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Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Technical (Drilling -Tailings dam research) **TOTAL COST:** 70,867.26

AUTHOR(S): Peter Holbek **SIGNATURE(S):**

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): M29 **YEAR OF WORK:** 2015/16

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5620321 Sept 30, 2016

PROPERTY NAME: Copper Mountain Mine

CLAIM NAME(S) (on which the work was done): Newmin 3, Newman 4

COMMODITIES SOUGHT: Cu, Au, Ag

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Similkameen **NTS/BCGS:** 92H/7E

LATITUDE: 49 ° 20 '00 " **LONGITUDE:** 120 ° 31 '00 " **(at centre of work)**

OWNER(S):
1) Copper Mountain Mine (BC)Ltd. 2)

MAILING ADDRESS:
1700-700 West Pender St. Vancouver, B.C. V6C 1G8

OPERATOR(S) [who paid for the work]:
1) Copper Mountain Mine (BC) Ltd. 2)

MAILING ADDRESS:

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):
Nicola Group Volcanic rocks, Princeton Group, Lower Jurassic, Eocene, Cu-Au Calc-Alakalic Porphyry Copper Deposit

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core	4 Sonic holes 170m (overburden drilling)	Newmin 3 and Newmin 4	
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic	sieve analysis of O/B material		
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	$70,867.26

Copper Mountain Project
Princeton, British Columbia

Site investigation for possible expansion and dam location of the Tailings Management Facility

NTS Map Sheet 92H/7E
Latitude 49° 20'N; Longitude 120° 31'W

Prepared for Copper Mountain Mining Corp.

by
Peter Holbek
based on work by:
Amec Foster Wheeler Environment & Infrastructure, a Division of Amec Foster Wheeler Americas Limited

September, 2016

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1. Introduction

1.1 Property Description and Location

The Copper Mountain Project is situated 15 km south of Princeton, British Columbia and 180 km east of Vancouver (Lat. 49 20’ N; Long. 120 31’ W). The NTS map sheet is 92H/7E, (Figure 1).

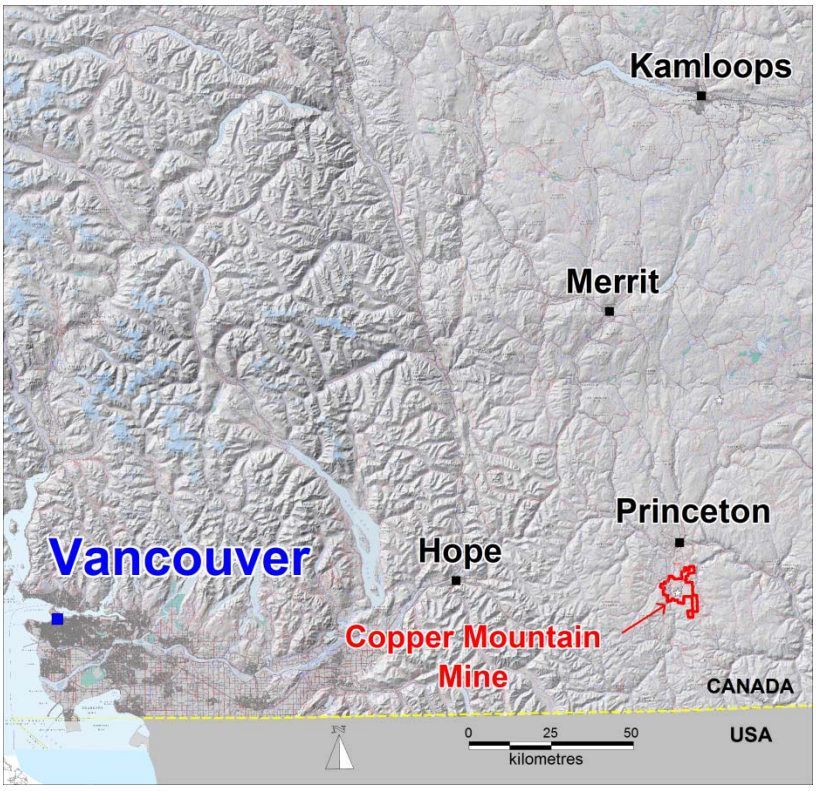

Figure 1.1: Property Location

The property consists of 135 Crown granted mineral claims, 132 located mineral claims, 14 mining leases, and 12 fee simple properties covering an area of 6,702.1 hectares or 67 square kilometres. Claims are shown in Figure 4.1 and listed in Appendix 1. Approximately 22% of the claims, primarily in the northwestern property area, are subject to production royalties of up to 5%. Known mineralization within the royalty areas includes the Virginia and Alabama deposits, of which only the Virginia deposit is permitted and currently within the mine plan.

CMMC owns 75% the project through its 100% ownership of Copper Mountain Mine (BC) Ltd. the other 25% of the project is owned by Mitsubishi Materials Corporation (MMC) of Japan. The claims straddle the Similkameen River with the Ingerbelle deposit on the west side of the river and the Copper Mountain deposits on the east side of the river (Figure 2). The Ingerbelle side of the property is immediately adjacent to the Hope-Princeton Highway (No. 3) and has numerous

roads from previous mining activity. The original mill complex is located on the Ingerbelle side and was connected to the Copper Mountain side by a conveyor system.

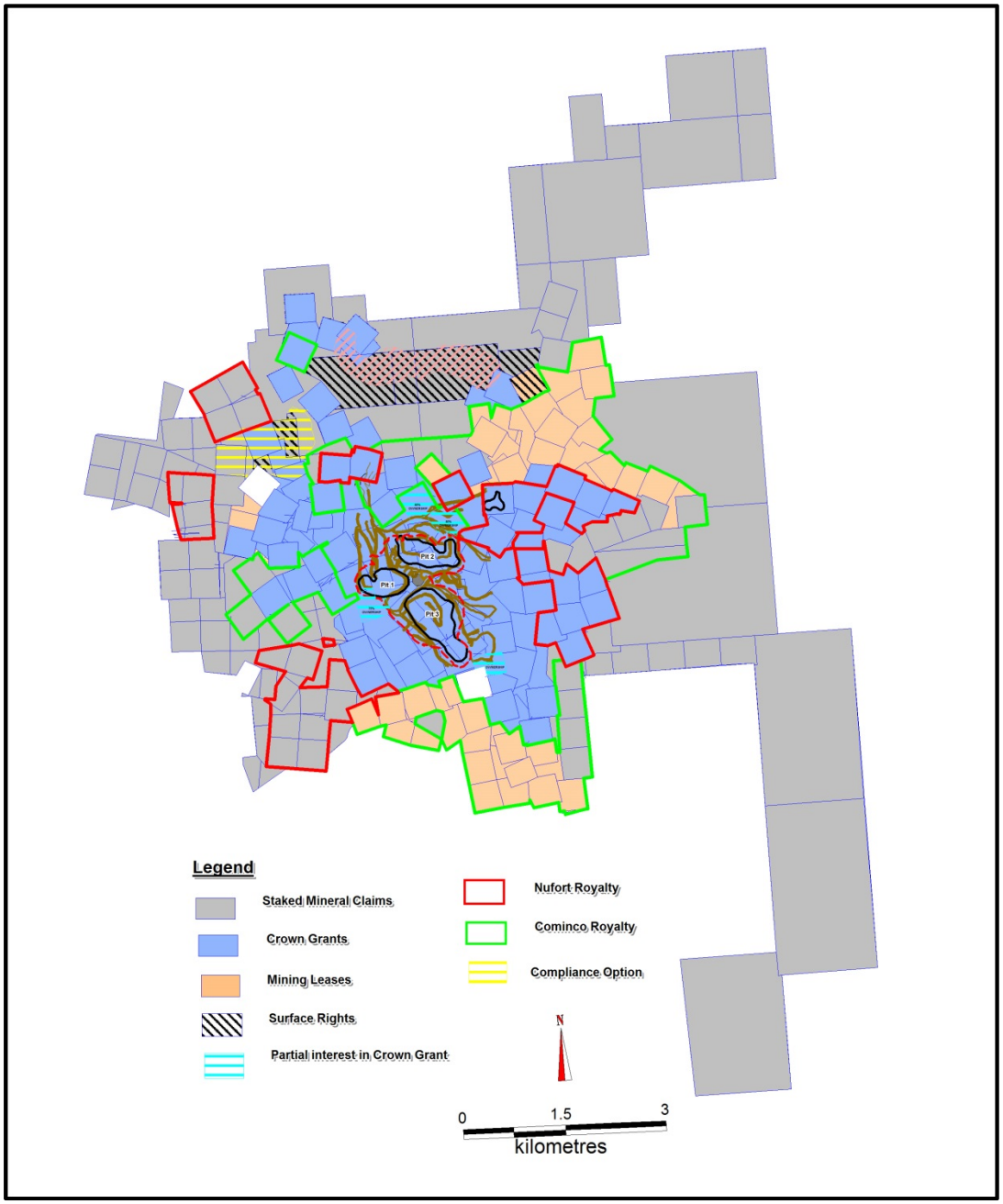

Figure 1.2: Claim Map for Copper Mountain Property.

Access to the Copper Mountain area is via a 28 km paved road from the town of Princeton. A significant part of the existing rock dumps adjacent to the Similkameen River at the mine site have been reclaimed. Envirogreen Technologies Ltd, a soil remediation company operates near the Ingerbelle Pit area and was previously spreading remediated sewage on the tailings as well as rock dumps which helps to provide a top soil for the establishment of various forms of plant life. Some of the reclaimed rock dumps are currently being used for grazing cattle.

The mine has a BC mining permit (MX-29) and has operated in compliance with all environmental and government regulations since start-up. An $8.0 million reclamation bond is attached to the property and this bond is posted with the BC Government as a requirement to cover current environmental liabilities.

1.2 Property, Accessibility, Climate and Physiograpy

Almost all of the property area is accessible by highways, paved access road and local gravel roads on the property remaining from previous mining activity. The nearest railway is at Hope some 120 km from the mill building. Grid power is connected to the property at the previous mill where it was sufficient to operate the 25,000 tpd concentrator and related infrastructure. Water for previous operations was pumped from the Similkameen River to make up that recycled and this permit is still active and is sufficient to support higher tonnage than the previous operation.

Topography is gentle to moderate over most of the plateau area of Copper Mountain, where elevations range from 1,050 m to 1,300 m, but becomes rugged in the Similkameen River Canyon. The elevation of the river is approximately 770 m and the canyon walls are steep.

The Copper Mountain area has a relatively dry climate, typical of the southern interior of British Columbia. Summers are typically warm and dry whereas the winters are cool with minor precipitation. Most of the precipitation during the winter months falls as snow with total snow fall of approximately 200 cm resulting in accumulated (compacted) snow depths of approximately 60-70 cm on the ground. Weather data from the mine-site has been collected from 1966 through to 1996. Temperatures range from an average annual high of 35 ^{o}C and the average annual low of -29.5 ^{o}C, with the annual mean temperature being 6 degrees. Total annual precipitation varies widely, ranging from a low of 253 mm to a high of 790 mm with the average being 400 mm. The bio-geoclimatic zones for the area are Ponderosa Pine - Bunch grass at the lower elevations, transitioning into Lodgepole Pine forests at the higher elevations.

The town of Princeton has a population of approximately 3,000 and has a diversified economy driven by ranching, forestry and tourism, although during the mine operation, Similco Mines was the predominate employer in the area. The town has services typical of its size; however the general proximity of Vancouver, 267 km to the west, allows many services to be obtained there.

Exploration and mining have been and may still be conducted year-round, due to the established roads and the projects proximity to the nearby towns. The property had sufficient surface rights for past operations however CMMC is reviewing the possibility that in future all infrastructure will be located on the east side of the Similkameen river as that is where the current exploration program is focused. Without detailed analysis, there appears to be sufficient land area to locate future plant, tailings and waste rock storage. There are numerous roads and space for any exploration programs. Three phase electric power comes onto the property via an existing 138KV power line at the old mill building.

1.4 Property History

Initial exploration at Copper Mountain dates back to 1884. A number of attempts at initiating production were made during the period from 1892 to 1922 but were unsuccessful. In 1923, Granby Consolidated Mining, Smelting and Power Company (Granby) acquired the property, built a milling facility in Allenby adjacent to Princeton and between 1925 and 1957, extracted 31.5 million tonnes of ore with a recovered grade of 1.08% copper from primarily underground operations. Subsequently, Newmont Mining Corporation began open pit operations at Ingerbelle in 1972 with an initial reserve of 67 million tons grading 0.55% copper. In 1979, development of mineable reserves on the Copper Mountain side of the project commenced with the installation of a new primary crusher and conveyer system across the Similkameen River. This helped feed the mill which been expanded from 13,500 tonnes per day to over 20,000 tpd. Production from the Copper mountain side was from pits 1, 2, and 3. The entire property was sold by Newmont in 1988 to Cassiar Mining Corporation (later to become Princeton Mining Corp. (PMC)). The operation continued under the name Similco Mines Ltd. with mining from pits 1 and 3 and a small tonnage from the Virginia pit, until late1996, when economic conditions prevented profitable operations and the mine closed.

Copper Mountain Mining Corporation was formed in 2006 and acquired the Copper Mountain Property and immediately embarked on a large exploration program. Following a period of historical data collection and verification, a Quantec Titan24 deep-penetration IP survey, and a re-interpretation of the data, an aggressive drill program was undertaken to expand the resource base. Drilling was successful and, following a Feasibility Study in 2009, a production decision was made for a 35,000t/d milling operation on the basis of a 211Mt reserve grading 0.37% Cu plus gold and silver, with a life of mine strip ratio of 2:1, and a resource base (including inferred

material) of ~5 billion pounds of copper. Mitsubishi Material s Corp., a long time purchaser of the concentrate from the site, partnered with CMMC by purchasing a 25% project interest and arranging 75:25% debt to equity financing at very attractive interest rates in exchange for a life of mine concentrate off-take agreement. Construction was initiated in 2010 and the first concentrate was produced in June, 2011. Concentrate is trucked to Vancouver for shipping to Mitsubishi's smelters in Asia. The mine has had difficulties consistently achieving design capacity due to problems getting very hard ore through the SAG mill. Production problems were partly mitigated by a combination of changes in the mine plan, to mining softer material and high intensity blasting. However, the addition of a large secondary crushing unit to the mill circuit between the primary crusher and the SAG mill has allowed the mill to consistently exceed design capacity and thereby lower production costs.

Although the mine has a large resource base, exploration is still on-going in an effort to continuously upgrade and improve resource and reserve status of the property.

1.5 Description of Current Exploration Work

The work documented in this report was part of a larger project carried out by Amec Foster Wheeler Environment and Infrastructure which was carried out for the purposes of supporting the ongoing mining operation and raising of the existing Tailings Management Facility (TMF). The primary objectives of the program were to: 1) further delineate the extents of the glaciolacustrine layer encountered upstream of the East Dam starter dam in 2012; 2) further validate the presence or absence of glaciolacustrine soils below the East and West Dams, to add piezometers to supplement the existing instrumentation network, and 3) to assess surficial and bedrock geology for a potential expansion option of the TMF, downstream (north) of the existing East Dam. It is the assessment of surficial and bedrock geology, as determined from four sonic drill holes, of the potential tailings expansion site that is the subject of this report.

Four drill holes were advanced within the possible tailings expansion area, approximately 2.2 km downstream of the East Dam, and included the installation of four standpipe piezometers. The drill holes are arranged in a linear pattern with approximate 100m spacing along the length of the valley bottom as illustrated in Figure 1.3, with BH # 1 being southernmost and BH # 4 being the northernmost. The drill-holes are straddle to the boundary between the Newmin 4 and Newmin 5 mineral claims. The stratigraphy underlying the possible expansion area generally consisted of fill, lacustrine silt, fluvial sands and gravels, glaciofluvial sands and gravels, glacial till and bedrock. A thick deposit of alluvial sands and gravels was encountered in drill hole BH15-04N.

Core Photographs and Drill Logs are located in Appendix 2 and a Sieve Analysis Report and Moisture Content worksheet are included in Appendix 3.

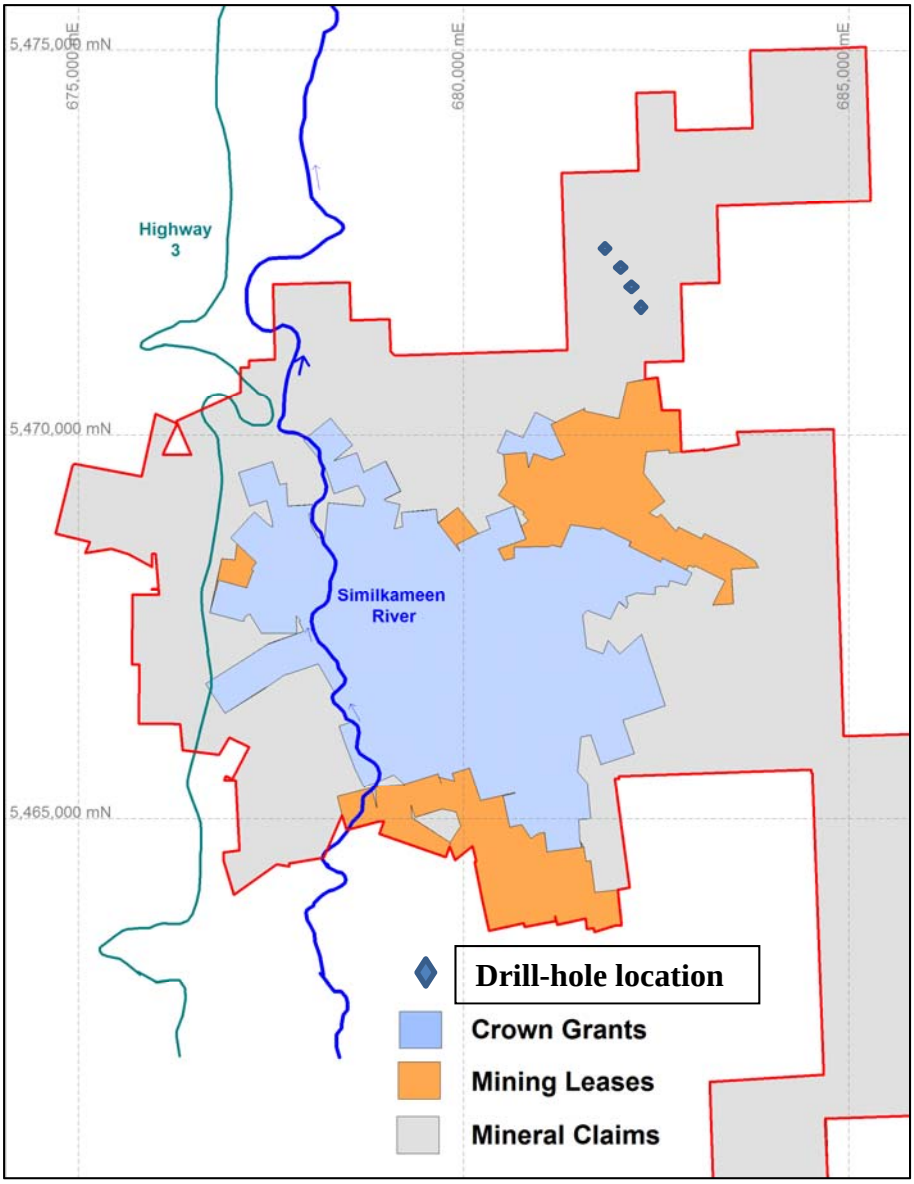

Figure 1.3: *Location of drill holes relative to land title and mineral claims*

A more detailed location plan is located in Appendix 4.

2. Geology

2.1 Regional Geologic Setting

The Copper Mountain area is host to British Columbia's southernmost alkali porphyry deposits within Quesnel terrane (Fig. 2.), an extensive north trending, allochthonous belt comprised of the Nicola Group arc volcanic and related sedimentary rocks deposited on deformed Paleozoic arc volcanic and sedimentary rocks. The Quesnel terrane and a very similar northern equivalent, the Stikine terrane, are separated by the Cache Creek terrane, an oceanic accrectionary assemblage (Nelson and Colpron, in press). Amalgamation of these terranes, as well as the Yukon Tanana and Slide Mountain terranes to form the Intermontane Belt (or super terrane) began in the Late Paleozoic and was largely completed by mid-Jurassic time (Monger *et al*., 1992). Late Triassic to Early Jurassic calc-alkaline and alkaline porphyry deposits occur along the full extent of the Quesnel, Stikine and, arguably, the Yukon Tanana terrane (Nelson and Colpron, 2007) forming a mineralized trend nearly 1,800km in length.

Most of the southern part of the Quesnel terrane is formed by the Nicola Group rocks containing a thickness upwards of 7,000m of volcanic, sedimentary and coeval intrusive rocks of the Late Triassic age (Preto, 1972, 1979). The Nicola Group is predominately a mafic (basalt-andesite) volcanic assemblage of flows, breccias, epiclastic and pyroclastic rocks, derived sediments and locally, argillite and limestone. The volcanic rocks are characterized by being dark coloured, quartz saturated, but rarely quartz-bearing, clino-pyroxene (+/-plag) porphyrtic basalts, locally with analcime. The Nicola Group has been divided into four lithological assemblages/structural belts by Monger (*et al*., 1992, 1989) and Monger and McMillan (1989) which can be summarized as: 1) western belt – steeply dipping, east-facing, late Carnian to Norian, subaqueous felsic, intermediate and mafic calc-alkaline flows grading up into volcaniclastic rocks; 2) central belt – early to middle Norian, subaqueous to subaerial basalt and andesite flows, volcanic breccias, and lahars of both alkalic and calc-alkalic affinity; 3) overlying, westerly dipping, "eastern volcanic belt" (late Norian) composed of subaqueaous and subaerial, alkali, intermediate and mafic volcanic flow, fragmental and epiclastic rocks that were deposited on, or between, several well-defined emergent volcanic edifices; and 4) eastern sedimentary assemblage; (Ladinian to middle Norian) that is overlapped by the eastern volcanic belt and is composed (mostly) of greywackes, siltites, argillites, alkali intermediate tuffs and reefal limestone, possibly deposited in back-arc subaqueous environment. The Copper Mountain area is situated within the 'eastern volcanic belt' of the Nicola Group.

The Nicola Group hosts several, Late Triassic, alkalic intrusions, including the Iron Mask batholith and the Copper Mountain intrusions, as well as numerous smaller intrusions, most of which occur in the eastern volcanic belt. Intrusive compositions range from pyroxenite to syenite, although diorite and monzonite are the most common, and most are compositionally similar to their volcanic host rocks (Lang, 1993). Additionally, dykes, dyke swarms, and

intrusive breccias are common features, suggesting sub-volcanic intrusion. In contrast, the Late Triassic, calc-alkaline intrusions of the Quesnel terrane differ from the alkalic intrusions in that they tend to be larger, more compositionally homogeneous, and display less evidence of being sub-volcanic and occur in all four belts of the Nicola Group.

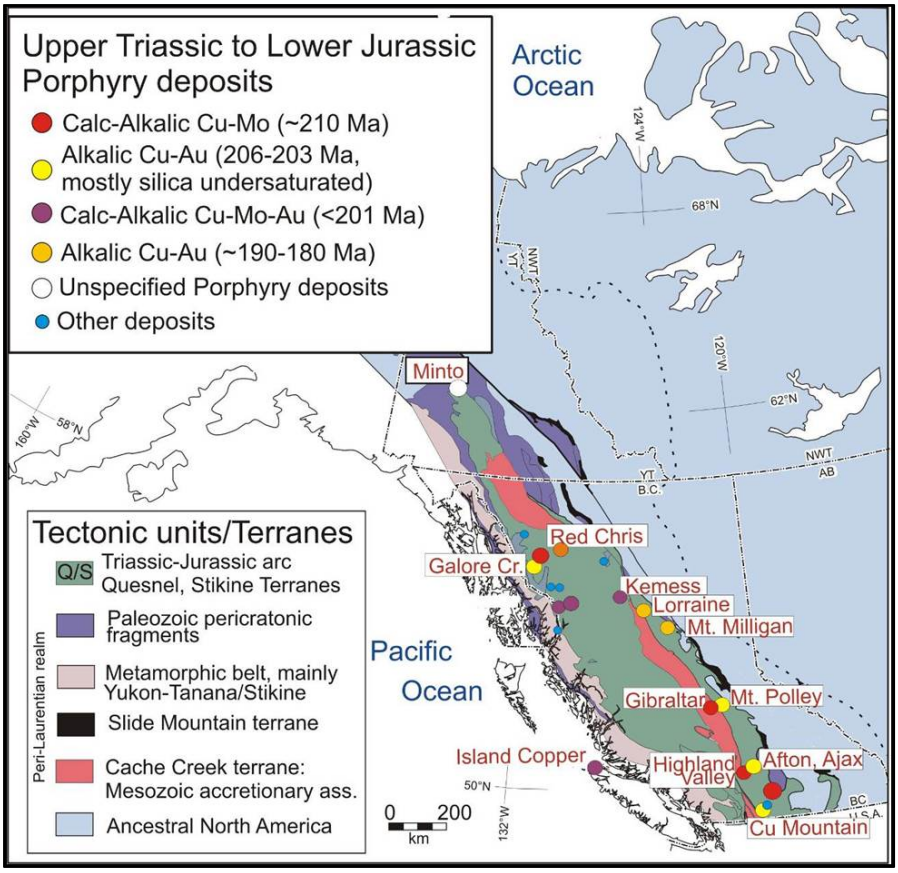

Figure 2.1: Tectonic Terrane Map of British Columbia with locations for Upper Triassic to Lower Jurassic porphyry deposits.

2.3 Property Geology

The geology of the Copper Mountain area is dominated by four rock units: the Nicola Group (eastern belt), the Copper Mountain stocks, the Lost Horse Intrusive complex, and the unconformably overlying, Tertiary, Princeton Group volcanic and sedimentary rocks (Fig. 3). The first three units are closely spaced in age and believed to be co-magmatic (Stanley *et al.*, 1995; Mihalynuk, *et al.* 2010) and similarities in both composition and texture, can make field identification difficult, particularly where the rock has been hydrothermally altered, and therefore, contacts should be considered generalized.

Initial bedrock exposure in the mine area was generally poor due to a moderately thick cover of glacial till, with the best exposures provided by the steep canyon walls of the Similkameen River. Most of the current rock exposure in the mine area is from Pit walls, road cuts and drill

core. The area of known mineralization is generally constrained by the Boundary Fault (Preto, 1972) on the western side, the Verde Creek pluton on the eastern side, and thick deposits of the Princeton Group to the north. Both the Copper Mountain Stock and Nicola Group volcanic rocks continue to the south, and although a considerable amount of exploration has taken place along the southern periphery of the stock over the years, no significant resources have been defined as of yet. Lost Horse intrusions appear to be absent in the southern area.

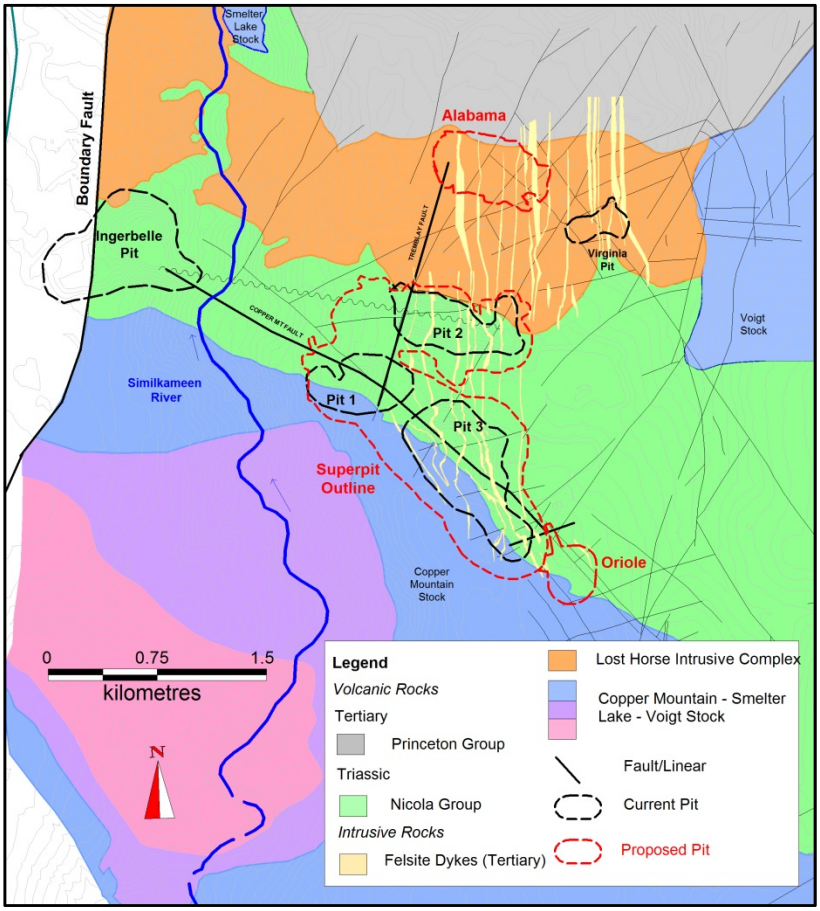

Figure 2.2: *Simplified property geology of the Copper Mountain area and displaying the relative locations of historical pits and current 'superpit'.*

The TMF is located in an east-west trending, deep valley on the north side of the mineralization area (just off of top of Figure 2.2) which merges into the north-easterly trending Wolfe Creek valley immediately east of the East Dam of the TMF. All of the TMF and Wolfe Creek Valley is underlain by Tertiary Princeton Group volcanic rocks (gray colour in Figure 2.2).

3. Sonic Drilling Program

3.1 Introduction

Copper Mountain Mine (BC) Ltd. ("CMML") engaged Amec Foster Wheeler to undertake a geotechnical site investigation of the Tailings Management Facility (TMF) at the Copper Mountain Mine (CMM) located approximately 15 km south of Princeton, BC. The site investigation program included drilling and instrumentation installations to support the ongoing operation, and raising the dams of, the existing TMF. The preliminary scope of the program was discussed in the 2014 Annual Review and As-built Report (AmecFW, 2015) which included the use of sonic drilling methods to further validate the presence or absence of glaciolacustrine soils below the East and West Dams. This report documents the factual details of the 2015 site investigation program and provides:

i) the general findings of the site investigation;

ii) detailed geotechnical logs of the 2015 drill holes;

iii) relevant photographs pertaining to the soil and bedrock cores; and

iv) a summary of laboratory index testing on select soil samples.

This report does not provide any analyses or recommendations pertaining to the design of the tailings dams. Data interpretation is limited to the discussion Section 3.6 and the geological cross section located in Appendix 4.

3.2 Background and Objectives

Open pit production mining at CMM and use of the TMF commenced in 1972. The mine continued to operate until November 1996 at which time operations were suspended due to market conditions. The mine and the tailings area had remained inactive until the mine was reactivated in 2011.

The main objective of the work described herein was a preliminary assessment of a potential expansion option for the TMF, downstream of the East Dam along Wolfe Creek.

3.3 Scope and Methodology of Geotechnical Investigation

Drilling took place between June 12 and July 2, 2015. Boart Longyear, based out of Calgary, Alberta, was retained by CMML to carry out the drilling for this investigation. The drill-holes were advanced using a track-mounted Sonic drilling rig using the TRUSONIC™ drilling system. Amec Foster Wheeler provided continuous supervision of the drilling and instrumentation installation, field testing, logging of soil core and collection of soil samples for laboratory index testing. Water for drilling purposes was procured from Wolfe Creek (for the East Dam and Proposed Expansion Area drill holes) and the West Dam seepage pond (for West Dam drill holes).

Collar locations of all drill holes were surveyed by CMM surveyors following the completion of the program and are presented in Table 3.1. Figure 3.1 illustrates the drill locations in plan-view for the Possible Tailings Expansion Area.

The recovered soil and rock cores were sequentially organized in core boxes marked with depth of each run, drill hole identification number and date of drilling. Detailed geotechnical logs for all drill holes are provided in Appendix II. Explanations for all the terms and symbols used in soil logging are also provided in the logs. Photographs of soil cores were taken for later review and confirmation of geological core logging and are included in Appendix III. Selected photographs of the general site condition and setup are provided in Appendix IV**Error! Reference source not found.**.

Grab samples were collected from the core at selected intervals. The grab samples were placed in plastic bags, sealed and labeled with the drill-hole number, sample number and depth. The depths at which grab samples were obtained are shown in the drill-hole logs. The samples were tested in Amec Foster Wheeler's Surrey, BC laboratory for moisture content, sieve and hydrometer analysis, specific gravity and Atterberg limits where applicable. Detailed laboratory test results are provided in Table 3.2

All drill holes were backfilled with various combinations of grout, sand and bentonite depending on whether or not instrumentation was installed. Specific installation details are provided on the detailed drill logs in Appendix 2.

Detailed descriptions of the field and laboratory program are provided in the following sections of this report.

3.4 Summary of Site Investigation Factual Details

3.4.1 Geotechnical Drilling

Four sonic drill-holes were completed within the Possible Tailings Expansion Area. The collar details of all drill holes are summarized in Table 3.1**Error! Reference source not found.**.

3.4.2 Instrumentation

The site investigation program included standpipe piezometer installations in the four drill-holes for monitoring water levels and pore pressures. The standpipe materials consisted of threaded schedule 80 PVC pipes (38mm I.D.) with a 3.0m long screen interval (10 slot porosity). The bottom of the pipe was closed with a cap, and all pipes were connected by threading the ends. The screened interval was sealed at the bottom and top with bentonite pellets and packed with 10/20 filter sand. The remainder of the drill-hole was backfilled to surface with bentonite chips. All standpipes were installed with sufficient "stick-up" lengths above ground surface to permit instrument measurement and/or future extension as noted on the drill logs. In most installations, protective surface casings were installed to reduce the potential for damage to the standpipes.

Water level measurements were taken at the end of the installation and in the days following installation to check for stabilization of the water table around the drill-hole annulus. Standpipe installation and measurement details are summarized in Table 3.2 and on the drill hole logs in Appendix II.

Table 3.1: Field Program Summary

Drill Hole No.	Northing (m)	Easting (m)	Elevation (m)	Drilled Depth (m)	Date Started	Date Finished	Instrument Installed
Possible Expansion Area (North Dam)							
BH15-01N	5471691	682030	776.0	22.9	6/26/2015	6/27/2015	SP
BH15-02N	5471845	681958	771.7	20.7	6/27/2015	6/27/2015	SP
BH15-03N	5471973	681868	770.6	15.8	6/28/2015	6/28/2015	SP
BH15-04N	5472092	681750	783.1	27.1	6/28/2015	6/29/2015	SP

Table 3.2: Summary of Standpipe Piezometer Installations and Measurements

		Proposed Expansion Area (North Dam)			
		BH15-01N	BH15-02N	BH15-03N	BH15-04N
Installation	Piezometer ID	PZ15-01N	PZ15-02N	PZ15-03N	PZ15-04N
	Elevation of top of standpipe (m)	776.76	772.49	771.52	783.98
	Elevation of ground level (m)	776	771.7	770.6	783.1
	Depth of top of slotted pipe (m)	13.7	12.2	8.5	18.3
	Elevation of top of slotted pipe (m)	762.3	759.5	762.1	764.8
	Depth of bottom of slotted pipe (m)	16.8	15.2	11.6	21.3
	Elevation of bottom of slotted pipe (m)	759.2	756.5	759	761.8
	Stick-up above ground level (m)	0.76	0.75	0.88	0.91
	Geologic Formation	Fluvial Sand and Gravel	Fluvial Sand and Gravel	Fluvial Sand and Gravel	Alluvial Sand and Gravel
Readings	Date of Installation	6/27/2015	6/27/2015	6/28/2015	6/29/2015
	WL depth at end of installation (btoc, m)	4.11	0.75	0.12	13.78
	WL elevation at end of installation (m)	772.65	771.74	771.4	770.2
	Date	6/28/2015	6/28/2015	-	-
	WL depth on above date (btoc, m)	4.15	0.71	-	-
	WL elevation on above date (m)	772.61	771.78	-	-
	Date	-	-	-	-
	WL depth on above date (btoc, m)	-	-	-	-
	WL elevation on above date (m)	-	-	-	-

Note: btoc = below top of casing

3.4.3 Foundation Conditions

Detailed descriptions of the site investigations findings, including the general foundation conditions encountered within the Possible Tailings Expansion Area are outlined in the following sections. It should be noted that classification of density and consistency of soils described below are based on observations of the ease of drilling including the relative speed of advancement as well as the appearance of the recovered soil core. It is noted that sonic drilling induces significant disturbance into the soil core such that determination based on the soil core alone would be erroneous and thus the descriptions of density included herein should be considered as qualitative rather than quantitative.

Within the Proposed Expansion Area, the stratigraphic details encountered in drill holes BH15-01N through 04N are as follows:

- Native soil contact beneath fills (BH15-01N): El. 773.0 m
- Thicknesses of overburden: between 11.9 to 24.2 m
- Bedrock contact: between El. 755.9 to 758.9 m

3.4.3.1 Overburden Conditions

The following major overburden deposits were identified based on geotechnical logging of soil cores.

Fill

Fill was encountered in drill hole BH15-01N with a thickness of approximately 3.0 m. The fill generally consisted of a mixture of silty sand and gravel, with some debris and organics.

Alluvial Fan

An alluvium deposit was encountered in drill hole BH15-04N extending from ground surface to a depth of approximately 21.3 m. The deposit was generally characterized as well graded, dense gravel to sand and gravel (GW-SW) with moisture contents ranging from 9.1% and 9.9%.

The alluvium was investigated as a potential borrow source for future construction activities.

Lacustrine

Lacustrine deposits were encountered in drill holes BH15-01N through 03N with thicknesses ranging from 1.5 to 8.8 m, increasing to the north. They were generally characterized as soft silt (ML-OL) with low to medium plasticity, a massive structure and occasional organics. Moisture contents ranged from 32.1% to 56.6%. Liquidity indexes ranged from 0.7% to 2.1%. Specific gravity testing in drill hole BH15-01N yielded a result of 2.72.

Fluvial

Fluvial deposits were encountered in three of the four drill holes with thicknesses ranging from 0.8 to 9.4 m. They were generally characterized as loose to dense sand (SW), with moisture contents of 7.5% and 4.0% (in BH15-01N and 02N, respectively).

Glaciofluvial

Glaciofluvial deposits were encountered in drill holes BH15-01N, 02N and 04N, with thicknesses ranging from 0.9 m and 3.1 m, respectively. They were generally characterized as compact to dense gravel (GW).

These gravels are interpreted to be glaciofluvial deposits laid down prior to the development of Wolfe Creek at the beginning of the Holocene.

Glacial Till

A single deposit of glacial till (2.0 m thick) was encountered in drill hole BH15-04N. The till was characterized as well graded, dense sand and gravel (SW-GM) with a moisture content of 7.9%.

3.4.3.2 Bedrock

Bedrock was encountered between El. 755.9 and 758.9 m in drill holes BH15-01N through 04N. Since the drilling program was primarily focused on characterizing the overburden soil, the holes were only advanced approximately 2.8 to 4.5 m into bedrock to confirm its presence.

Bedrock in all holes advanced within the proposed expansion area consisted of weathered, brecciated fine grained volcanic rock. Angular fragments of intact rock were found in a weathered, crystalline matrix. Weathering was observed to decrease with depth. Bedrock in drill holes is similar to that exposed in nearby bluffs consisting of lahar and tuffaceous deposits of the Eocene Princeton Group.

3.5 Laboratory Index Testing

Laboratory testing methods used to characterize the grab samples collected from the overburden core included moisture content, Atterberg limits, grain size analyses and specific gravity. The laboratory testing program is summarized in Table 3.3.

Table 3.3: Laboratory Testing Summary

Type of Test Completed	ASTM Standard	Sample Type	Number of Tests
			Proposed Expansion Area
Moisture Content	D2216	Grab	11
Grain Size Analysis/Hydrometer	C136, D422	Grab	11
Atterberg Limits	D4318	Grab	3
Specific Gravity	D854	Grab	1

Table 3.4 provides a summary of laboratory testing results completed for the 2015 site investigation program. Atterberg limits and grain size analyses results are illustrated in Figures 5.1 and 5.2. Detailed laboratory test results are provided in **Error! Reference source not found.**.

Table 3.4: Laboratory Testing Results

Sample Information				Material Composition				Moisture Content (%)	Atterberg Limits				Specific Gravity	Mod. USCS Soil Class
Drill hole	ID	Depth (m)	Elevation (m)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)		LL (%)	PL (%)	PI (%)	LI (%)		
Proposed Expansion Area (North Dam)														
BH15-01N	G2[1]	4.88	771.1	0	27	55	18	32.1	37	19	18	0.7	2.72	CI
BH15-01N	G4	10.67	765.3	58	39.3	2.7		7.5	-	-	-	-	-	GW
BH15-02N	G1[1]	1.5	770.2	0	18	67	15	49.4	41	28	13	1.6	-	OL
BH15-02N	G4	7	764.7	68	29.3	2.7		4	-	-	-	-	-	GW
BH15-03N	G1[1]	3.7	766.9	2	32	55	11	56.6	44	33	11	2.1	-	OL
BH15-04N	C1	0-3	781.6	-	-	-	-	9.1	-	-	-	-	-	-
BH15-04N	G1	3	780.1	59	30.8	10.2		9.4	-	-	-	-	-	GW-GM
BH15-04N	G1	3-4.6	780.1	53	37.1	9.9		-	-	-	-	-		GW-GM
BH15-04N	C2	4.6	778.5	48	36.1	15.9		9.2	-	-	-	-	-	GM
BH15-04N	C3	6.1	777.0	55	34.9	10.1		9.1	-	-	-	-	-	GW-GM
BH15-04N	C4	7.6	775.5	54	31.7	14.3		9.9	-	-	-	-	-	GM
BH15-04N	G2	21.6	761.5	56	29.5	14.5		7.9	-	-	-	-	-	GM

Note: 1. Sample taken from the Lacustrine deposit.

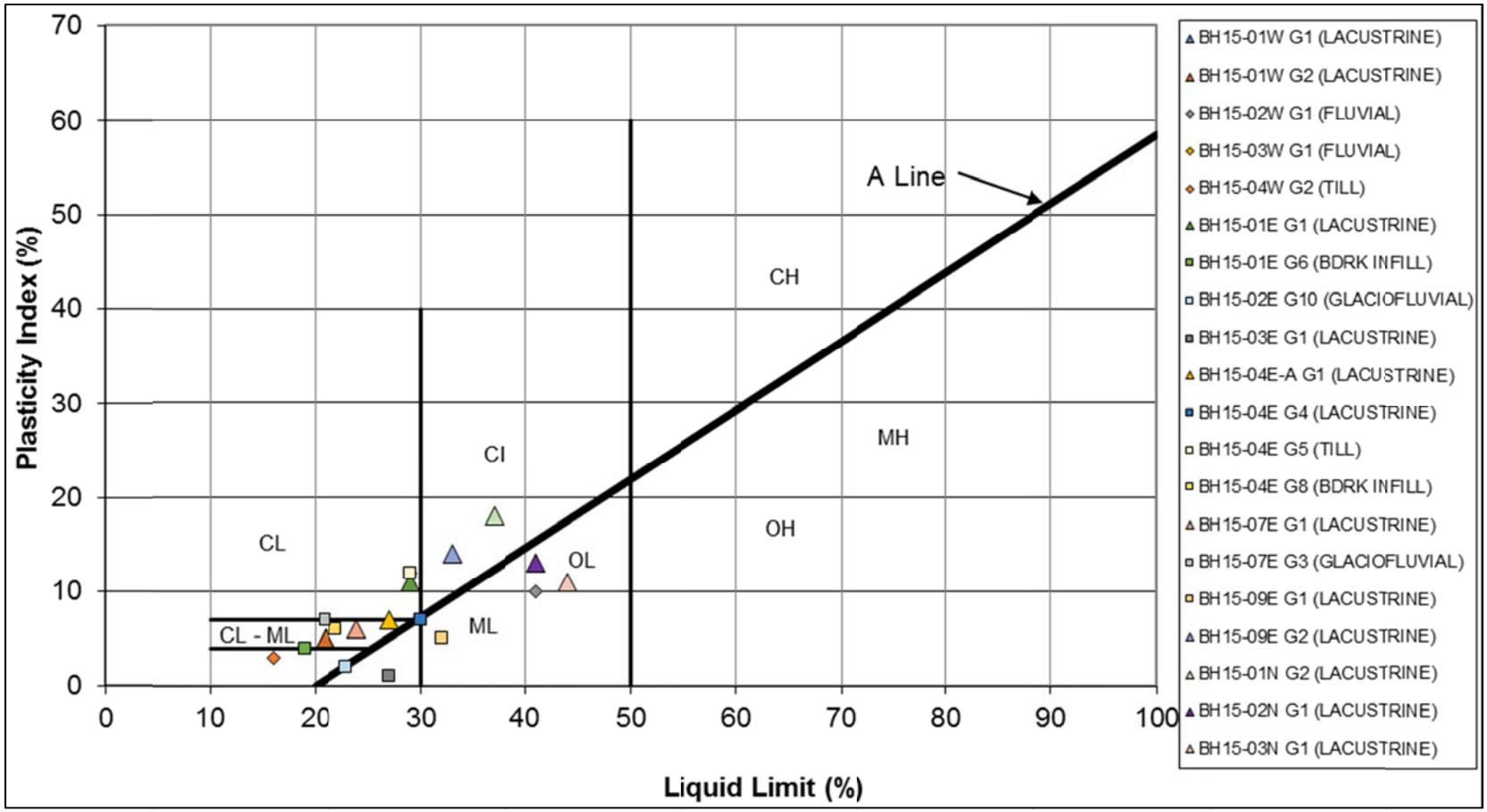

Figure 3.1: Summary of Atterberg Limits

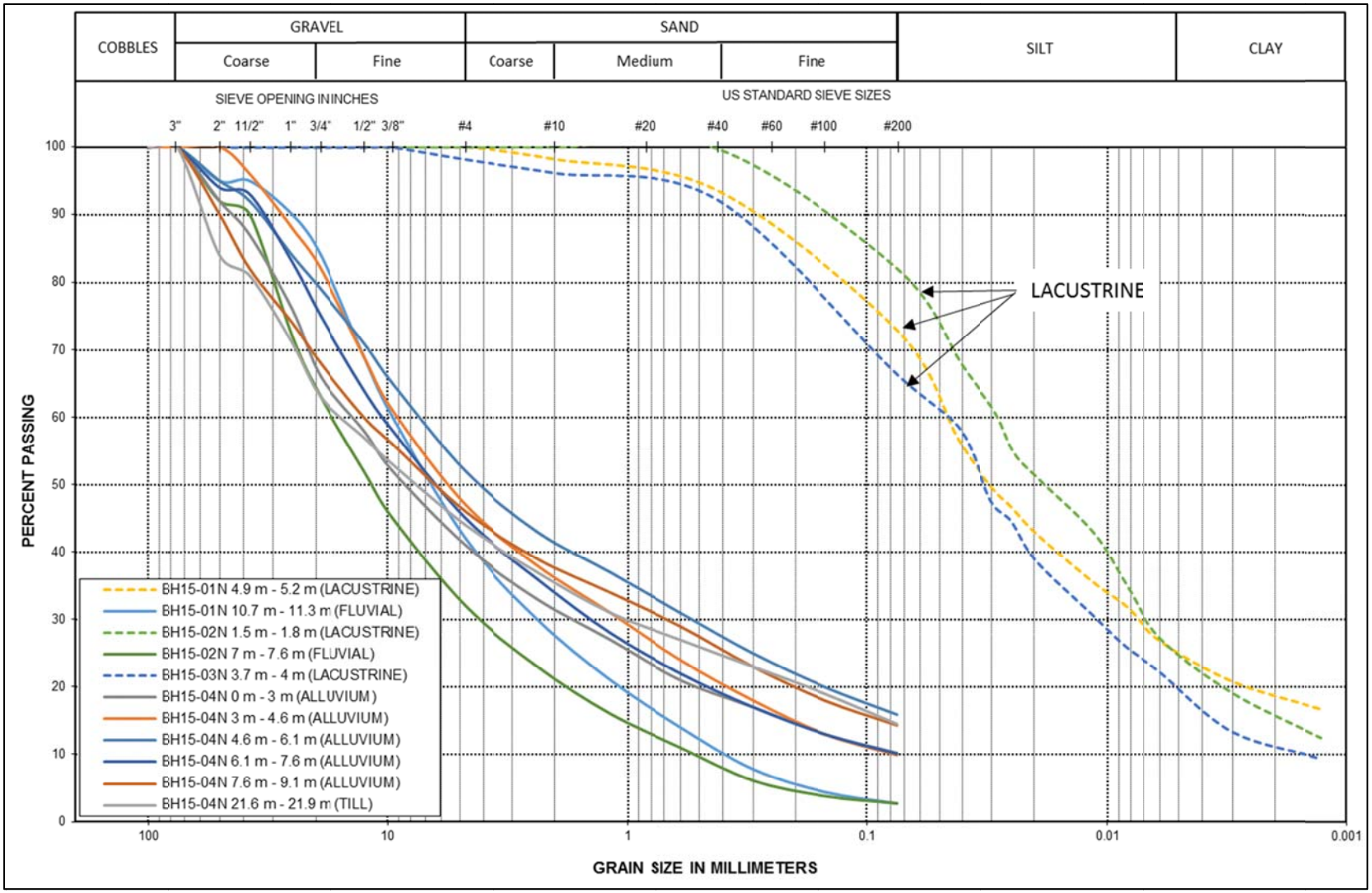

Figure 3.2: Summary of Grain Size Analyses – Possible Tailings Expansion Area (North Dam)

3.6 Updated Geological Interpretation

The TMF is located within the Smelter Lake valley which has been interpreted as a former meltwater channel for the draining of glacial lakes formed by a northward retreating ice front (AMEC 2013). It is inferred that at various times during glaciation ice-dammed lakes developed in these valleys (Preto, 1972), which led to the deposition of glaciolacustrine soils encountered in the Similkameen valley. Near-surface lacustrine (not glaciolacustrine) sediments were encountered upstream of both the East and West Dams (prior to TMF construction) which have been attributed to Holocene (post-glacial) deposition within the original Smelter Lake. Several post-glacial debris fan and colluvial apron deposits are also present in the Smelter Lake valley, including the fan of Wolfe Creek where it enters at the toe of the East Dam. It is also noted that during historical investigations for the TMF by Klohn Leonoff (1990), no such sediments were reported to exist below and downstream of the starter dam embankments. Using these interpretations and a recent review of historical airphotos as a basis, the following sections further discuss the inferred extent and deposition of the lacustrine sediments encountered in the 2015 investigation.

Based on the review of previous drill hole data (GW08) and results from the 2015 investigation (BH15-01N to 03N), it appears that lacustrine deposits exist as a relatively thin layer (2.8 m) below the proposed starter dam footprint, increasing in thickness (8.8 m) northwards and then begins to thin (4.1 m) towards the toe of the proposed ultimate dam footprint. Other than where the road fill was encountered in BH15-01N, the lacustrine soils were generally encountered at the ground surface.

Although historically in an area of previously ice-dammed lakes (Preto, 1972), it is assumed that the lacustrine sediments in the valley of Wolfe Creek have been formed more recently, accumulating in ponded areas and channel fillings of Wolfe Creek. (Lord and Green, 1974) According to the Soil Map of the Princeton Area (Canada Department of Agriculture, 1975), surficial soils in the area of the North Dam along Wolfe Creek consist of partially decomposed material in a wetland plant community and are very poorly drained.

4. Conclusions

Based on the findings of the overburden drilling and laboratory testing, as well as the review of previous investigations, the main objectives of the 2015 site investigation program were satisfied as follows:

1. **Possible Tailings Expansion Area (North Dam):** The foundation conditions below the central region of the possible dam footprint generally consist of lacustrine soils (2.8 to 8.8 m thick) overlying fluvial sands and gravels (0.8 to 9.4 m thick) overlying glaciofluvial

sands and gravels (2.7 to 3.1 m) overlying bedrock. An alluvial fan deposit (21.3 m thick) exists at the dam's north west extents and is underlain by glacial till (2 m thick), glaciofluvial sands (0.9 m thick) and bedrock. Bedrock material appears to be similar to that exposed on the adjacent valley walls. A cross section is included in Appendix 4.

2. **Instrumentation:** Piezometers were successfully installed the possible tailings expansion area (4 standpipe piezometers).

Limitations and Closure

This report has been prepared for the exclusive use of Copper Mountain Mine (BC) Ltd. for specific application to the area within this report. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of such third parties. Amec Foster Wheeler accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. It has been prepared in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.

General Site Photograph

D.9: Drill Rig setup at BH15-02N, Proposed Expansion Area.

D.10: Standpipe installed at BH15-03N, Proposed Expansion Area.

amec foster wheeler	Copper Mountain Mine Tailings Facility 2015 Site Investigation General Site Photographs		
Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 5

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Statement of Expenditures

Sonic Drilling

Mob/Demob Sonic Rig SR152 – Track	(25% of $40,000)	$10,000.00
Drilling costs 4 holes (170) for possible TMF expansion		$16,749.58
AMEC Engineering	(25% of 139958.18)	$34,989.45
Laboratory Fees	(25% of 29016.90)	$ 7,254.23
. Supervision/ Logistics and Report (P. Holbek)		$ 1,500.00
Expenses (accom/meals/travel)		$ 374.00
		==========
Total:		**$ 70,867.26**

Statement of Qualifications

I, Peter M. Holbek with a business address of 1700 – 700 West Pender Street, Vancouver, British Columbia, V6C 1G8, do hereby certify that:

1. I am a professional geologist registered under the Professional Engineers and Geoscientists Act of the Province of British Columbia and a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
2. I am a graduate of The University of British Columbia with a B.Sc. in geology 1980 and an M.Sc. in geology, 1988.
3. I have practiced my profession continuously since 1980.
4. I am Vice President, Exploration for Copper Mountain Mining Corp. having a business address as given above.
5. I was on-site during the drilling of the four holes in the potential tailings dam area and have adapted a report by Amec Foster Wheeler Environment & Infrastructure, a Division of Amec Foster Wheeler Americas Limited which was submitted to Copper Mountain Mining Corporation, to meet the format guidelines of an Assessment Report.

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Peter Holbek, M.Sc., P.Geo.

Appendix 1: Claim Listing

TABLE 3: Mineral Claim Current Status - Copper Mountain Property, BC
Copper Mountain Mine (BC) Ltd.
Client No. - 141588

Tenure No.	Claim Name	Issue Date	Good ToDate	Area (ha)
248598	ROAD	1976/apr/08	2019/nov/30	75
248603	SIMCOL #1 FR.	1976/nov/05	2020/nov/30	25
248604	SIMCOL #2 FR.	1976/nov/05	2020/nov/30	25
248605	SIMCOL #10	1976/nov/05	2019/nov/30	100
248606	SIMCOL #11	1976/nov/05	2019/nov/30	25
248609	NEWMIN #1	1977/mar/24	2018/nov/30	500
248610	NEWMIN #2	1977/mar/24	2018/nov/30	400
248626	NEWMIN #3	1978/feb/02	2018/nov/30	225
248627	NEWMIN #4	1978/feb/02	2018/nov/30	50
248628	NEWMIN #5	1978/feb/02	2018/nov/30	75
248640	DOT FR	1978/jun/20	2020/apr/26	25
248723	ALPINE #1	1979/jul/20	2021/apr/26	75
248724	ALPINE FR.	1979/jul/20	2021/apr/26	25
248778	BULLET #1 FR.	1979/nov/27	2021/apr/26	25
248779	BULLET #2 FR.	1979/nov/27	2021/apr/26	25
248782	REFER TO LOT TABL	1979/dec/21	2018/apr/26	25
248783	NM #1 FR.	1979/dec/28	2018/apr/26	25
248784	NM #2 FR.	1979/dec/28	2020/apr/26	25
248785	NM #3 FR.	1979/dec/28	2020/apr/26	25
248786	NM #4 FRACTION	1979/dec/28	2020/apr/26	25
248787	NM #5 FR.	1979/dec/28	2020/apr/26	25
248788	NM #6 FR.	1979/dec/28	2018/apr/26	25
248809	LAN NO.1	1980/may/28	2018/nov/30	50
248810	LAN NO.2	1980/may/28	2018/nov/30	25
248811	LAN NO.3	1980/may/28	2018/nov/30	150
248812	LAN NO.4	1980/may/28	2018/nov/30	100
248813	LAN NO.5	1980/may/28	2018/nov/30	50
248814	LAN NO.6	1980/may/28	2018/nov/30	50
248815	LAN NO.7	1980/may/28	2018/nov/30	50
249233	ALPINE 3	1987/jul/24	2020/apr/26	500
249234	ALPINE 4	1987/jul/24	2020/apr/26	500
249235	ALPINE 5	1987/jul/24	2020/apr/26	25
249264	ALPINE 6 FR	1987/oct/08	2020/apr/26	25
249265	ALPINE 7 FR	1987/oct/08	2021/apr/26	25
250157	PENNY NO. 1 FR.	1955/apr/01	2020/apr/26	25
250159	MAY #1	1961/mar/21	2020/apr/26	25

250161	MAY #5 FR.	1961/sep/01	2020/apr/26	25
250164	RAY NO. 7	1962/jun/27	2018/apr/26	25
250165	RAY NO. 8	1962/jun/27	2018/apr/26	25
250166	QUEEN D. FR.	1963/jul/08	2022/apr/26	25
250167	QUEEN E. FR.	1963/jul/08	2022/apr/26	25
250168	QUEEN G. FR.	1963/jul/08	2022/apr/26	25
250170	QUEEN J. FR.	1963/jul/08	2022/apr/26	25
250171	QUEEN B. FR.	1963/jul/05	2022/apr/26	25
250172	QUEEN A. FR.	1963/jul/05	2022/apr/26	25
250173	QUEEN C. FR.	1963/jul/05	2022/apr/26	25
250174	R.R. FR.	1963/jul/22	2020/nov/30	25
250175	R FR.	1963/aug/22	2020/nov/30	25
250176	ELEPHANT NO.1	1963/sep/11	2020/apr/26	25
250177	ELEPHANT NO. 2 FR.	1963/sep/11	2020/apr/26	25
250178	ELEPHANT NO. 3	1963/sep/11	2020/apr/26	25
250179	ELEPHANT NO. 4	1963/sep/11	2020/apr/26	25
250182	"E.M." FR	1964/dec/14	2020/apr/26	25
250185	"BEM" NO.1	1964/dec/23	2021/apr/26	25
250186	"BEM" NO.3	1964/dec/23	2021/apr/26	25
250187	"BEM" NO.5	1964/dec/23	2021/apr/26	25
250188	"BEM" NO.7	1964/dec/23	2021/apr/26	25
250195	RAD NO.1	1965/may/26	2018/jan/15	25
250196	RAD NO.2	1965/may/26	2018/jan/15	25
250197	RAD NO.3	1965/may/26	2018/apr/26	25
250198	RAD NO.4	1965/may/26	2018/apr/26	25
250199	RAD NO.5	1965/may/26	2018/apr/26	25
250200	RAD NO.6	1965/may/26	2018/apr/26	25
250201	RAD NO.7	1965/may/26	2018/apr/26	25
250202	RAD NO.8	1965/may/26	2018/apr/26	25
250204	RAD NO.10	1965/may/26	2018/apr/26	25
250205	BRIAN H. FR.	1965/jul/26	2020/apr/26	25
250206	SER #3	1965/nov/30	2020/apr/26	25
250207	SER #4	1965/nov/30	2020/apr/26	25
250208	SER #5	1965/nov/30	2018/apr/26	25
250209	SER #6	1965/nov/30	2021/apr/26	25
250210	SER #7	1965/nov/30	2018/apr/26	25
250211	SER #8	1965/nov/30	2018/apr/26	25
250212	SER #9	1965/nov/30	2018/apr/26	25
250213	SER #10	1965/nov/30	2018/apr/26	25
250214	SER #11	1965/nov/30	2018/apr/26	25
250215	SER #12	1965/nov/30	2018/apr/26	25
250216	SER #13	1965/nov/30	2020/apr/26	25
250217	SER #14	1965/nov/30	2020/apr/26	25

250218	SER #15	1965/nov/30	2020/apr/26	25
250219	SER #16	1965/nov/30	2020/apr/26	25
250220	SER #17	1965/nov/30	2018/apr/26	25
250221	SER #18	1965/nov/30	2018/apr/26	25
250222	SER #19 FR.	1965/nov/30	2020/apr/26	25
250223	SER #20	1965/nov/30	2018/apr/26	25
250224	SER #21 FR.	1965/nov/30	2018/apr/26	25
250225	SER #22	1965/nov/30	2020/apr/26	25
250227	SER #24 FR.	1965/nov/30	2020/apr/26	25
250228	SER #25 FR.	1965/nov/30	2020/apr/26	25
250229	NUT #7	1966/feb/18	2020/apr/26	25
250230	NUT #8	1966/feb/18	2020/apr/26	25
250231	NUT #9	1966/feb/18	2020/apr/26	25
250232	NUT #10	1966/feb/18	2020/apr/26	25
250233	NUT #11	1966/feb/18	2020/apr/26	25
250235	NUT #13	1966/feb/18	2020/apr/26	25
250236	NUT #14	1966/feb/18	2020/apr/26	25
250240	RAY 13 FR	1965/may/27	2018/apr/26	25
250243	COPPER BLUFF FR.	1966/aug/15	2020/apr/26	25
250244	MCB #1	1966/sep/13	2018/apr/26	25
250245	MCB #2	1966/sep/13	2018/apr/26	25
250246	MCB #3	1966/sep/13	2018/apr/26	25
250247	MCB #4	1966/sep/13	2018/apr/26	25
250248	MCB #5	1966/sep/13	2018/apr/26	25
250249	MCB #6	1966/sep/13	2018/apr/26	25
250250	DEEP #1	1967/mar/16	2020/apr/26	25
250251	DEEP #2	1967/mar/16	2020/apr/26	25
250252	DEEP #3	1967/mar/16	2020/apr/26	25
250253	DEEP #4	1967/mar/16	2020/apr/26	25
250254	DEEP #5	1967/mar/16	2020/apr/26	25
250255	DEEP #6	1967/mar/16	2020/apr/26	25
250256	DEEP #7	1967/mar/16	2020/apr/26	25
250257	DEEP #8	1967/mar/16	2020/apr/26	25
250258	DEEP #9	1967/mar/16	2020/apr/26	25
250259	DEEP #10	1967/mar/16	2020/apr/26	25
250260	AF 13	1967/mar/31	2020/nov/30	25
250261	AF 14	1967/mar/31	2020/nov/30	25
250262	FRIEDA FR	1967/jun/08	2020/apr/26	25
250268	ANNIE FR.	1967/aug/01	2020/apr/26	25
250269	RAD #1 FR.	1967/nov/24	2020/apr/26	25
250270	BETH #1 FR	1967/dec/01	2020/apr/26	25
250271	BETH #2 FR	1967/dec/01	2020/apr/26	25
250272	BETH #3 FR	1967/dec/01	2018/apr/26	25

250273	BETH #5 FR	1967/dec/01	2018/jan/15	25
250274	BETH #4 FR	1967/dec/22	2018/jan/15	25
250275	BETH #6 FR	1967/dec/22	2018/apr/26	25
250276	BETH #7 FR	1967/dec/22	2020/apr/26	25
250277	BETH #8 FR.	1968/feb/05	2018/jan/15	25
250278	BETH #9 FR.	1968/feb/23	2020/apr/26	25
250279	BETH #10 FRACTION	1968/feb/27	2018/apr/26	25
250280	DEN #1 FR.	1968/jul/25	2020/apr/26	25
250281	DEN #2 FR.	1968/jul/25	2020/apr/26	25
250321	DEEP NO.1 FR	1971/mar/23	2020/apr/26	25
250323	DEEP NO.3 FR	1971/mar/23	2020/apr/26	25
250324	DEEP NO.4 FR	1971/mar/23	2020/apr/26	25
250325	DEEP NO.5 FR	1971/mar/23	2020/apr/26	25
250330	REFER TO LOT TABL	1974/nov/26	2020/nov/30	25
301376	WR 1	1991/jun/28	2022/apr/26	25
301377	WR 2	1991/jun/28	2022/apr/26	25
301378	WR 3	1991/jun/28	2022/apr/26	25
301379	WR 4	1991/jun/28	2022/apr/26	25
301380	WR 5	1991/jun/28	2022/apr/26	25
301381	WR 6	1991/jun/28	2022/apr/26	25
301394	WES 1	1991/jun/29	2019/apr/26	375
301395	WES 2	1991/jun/29	2019/apr/26	375
301396	WES 3	1991/jun/30	2019/apr/26	300
507839	CM 1	2005/feb/24	2016/nov/30	400.031
517244		2005/jul/12	2016/nov/30	399.936
517303	ING CU	2005/jul/12	2016/nov/30	84.212
156	Mineral Claims		Hectares:	8298.64
			Acres	20505.9

Appendix 2 Drill Hole Logs and Core Photographs

BOREHOLE BH15-01N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 26/06/2015 **FINISHED:** 27/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 776.0

COORDINATES (m): N5471691, E682030

SITE: North Dam

△ PL ○ NMC ▲ LL ★ % Fines

10 30 50 70 90

DEPTH (m)	DEPTH EL.	DESCRIPTION OF MATERIALS	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	INSTALLATION DETAILS	COMMENTS	ELEVATION (m)
0	0.15 / 775.8	ORGANICS AND CLAYEY GRAVEL						
		SAND (SW) (fine to coarse), some gravel (fine to coarse), max 60 mm, trace fines, well graded, loose, subangular to subrounded, brown, dry. **[FILL]**	1				1 REC = 46%	
1								775
2		at 2.5 m: broken glass at 2.6 m: dense, beige, moist						774
3	3 / 773.0	SILT (ML) and CLAY (CI), trace fine sand, medium plasticity, soft, slow dilatent, light brown with tan mottling, wet, massive, occasional rootlets. **[LACUSTRINE]**					Torvane =0.12kg/cm2	773
4			2	G1			Torvane =0.15kg/cm2	772
		at 4.6 m: 30 mm thick gravel lens					2 REC = 100%	
5		Lab test results for G2: MC=32.1%, Sand = 27%, Silt = 55%, Clay = 18%, LL=37%, PL=19% [CI]		G2			Torvane =0.13kg/cm2	771
				G3			Torvane =0.16kg/cm2	
6	5.79 / 770.2	SAND (fine to coarse) and GRAVEL (fine to coarse) (SW-GW), trace fines, trace cobbles, max 100 mm, well-graded, loose to compact, rounded, dark grey, wet. **[FLUVIAL]**						770
7			3					769
		at 7.6 m: 15 cm thick seam of medium sand, brown					3 REC = 92%	
8								768
9		below 9.0 m: grey, no cobbles at 9.3 m: 30 mm thick silty sand seam						767
10								766

19 32 1 37 73

N-GEO-SONIC-CUMTN MDM VM00482D.2.300_2015 SI.GPJ GINT STD US LAB.GDT 6/10/15

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PROJECT NO.: VM00482D.2.300

PROJECT: Copper Mountain TMF - 2015 Site Investigation

LOCATION: Princeton, BC

LOGGED BY: MH **REVIEWED BY:** AW

SHEET 1 OF 3 **BOREHOLE No. BH15-01N**

BOREHOLE BH15-01N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 26/06/2015 **FINISHED:** 27/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 776.0

COORDINATES (m): N5471691, E682030

SITE: North Dam

△ PL ○ NMC ▲ LL ★ % Fines

10 30 50 70 90

DEPTH (m)	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	DEPTH / EL.	DESCRIPTION OF MATERIALS	INSTALLATION DETAILS	COMMENTS	ELEVATION (m)
11	4	G4			SAND (fine to coarse) and GRAVEL (fine to coarse) (SW-GW), trace fines, trace cobbles, max 100 mm, well-graded, loose to compact, rounded, dark grey, wet. **[FLUVIAL]** *(continued)* Lab test results for G4: MC=7.5%, Gravel = 58%, Sand = 39.3%, Silt & Clay = 2.7% [GW]		4 REC = 100% 2.7 7.5	765
12					at 11.6 m: 15 cm thick sand seam, fine grained			764
13					below 12.2 m: brown			763
14	5				at 13.6 m: trace to some gravel, fine, max 10 mm, trace silt, poorly graded, loose to compact, light brown, moist		5 REC = 104%	762
15					at 14.2 m: gravel, trace sand, coarse, trace fines, compact, angular, grey to beige, wet			761
16	6			15.2 760.8	GRAVEL (fine to coarse) max 70 mm (GW), trace to some coarse sand, trace to some fines, trace cobbles, well-graded, dense, rounded to angular, grey to beige, wet. **[GLACIOFLUVIAL]**		6 REC = 100%	760
17								759
18				18 758.0 18.3 757.7	SAND (SW), some fine gravel, some fines, well graded, very dense, subangular, grey, moist. **GLACIOFLUVIAL**			758
19		G5			BEDROCK Andesite, fine grained, blue-grey angular fragments in lighter grey crystalline matrix, W4, R1, brecciated, dry. Matrix weathered to medium plastic clay. **[FLOW-TOP BRECCIA]**			757
20								756

N-GEO-SONIC-CUMTN MDM VM00482D.2.300_2015 SI.GPJ GINT STD US LAB.GDT 6/10/15

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PROJECT NO.: VM00482D.2.300

PROJECT: Copper Mountain TMF - 2015 Site Investigation

LOCATION: Princeton, BC

LOGGED BY: MH **REVIEWED BY:** AW

BOREHOLE BH15-01N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 26/06/2015 **FINISHED:** 27/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 776.0

COORDINATES (m): N5471691, E682030

SITE: North Dam

△ PL ○ NMC ▲ LL

★ % Fines

10 30 50 70 90

DEPTH (m)	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	DEPTH / EL	DESCRIPTION OF MATERIALS	INSTALLATION DETAILS	COMMENTS	ELEVATION (m)
21					BEDROCK Andesite, fine grained, blue-grey angular fragments in lighter grey crystalline matrix, W4, R1, brecciated, dry. Matrix weathered to medium plastic clay. **[FLOW-TOP BRECCIA]** *(continued)* below 20.7 m: decreasing weathering with depth, W2-W3, R1-R2.			755
22	7						7 REC = 100%	754
23				22.9 753.1	End of Hole at 22.9 m - Installed standpipe on 27 June 2015 (50.8 mm threaded PVC pipe (SCH 80) with protective surface casing and J-plug) : 0-11.3 m Bentonite chips 11.3-12.8 Bentonite pellets 12.8-17.4 m Filter sand 13.7-16.8 m Screen interval (0.25 mm slot width) 17.4-22.9 m Bentonite chips - Stick-up of 0.76 m. - Water level 4.16 m below top of casing upon completion.			753
24								752
25								751
26								750
27								749
28								748
29								747
30								746

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LOCATION: Princeton, BC

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SHEET 3 OF 3 **BOREHOLE No. BH15-01N**

N-GEO-SONIC-CUMTN MDM VM00482D.2.300_2015 SI.GPJ GINT STD US LAB.GDT 6/10/15

BOREHOLE BH15-02N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 27/06/2015 **FINISHED:** 27/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 771.7

COORDINATES (m): N5471845, E681958

SITE: North Dam

△ PL ○ NMC ▲ LL ★ % Fines

10 30 50 70 90

DEPTH (m)	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	DEPTH / EL	DESCRIPTION OF MATERIALS	INSTALLATION DETAILS	COMMENTS	ELEVATION (m)
					ORGANIC SOIL AND ROOTS			
				0.61 / 771.1	SILT (OL), some sand, some clay, low to medium plasticity, very soft to soft, slow dilatency, dark grey, wet, massive, occasional organics. **[LACUSTRINE]**			
1	1	G1			Lab test results for G1: MC=49.4%, Sand = 18%, Silt = 67%, Clay = 15%, LL=41%, PL=28% [OL]		1 REC = 75%	771
2		G2			at 2.1 m: 70 mm thick fine sand lens, poorly graded, white with fine black specks		Torvane =0.08kg/cm2	770
3				3 / 768.7	SAND (medium to coarse) (SW), trace fine gravel, trace fines, well graded, loose, rounded, max 10 mm, dark grey, wet. **[FLUVIAL]**		Torvane =0.12kg/cm2	769
					at 3.2 m: becoming coarse			
4				3.8 / 767.9	at 3.7 m: wood fragment, 2 cm diameter			768
	2	G3			SILT (OL), some sand, some clay, low to medium plasticity, soft, slow dilatent, dark grey, wet, laminated, organics and rootlets. **[LACUSTRINE]**		Torvane =0.11kg/cm2 2 REC = 96%	
5				5.3 / 766.4	GRAVEL (fine to coarse) and SAND (medium to coarse) (GW-SW), max 70 mm, trace fines, well graded, loose, rounded, dark grey, wet. **[FLUVIAL]**		Torvane =0.17kg/cm2	767
6								766
7		G4			Lab test results for G4: MC=4%, Gravel = 68%, Sand = 29.3%, Silt & Clay = 2.7% [GW]			765
	3						3 REC = 96%	
8					at 8.2 m: 60 mm thick medium grained sand seam			764
9				9.3 / 762.4				763
10					at 9.6 m: 30 mm thick clay seam, medium plasticity			762

N-GEO-SONIC-CUMTN MDM VM00482D.2.300_2015 SI.GPJ GINT STD US LAB.GDT 6/10/15

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PROJECT NO.: VM00482D.2.300

PROJECT: Copper Mountain TMF - 2015 Site Investigation

LOCATION: Princeton, BC

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SHEET 1 OF 3 **BOREHOLE No. BH15-02N**

BOREHOLE BH15-02N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 27/06/2015 **FINISHED:** 27/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 771.7

COORDINATES (m): N5471845, E681958

SITE: North Dam

△ PL ○ NMC ▲ LL ★ % Fines

10 30 50 70 90

DEPTH (m)	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	DEPTH / EL.	DESCRIPTION OF MATERIALS	INSTALLATION DETAILS	COMMENTS	ELEVATION (m)
11	4				SAND (medium to coarse) (SP), trace to some gravel (fine), max 40 mm, poorly graded, loose, rounded, stratified (150 mm beds of different colours and gradations), mixed lithologies, brown to orange, wet. **[FLUVIAL]** *(continued)*		4 REC = 96%	
					at 11.0 m: 40 mm thick clay seam, medium plasticity, stiff			761
				11.4 / 760.3	SAND and SILT (SP-ML), poorly graded, loose, laminated and interbedded, tan, wet. **[FLUVIAL]**			
12				11.9 / 759.8	SAND (medium grained) (SP), trace fines, poorly graded, loose, subrounded, tan to light brown, wet. **[FLUVIAL]**			760
13				13.1 / 758.6	GRAVEL (fine to coarse) (GW), some to and sand, medium to coarse grained, trace cobbles, well graded, compact, rounded to subangular, grey, wet. **[GLACIOFLUVIAL]**			759
14	5						5 REC = 80%	758
15				15.2 / 756.5	SAND (coarse) (SP), trace fine gravel, trace cobbles, poorly graded, dense, rounded, grey, wet. **[GLACIOFLUVIAL]**			757
16				15.8 / 755.9	BEDROCK Andesite, fine grained, angular fragments in crystalline matrix, dark blue-grey (matrix lighter), W4, R2, wet (drier with depth), matrix weathered to medium plastic clay.			756
17	6						6 REC = 83%	755
18					at 18.3 m: 100 mm cobble, granodiorite (coarse grained igneous) slough pushed by core or fallen in from uncased section below 18.4 m: W2, R3, rock vuggy, with chalcedony infilling			754
19	7						7 REC = 100%	753
20								752

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PROJECT NO.: VM00482D.2.300

PROJECT: Copper Mountain TMF - 2015 Site Investigation

LOCATION: Princeton, BC

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BOREHOLE BH15-02N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 27/06/2015 **FINISHED:** 27/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 771.7

COORDINATES (m): N5471845, E681958

SITE: North Dam

△ PL ○ NMC ▲ LL ★ % Fines

10 30 50 70 90

DEPTH (m)	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	DEPTH / EL	DESCRIPTION OF MATERIALS	INSTALLATION DETAILS	COMMENTS	ELEVATION (m)
	8						8 REC = 100%	
				20.73 751.0	End of Hole at 20.7 m			
21					- Installed standpipe on 27 June 2015 (50.8 mm threaded PVC pipe (SCH 80) with protective surface casing and J-plug): 0-11.6 m Bentonite chips 11.6-15.8 m Filter sand 12.2-15.2 m Screen interval (0.25 mm slot width) 15.8-20.7 m Bentonite chips - Stick-up of 0.75 m. - Water level 0.75 m below top of casing upon completion.			751
22								750
23								749
24								748
25								747
26								746
27								745
28								744
29								743
30								742

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PROJECT NO.: VM00482D.2.300

PROJECT: Copper Mountain TMF - 2015 Site Investigation

LOCATION: Princeton, BC

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SHEET 3 OF 3 **BOREHOLE No. BH15-02N**

BOREHOLE BH15-03N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 28/06/2015 **FINISHED:** 28/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 770.6

COORDINATES (m): N5471973, E681868

SITE: North Dam

△ PL ○ NMC ▲ LL ★ % Fines

DEPTH (m)	DEPTH EL.	DESCRIPTION OF MATERIALS	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	INSTALLATION DETAILS	COMMENTS	% Fines (10 30 50 70 90)	ELEVATION (m)
0		ORGANICS AND ROOTS							
0.3	770.3	SILT (OL), some sand laminates, some clay, soft to very soft, medium plasticity, slow dilatency, grey, moist to wet. **[LACUSTRINE]**	1				1 REC = 20%		770
1									
2									769
3		at 3.0 m: trace rootlets							768
4		at 3.7 m: massive with large roots, dark grey Lab test results for G1: MC=56.6%, Gravel = 2%, Sand = 32%, Silt = 55%, Clay = 11%, LL=44%, PL=33% [OL]	2	G1			Torvane =0.12kg/cm2	33 △ 44 ▲ 56.6 ○ 66 ★	767
5		at 4.4 to 4.9 m: mostly low compressible organics		G2			Torvane =0.11kg/cm2 2 REC = 92% Torvane =0.16kg/cm2		766
6		below 5.2 m: increasing interbed with fine sand, beds 0.5-3 cm thick							765
7		below 6.0 m: interbedded with sand (fine to medium), silty to some silt, loose, dark grey, wet, beds 0.5-20 cm thick	3				3 REC = 83%		764
8									763
9	9.1 761.5	SAND (medium to coarse) (SW), gravelly, max 15 mm, trace fines, well graded, loose to compact, subrounded, dark grey, wet. **[FLUVIAL]**							762
10									761

N-GEO-SONIC-CUMTN MDM VM00482D.2.300_2015 SI.GPJ GINT STD US LAB.GDT 6/10/15

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PROJECT NO.: VM00482D.2.300

PROJECT: Copper Mountain TMF - 2015 Site Investigation

LOCATION: Princeton, BC

LOGGED BY: MH **REVIEWED BY:** AW

SHEET 1 OF 2 **BOREHOLE No. BH15-03N**

BOREHOLE BH15-03N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 28/06/2015 **FINISHED:** 28/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 770.6

COORDINATES (m): N5471973, E681868

SITE: North Dam

△ PL ○ NMC ▲ LL ★ % Fines

10 30 50 70 90

DEPTH (m)	DEPTH EL.	DESCRIPTION OF MATERIALS	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	INSTALLATION DETAILS	COMMENTS	ELEVATION (m)
		at 10 m: poorly graded, brown to orange, wet, stratified below 10.0 m: no gravel						
	10.5 760.1	at 10.4 m: 50 mm thick fine to medium sand seam GRAVEL (fine to coarse) AND SAND (medium to coarse) (GW-SW), trace fines, well graded, compact, rounded, dark grey, wet. **[FLUVIAL]**	4				4 REC = 100%	
11								760
	11.9 758.7	BEDROCK Fine grained, dark grey phenocrysts, angular, volcanic, light grey, slightly weathered clayey crystalline matrix (Brecciated andesite), dry, W3, R2.		G3				
12		at 12.2 m: matrix disturbed by drilling, wet, low plasticity	5				5 REC = 100%	759
13								758
		at 13.7 m: intact pieces show light grey to blue, fine grained, phenocrysts of hornblende and biotite, W2-W3.						
14								757
			6				6 REC = 100%	
15								756
	15.85 754.8	End of Hole at 15.9 m						
16		- Installed standpipe on 28 June 2015 (50.8 mm threaded PVC pipe (SCH 80) with protective surface casing and J-plug): 0-7.0 m Bentonite chips 7.0-8.5 m Bentonite pellets 8.5-14.2 m Filter sand 8.5-11.6 m Screen interval (0.25 mm slot width) 14.2-15.9 m Bentonite chips - Stick-up of 0.86 m. - Water level 0.10 m below top of casing upon completion.						755
17								754
18								753
19								752
20								751

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PROJECT NO.: VM00482D.2.300

PROJECT: Copper Mountain TMF - 2015 Site Investigation

LOCATION: Princeton, BC

LOGGED BY: MH **REVIEWED BY:** AW

SHEET 2 OF 2 **BOREHOLE No. BH15-03N**

N-GEO-SONIC-CUMTN MDM VM00482D.2.300_2015 SI.GPJ GINT STD US LAB.GDT 6/10/15

BOREHOLE BH15-04N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 28/06/2015 **FINISHED:** 28/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 783.1

COORDINATES (m): N5472092, E681750

SITE: North Dam

△ PL ○ NMC ▲ LL ★ % Fines

DEPTH (m)	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	DEPTH / EL.	DESCRIPTION OF MATERIALS	INSTALLATION DETAILS	COMMENTS	% Fines (10 30 50 70 90)	ELEVATION (m)
0					GRAVEL (fine to coarse) (GW-GM), sandy to and sand (fine to coarse), trace to some fines, well graded, max 70 mm, subangular, brown, dense, moist. **[ALLUVIUM]** Lab test results for C1: MC=9.1%				783
1	1	C1					1 REC = 46%		782
2									781
3		G1			Lab test results for G1: MC=9.4%, Gravel = 59%, Sand = 30.8%, Silt & Clay = 10.2% [GW-GM] Lab test results for G1 (3-4.6m): Gravel = 53%, Sand = 37.1%, Silt & Clay = 9.9% [GW-GM]			9.4 10.2	780
4	2								779
5		C2			at 4.4 m to 4.7 m: sand seam (fine to coarse), some fines (low plasticity), some gravel to gravelly (fine), max 20 mm, well graded, rounded, brown, dense, moist. Lab test results for C2: MC=9.2%, Gravel = 48%, Sand = 36.1%, Silt & Clay = 15.9% [GM]		2 REC = 60%	9.2 15.9	778
6									777
7	3	C3			Lab test results for C3: MC=9.1%, Gravel = 55%, Sand = 34.9%, Silt & Clay = 10.1% [GW-GM]		3 REC = 100%	9.1 10.1	776
8	4	C4			below 7.2 m: becoming coarser and more angular, less sand at 7.6 m: cobble, 100 mm diameter Lab test results for C4: MC=9.9%, Gravel = 54%, Sand = 31.7%, Silt & Clay = 14.3% [GM] at 7.7 m: wet		4 REC = 60%	9.9 14.3	775
9				9.1 774.0	SAND (medium to coarse) (SM), silty, trace clay, very loose, brown, wet. **[ALLUVIUM]**		Cobble pushed through unit		774
10									773

N-GEO-SONIC-CUMTN MDM VM00482D.2.300_2015 SI.GPJ GINT STD US LAB.GDT 6/10/15

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PROJECT NO.: VM00482D.2.300

PROJECT: Copper Mountain TMF - 2015 Site Investigation

LOCATION: Princeton, BC

LOGGED BY: MH **REVIEWED BY:** AW

SHEET 1 OF 3 **BOREHOLE No. BH15-04N**

BOREHOLE BH15-04N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 28/06/2015 **FINISHED:** 28/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 783.1

COORDINATES (m): N5472092, E681750

SITE: North Dam

△ PL ○ NMC ▲ LL ★ % Fines

10 30 50 70 90

DEPTH (m)	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	DEPTH / EL.	DESCRIPTION OF MATERIALS	INSTALLATION DETAILS	COMMENTS	ELEVATION (m)
				10.4 / 772.7	SAND (medium to coarse) (SW), some gravel to gravelly, trace to some fines, max 50 mm, well graded, subangular, dense, brown, wet. **[ALLUVIUM]**		5 REC = 75%	
11	5							772
12								771
13	6				at 13.1 to 13.6 m: silty, max 2 mm, poorly graded, very loose, brown, wet		6 REC = 60%	770
14	7				at 13.7 m: max 70 mm, subrounded, compact to dense at 14.3 m: silty sand (fine), trace clay, poorly graded, very loose, brown, wet		7 REC = 92%	769
15	8			14.6 / 768.5	SAND (medium to coarse) and GRAVEL (fine to coarse) (SW-GW), trace fines, well graded, subangular to subrounded, compact, brown, wet. **[ALLUVIUM]** at 15.2 m: max 60 mm, compact to dense, tan/beige, wet, stratified beds 300-600 mm		8 REC = 100%	768
16					at 15.8 m: organic staining 50 mm thick, reddish brown, cobble, 90 mm diameter at 16.2 m: organic staining 50 mm thick, orange-brown, cobble 90 mm diameter at 16.5 m: tan to beige			767
17	9						9 REC = 92%	766
18								765
19	10				at 18.6 m: organic staining, dark brown, 75 mm thick at 19.5 m: silt seam, trace clay, light brown, wet, laminated, non plastic, firm, rapid dilatent, 100 mm thick		10 REC = 96%	764
20								763

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PROJECT NO.: VM00482D.2.300

PROJECT: Copper Mountain TMF - 2015 Site Investigation

LOCATION: Princeton, BC

LOGGED BY: MH **REVIEWED BY:** AW

BOREHOLE BH15-04N

CLIENT: Copper Mountain Mine (BC) Ltd.

STARTED: 28/06/2015 **FINISHED:** 28/06/2015

DRILLING METHOD: Sonic

GROUND ELEV (m): 783.1

COORDINATES (m): N5472092, E681750

SITE: North Dam

△ PL ○ NMC ▲ LL ★ % Fines

10 30 50 70 90

DEPTH (m)	CORE	SAMPLE TYPE AND NUMBER	SYMBOL	DEPTH / EL.	DESCRIPTION OF MATERIALS	INSTALLATION DETAILS	COMMENTS	ELEVATION (m)
21					SAND (medium to coarse) and GRAVEL (fine to coarse) (SW-GW), trace fines, well graded, subangular to subrounded, compact, brown, wet. **[ALLUVIUM]** *(continued)*			762
					at 21.0 m: 50 mm thick clay seam, trace silt, light brown, wet, laminated, medium plasticity, firm, rapid dilatent			
				21.3 / 761.8				
22		G2			SAND (fine to coarse) (SW) and GRAVEL (fine) (GM), some fines (low plasticity), max 40 mm, well graded, angular to subrounded, dense, grey, wet. **[TILL]** Lab test results for G2: MC=7.9%, Gravel = 56%, Sand = 29.5%, Silt & Clay = 14.5% [GM] at 22.1 m: 100 mm thick sand seam (medium to coarse)		7.9 ○ 14.5 ★	761
23	11						11 REC = 100%	760
				23.3 / 759.8	at 23.2 m: cobble, andesitic, 200 mm diameter			
24					SAND (coarse) (SP), gravelly (fine), trace fines, max 40 mm, poorly graded, rounded, dense, brown, wet. **[GLACIOFLUVIAL]** at 23.8 m: medium sand, max 1 mm, dark grey at 23.9 m: gravel, rounded, 50 mm diameter			759
				24.2 / 758.9	BEDROCK Fine grained, volcanic, heavily altered, clayey crystalline matrix (low plasticity), mauve at 24.4 m: brecciated, dark blue-grey phenocrysts (angular) in fine grained crystalline matrix (light blue-grey), W1, R3, biotite and hornblende phenocrysts visible at 24.7 m: W4-W5			
25	12						12 REC = 100%	758
26					at 25.9 m: fine grained, dark blue-grey andesite, unbrecciated, rough planar joints dipping 20-45deg, 200 mm spacing at 26.2 m: clayey gouge, contact with intact rock dipping 45deg at both ends			757
27				27.13 / 755.9	End of Hole at 27.1 m			756
28					- Installed standpipe on 28 June 2015 (50.8 mm threaded PVC pipe (SCH 80) with protective surface casing and J-plug): 0-16.2 m Bentonite chips 16.2-17.4 m Bentonite pellets 17.4-21.9 m Filter sand 18.3-21.3 m Screen interval (0.25 mm slot width) 21.9-27.1 m Bentonite chips - Stick-up of 0.91 m. - Water level 13.81 m below top of casing upon completion.			755
29								754
30								753

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Amec Foster Wheeler
Environment & Infrastructure
Suite 600 4445 Lougheed Highway
Burnaby, B.C. V5C 0E4

PROJECT NO.: VM00482D.2.300

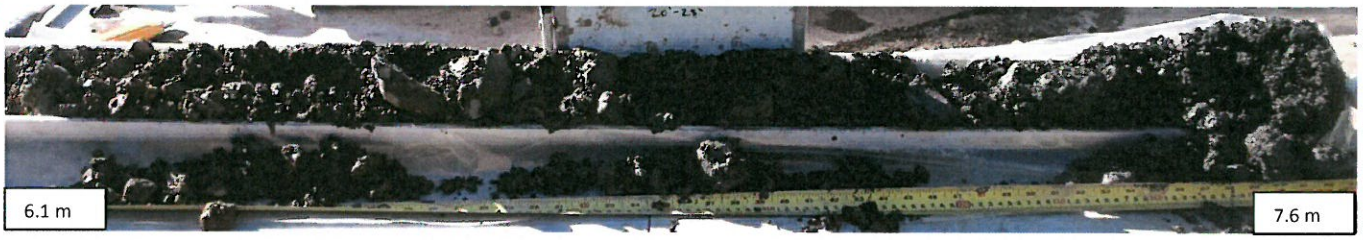
PROJECT: Copper Mountain TMF - 2015 Site Investigation

LOCATION: Princeton, BC

LOGGED BY: MH **REVIEWED BY:** AW

SHEET 3 OF 3 **BOREHOLE No. BH15-04N**

N-GEO-SONIC-CUMTN MDM VM00482D.2.300_2015 SI.GPJ GINT STD US LAB.GDT 6/10/15



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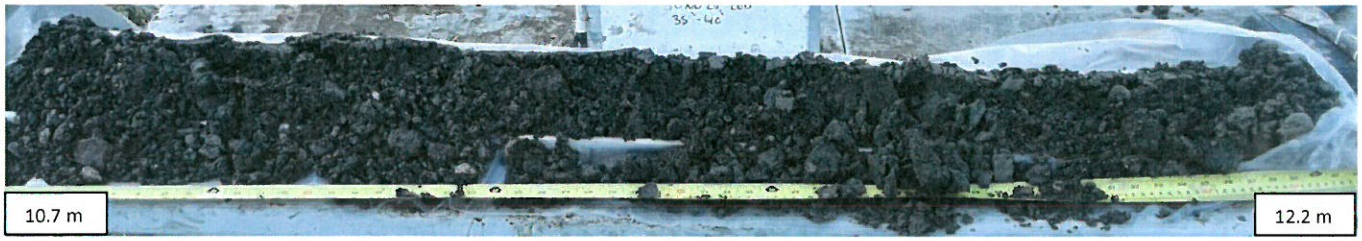
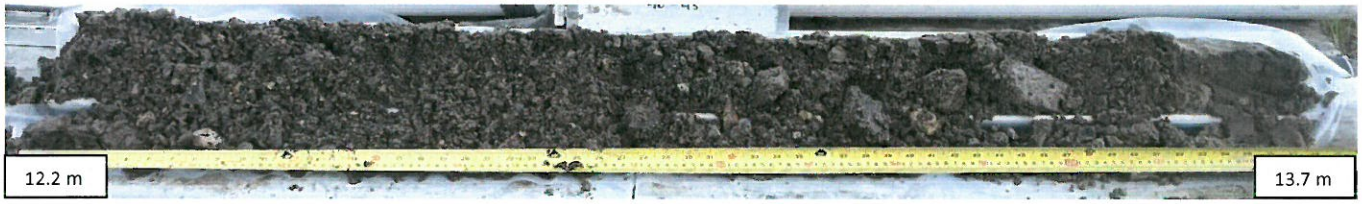
Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-01N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 1N-1





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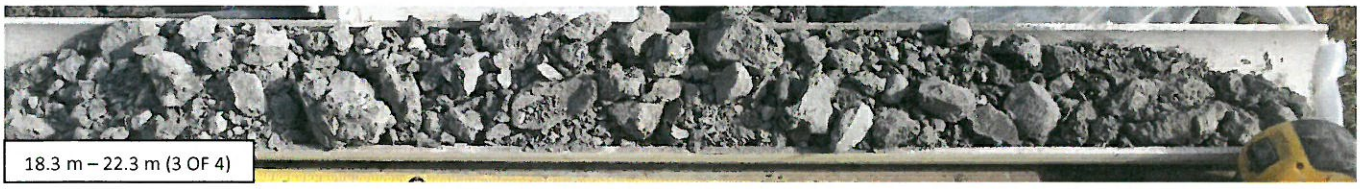
Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-01N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 1N-2

18.3 m – 22.3 m (2 OF 4)



18.3 m – 22.3 m (3 OF 4)

18.3 m – 22.3 m (4 OF 4)

LACUSTRINE SEDIMENT AT 5.2 m

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Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-01N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 1N-3

WEATHERED BEDROCK AT 18.9 m

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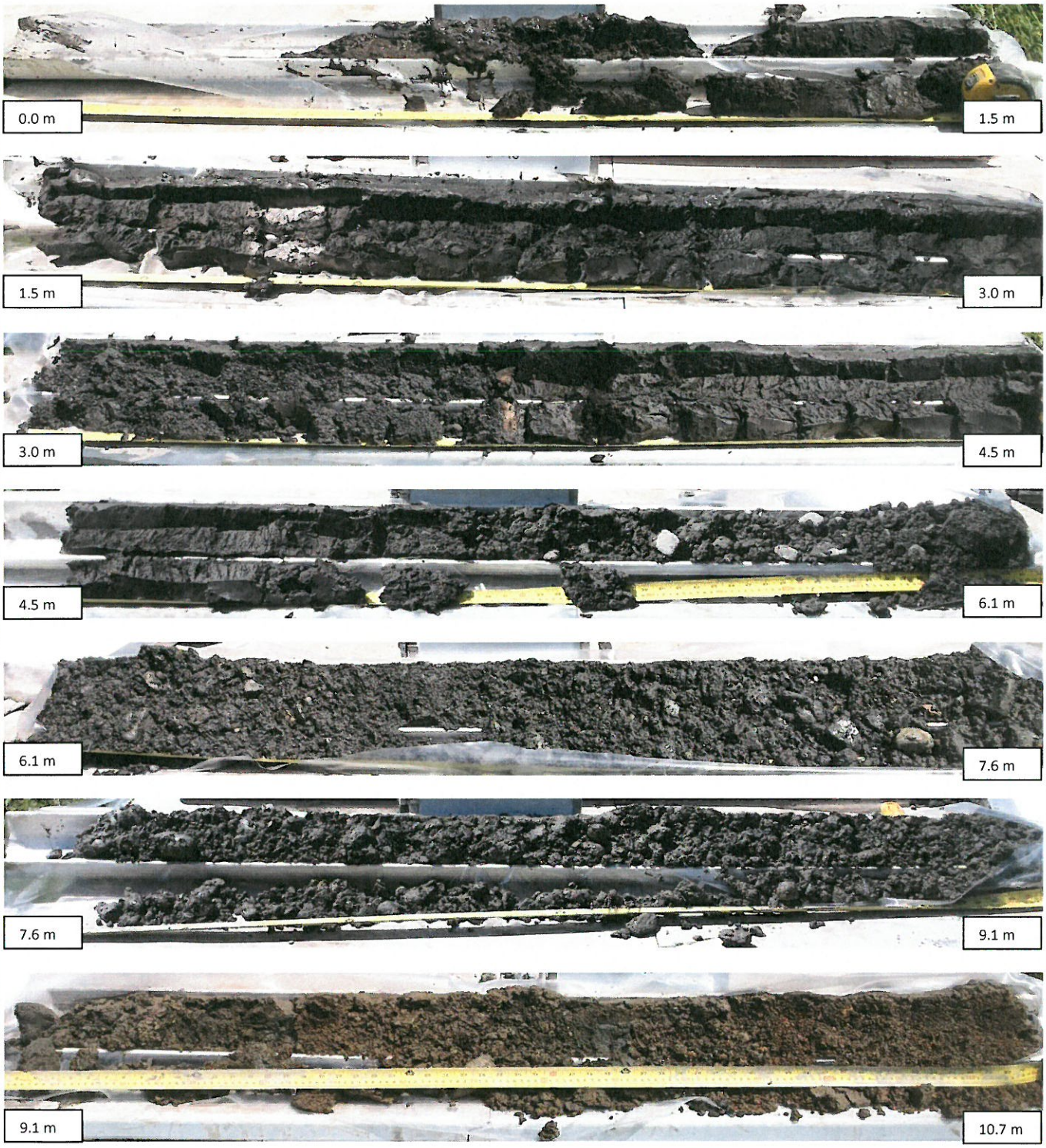
Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-01N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 1N-4



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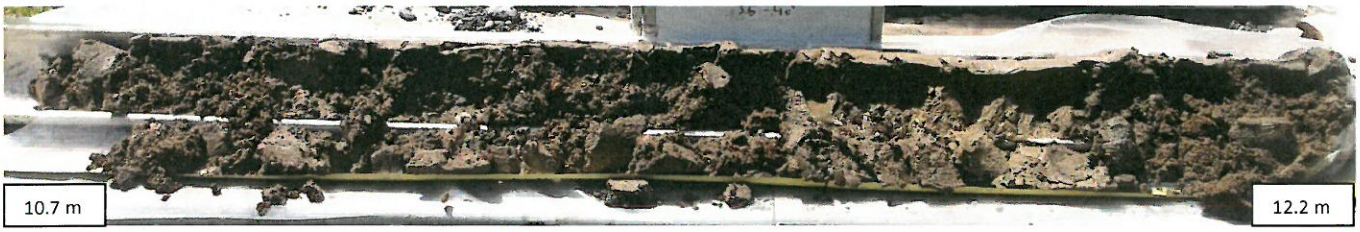
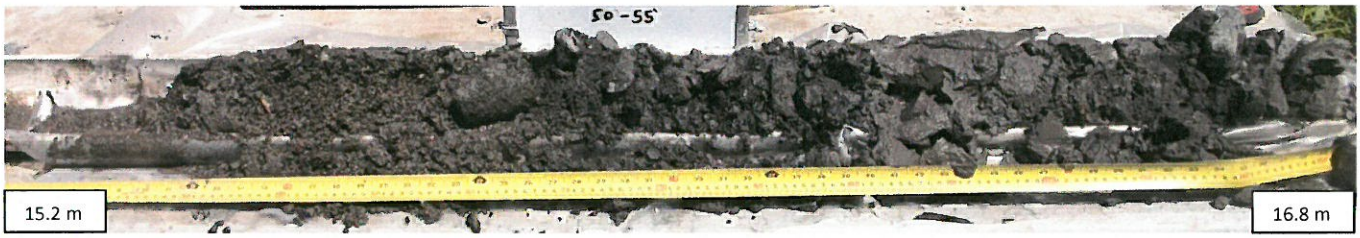
Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-02N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 2N-1





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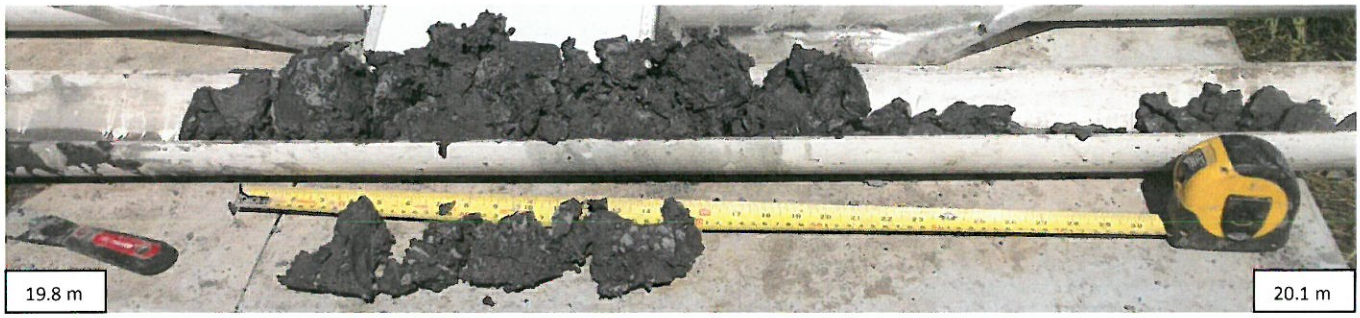
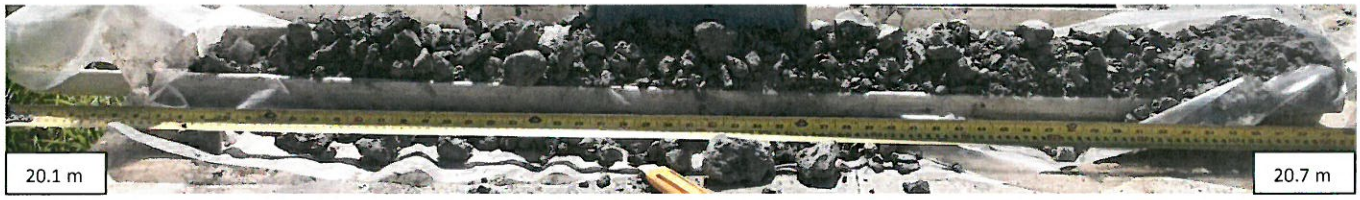
Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-02N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 2N-2





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Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-02N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 2N-3

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Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-02N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 2N-4

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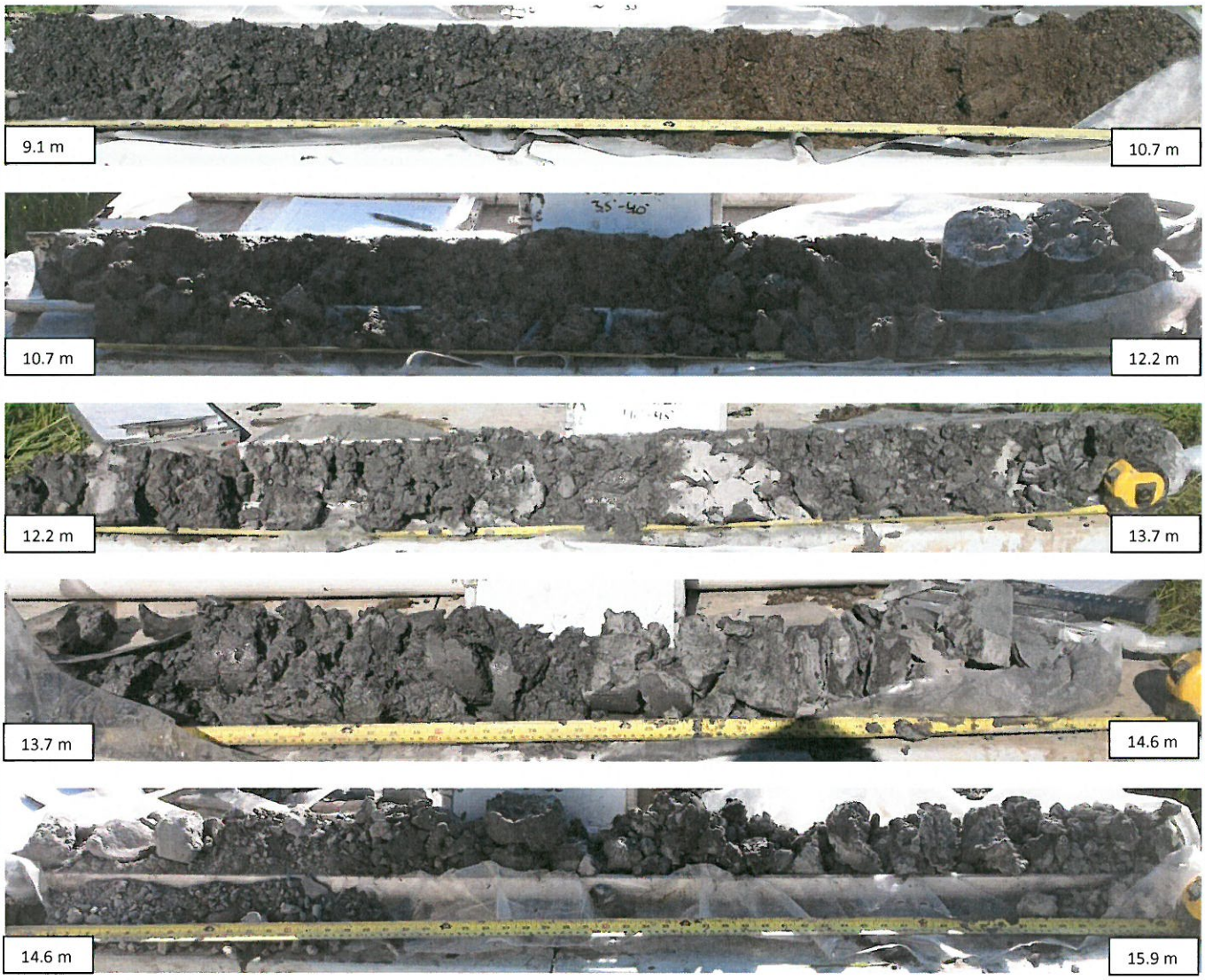
Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-03N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 3N-1



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Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-03N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 3N-2

LACUSTRINE SEDIMENT AT 3.3 m

LACUSTRINE SEDIMENT AT 4.2 m

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Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-03N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 3N-3

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Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-03N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 3N-4

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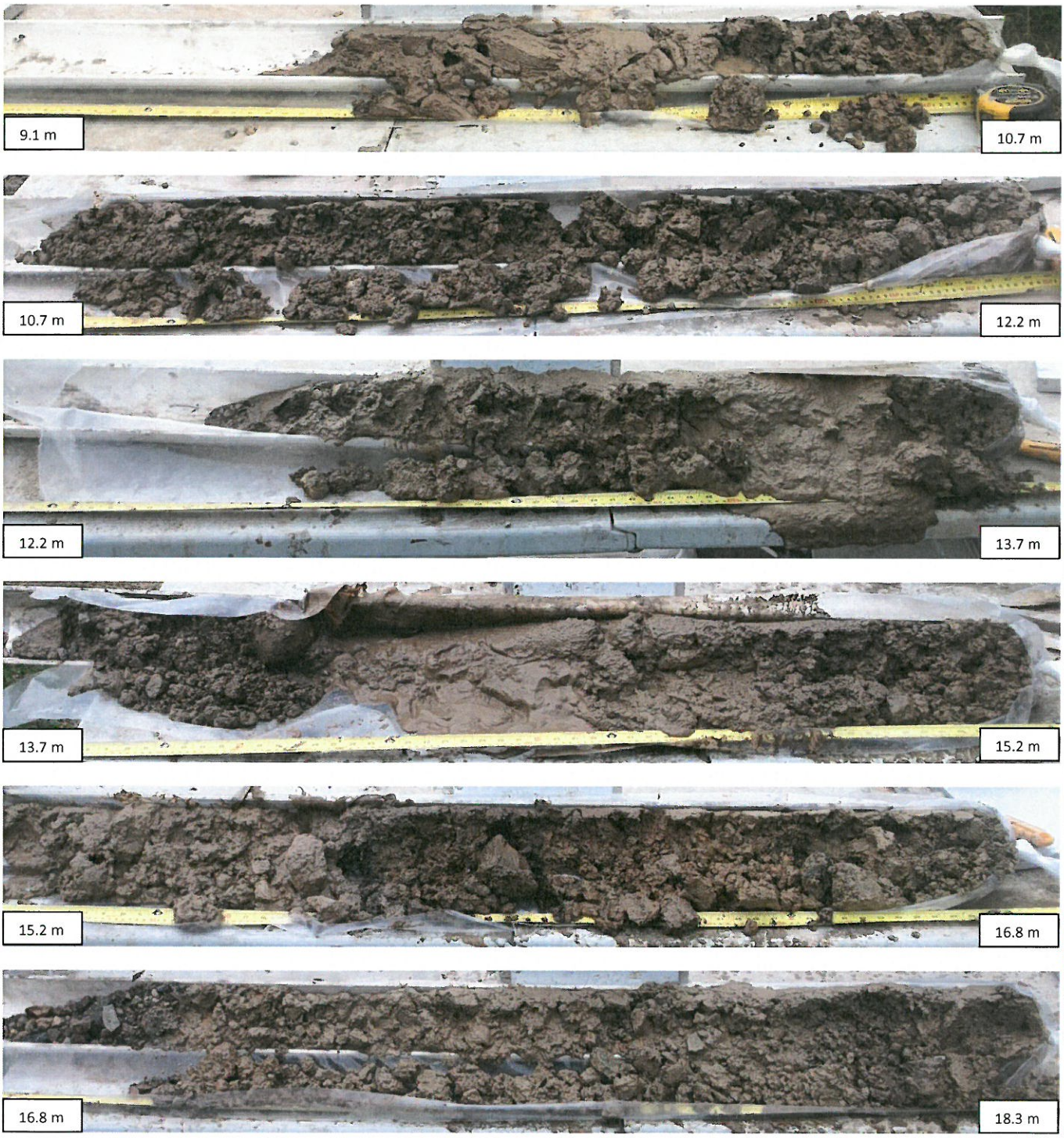
Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-04N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 4N-1



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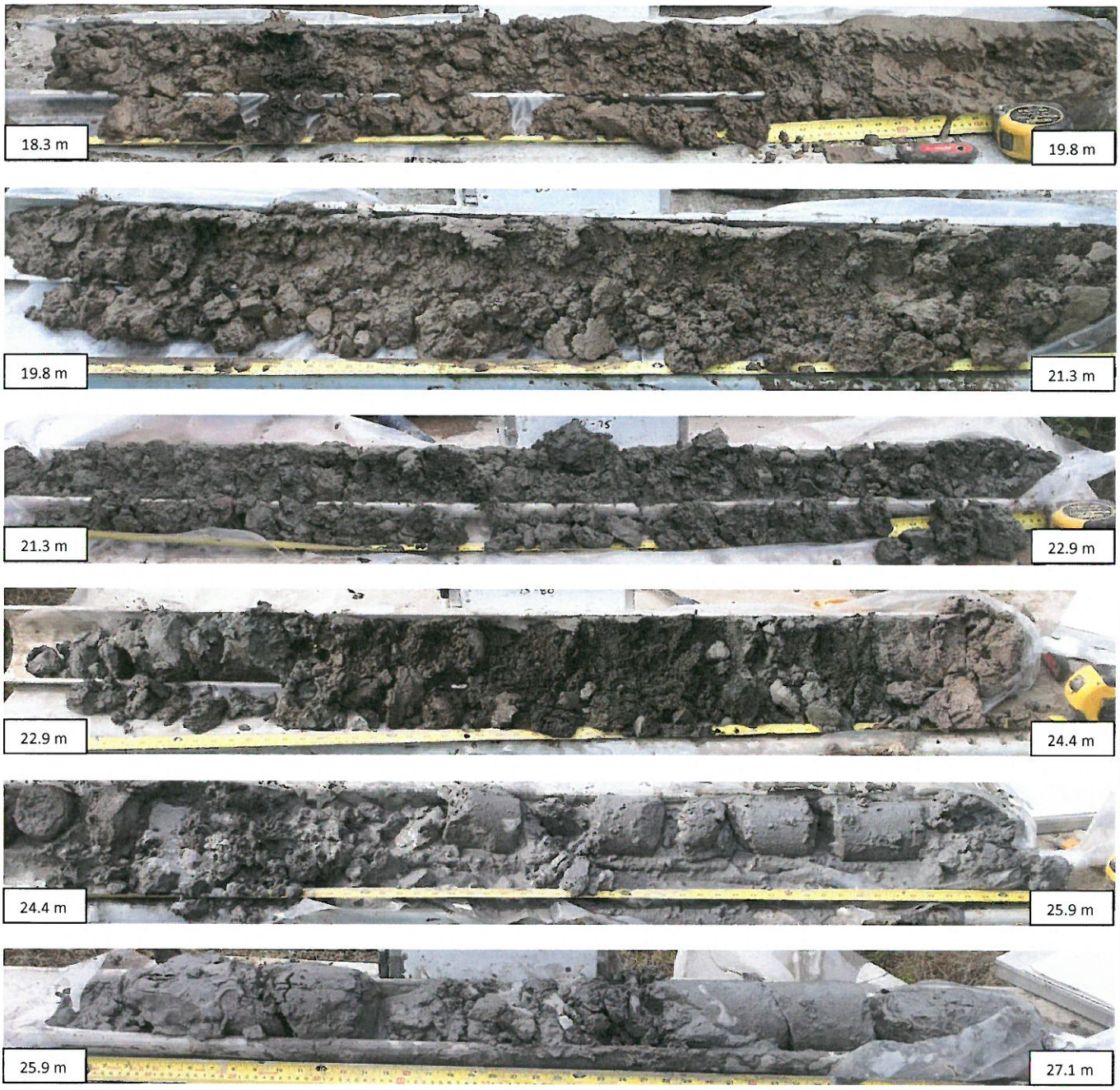
Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-04N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 4N-2



amec foster wheeler

Copper Mountain Mine Tailings Facility
2015 Site Investigation
Core Photographs
BH15-04N

Copper Mountain Mine (BC) Ltd.	Date: Aug 2015	Project:VM00482D.2	Figure: 4N-3

Appendix 3: Sieve Analysis Report and Moisture Content Worksheet

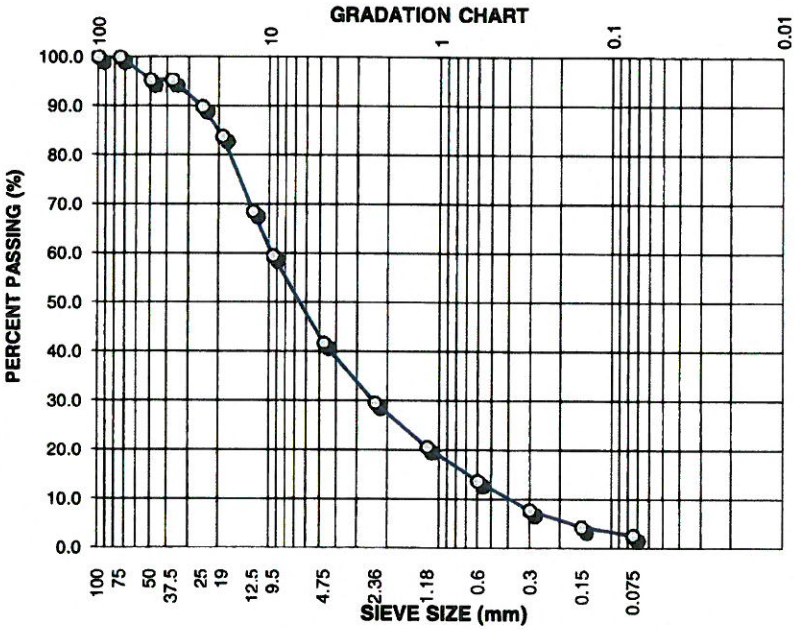
Amec Foster Wheeler Environment & Infrastructure
#110 - 18568 - 96th Avenue
Surrey British Columbia
Canada, V4N 3P9
Tell: 604-295-8657
Fax: 604-295-8658

SIEVE ANALYSIS REPORT

CLIENT: Copper Mountain Mine Ltd.

Project Number: VM00482D.2.200
Date: 28-Jul-15
Client P.O.:

ATTN: TO FILE
PROJECT: Copper Mountain Mine



Lab Number: L5356-6

Date Sampled: 3-Jul-15
Date Received: 3-Jul-15
Date Tested: 23-Jul-15
Sampled By: MH
Tested By: Rudy Lauricio/ Joma Abella

Sample Location: BH15-01N
Source:
Depth (m): 10.7

Soil Classification: Sand & gravel with trace of silt

Gravel Sizes (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
100	100	-	
75	100	-	
50	95	-	
37.5	95	-	
25	90	-	
19	84	-	
12.5	69	-	
9.5	60	-	

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
4.75	42	-	
2.36	30	-	
1.18	21	-	
0.6	14	-	
0.3	7.8	-	
0.15	4.4	-	
0.075	2.7	-	

Natural Moisture Content = 7.5%

Comments: Sieve Analysis test was conducted in accordance with ASTM C136-14
Materials finer than 75 µm (No. 200) sieve were tested in accordance with ASTM C117-13

Reviewed By: Daniel St-Pierre, M.Sc., P.Eng., PE.

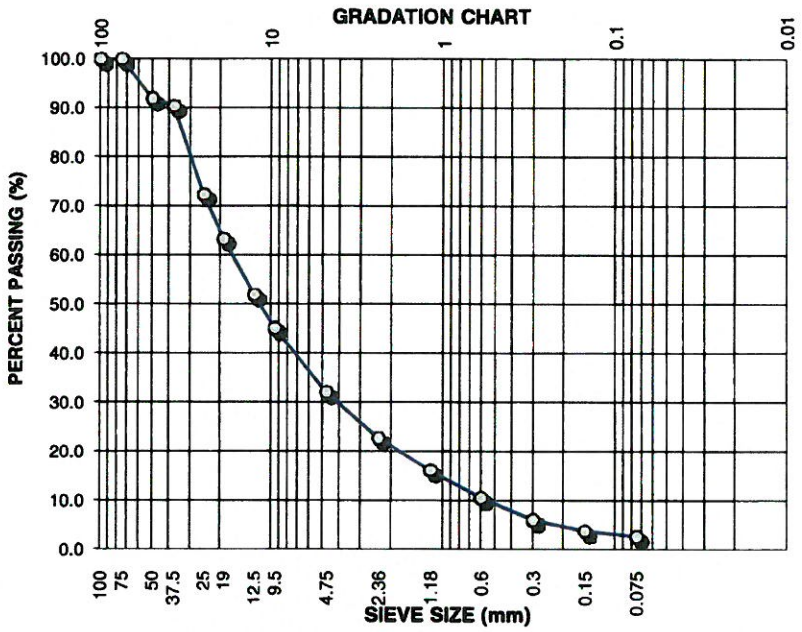
Amec Foster Wheeler Environment & Infrastructure
#110 - 18568 - 96th Avenue
Surrey British Columbia
Canada, V4N 3P9
Tell: 604-295-8657
Fax: 604-295-8658

SIEVE ANALYSIS REPORT

CLIENT: Copper Mountain Mine Ltd.

Project Number: VM00482D.2.200
Date: 28-Jul-15
Client P.O.:

ATTN: TO FILE
PROJECT: Copper Mountain Mine



Lab Number: L5356-5

Date Sampled: 3-Jul-15
Date Received: 3-Jul-15
Date Tested: 23-Jul-15
Sampled By: MH
Tested By: Rudy Lauricio/ Joma Abella

Sample Location: BH15-02N
Source:
Depth (m): 7.0

Soil Classification: Sandy gravel and trace of silt

Gravel Sizes (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
100	100	-	
75	100	-	
50	92	-	
37.5	90	-	
25	72	-	
19	63	-	
12.5	52	-	
9.5	45	-	

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
4.75	32	-	
2.36	23	-	
1.18	16	-	
0.6	11	-	
0.3	6.1	-	
0.15	3.8	-	
0.075	2.7	-	

Natural Moisture Content = 4%

Comments: Sieve Analysis test was conducted in accordance with ASTM C136-14
Materials finer than 75 µm (No. 200) sieve were tested in accordance with ASTM C117-13

Reviewed By: Daniel St-Pierre, M.Sc., P.Eng., PE.

Amec Foster Wheeler Environment & Infrastructure
#110 - 18568 - 96th Avenue
Surrey British Columbia
Canada, V4N 3P9
Tell: 604-295-8657
Fax: 604-295-8658

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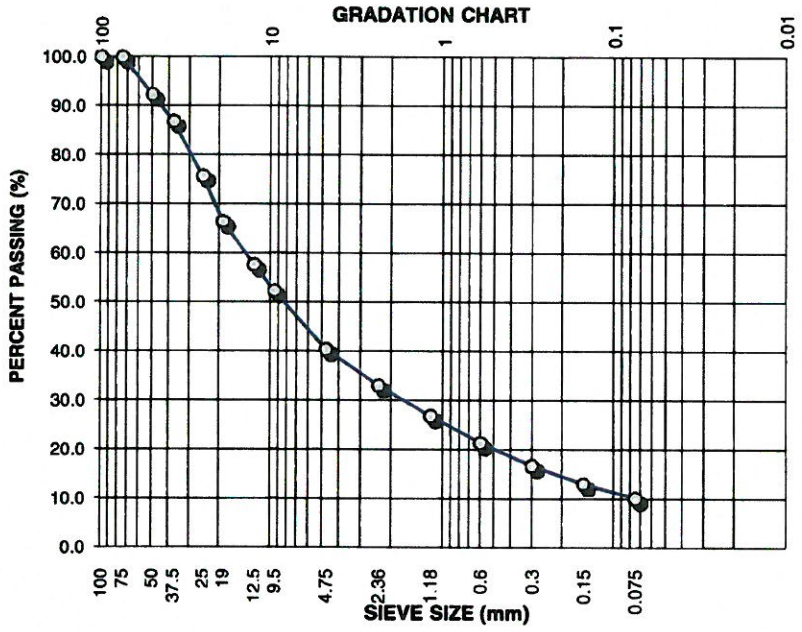
SIEVE ANALYSIS REPORT

CLIENT: Copper Mountain Mine Ltd.

Project Number: VM00482D.2.200
Date: 28-Jul-15
Client P.O.:

ATTN: TO FILE
PROJECT: Copper Mountain Mine



Lab Number: L5356-3

Date Sampled: 3-Jul-15
Date Received: 3-Jul-15
Date Tested: 20-Jul-15
Sampled By: MH
Tested By: Theo Alanes/ Joma Abella

Sample Location: BH15-04N
Source:
Depth (m): 3.0

Soil Classification: Sandy gravel with some clay

Gravel Sizes (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
100	100	-	
75	100	-	
50	92	-	
37.5	87	-	
25	76	-	
19	66	-	
12.5	58	-	
9.5	52	-	

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
4.75	41	-	
2.36	33	-	
1.18	27	-	
0.6	21	-	
0.3	17	-	
0.15	13	-	
0.075	10.2	-	

Natural Moisture Content = 9%

Comments: Sieve Analysis test was conducted in accordance with ASTM C136-14
Materials finer than 75 µm (No. 200) sieve were tested in accordance with ASTM C117-13

Reviewed By: Daniel St-Pierre, M.Sc., P.Eng., PE.

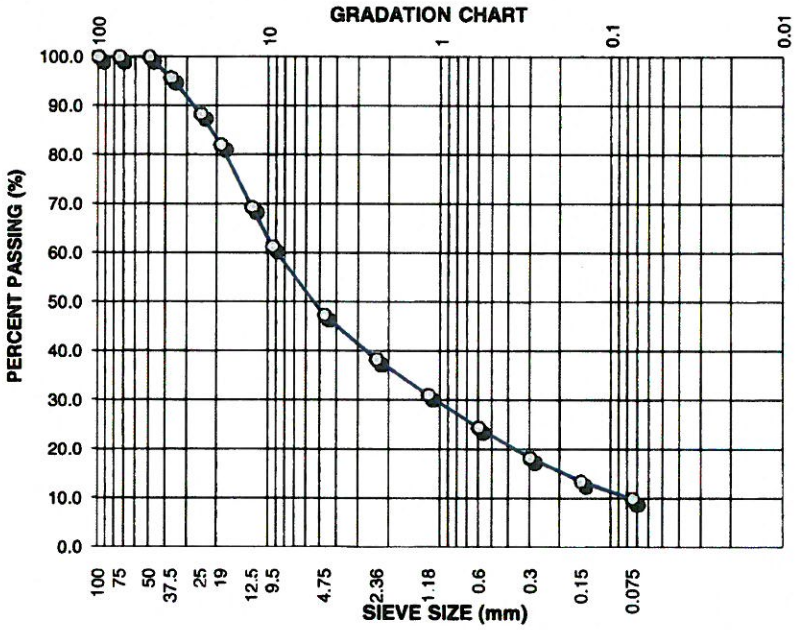
Amec Foster Wheeler Environment & Infrastructure
#110 - 18568 - 96th Avenue
Surrey British Columbia
Canada, V4N 3P9
Tell: 604-295-8657
Fax: 604-295-8658

SIEVE ANALYSIS REPORT

CLIENT: Copper Mountain Mine Ltd.

Project Number: VM00482D.2.200
Date: 28-Jul-15
Client P.O.:

ATTN: TO FILE
PROJECT: Copper Mountain Mine



Lab Number: L5356-7

Date Sampled: 3-Jul-15
Date Received: 3-Jul-15
Date Tested: 23-Jul-15
Sampled By: MH
Tested By: Rudy Lauricio/ Joma Abella

Sample Location: BH15-04N
Source:
Depth (m): 3 to 4.6

Soil Classification: Sand & gravel with trace of clay

Gravel Sizes (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
100	100	-	
75	100	-	
50	100	-	
37.5	96	-	
25	88	-	
19	82	-	
12.5	69	-	
9.5	61	-	

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
4.75	47	-	
2.36	38	-	
1.18	31	-	
0.6	24	-	
0.3	18	-	
0.15	13	-	
0.075	9.9	-	

Natural Moisture Content = 9%

Comments: Sieve Analysis test was conducted in accordance with ASTM C136-14
Materials finer than 75 µm (No. 200) sieve were tested in accordance with ASTM C117-13

Reviewed By: Daniel St-Pierre, M.Sc., P.Eng., PE.

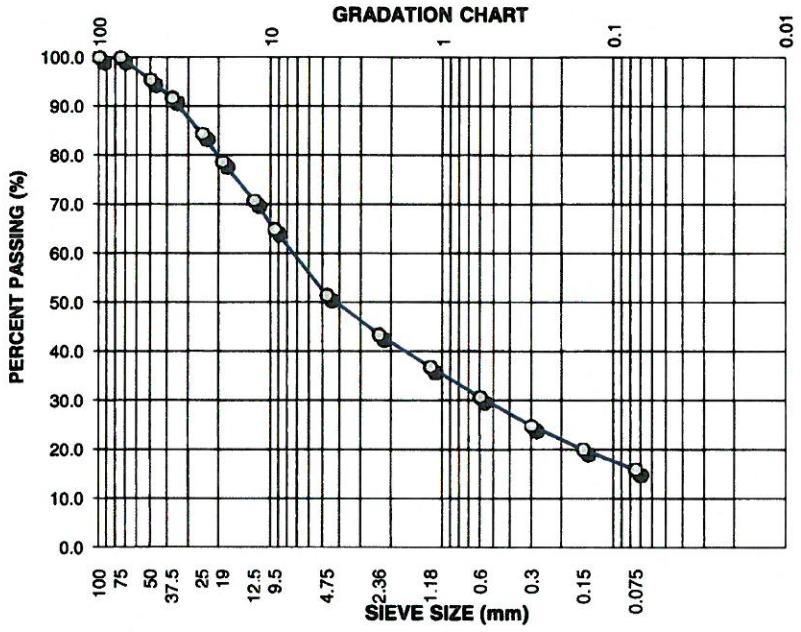
Amec Foster Wheeler Environment & Infrastructure
#110 - 18568 - 96th Avenue
Surrey British Columbia
Canada, V4N 3P9
Tell: 604-295-8657
Fax: 604-295-8658

SIEVE ANALYSIS REPORT

CLIENT: Copper Mountain Mine Ltd.

Project Number: VM00482D.2.200
Date: 28-Jul-15
Client P.O.:

ATTN: TO FILE
PROJECT: Copper Mountain Mine



Lab Number: L5356-1

Date Sampled: 3-Jul-15
Date Received: 3-Jul-15
Date Tested: 20-Jul-15
Sampled By: MH
Tested By: Theo Alanes/ Joma Abella

Sample Location: BH15-04N
Source:
Depth (m): 4.572

Soil Classification: Sand & gravel with some clay

Gravel Sizes (mm)	Percent Passing	Gradation Limits Lower	Upper
100	100	-	
75	100	-	
50	95	-	
37.5	92	-	
25	84	-	
19	79	-	
12.5	71	-	
9.5	65	-	

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits Lower	Upper
4.75	52	-	
2.36	43	-	
1.18	37	-	
0.6	31	-	
0.3	25	-	
0.15	20	-	
0.075	15.9	-	

Natural Moisture Content = 9%

Comments: Sieve Analysis test was conducted in accordance with ASTM C136-14
Materials finer than 75 µm (No. 200) sieve were tested in accordance with ASTM C117-13

Reviewed By: Daniel St-Pierre, M.Sc., P.Eng., PE.

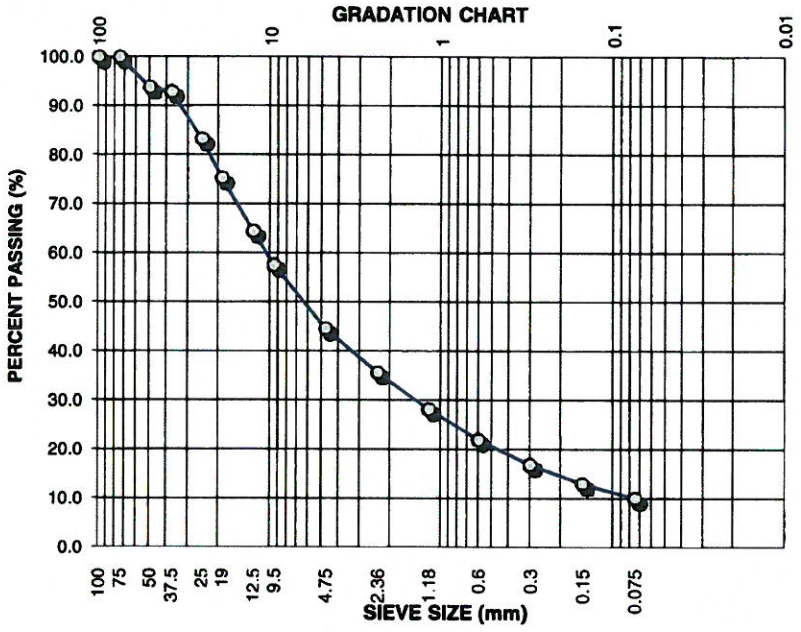
Amec Foster Wheeler Environment & Infrastructure
#110 - 18568 - 96th Avenue
Surrey British Columbia
Canada, V4N 3P9
Tell: 604-295-8657
Fax: 604-295-8658

SIEVE ANALYSIS REPORT

CLIENT: Copper Mountain Mine Ltd.

Project Number: VM00482D.2.200
Date: 28-Jul-15
Client P.O.:

ATTN: TO FILE
PROJECT: Copper Mountain Mine



Lab Number: L5356-4

Date Sampled: 3-Jul-15
Date Received: 3-Jul-15
Date Tested: 20-Jul-15
Sampled By: MH
Tested By: Joma Abella

Sample Location: BH15-04N
Source:
Depth (m): 6.1

Soil Classification: Sandy gravel with some clay

Gravel Sizes (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
100	100	-	
75	100	-	
50	94	-	
37.5	93	-	
25	83	-	
19	75	-	
12.5	64	-	
9.5	58	-	

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
4.75	45	-	
2.36	36	-	
1.18	28	-	
0.6	22	-	
0.3	17	-	
0.15	13	-	
0.075	10.1	-	

Natural Moisture Content = 9%

Comments: Sieve Analysis test was conducted in accordance with ASTM C136-14
Materials finer than 75 µm (No. 200) sieve were tested in accordance with ASTM C117-13

Reviewed By: Daniel St-Pierre, M.Sc., P.Eng., PE.

Amec Foster Wheeler Environment & Infrastructure
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Surrey British Columbia
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Tell: 604-295-8657
Fax: 604-295-8658

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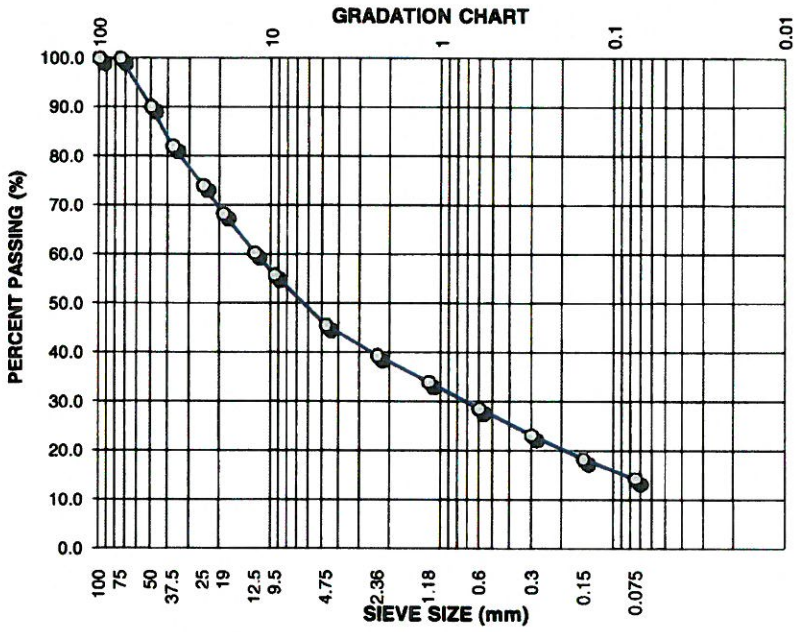
SIEVE ANALYSIS REPORT

CLIENT: Copper Mountain Mine Ltd.

Project Number: VM00482D.2.200
Date: 28-Jul-15
Client P.O.:

ATTN: TO FILE
PROJECT: Copper Mountain Mine



Lab Number: L5356-2

Date Sampled: 3-Jul-15
Date Received: 3-Jul-15
Date Tested: 20-Jul-15
Sampled By: MH
Tested By: Joma Abella

Sample Location: BH15-04N
Source:
Depth (m): 7.62

Soil Classification: Sandy gravel with some clay

Gravel Sizes (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
100	100	-	
75	100	-	
50	90	-	
37.5	82	-	
25	74	-	
19	68	-	
12.5	60	-	
9.5	56	-	

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
4.75	46	-	
2.36	39	-	
1.18	34	-	
0.6	29	-	
0.3	23	-	
0.15	18	-	
0.075	14.3	-	

Natural Moisture Content = 10%

Comments: Sieve Analysis test was conducted in accordance with ASTM C136-14
Materials finer than 75 µm (No. 200) sieve were tested in accordance with ASTM C117-13

Reviewed By: Daniel St-Pierre, M.Sc., P.Eng., PE.

Amec Foster Wheeler Environment & Infrastructure
#110 - 18568 - 96th Avenue
Surrey British Columbia
Canada, V4N 3P9
Tell: 604-295-8657
Fax: 604-295-8658

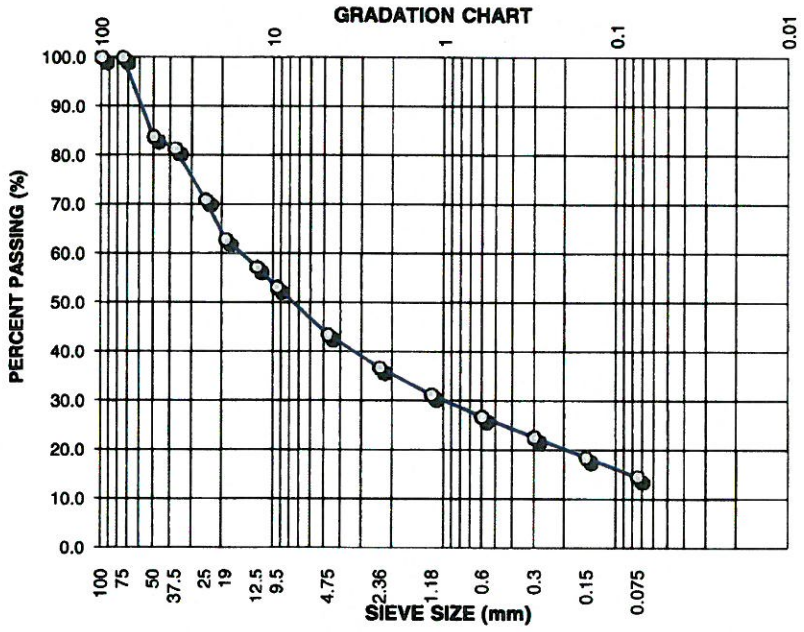
amec foster wheeler

SIEVE ANALYSIS REPORT

CLIENT: Copper Mountain Mine Ltd.

Project Number: VM00482D.2.200
Date: 28-Jul-15
Client P.O.:

ATTN: TO FILE
PROJECT: Copper Mountain Mine



Lab Number: L5356-8

Date Sampled: 3-Jul-15
Date Received: 3-Jul-15
Date Tested: 23-Jul-15
Sampled By: MH
Tested By: Rudy Lauricio/ Joma Abella

Sample Location: BH15-04N
Source:
Depth (m): 21.6

Soil Classification: Sandy gravel with some clay

Gravel Sizes (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
100	100	-	
75	100	-	
50	84	-	
37.5	81	-	
25	71	-	
19	63	-	
12.5	57	-	
9.5	53	-	

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits Lower	Gradation Limits Upper
4.75	44	-	
2.36	37	-	
1.18	31	-	
0.6	27	-	
0.3	23	-	
0.15	19	-	
0.075	14.5	-	

Natural Moisture Content = 8%

Comments: Sieve Analysis test was conducted in accordance with ASTM C136-14
Materials finer than 75 µm (No. 200) sieve were tested in accordance with ASTM C117-13

Reviewed By: Daniel St-Pierre, M.Sc., P.Eng., PE.

AMEC Foster Wheeler Environment & Infrastructure
#110 - 18568 - 96th Avenue
Surrey, British Columbia
Canada, V4N 3P9
Tell: 604-295-8657
Fax: 604-295-8658

SOILS PARTICLE SIZE ANALYSIS REPORT

amec foster wheeler

CLIENT: Copper Mountain Mine (BC) Ltd.
Princeton, BC

Project Number: **VM00482D.2.200**
Date: **July 30, 2015**

PROJECT: Copper Mountain Mine

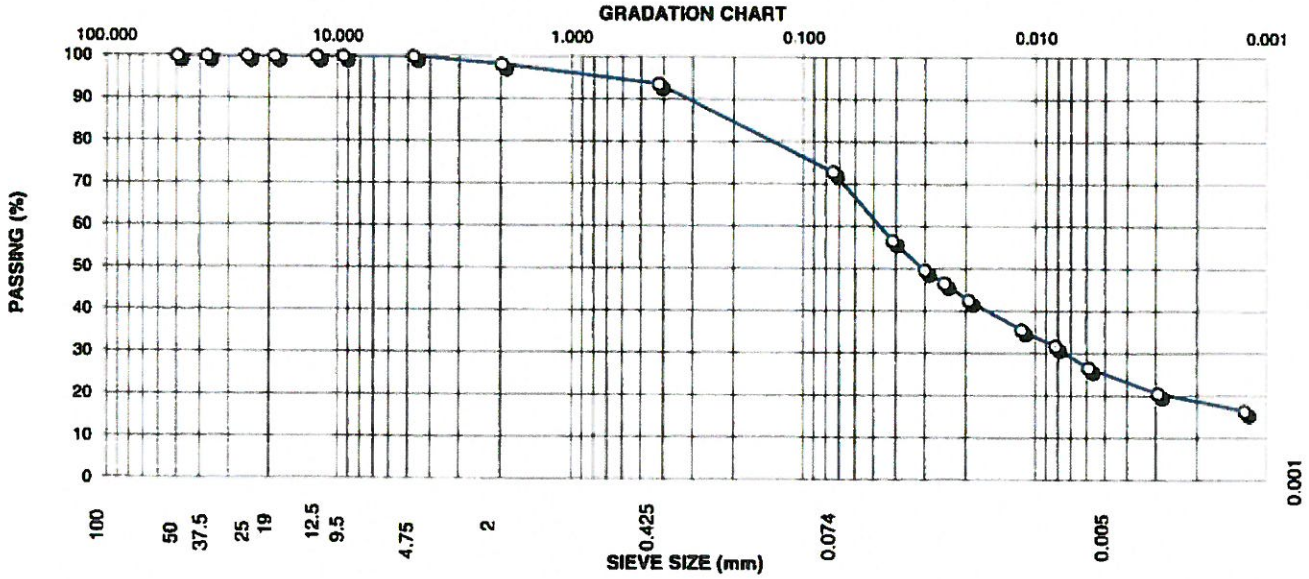
Sieve analysis	
Particle Sizes (mm)	Percent Passing
50	100
37.5	100
25	100
19	100
12.5	100
9.5	100
4.75	100
2	98
0.425	94
0.075	73

Hydrometer analysis	
Particle Sizes (mm)	Percent Passing
0.0417	57
0.0302	50
0.0249	47
0.0196	43
0.0116	36
0.0083	32
0.0059	27
0.0030	21
0.0013	17

Material Composition (%)	
Gravel =	0
Sand =	27
Silt =	55
Clay =	18
Total	100

Lab Number: L5352
Date sampled: Jun 2015
Date Received: 14-Jul-15
Date Tested: July 2015
Sampled By: Murrey Helmer
Tested By: Giti G.

Sample Type: Grab
Hole/Sample No: BH15-01N
Depth (m): 4.9 - 5.2
Sample Location: West Dam
Sample Description: Sonic Drilling Samples



Comments:
- Particle Sizes Analysis test was conducted in accordance with ASTM D 422 (Clay upper bound 2 µm)
- 2.70 has been used as Specific Gravity for calculation
- Stirring apparatus Type A- cup A paddle b has been used and length of dispersion period was 1 min.

Reported by: Giti Ghorbanian
Senior Materials Technologist

Reviewed by: Daniel St-Pierre, M.Sc., PE, P.Eng.

AMEC Foster Wheeler Environment & Infrastructure
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Surrey, British Columbia
Canada, V4N 3P9
Tel: 604-295-8657
Fax: 604-295-8658

SOILS PARTICLE SIZE ANALYSIS REPORT

amec foster wheeler

CLIENT: Copper Mountain Mine (BC) Ltd.
Princeton, BC

Project Number: **VM00482D.2.200**
Date: **July 30, 2015**

PROJECT: Copper Mountain Mine

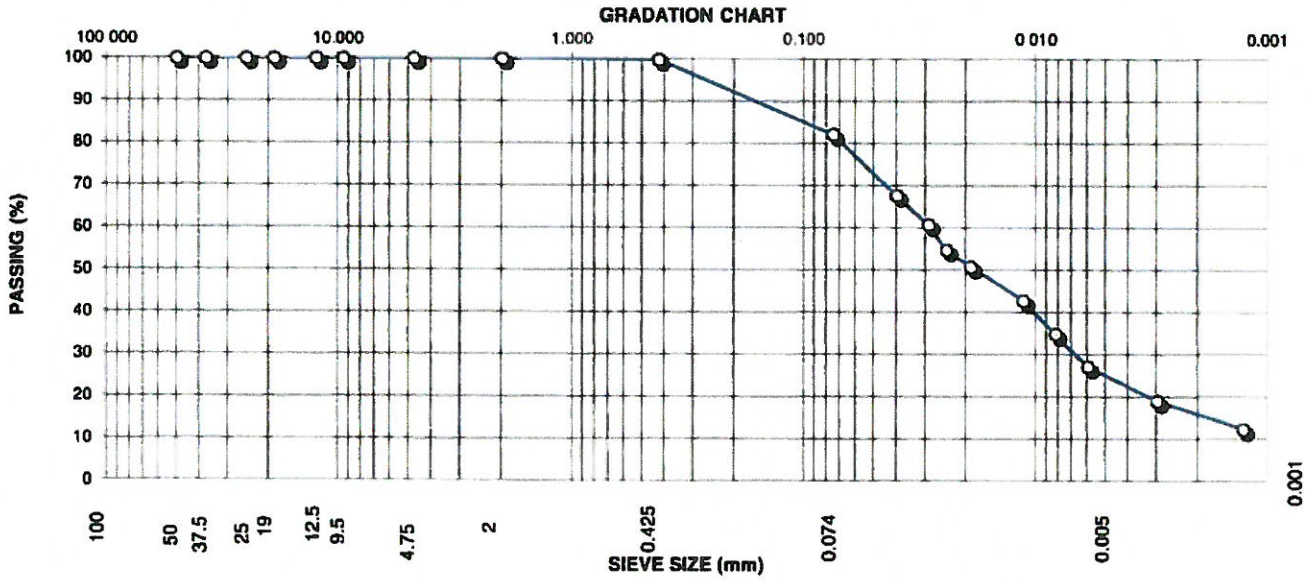
Sieve analysis	
Particle Sizes (mm)	Percent Passing
50	100
37.5	100
25	100
19	100
12.5	100
9.5	100
4.75	100
2	100
0.425	100
0.075	82

Hydrometer analysis	
Particle Sizes (mm)	Percent Passing
0.0400	68
0.0291	61
0.0243	55
0.0191	51
0.0113	43
0.0082	35
0.0060	27
0.0030	19
0.0013	12

Material Composition (%)	
Gravel =	0
Sand =	18
Silt =	67
Clay =	15
Total	100

Lab Number: L5352
Date sampled: Jun 2015
Date Received: 14-Jul-15
Date Tested: July 2015
Sampled By: Murrey Helmer
Tested By: Giti G.

Sample Type: Grab
Hole/Sample No: BH15-02N
Depth (m): 1.5 - 1.8
Sample Location: West Dam
Sample Description: Sonic Drilling Samples



Comments:
- Particle Sizes Analysis test was conducted in accordance with ASTM D 422 (Clay upper bound 2 µm)
- 2.70 has been used as Specific Gravity for calculation
- Stirring apparatus Type A- cup A paddle b has been used and length of dispersion period was 1 min.

Reported by: Giti Ghorbanian
Senior Materials Technologist

Reviewed by: _____
Daniel St-Pierre, M.Sc., PE, P.Eng.

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SOILS PARTICLE SIZE ANALYSIS REPORT

amec foster wheeler

CLIENT: Copper Mountain Mine (BC) Ltd.
Princeton, BC

Project Number: **VM00482D.2.200**
Date: **July 30, 2015**

PROJECT: Copper Mountain Mine

Sieve analysis	
Particle Sizes (mm)	Percent Passing
50	100
37.5	100
25	100
19	100
12.5	100
9.5	100
4.75	98
2	96
0.425	92
0.075	66

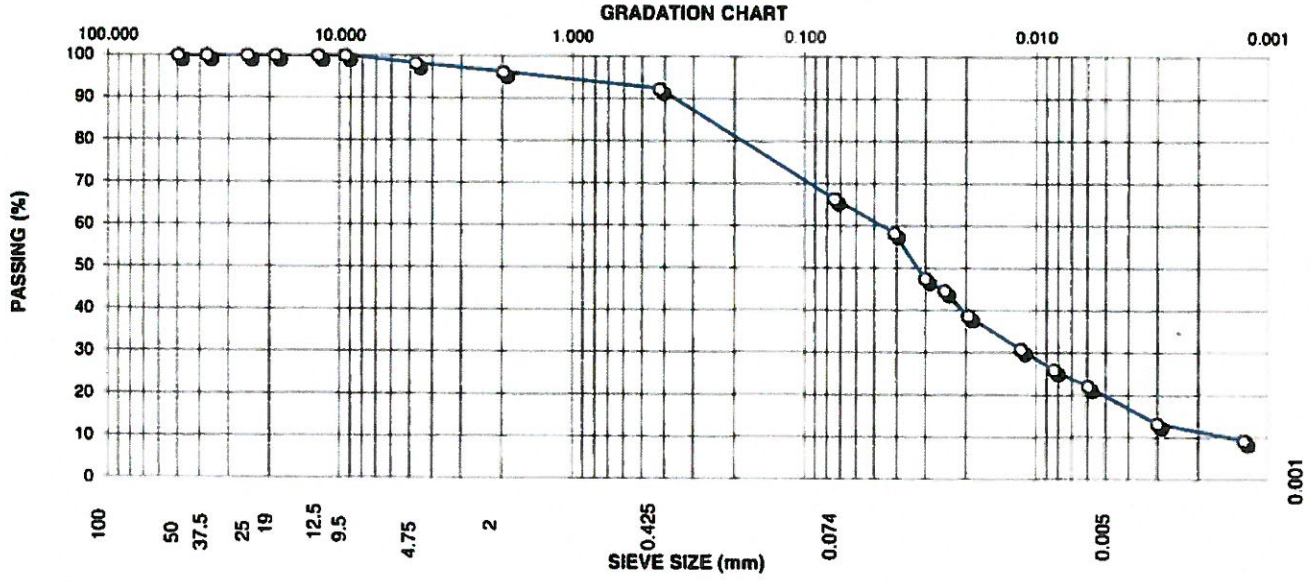
Hydrometer analysis	
Particle Sizes (mm)	Percent Passing
0.0412	58
0.0303	48
0.0250	45
0.0198	39
0.0117	31
0.0084	26
0.0060	22
0.0030	13
0.0013	9

Material Composition (%)	
Gravel =	2
Sand =	32
Silt =	55
Clay =	11
Total	100

Lab Number: L5352
Date sampled: Jun 2015
Date Received: 14-Jul-15
Date Tested: July 2015
Sampled By: Murrey Helmer
Tested By: Giti G.

Sample Type: Grab
Hole/Sample No: BH15-03N
Depth (m): 3.7 - 4.0
Sample Location: West Dam
Sample Description: Sonic Drilling Samples

GRADATION CHART



Comments:
- Particle Sizes Analysis test was conducted in accordance with ASTM D 422 (Clay upper bound 2 µm)
- 2.70 has been used as Specific Gravity for calculation
- Stirring apparatus Type A- cup A paddle b has been used and length of dispersion period was 1 min.
- Sample includes lots of organic

Reported by: Giti Ghorbanian
Senior Materials Technologist

Reviewed by: Daniel St-Pierre, M.Sc., PE, P.Eng.

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ATTERBERG LIMITS REPORT

Copper Mountain Mine Lt.d

Project Number: VM00482D.02.200
Date: July 27, 2015
Client P.O. Number:
CC:

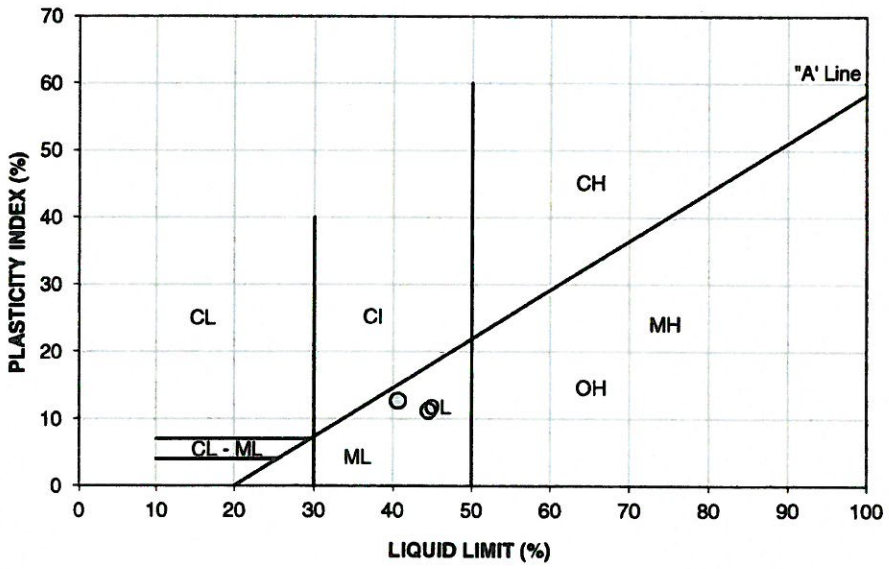
Attention: **To file**

PROJECT: Copper Mountain

Results Summary

Borehole Location	Sample Type & Number	Depth (m)	Elevation (m)	Natural Moisture Content (%)	Atterberg Limits (%)			Retained on 425-µm Sieve (%)	Soil Type
					LL	PL	PI		
BH15-03N		3.7	-		44	33	11		
BH15-02N		1.5	-		41	28	13		

PLASTICITY CHART FOR SOILS PASSING 425-µm SIEVE



Lab Number: L5356

Date sampled: June 2015

Sampled By: MH

Date Received: 3-Jul-15

Tested By: Rudy Lauricio

Date Tested: 27-Jul-15

Preparation: Dry

Comments: Atterberg Limit tests were conducted in accordance with ASTM D 4318-10, Method A

Approved By:
Daniel St-Pierre, M.Sc., P.Eng.

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Specific Gravity of Soil

CLIENT: Copper Mountain Mine (BC) Ltd.
Princeton, BC

Project Number: VM00482D.2.200

Date: 17-Aug-2015

PROJECT: Copper Mountain Mine

Sample ID	Location	Depth (ft)	Depth (m)	Test Temperature	Specific Gravity
BH15-01N	North Dam	16 - 17	4.9 - 5.2	20 °C	**2.72**

Comments: Specific Gravity of Soil was conducted according to ASTM D854

Reported by: Giti Ghorbanian
Senior Materials Technologist

Reviewed by:
Daniel St-Pierre, M.Sc., PE, P.Eng.
Senior Civil Material Engineer

MOISTURE CONTENT WORKSHEET

amec foster wheeler

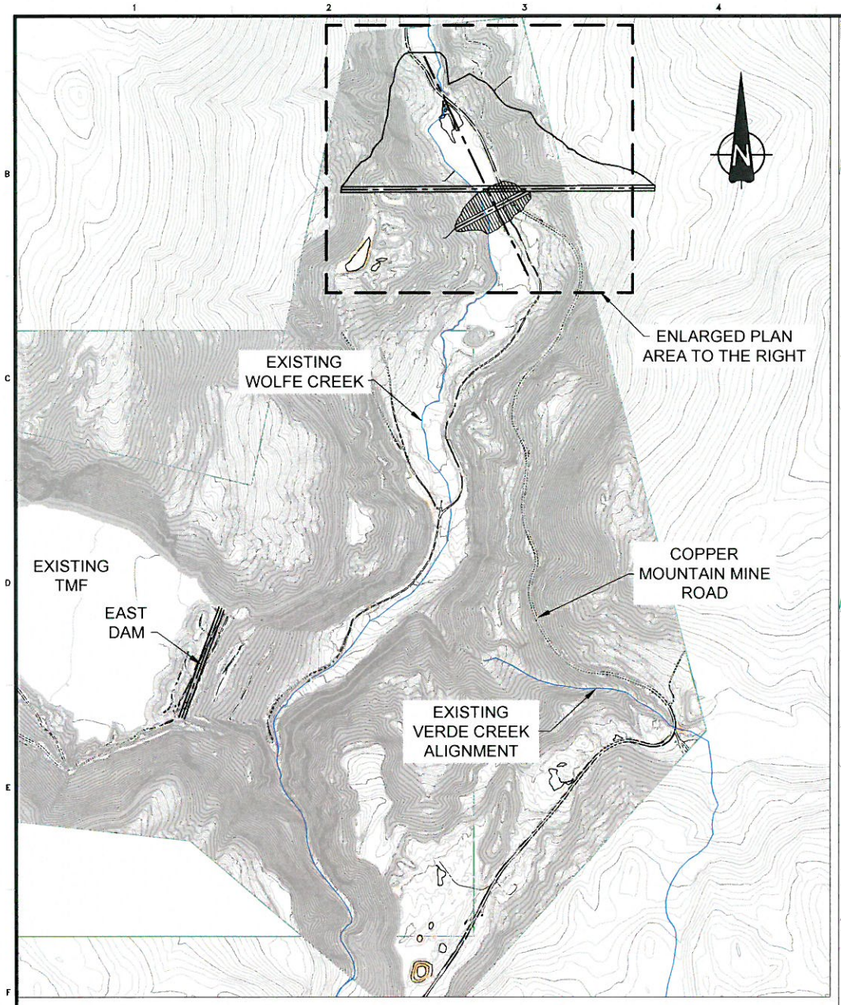
Project: VM00482D.02.200 **Date:** 21-Jul-15
Project#: Copper Mountain **Lab#:** L5356

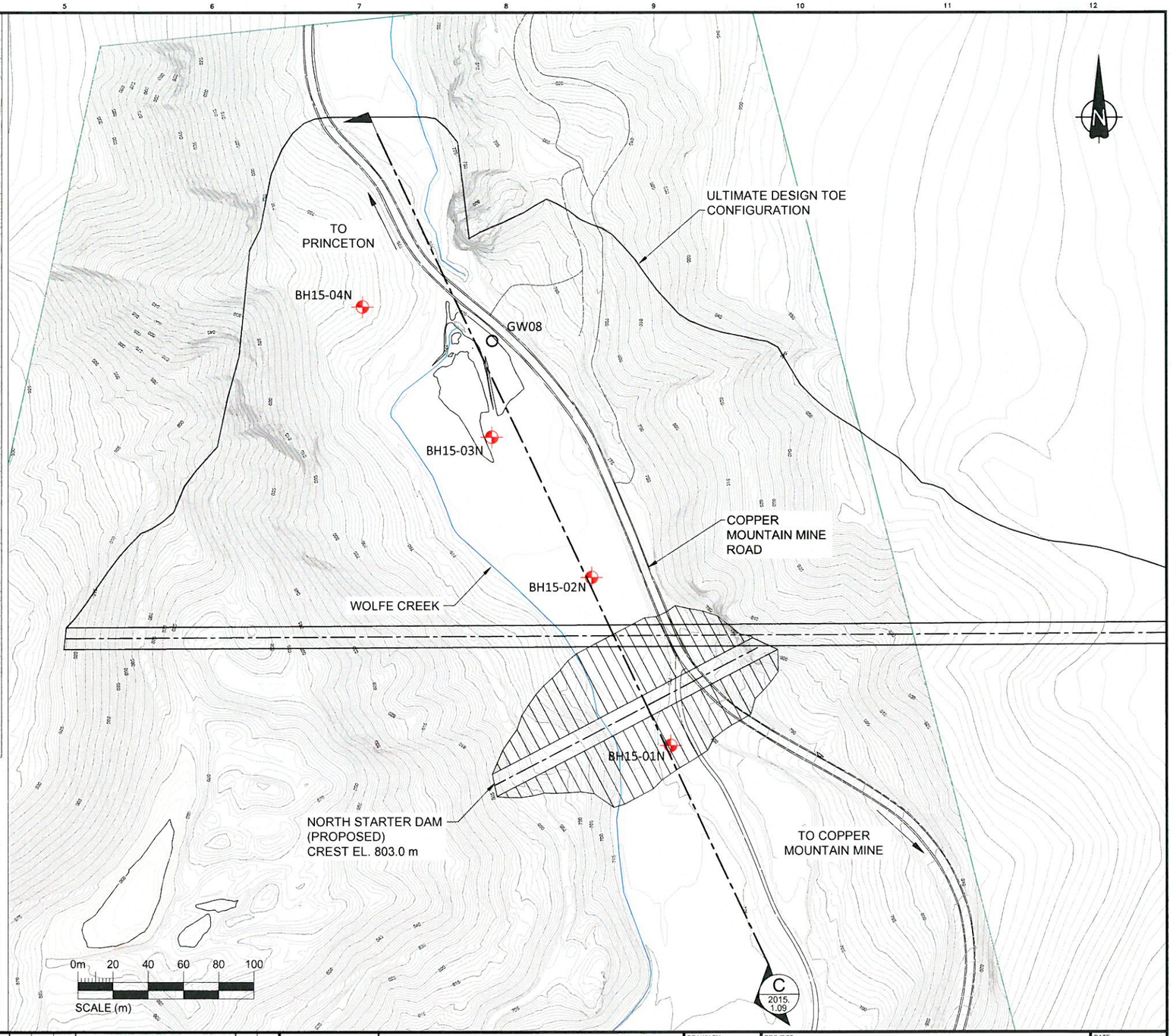
	Hole #	Grab sample #	Depth (m)	Tare #	Mass wet+ tare (g)	Mass dry + tare (g)	Mass of water (g)	Tare container (g)	Mass dry sample (g)	Moisture content (%)
1	BH15-01E		7.9	TA-1	976.2	802.3	173.9	172.2	630.1	27.6
2	BH15-01E		25.9	REZ	3256.2	3019.0	237.2	554.8	2464.2	9.6
3	BH15-01E		37.2	GS	623.2	558.7	64.5	171.2	387.5	16.6
4	BH15-02E		48.2	EC	768.1	643.7	124.4	172.1	471.6	26.4
5	BH15-03E		6.1	10D	789.3	694.9	94.4	332.6	362.3	26.1
6	BH15-04E		12.5	TA11	713.2	540.6	172.6	173.4	367.2	47.0
7	BH15-04E-A		8.1	VIC	554.6	471.2	83.4	193.0	278.2	30.0
8	BH15-07E		20.4	AA	524.2	475.1	49.1	224.8	250.3	19.6
9	BH15-04E		13.1	CC	1975.8	1829.0	146.8	420.6	1408.4	10.4
10	BH15-04E		25.3	GEO	5795.4	5506.7	288.7	912.3	4594.4	6.3
11	BH15-04E		30.9	ME	1187.4	1049.5	137.9	361.0	688.5	20.0
12	BH15-07E		38.4	NOVAK	1731.0	1640.8	90.2	550.4	1090.4	8.3
13	BH15-07E		52.7	CCC	1369.1	1222.9	146.2	535.0	687.9	21.3
14	BH15-09E		5.2	IE	864.7	716.7	148.0	421.1	295.6	50.1
15	BH15-09E		9.1	CA	858.2	756.8	101.4	316.5	440.3	23.0
16	BH15-01N		4.9	B53	1060.2	835.3	224.9	134.8	700.5	32.1
17	BH15-02N		1.5	G0-2	808.1	605.7	202.4	196.2	409.5	49.4
18	BH15-03N		3.7	G5	578.6	433.6	145.0	177.4	256.2	56.6
19	BH15-02N	WSA	10.7	REP	9076.9	8521.1	555.8	1077.5	7443.6	7.5
20	BH15-02N	WSA	7.0	B53	8927.6	8626.6	301.0	1075.0	7551.6	4.0
21	BH15-01W		15.7	TA18	776.1	678.7	97.4	173.0	505.7	19.3
22	BH15-01W		16.2	LG	732.5	629.7	102.8	174.1	455.6	22.6
23	BH15-01W-A		15.7	TA12	975.4	937.8	37.6	174.0	763.8	4.9
24	BH15-02W		6.2	SOL	2379.5	2182.0	197.5	554.1	1627.9	12.1
25	BH15-03W		2.1	GED11	1892.9	1686.7	206.2	195.5	1491.2	13.8
26	BH15-04W		2.7	1J	2293.7	2252.8	40.9	427.3	1825.5	2.2
27	BH15-04W		5.5	ZXY	2444.5	2325.7	118.8	174.0	2151.7	5.5
28	BH15-04N		3 - 4.6	Oventray	8238.7	7602.0	636.7	823.7	6778.3	9.4
29	BH15-04N	Grab	21.6	L3	5086.5	4795.1	291.4	1113.1	3682.0	7.9
30	BH15-04N	WSA	4.6		13813.0	12958.0	855.0	3653.0	9305.0	9.2
31	BH15-04N	WSA	7.6		12834.0	12011.0	823.0	3668.0	8343.0	9.9
32	BH15-04N	WSA	0 - 3		18238.5	17016.0	1222.5	3629.0	13387.0	9.1
33	BH15-04N	WSA	6.1		12543.0	11806.0	737.0	3669.0	8137.0	9.1

Comments :

Technician :

Appendix 4: Drilling Site Plan and Geological Cross Section





NOTES:

1. BASIC SITE 5 mTOPOGRAPHY (2007) AND 1.0 m TOPO (2010 AND 2012) PROVIDED BY COPPER MOUNTAIN MINE (BC) LTD
2. HOLE LOCATIONS GEOREFERENCED USING THE INGERBELLE TRANSFORMATION, AND REPROJECTED TO GEODETIC GRID UTM ZONE 10 NAD83.
3. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE REPORT DATED AUGUST 2015.

LEGEND

- AS-BUILT 2015 BOREHOLE
- INCLINOMETER
- STANDPIPE PIEZOMETER
- VIBRATING WIRE PIEZOMETER
- GROUNDWATER MONITORING WELL
- PREVIOUS BOREHOLE
- PREVIOUS CPT
- PREVIOUS SCPT

DRAFT

REV.	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
1	07	08	2015	FOR FACTUAL REPORT	HY	AW
0	24	04	2015	FOR DRAFT	HY	AW

Client Logo: COPPER MOUNTAIN MINE

Client: COPPER MOUNTAIN MINE (BC) LTD.

Amec Foster Wheeler
Environment & Infrastructure
Suite 600 - 4445 Lougheed Highway, Burnaby, BC V5C 0E4
Tel. 1-604-294-3811 Fax 1-604-294-4664

DRAWN BY:	HY
CHECKED BY:	AW
DATUM:	NAD 83
PROJECTION:	UTM Zone 10
SCALE:	AS SHOWN

PROJECT: COPPER MOUNTAIN MINE
TAILINGS MANAGEMENT FACILITY

TITLE: PROPOSED FUTURE EXPANSION
2015 SITE INVESTIGATION DRILLING PLAN

DATE:	AUGUST 2015
PROJECT NO:	VM00482D
REV. NO:	0
DRAWING NO:	2015.1.03
SHEET NO:	1 of 1

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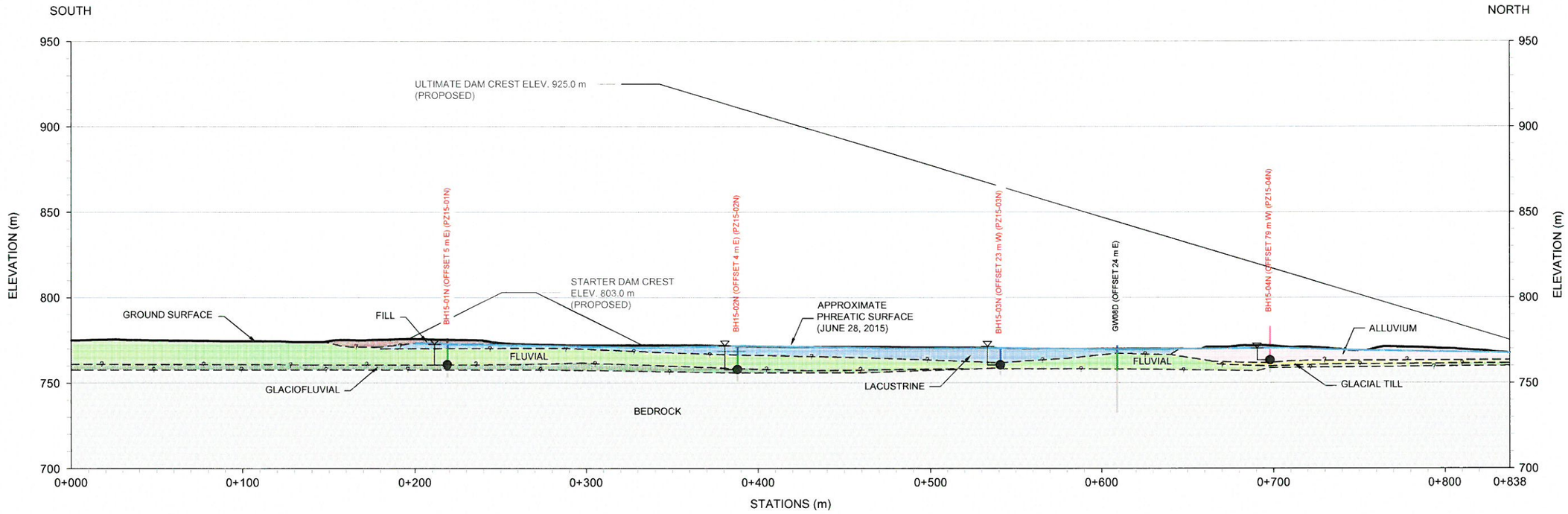

SECTION C 2015.1.03

LEGEND

- ALLUVIUM
- FLUVIAL
- GLACIOFLUVIAL
- LACUSTRINE
- GLACIOLACUSTRINE
- GLACIAL TILL
- BEDROCK

0m 20 40 60 80 100

1 : 2500

NOTE:
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE AMEC FOSTER WHEELER ENVIRONMENT AND INFRASTRUCTURE REPORT No. VM00482D DATED AUGUST 2015.

DRAFT

amec foster wheeler

CLIENT: COPPER MOUNTAIN MINE (BC) LTD.

Amec Foster Wheeler
Environment & Infrastructure
Suite 600 - 4445 Lougheed Highway, Burnaby, BC V5C 0E4
Tel. 1-604-294-3811 Fax 1-604-294-4664

DWN BY:	LF / TH
CHK'D BY:	AW
DATUM:	- -
PROJECTION:	- -
SCALE:	AS SHOWN

PROJECT: COPPER MOUNTAIN MINE
TAILINGS MANAGEMENT FACILITY

TITLE: 2015 INVESTIGATIONS AND INSTRUMENTATION INSTALLATIONS NORTH DAM - SECTION C

DATE:	AUGUST 2015
PROJECT NO:	VM00482D
REV. NO:	1
DRAWING NO:	2015.1.09

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