0.0010			140		0.000269			<0.00050	1070		<0.0010		0.0217

Well ID	Zone	Date		Parameters (mg/L)														
			Cu-T	Fe-D	Fe-T	Fluoride	Hard-D	Hard-T	Hg-D	Hg-T	K-D	K-T	Li-D	Li-T	Mg-D	Mg-T	Mn-D	Mn-T	Mo-D
MW09-01	2	11/30/2009	0.015	0.05	0.324		318		0.00003	0.00005	3.2	3.3	0.001	0.001	22.9	22	0.0802	0.0935	0.0341
MW09-01	3	11/30/2009	0.04	0.04	2.68		262		<0.00001	<0.00001	6.6	7.2	0.003	0.005	18	18	0.228	0.309	0.0892
MW09-01	3	3/30/2010	0.029	0.18	3.37		336		<0.00001	0.00001	7	7.2	0.003	0.003	24.7	26.8	0.168	0.225	0.148
MW09-01	4	11/30/2009	0.035	0.04	1.65		274		<0.00001	0.02	5.8	5.9	0.003	0.004	19.1	17.8	0.189	0.248	0.0733
MW09-02	1	12/2/2009	0.013	0.11	1.76		503		<0.00001	<0.00001	8.2	8.6	0.011	0.013	62.6	62.2	0.27	0.34	0.0442
MW09-02	3	12/2/2009	0.01	0.09	1.28		508		<0.00001	<0.00001	8.4	8.3	0.01	0.013	63.1	61.9	0.261	0.332	0.0487
MW09-03	1	12/1/2009	0.056	0.03	44		253		<0.00001	0.00002	27	31	0.012	0.02	16.5	21.8	0.161	6.78	0.0806
MW09-03	1	3/29/2010	0.006	0.04	0.183		144		<0.00001	<0.00001	4.4	4.2	0.003	0.003	9.9	10.4	0.109	0.123	0.0052
MW09-03	1	5/10/2012		<0.0050		0.87	146		<0.000010		2.7		<0.0050		10		0.0852		0.0054
MW09-03	1	11/17/2012		0.0116			159				3.08		0.00284		10.3		0.0961		0.00516
MW09-03	2	12/1/2009	0.047	0.02	4.93		242		<0.00001	0.00002	26	25.2	0.011	0.012	14.2	14.6	0.135	0.287	0.101
MW09-03	2	3/29/2010	0.008	<0.01	0.175		178		<0.0001	<0.00001	6.6	6.8	0.004	0.005	9.2	9.76	0.0616	0.0677	0.045
MW09-03	2	5/10/2012		19.2		0.75	481		<0.000010		4.44		<0.0050		23.4		22.1		0.0172
MW09-03	2	11/17/2012		19.4			499				4.66		<0.0025		23.4		17.8		0.0167
MW09-03	3	12/1/2009	0.01	0.02	0.673		60		0.00001	0.00001	2.6	3	0.001	0.001	2.4	2.54	0.0184	0.0384	0.0267
MW09-03	3	3/29/2010	0.004	<0.01	0.027		69		<0.0001	<0.00001	2.3	2.1	<0.001	<0.001	2.4	2.62	0.0129	0.0132	0.0064
MW09-03	3	5/10/2012		0.0164		0.3	84.1		<0.000010		1.8		<0.0050		3.36		0.234		0.0061
MW09-03	3	11/17/2012		0.0113			95.3				2.18		0.00086		3.8		0.385		0.0113
MW09-03	5	5/10/2012		<0.0050		<0.010	<0.50		<0.000010		<0.050		<0.0050		<0.050		<0.0010		<0.0010
MW09-03	5	11/17/2012		0.0016			<0.50				<0.050		<0.00050		<0.050		0.000227		0.000578
MW12-05	1	11/11/2012	0.00892	0.0085	0.209		407	402	<0.000010	<0.000010	3.57	3.1	0.0063	<0.0050	27.8	25.8	0.11	0.107	0.012
MW12-05	3	11/12/2012		0.0981			516				4.17		0.00476		52.7		0.647		0.0112
MW12-05	5	11/12/2012		0.0152			231				2.55		0.00439		27.4		0.198		0.0153
MW12-05	7	11/12/2012		0.867			214				1.79		0.00247		22.1		0.411		0.00346
MW12-06	2	11/16/2012		0.736			407				3.95		0.00892		31.7		0.0519		0.0164
MW12-06	4	11/16/2012		0.717			467				3.81		0.00654		54.4		0.057		0.0102
MW12-06	6	11/16/2012		0.0833			425				3.57		0.00509		53.9		0.1		0.0066
MW12-07	1	11/3/2012		0.189			592		<0.000010		5.68		0.0103		37.2		0.289		0.0196
MW12-07	2	11/3/2012		0.0069			496		<0.000010		5.92		0.022		35.5		0.0899		0.0334

Well ID	Zone	Date		Parameters (mg/L)														
			Mo-T	Na-D	Na-T	Ni-D	Ni-T	N-NO2	N-NO3	NO2+NO3	N-TKN	Pb-D	Pb-T	P-D	P-PO4-T	P-T	Sb-D	Sb-T	S-D
MW09-01	2	11/30/2009	0.0356	16.8	16.7	0.004	0.004			42.9	6.79	0.0001	0.0001	<0.01	0.04	<0.05	0.0053	0.0003	25.8
MW09-01	3	11/30/2009	0.0944	28	28.1	0.002	0.005			42.1	6	<0.0001	0.0007	<0.01	0.03	0.06	0.0032	0.0012	27.5
MW09-01	3	3/30/2010	0.146	53.3	56.9	0.002	0.006			21.6	8.89	0.0003	0.001	0.03	0.06	0.09	0.0011	0.0005	56.2
MW09-01	4	11/30/2009	0.0758	26.2	23.6	0.002	0.004			42.1	6.21	<0.0001	0.0005	<0.01	0.03	<0.05	0.0008	0.0003	27.8
MW09-02	1	12/2/2009	0.0481	70.4	73.4	0.004	0.006			23.2	1.13	0.0002	0.0008	<0.01	0.06	<0.05	0.0136	0.003	55.4
MW09-02	3	12/2/2009	0.0499	74.2	71.5	0.003	0.005			24.4	1.01	0.0002	0.0006	<0.01	0.06	<0.05	0.003	0.0038	56.7
MW09-03	1	12/1/2009	0.0742	70.5	65.4	0.008	0.01			60.9	11.7	0.0002	0.004	0.02	0.03	0.19	0.002	<0.001	39
MW09-03	1	3/29/2010	0.006	5.7	7.37	0.005	0.007			0.26	0.4	0.0011	0.0003	<0.01	0.06	<0.05	0.0009	0.0002	7.6
MW09-03	1	5/10/2012		5.59		0.0021		0.182	0.109	0.29		<0.00020		0.012	0.0158		<0.00050		8.3
MW09-03	1	11/17/2012		5.52		0.00562		0.118	0.069	0.187		0.000036				0.0042	0.000181		9.4
MW09-03	2	12/1/2009	0.108	63	66.1	0.004	0.005			58.2	12.2	0.0001	0.0008	<0.01	0.03	0.07	0.0021	0.0008	36.7
MW09-03	2	3/29/2010	0.0468	24.9	25.7	0.002	0.002			16.1	1.22	0.0003	0.0003	<0.01	0.07	<0.05	0.0018	<0.0002	16.3
MW09-03	2	5/10/2012		15.8		<0.0010		0.171	0.1	0.271		<0.00020		<0.01	0.0093		<0.00050		<3.0
MW09-03	2	11/17/2012		15.5		0.00123		0.0924	0.035	0.127		0.000152				<0.01	0.00024		<15
MW09-03	3	12/1/2009	0.0288	5.5	5.72	0.002	0.002			1.87	0.34	0.0001	0.0002	<0.01	0.04	<0.05	0.0021	0.0025	3.4
MW09-03	3	3/29/2010	0.0065	2.6	3.08	<0.001	<0.001			0.47	<0.06	0.0007	0.0002	<0.01	0.06	<0.05	0.0009	<0.0002	3.4
MW09-03	3	5/10/2012		3.13		<0.0010		0.0145	0.302	0.316		<0.00020		<0.01	<0.0050		<0.00050		4.1
MW09-03	3	11/17/2012		3.33		0.000266		0.0058	0.248	0.254		0.000016				0.004	0.000077		3.7
MW09-03	5	5/10/2012		0.222		<0.0010		<0.0050	<0.020	<0.020		<0.00020		<0.01	<0.0050		<0.00050		<3.0
MW09-03	5	11/17/2012		<0.050		<0.000020		<0.0050	<0.020	<0.020		0.000014				<0.0020	0.000033		<3.0
MW12-05	1	11/11/2012	0.0114	64.2	56.8	0.0043	0.0045	0.0517	0.368	0.42		<0.00020	0.00056	<0.01		0.018	0.00056	<0.00050	122
MW12-05	3	11/12/2012		67.6		0.00328		0.109	0.03	0.139		0.000124				0.0058	0.000197		166
MW12-05	5	11/12/2012		18.5		0.000905		0.195	0.817	1.01		0.000055				0.0035	0.000086		17.3
MW12-05	7	11/12/2012		17.9		0.00097		0.0298	<0.020	0.041		0.000039				0.0125	0.000134		14.4
MW12-06	2	11/16/2012		42.9		0.000949		0.263	0.081	0.343		0.000029				0.0265	0.000231		72.7
MW12-06	4	11/16/2012		33.7		0.000513		0.229	0.08	0.309		0.000031				0.0229	0.000116		58.3
MW12-06	6	11/16/2012		32.9		0.000514		0.0651	0.45	0.515		0.000061				0.0047	0.000096		58.3
MW12-07	1	11/3/2012		34.1		0.004		0.141	53.5	53.7		0.00058		<0.01			<0.00050		67.5
MW12-07	2	11/3/2012		38.9		0.0017		0.148	21.3	21.5		0.00056		<0.01			<0.00050		104

Well ID	Zone	Date		Parameters (mg/L)															
			Se-D	Se-T	Si-D	Si-T	Sn-D	Sn-T	SO4-D	Sr-D	Sr-T	S-T	Te-D	Te-T	Th-D	Th-T	Ti-D	Ti-T	Tl-D
MW09-01	2	11/30/2009	0.0028	0.0029	4.37	4.54	<0.0001	<0.0001	77.4	1.04	1.27	27.6	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-01	3	11/30/2009	0.0028	0.0032	2.87	7.01	0.0001	<0.0001	82.5	1.51	1.84	28.5	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-01	3	3/30/2010	0.0018	0.0019	3.39	7	0.0003	<0.0001	169	1.41	1.43	58.3	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-01	4	11/30/2009	0.003	0.0031	3.36	5.12	<0.0001	<0.0001	83.3	1.39	1.64	28.2	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-02	1	12/2/2009	0.0067	0.0072	6.88	9.32	<0.0001	<0.0001	166	2.11	2.55	60.5	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-02	3	12/2/2009	0.0068	0.0073	6.94	8.46	<0.0001	<0.0001	170	2.14	2.53	59.9	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-03	1	12/1/2009	0.008	0.011	2.49	38.1	0.0002	<0.0005	117	2.21	2.41	41	<0.0001	<0.0005	<0.0004	<0.002	<0.01		<0.00001
MW09-03	1	3/29/2010	<0.0006	<0.0006	4	4.6	<0.0001	<0.0001	23	0.863	0.886	7.3	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-03	1	5/10/2012	<0.00010		4.56		<0.0050		21.4	0.798							<0.0050		<0.000050
MW09-03	1	11/17/2012	0.000052		5.55		<0.00020		22.2	0.809							<0.00050		0.000003
MW09-03	2	12/1/2009	0.0067	0.0078	2.54	9.99	0.0002	0.0003	110	1.86	2.17	39.1	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-03	2	3/29/2010	0.0028	0.0029	3.7	4.11	<0.0001	<0.0001	48.9	0.739	0.785	15.8	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-03	2	5/10/2012	0.0002		9.03		<0.0050		<0.50	1.58							<0.0050		<0.000050
MW09-03	2	11/17/2012	<0.00020		10.9		<0.0010		<0.50	1.57							<0.0025		<0.000010
MW09-03	3	12/1/2009	<0.0006	0.0007	4.2	5.49	<0.0001	<0.0001	10	0.168	0.189	3.8	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-03	3	3/29/2010	<0.0006	<0.0006	3.85	4.4	<0.0001	<0.0001	10	0.125	0.126	3.4	<0.0001	<0.0001	<0.0004	<0.0004	<0.01		<0.00001
MW09-03	3	5/10/2012	0.00031		4.31		<0.0050		11.2	0.158							<0.0050		<0.000050
MW09-03	3	11/17/2012	0.000414		4.96		<0.00020		9.79	0.2							<0.00050		0.000003
MW09-03	5	5/10/2012	<0.00010		<0.1		<0.0050		<0.50	<0.0010							<0.0050		<0.000050
MW09-03	5	11/17/2012	<0.000040		<0.1		<0.00020		<0.50	0.00387							<0.00050		<0.0000020
MW12-05	1	11/11/2012	0.00047	0.00043	5.59	5.93	<0.0050	<0.0050	350	3.05	2.95	108					<0.0050	0.006	<0.000050
MW12-05	3	11/12/2012	0.000364		5.03		<0.00020		456	3.89							<0.00050		0.000004
MW12-05	5	11/12/2012	0.000164		5.8		<0.00020		46.3	0.816							<0.00050		0.000002
MW12-05	7	11/12/2012	0.000108		5.27		<0.00020		40.6	0.534							<0.00050		<0.0000020
MW12-06	2	11/16/2012	0.00014		7.09		<0.00020		208	8.59							<0.00050		<0.0000020
MW12-06	4	11/16/2012	0.000083		7.41		<0.00020		178	3.21							<0.00050		<0.0000020
MW12-06	6	11/16/2012	0.000511		6.29		<0.00020		171	1.76							<0.00050		<0.0000020
MW12-07	1	11/3/2012	0.0347		6.79		<0.0050		185	5.37							<0.0050		<0.000050
MW12-07	2	11/3/2012	0.0148		6.61		<0.0050		283	3.68							<0.0050		<0.000050

Well ID	Zone	Date		Parameters (mg/L)										pH-L	Turb (NTU)
			Tl-T	U-D	U-T	V-D	V-T	Zn-D	Zn-T	Zr-D	Zr-T	TDS	TSS		
MW09-01	2	11/30/2009	<0.00001	0.0029	0.0032	0.0002	0.0006	0.009	0.007	<0.0001	0.0002	528	7	8.03	1.1
MW09-01	3	11/30/2009	0.00002	<0.0004	0.0004	0.0001	0.0046	0.006	0.029	0.0001	0.0006	364	92	8.02	32
MW09-01	3	3/30/2010	0.00002	<0.0004	<0.0004	0.0003	0.0049	0.016	0.025	0.0002	0.0005	630	70	8.04	64
MW09-01	4	11/30/2009	0.00001	0.0008	0.0008	0.0001	0.0033	0.004	0.019	<0.0001	0.0004	442	66	8.06	26
MW09-02	1	12/2/2009	0.00001	0.0038	0.0045	0.0011	0.0036	0.01	0.024	0.0001	0.0004	814	30	7.95	13
MW09-02	3	12/2/2009	<0.00001	0.0039	0.0044	0.0012	0.0029	0.007	0.018	0.0001	0.0004	812	31	7.95	16
MW09-03	1	12/1/2009	0.00016	0.001	0.002	0.0002	0.039	0.022	0.13	0.0001	0.0006	652	399	7.94	95
MW09-03	1	3/29/2010	<0.00001	0.0015	0.0015	0.0001	0.0003	0.014	0.016	<0.0001	0.0001	196	<4	8	2.5
MW09-03	1	5/10/2012		0.00158		<0.0050		0.0171		<0.00050		162		7.99	
MW09-03	1	11/17/2012		0.00155		<0.00020		0.0108		<0.00010		160			
MW09-03	2	12/1/2009	0.00002	0.0008	0.0009	0.0001	0.0065	0.01	0.036	<0.0001	0.0004	626	146	7.91	49
MW09-03	2	3/29/2010	<0.00001	0.0014	0.0014	0.0004	0.0005	0.005	0.01	<0.0001	<0.0001	324	<7	8.05	3
MW09-03	2	5/10/2012		0.00016		<0.0050		0.0053		<0.00050		716		7.59	
MW09-03	2	11/17/2012		0.000208		<0.0010		0.00795		<0.00050		648			
MW09-03	3	12/1/2009	<0.00001	<0.0004	<0.0004	0.0002	0.0012	0.012	0.033	<0.0001	0.0001	110	21	7.8	6.9
MW09-03	3	3/29/2010	<0.00001	<0.0004	<0.0004	0.0002	0.0003	0.005	0.01	<0.0001	<0.0001	114	<4	7.84	0.3
MW09-03	3	5/10/2012		0.00069		<0.0050		0.0078		<0.00050		106		7.92	
MW09-03	3	11/17/2012		0.000842		0.00028		0.00136		<0.00010		114			
MW09-03	5	5/10/2012		<0.00010		<0.0050		<0.0050		<0.00050		<10		5.93	
MW09-03	5	11/17/2012		0.000025		0.00038		0.00046		<0.00010		<10			
MW12-05	1	11/11/2012	<0.000050	0.00404	0.00386	<0.0050	<0.0050	0.0402	0.0388	<0.00050	<0.00050	706			
MW12-05	3	11/12/2012		0.0041		<0.00020		0.0312		<0.00010		880			
MW12-05	5	11/12/2012		0.00273		0.0005		0.00655		<0.00010		288			
MW12-05	7	11/12/2012		0.00227		0.00033		0.00538		<0.00010		260			
MW12-06	2	11/16/2012		0.00575		<0.00020		0.0111		<0.00010		636			
MW12-06	4	11/16/2012		0.00681		<0.00020		0.00807		<0.00010		618			
MW12-06	6	11/16/2012		0.00482		0.00026		0.00312		<0.00010		538			
MW12-07	1	11/3/2012		0.00609		<0.0050		0.0637		<0.00050		924			
MW12-07	2	11/3/2012		0.00575		<0.0050		0.0385		<0.00050		782			