July 23, 2014

DOMINION DIAMOND EKATI CORPORATION
LAC DU SAUVAGE
NORTHWEST TERRITORIES
CANADA

Jay Project Geotechnical and Hydrogeological Field Investigation Factual Report Vol. 2: Proposed Jay Pit Area

REPORT

Submitted to:
Dominion Diamond Ekati Corporation
1102 – 4920 52nd Street
Yellowknife, NT, X1A 3T1

Attention: Mr. Eric Denholm

Reference Number: 1313280041-E14041b-R-Rev0-2010

Distribution:

1 Electronic Copy - Dominion Diamond Ekati Corporation
1 Hard Copy - Dominion Diamond Ekati Corporation
2 Hard Copies - Golder Associates Ltd.

Golder Associates

Executive Summary

Dominion Diamond Ekati Corporation (Dominion Diamond) has retained Golder Associates Ltd. (Golder) to conduct a pre-feasibility level study to assess the development of open pit diamond mining operations in the Jay Project area at the Ekati Mine.

A geotechnical and hydrogeological field investigation was carried out by Golder in the proposed Jay Pit area from February 11 to April 29, 2014. This report presents a summary of the data collected during the field investigation.

Seven HQ3 diamond drill geotechnical and hydrogeological boreholes were drilled by Major Drilling for the proposed Jay open pit investigation. Two sonic drill boreholes (JSD-01 and JSD-02) were also drilled in the proposed Jay Pit area.

Golder tasks on site included the collection of geotechnical data from oriented rock core, including field estimates of rock strength and discontinuity data, point load testing on rock core, downhole hydrogeological testing, and the collection of rock core samples for laboratory testing. A total of 341 point load tests were performed, of which 268 were valid tests. To present the data, Golder has created histograms of the PLT data and stereographic projections of the discontinuity orientation data.

Hydrogeological testing was carried out at selected overlapping intervals to provide a continuous hydraulic conductivity profile along the saturated section of each borehole. Twenty-eight successful single-packer tests were performed.

A total of 116 rock core samples from boreholes JGT-01 to JGT-06 were collected by Golder personnel for the following laboratory tests: uniaxial compressive strength, triaxial compressive strength, Brazilian tensile strength, and direct shear. The laboratory testing results were not available at the time this report was written. The results will be presented under separate cover as part of the Jay Pit pre-feasibility design report.

Based on the interval data, the lithological data indicate the following:

- Approximately 80 percent (%) of the rock was logged as granitoid. This includes the three land holes near the Jay pipe, which were all in granitic rocks.
- Approximately 12% of the rock was logged as metasediments, and 6% was logged as diabase.
- Approximately 2% of the granitic rocks were logged as pegmatite.
- Less than 1% of the total rock logged was logged as either faults, kimberlite, or lost core.

The field estimates of intact rock strength indicate the following:

- The overall average rock strength is R5 (very strong rock).
- The length of very strong (R5) and extremely strong (R6) intervals combined represents approximately 87% of the total length of rock logged.

- The length of intervals logged as strong rock (R4) represents approximately 10% of the total length of rock logged.
- The length of intervals logged as medium strong rock (R3) or weaker represents less than 4% of the total length of rock logged.

The joint condition rating (JCR) is a parameter used in the RMR_{76} rock mass classification system (Bieniawski 1976) to describe the small-scale surface characteristics of open discontinuities, based on visual estimates of the discontinuity surface roughness and wall rock alteration. Golder personnel collected JCR data for individual discontinuities, and also estimated an "average" JCR for each geotechnical interval logged. The field estimates of interval JCR indicate the following:

- The overall average interval JCR is 20.
- The length of intervals with a JCR of 20 or 25 combined represents approximately 84% of the total length of rock logged.
- The length of intervals with a JCR of 12 represents approximately 14% of the total length of rock logged.
- The length of intervals with a JCR of 0 or 6 represents less than 3% of the total length of rock logged.

The joint roughness number (Jr) is used in the Q rock mass classification system (Barton et al. 1974) to describe the small-scale geometry of the joint surface. Similarly, the joint alteration number (Ja) is used to distinguish between fractures that are filled with alteration minerals such as clay and those that are not. Golder personnel collected Jr and Ja data for individual discontinuities. The Jr/Ja ratio gives an indication of the shear strength of the discontinuity surfaces, and ranges from 0.025 to 5.3.

The estimates of interval Jr/Ja indicate the following:

- The overall average interval Jr/Ja ratio is 2.4.
- The length of intervals with a Jr/Ja ratio greater than 1.0 represents approximately 80% of the total length of rock logged.
- The length of intervals with a Jr/Ja ratio between 0.4 and 1.0 represents approximately 15% of the total length of rock logged.
- The length of intervals with a Jr/Ja ratio of 0.4 or less represents less than 6% of the total length of rock logged.

Study Limitations

Golder Associates Ltd. (Golder) has prepared this document in a manner consistent with that level of care and skill ordinarily exercised by members of the engineering and science professions currently practising under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this document. No warranty, express or implied, is made.

This document, including all text, data, tables, plans, figures, drawings and other documents contained herein, has been prepared by Golder for the sole benefit of Dominion Diamond Ekati Corporation. It represents Golder's professional judgement based on the knowledge and information available at the time of completion. Golder is not responsible for any unauthorized use or modification of this document. All third parties relying on this document do so at their own risk.

The factual data, interpretations, suggestions, recommendations and opinions expressed in this document pertain to the specific project, site conditions, design objective, development and purpose described to Golder by Dominion Diamond Ekati Corporation, and are not applicable to any other project or site location. In order to properly understand the factual data, interpretations, suggestions, recommendations and opinions expressed in this document, reference must be made to the entire document.

This document, including all text, data, tables, plans, figures, drawings and other documents contained herein, as well as all electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder. Dominion Diamond Ekati Corporation may make copies of the document in such quantities as are reasonably necessary for those parties conducting business specifically related to the subject of this document or in support of or in response to regulatory inquiries and proceedings. Electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore no party can rely solely on the electronic media versions of this document.

Table of Contents

EXECUTIVE SUMMARY ..... **i**

STUDY LIMITATIONS ..... **iii**

ACRONYMS **1**

UNITS OF MEASURE **2**

1.0 INTRODUCTION **3**

2.0 DESCRIPTION OF DATA COLLECTION METHODS **4**

2.1 Geotechnical Data Collection from Oriented Rock Core 4

2.2 Sample Collection and Laboratory Testing 7

2.3 Hydrogeological Field Testing 7

3.0 DATA SUMMARY **9**

3.1 Lithological Data 9

3.2 Structural Orientation Data 9

3.3 Intact Rock Strength Data 10

3.3.1 Field Estimate of Rock Strength 10

3.3.2 Point Load Testing 11

3.3.3 Intact Rock Strength Laboratory Testing 12

3.4 Discontinuity Characterization Data 13

3.4.1 Joint Condition Rating Data 13

3.4.2 Joint Roughness Number and Joint Alteration Number Data 13

3.4.3 Direct Shear Testing 15

3.5 Hydrogeological Testing Data 16

4.0 CLOSURE **18**

REFERENCES **19**

TABLES

Table 1: Summary of Jay Pit Geotechnical Drilling Program 4
Table 2: Jay Pit Geotechnical Borehole Orientation Surveys by Borehole 5
Table 3: Summary of Single-Well Pressure Response Tests in Jay Pit Boreholes 8
Table 4: Summary of International Society of Rock Mechanics Intact Rock Strength Estimates 10
Table 5: Minimum, Maximum, and Average Field Estimates of Intact Rock Strength 11
Table 6: Summary of Point Load Testing Results 11
Table 7: Summary of Samples Collected for Intact Rock Strength Laboratory Testing 12
Table 11: Summary of Samples Collected for Direct Shear Testing 16
Table 12: Summary of Single-Well Test Results 17

APPENDICES

APPENDIX A
Geotechnical Core Logs

APPENDIX B
Core Box and Core Sample Photographs

APPENDIX C
Geotechnical Interval Data Histograms

APPENDIX D
Structural Orientation Data

APPENDIX E
Point Load Testing Data

APPENDIX F
Hydrogeological Data

ACRONYMS

ASTM	American Society for Testing and Materials
Dominion Diamond	Dominion Diamond Ekati Corporation
e.g.	for example
et al.	more than one additional author
Golder	Golder Associates Ltd.
ID	identification
i.e.	that is
$Is_{(50)}$	size corrected point load index
ISRM	International Society for Rock Mechanics
Ja	joint alteration number
JCR	joint condition rating
Jr	joint roughness number
NAD	North American Datum
PLT	point load test
PSR	pressure static recovery sequence
RI	constant rate injection sequence
RMR	Rock Mass Rating
SW	slug withdrawal sequence
UTM	Universal Transverse Mercator

UNITS OF MEASURE

%	percent
<	less than
>	greater than
cm	centimetre
deg	degree
km	kilometre
MPa	megaPascal
m	metre
mah	metres along hole, relative to ground (or ice) surface
masl	metres above sea level
mm	millimetre

1.0 INTRODUCTION

Dominion Diamond Ekati Corporation (Dominion Diamond) retained Golder Associates Ltd. (Golder) to conduct a pre-feasibility level study to assess the development of the Jay and Cardinal open pit diamond mines within Lac du Sauvage for the Jay-Cardinal and Jay Projects, at Dominion Diamond's Ekati Mine in the Northwest Territories (NWT). In the later stages of the 2014 drilling program, Dominion Diamond communicated to Golder that the Cardinal kimberlite pipe was no longer in scope and that the project would be based solely on the Jay pipe. Geotechnical, hydrogeological, thermal, and groundwater characterization field investigations were carried out at the project site between February and June 2014.

The field investigation results have been reported in three volumes. Volume 1: Proposed Dikes presents a summary of the foundation conditions along the proposed dike alignments. Volume 2: Proposed Jay Pit Area, reported herein, presents a summary of the data collected for the proposed Jay kimberlite pit development and; Volume 3: Assessment of Groundwater Quality in Jay Pipe Area provides a summary of the Westbay well installation and groundwater quality.

The Ekati Mine is located in the Lac de Gras region of the Northwest Territories, approximately 300 kilometres (km) northeast of Yellowknife (Figure 1). The Jay Project area is located in the Lac de Gras kimberlite field, where several existing open pits, including the Panda, Koala, Fox, Beartooth, Pigeon, Sable, and Misery pits, are also located. The location of the Jay kimberlite pipe and the proposed Jay Pit is shown in Figure 2.

A geotechnical and hydrogeological field investigation was carried out by Golder in the proposed Jay Pit area from February 11 to April 29, 2014. This report presents a summary of the data collected during the field investigation, and includes a description of the following:

- the collection of geotechnical data from oriented rock core;
- the collection of rock core samples for laboratory testing;
- the hydrogeological field testing procedures;
- the lithological and structural orientation data;
- the field estimates of rock strength;
- the point load testing results;
- the discontinuity data; and
- the hydrogeological testing results.

The tasks carried out by Golder personnel and the data collected during the field investigation are discussed in detail in the following sections.

In addition to the above, rock core samples were collected for geochemical characterization. The results of the laboratory geochemical analyses will be reported under separate cover.

2.0 DESCRIPTION OF DATA COLLECTION METHODS

2.1 Geotechnical Data Collection from Oriented Rock Core

Seven HQ3 diamond drill geotechnical and hydrogeological boreholes were drilled by Major Drilling for the proposed Jay open pit investigation. These holes have been designated as JGT-01 to JGT-07. Holes JGT-01, JGT-06 and JGT-07 were drilled on land, while holes JGT-02 to JGT-05 were drilled near the Jay pipe from the frozen surface of Lac du Sauvage (Figure 2).

The HQ3, triple-tube core diameter size is 61.1 millimetres (mm), and the hole diameter is 96.0 mm. Rock core orientation was carried out in boreholes JGT-01 to JGT-06 using the Reflex ACT II core orientation system. The drill run length was 3.0 metres (m) for the majority of the runs, except where poor rock was encountered and smaller runs were attempted to recover core. HW size casing with an outer diameter of 114.3 mm was advanced through soil, weathered rock, and poor quality rock in the upper part of the borehole. The HW casing was secured into competent bedrock before coring the rock. In holes JGT-02 to JGT-05, an outer PW casing was also advanced through the ice and water and into the lakebed sediments prior to advancing the HW casing into bedrock.

The geotechnical borehole collars were surveyed by Dominion Diamond personnel. A summary of the Jay Pit geotechnical borehole completion details is presented in Table 1.

Table 1: Summary of Jay Pit Geotechnical Drilling Program

Borehole ID	As-Built			Planned		Total Drilled Length (mah)	Start Drilling Date	End Drilling Date
	Easting (X, m)[a,b]	Northing (Y, m)[a,b]	Elevation (Z, masl)	Azimuth (deg)[c]	Inclination (deg)[d]			
JGT-01	543,130.8	7,165,638.9	419.4	200	80	251.00	March 1, 2014	March, 13, 2014
JGT-02	542,458.5	7,166,092.8	415.8	025	70	450.13	April 13, 2014	April 23, 2014
JGT-03	542,166.9	7,165,991.4	415.8	310	70	449.48	April 15, 2014	April 23, 2014
JGT-04	542,015.9	7,165,679.1	415.9	070	70	350.58	April 3, 2014	April 11, 2014
JGT-05	542,576.8	7,165,750.0	415.9	110	70	452.77	March 17, 2014	March 31, 2014
JGT-06[e]	543,163.3	7,165,609.9	419.6	200	80	461.30	March 25, 2014	April 4, 2014
JGT-07[f]	534,125.0	7,155,622.0	419.0	n/a	90	26.30	April 7, 2014	April 7, 2014

a) Collar coordinates are referenced to UTM NAD 83, Zone 12N.
b) Collar survey data provided by Dominion Diamond.
c) All azimuths are with respect to true north. All angles are in degrees.
d) Inclination is the angle below the horizontal; i.e., 90 degrees = a vertical hole.
e) Geotechnical data for borehole JGT-06 were only collected below 200.30 m because of the proximity of this hole to JGT-01, which was logged to 251.00 m.
f) The values shown in Table 1 are the planned coordinates for JGT-07, as a final collar survey was not carried out.
m = metres; masl = metres above sea level; deg = degree; mah = metres along hole, relative to ground (or ice) surface; n/a = not applicable; UTM = Universal Transverse Mercator; NAD = North American Datum.

Downhole orientation surveys were carried out with a Reflex E-Z Shot tool in boreholes JGT-01 to JGT-06, and with a Maxibor tool in boreholes JGT-02 to JGT-06. Downhole orientation surveys were not carried out in vertical borehole JGT-07. The downhole surveys were compared and averaged over similar intervals. A summary of the averaged downhole orientation data is presented in Table 2. These averaged downhole orientations were used to plot the structural orientation data, which is discussed in Section 3.2.

Table 2: Jay Pit Geotechnical Borehole Orientation Surveys by Borehole

JGT-01[a]			JGT-02[b]			JGT-03[b]			JGT-04[b]			JGT-05[b]			JGT-06[b]		
Depth Range (mah)	Azimuth (deg)[c]	Inclination (deg)[d]	Depth Range (mah)	Azimuth (deg)[c]	Inclination (deg)[d]	Depth Range (mah)	Azimuth (deg)[c]	Inclination (deg)[d]	Depth Range (mah)	Azimuth (deg)[c]	Inclination (deg)[d]	Depth Range (mah)	Azimuth (deg)[c]	Inclination (deg)[d]	Depth Range (mah)	Azimuth (deg)[c]	Inclination (deg)[d]
0-30	199.3	80.0	0-100	29.0	71.6	0-150	309.5	71.8	0-258	69.2	70.9	0-78	130.4	71.2	0-111	205.9	77.0
30-50	205.5	80.2	100-250	31.5	71.0	150-200	313.4	70.8	258-309	72.8	70.1	78-246	133.7	71.1	111-183	208.7	76.9
50-105	201.5	80.5	250-333	35.0	70.6	200-250	316.2	69.3	309-351	74.7	70.0	246-400	136.1	71.3	183-273	211.7	76.9
105-130	206.8	80.3	333-390	38.1	70.5	250-300	319.3	67.7				400-453	138.2	71.3	273-327	214.8	76.8
130-160	203.0	80.3	390-450	40.6	70.5	300-369	322.5	65.7							327-400	217.8	76.6
160-205	206.8	80.4				369-449	325.6	63.8							400-461	220.3	76.4
205-225	210.0	80.5															
225-251	206.2	80.5															

a) The average azimuth and inclination for borehole JGT-01 were calculated from Reflex survey data provided by Dominion Diamond.
b) The average azimuth and inclination for boreholes JGT-02 to JGT-06 were calculated from Maxibor survey data provided by Dominion Diamond.
c) All azimuths are with respect to true north. All angles are in degrees.
d) Inclination is the angle below the horizontal; i.e., 90 degrees = a vertical hole.
mah = metres along hole, relative to ground (or ice) surface; deg = degree.

In addition to the seven diamond geotechnical boreholes, two sonic drill boreholes (JSD-01 and JSD-02) were drilled in the proposed Jay Pit area at the request of Dominion Diamond. These boreholes were not drilled for geotechnical purposes, and therefore the core was not logged by Golder personnel. However, soil information from these holes will be used for the design study of the proposed Jay Pit. The Jay Pit diamond and sonic borehole locations are shown in plan in Figure 2.

Detailed geotechnical core logging of oriented rock core was carried out on site by Golder according to Golder's Field Procedures Manual on Collection of Geotechnical Data from Drill Core (Golder 2014). The descriptive terms and standards used by Golder to describe the geotechnical character of a rock mass are broadly consistent with terminology recommended by the American Society for Testing and Materials (ASTM), and by the International Society for Rock Mechanics (ISRM). The geotechnical borehole logs are included in Appendix A.

To minimize disturbance to the core, the rock core was logged in a temporary logging facility located adjacent to the drill site. Once a drill run was completed, Major Drilling used the ACT II controller to orient the core barrel inner tube, extracted the split tubes and the core from the inner tube, and transferred the split tubes to Golder personnel in the core logging facility. Inside the logging facility, the core orientation was completed, and the rock core was geotechnically logged in the split tubes. The core was transferred to core boxes, and the core boxes were photographed in groups of three. Photographs were taken of the core under both wet and dry conditions. The core photographs are included in Appendix B.

Once the geotechnical logging was completed and the core was photographed, Aurora Geosciences staff logged the core geologically. The final geological logs produced by Aurora Geosciences were later provided to Golder by Dominion Diamond, and were used to cross check and confirm the simplified rock types described by Golder in the geotechnical logs.

Point load tests on the core were carried out by Golder field personnel, at approximately three-metre intervals. Point load testing was conducted at the site core logging facility, in most cases after the core was photographed and laboratory samples had been selected. The testing procedures followed by Golder personnel were consistent with the ASTM method (ASTM 2008). Point load test results are summarized in Section 3.3.2.

Geotechnical data were collected to characterize the rock and discontinuities according to the following rock mass classification systems:

- the Norwegian Geotechnical Institute Tunneling Quality Index, Q-system (Barton et al. 1974); and
- the Council for Scientific and Industrial Research Rock Mass Rating (RMR) System (Bieniawski 1976).

Geotechnical logging intervals were selected based on variations in strength, fracture frequency, and lithology. The maximum allowable geotechnical interval length was equal to the drill run length. The minimum length of the geotechnical interval was 10% of the core run length, typically 30 cm. In addition to these data, structural orientation data were collected to determine the orientation of major structures in the proposed Jay Pit area.

2.2 Sample Collection and Laboratory Testing

Rock core samples were selected by Golder personnel for the following laboratory tests: uniaxial compressive strength, triaxial compressive strength, Brazilian tensile strength, and direct shear. The samples were photographed, wrapped, and labelled on site, and were shipped to Golder's geotechnical laboratory in Burnaby, British Columbia, for geomechanical testing. Details of the samples collected are presented in Sections 3.3.3 and 3.4.3. Photographs of the samples are included in Appendix B.

2.3 Hydrogeological Field Testing

Hydrogeological testing was carried out concurrently with the Jay Pit diamond drilling program. Pneumatic packers were used to conduct single-well pressure response tests as the boreholes were advanced. A total of 28 successful single-packer tests were performed by Golder personnel in boreholes JGT-01 to JGT-06.

Hydrogeological testing was carried out at selected overlapping intervals to provide a continuous hydraulic conductivity profile along the saturated section of each borehole. The testing was conducted with a single wireline packer tool that consisted of two packers connected by a seating cone. One packer remained inside the core barrel with the second packer extending into the open hole below the drill bit. Prior to testing, the core recovered from the boreholes was reviewed in detail to assess the borehole stability, to identify suitable intervals for testing, and to identify suitable locations for placement of the testing equipment.

To perform a test, the drill string was pulled up to expose the section of the borehole selected for testing, and the packer tool was lowered on a wireline through the drill string into the borehole. When the packers were in place, they were inflated with nitrogen gas, isolating the section of the borehole between the lower packer and the bottom of the last drill run. After the test was completed, the packers were deflated and removed from the borehole. The length of the test intervals and the overlap between the tests was adjusted based on the conditions encountered at each location. The test intervals varied in length from 16.7 to 106.7 m.

A summary of the hydrogeological tests carried out in the Jay Pit boreholes is presented in Table 3, and the results are discussed in Section 3.5.

Table 3: Summary of Single-Well Pressure Response Tests in Jay Pit Boreholes

Borehole ID	Date of Test	Test Number	Depth From (mah)	Depth To (mah)	Test Interval Length (m)	Test Type
JGT-01	March 11, 2014	1	149.4	199.1	49.7	PSR, SW, RI
JGT-01	March 13, 2014	2	200.6	251.0	50.4	PSR, SW, RI
JGT-02	April 15, 2014	1	57.9	77.6	19.7	PSR, SW
JGT-02	April 17, 2014	2	75.9	173.6	97.7	PSR, SW
JGT-02	April 18, 2014	3	174.9	275.6	100.7	PSR, SW, RI
JGT-02	April 21, 2014	4	273.9	374.6	100.7	PSR, SW, RI
JGT-02	April 23, 2014	5	372.9	450.1	77.3	PSR, SW
JGT-03	April 17, 2014	1	54.7	152.5	97.8	PSR, SW, RI
JGT-03	April 19, 2014	2	147.7	251.5	103.8	PSR, SW
JGT-03	April 21, 2014	3	246.7	350.5	103.8	PSR, SW, RI
JGT-03	April 21, 2014	4	348.7	449.5	100.8	PSR, SW, RI
JGT-04	April 6, 2014	1	93.9	146.6	52.7	PSR, SW, RI
JGT-04	April 8, 2014	2	144.9	251.6	106.7	PSR, SW, RI
JGT-04	April 11, 2014	3	243.9	350.6	106.7	PSR, SW, RI
JGT-05	March 19, 2014	1	22.1	47.8	25.7	PSR, SW, RI
JGT-05	March 20, 2014	2	49.1	101.8	52.7	PSR, SW, RI
JGT-05	March 21, 2014	3	103.1	152.8	49.7	PSR, SW, RI
JGT-05	March 22, 2014	4	151.1	200.8	49.7	PSR, SW
JGT-05	March 24, 2014	5	199.1	275.8	76.7	PSR, SW
JGT-05	March 26, 2014	6	274.1	326.8	52.7	PSR, SW
JGT-05	March 31, 2014	7	436.1	452.8	16.7	PSR, SW, RI
JGT-06	March 28, 2014	1	144.0	195.4	51.4	PSR, SW
JGT-06	March 30, 2014	2	198.0	251.3	53.3	PSR, SW
JGT-06	March 31, 2014	3	246.0	299.3	53.3	PSR, SW
JGT-06	April 1, 2014	4	297.0	350.3	53.3	PSR, SW
JGT-06	April 1, 2014	5	348.0	380.3	32.3	PSR, SW, RI
JGT-06	April 2, 2014	6	345.0	398.3	53.3	PSR, SW, RI
JGT-06	April 4, 2014	7[(a)]	396.0	461.3	65.3	PSR, SW
JGT-06	April 5, 2014	8	396.0	461.3	65.3	PSR, SW, RI

a) Fast recovery during SW, test repeated (JGT-06 Test 8).
mah = metres along hole, relative to ground (or ice) surface; m = metres; PSR = pressure static recovery sequence; SW = slug withdrawal sequence (rising head test); RI = constant rate injection sequence.

3.0 DATA SUMMARY

3.1 Lithological Data

Approximately 2,130 m of rock core were logged during the Jay Pit field investigation. Golder personnel collected lithological data as part of the geotechnical logging for the Jay Pit holes. The lithological data collected by Golder were then compared to the geological data collected by Aurora Geosciences Ltd. to establish consistency between the geotechnical and geological records. A histogram showing the rock type distribution in the Jay Pit geotechnical boreholes is presented in Figure C-1 in Appendix C. The percentages shown in the histogram are with respect to the total length of rock logged.

Based on the interval data, the lithological data indicate the following:

- Approximately 80% of the rock was logged as granitoid. This includes the three land holes near the Jay pipe, which were all in granitic rocks.
- Approximately 12% of the rock was logged as metasediments, and 6% was logged as diabase.
- Approximately 2% of the granitic rocks were logged as pegmatite.
- Less than 1% of the total rock logged was logged as either faults, kimberlite, or lost core.

3.2 Structural Orientation Data

During the Jay Pit field investigation, core orientation was carried out in boreholes JGT-01 to JGT-06 by Major Drilling, using the Reflex ACT II core orientation system. Discontinuity orientation data were collected on site by Golder personnel.

As part of the logging procedure, the orientation data were ranked in terms of the degree of confidence in the reliability of the data, based on whether the orientation tool worked, and on how successfully the orientation procedure was carried out. The reliability rankings are as follows:

- 1 is high reliability;
- 2 is medium reliability; and,
- 3 is low reliability.

The criteria for assigning the reliability are discussed in more detail in Golder's Field Procedures Manual (Golder 2014).

Stereographic projections of the Jay Pit orientation data by borehole were produced using the Rocscience software Dips (Version 6.0). The lower hemisphere, equal area projection was adopted as the standard plot configuration, and the orientation data shown on the plots are referenced to true north. Two stereoplots were developed for each borehole. The first plot shows all the orientation data that were collected, regardless of the reliability ranking. The second plot shows only the data with a reliability ranking of 1 (high). The stereographic projections are included in Appendix D.

3.3 Intact Rock Strength Data

3.3.1 Field Estimate of Rock Strength

Field estimates of intact rock strength were carried out by Golder personnel during core logging. The field estimates of intact rock strength are discussed in the following paragraphs, and are based on the ISRM methods (Ulusay and Hudson 2007) summarized in Table 4.

Table 4: Summary of International Society of Rock Mechanics Intact Rock Strength Estimates

Grade	Description	Field Identification	Approx. Range of Uniaxial Compressive Strength (MPa)
R0	Extremely Weak Rock	Indented by thumbnail	0.25 to 1.0
R1	Very Weak Rock	Crumbles under firm blows with point of geological hammer, can be peeled by a pocket knife	1.0 to 5.0
R2	Weak Rock	Can be peeled by a pocket knife with difficulty, shallow indentations made by firm blow with point of geological hammer	5.0 to 25
R3	Medium Strong Rock	Cannot be scraped or peeled with a pocket knife, specimen can be fractured with single firm blow of geological hammer	25 to 50
R4	Strong Rock	Specimen requires more than one blow of geological hammer to fracture it	50 to 100
R5	Very Strong Rock	Specimen requires many blows of geological hammer to fracture it	100 to 250
R6	Extremely Strong Rock	Specimen can only be chipped with geological hammer	>250

Source: Ulusay and Hudson 2007.
MPa = megaPascal; > = greater than.

A histogram of the field estimates of intact rock strength per interval is presented in Figure C-2 in Appendix C. The percentages shown in the histogram are with respect to the total length of rock logged.

Based on the interval data, the field estimates of intact rock strength indicate the following:

- The overall average rock strength is R5 (very strong rock).
- The length of R5 and R6 intervals combined represents approximately 87% of the total length of rock logged.
- The length of intervals logged as strong rock (R4) represents approximately 10% of the total length of rock logged.
- The length of intervals logged as medium strong rock (R3) or weaker represents less than 4% of the total length of rock logged.

A histogram of the field estimates of intact rock strength classified by rock type is presented in Figure C-3 in Appendix C. The percentages shown in the histogram are with respect to the total length of core logged for each rock type. A summary of the minimum, maximum, and average field estimates of intact rock strength logged for each rock type is presented in Table 5. The average intact rock strength values are weighted according to the variable geotechnical interval lengths.

Table 5: Minimum, Maximum, and Average Field Estimates of Intact Rock Strength

Rock Type	Field Estimate of Intact Rock Strength		
	Minimum	Maximum	Weighted Average
Diabase	R4	R6	R5
Fault	R0	R5	R3
Granitoid	R3	R6	R5
Kimberlite	R0	R0	R0
Metasediments	R2	R6	R5
Pegmatite	R2	R5	R4

3.3.2 Point Load Testing

Point load tests (PLTs) were carried out by Golder personnel on rock core samples collected from boreholes JGT-01 to JGT-06. A total of 341 tests were performed, of which 268 were valid tests. Tests were considered invalid if the sample did not break cleanly and entirely through the intact sample at failure. Invalid tests included tests where fragments of rock would chip off the sample (chipping), the platens of the point load tester would dig into the weak sample (punching), or the sample would slip out of the centre of the platens (slipping). If a sample broke along a pre-existing discontinuity such as a healed joint or along foliation, it was considered invalid if the break did not occur through the entire sample. It is common practice to exclude such test results from the test database. A summary of the test results is presented in Table 6.

Table 6: Summary of Point Load Testing Results

Rock Type	Number of Tests	Number of Valid Tests	$I_{s(50)}$ (MPa)		
			Minimum	Maximum	Average
Diabase	19	4[a]	2.66	15.26	8.93
Granitoid	263	214[b]	2.02	12.26	8.09
Metasediments	51	42	0.66	11.06	5.18
Pegmatite	8	8	3.62	10.67	6.64

a) Eleven of the diabase point load tests could not be completed because the rock strength exceeded the point load tester gauge range. These tests were not used to determine the $I_{s(50)}$ minimum, maximum, and average values for diabase.
b) Thirteen of the granitoid point load tests could not be completed because the rock strength exceeded the point load tester gauge range. These tests were not used to determine the $I_{s(50)}$ minimum, maximum, and average values for granitoid.
MPa = megaPascal; $Is_{(50)}$ = size corrected point load index.

The ASTM standard for point load testing recommends that the two highest and two lowest values of 10 or more valid tests be removed before the mean value of $I_{s(50)}$ is calculated (ASTM 2008). This standard was followed in the calculations for the granitoid and metasediments test results. However, the standard was not followed for the diabase and pegmatite test results because the number of valid tests was less than 10.

More detailed test results and histograms of the PLT data by rock type are presented in Appendix E. The rock type of each PLT sample was logged at the time of testing, and this information is included in Tables E-1 and E-2 in Appendix E.

3.3.3 Intact Rock Strength Laboratory Testing

A total of 116 rock core samples from boreholes JGT-01 to JGT-06 were collected and shipped to Golder's Burnaby, British Columbia, laboratory. Of the collected samples, the following number of samples were selected for the following intact rock strength tests:

- 64 uniaxial compressive strength;
- 8 triaxial compressive strength; and
- 4 Brazilian tensile strength.

Table 7 presents a summary of the samples collected for intact rock strength laboratory testing for each of the major rock types. Details of all the samples collected for testing are presented in Table B-1 in Appendix B. Table B-2 in Appendix B summarizes the samples that were selected for intact rock strength testing, as indicated above.

Table 7: Summary of Samples Collected for Intact Rock Strength Laboratory Testing

Rock Type	Number of Samples
Diabase	11
Granitoid	88
Metasediments	17
Pegmatite	2

The laboratory testing results were not available at the time this report was written. The results will be presented under separate cover as part of the Jay Pit pre-feasibility design report.

3.4 Discontinuity Characterization Data

3.4.1 Joint Condition Rating Data

The joint condition rating (JCR) is a parameter used in the RMR_{76} rock mass classification system (Bieniawski 1976) to describe the small-scale surface characteristics of open discontinuities, based on visual estimates of the discontinuity surface roughness and wall rock alteration. A discrete numeric rating of 0, 6, 12, 20, or 25 is assigned based on the evaluation of the shape and the roughness of the discontinuity, as shown in Table 8.

Table 8: Rating Guide for Joint Condition Rating

Condition of Joints	Rating
soft gouge > 5 mm thick, or joints open > 5 mm; continuous joints.	0
slickensided surfaces, or gouge < 5 mm thick, or joints open 1 to 5 mm; continuous joints.	6
slightly rough surfaces, separation < 1 mm, soft joint wall rock.	12
slightly rough surfaces, separation < 1 mm, hard joint wall rock.	20
very rough surfaces, not continuous, no separation, hard joint wall rock.	25

Source: Modified from Bieniawski 1976.
> = greater than; < = less than; mm = millimetres.

Golder personnel collected JCR data for individual discontinuities, and also estimated an “average” JCR for each geotechnical interval logged. The interval JCR was assigned based on the most representative joint conditions observed in the interval. A histogram showing the interval JCR distribution in the Jay Pit geotechnical boreholes is presented in Figure C-4 in Appendix C. The percentages shown in the histogram are with respect to the total length of rock logged.

Based on the interval data, the field estimates of interval JCR indicate the following:

- The overall average interval JCR is 20.
- The length of intervals with a JCR of 20 or 25 combined represents approximately 84% of the total length of rock logged.
- The length of intervals with a JCR of 12 represents approximately 14% of the total length of rock logged.
- The length of intervals with a JCR of 0 or 6 represents less than 3% of the total length of rock logged.

3.4.2 Joint Roughness Number and Joint Alteration Number Data

The joint roughness number (Jr) is used in the Q rock mass classification system (Barton et al. 1974) to describe the small-scale geometry of the joint surface. The Jr number ranges from 0.5 for slickensided, planar surfaces to 4.0 for discontinuous joints, as shown in Table 9.

Table 9: Rating Guide for Joint Roughness Number

Parameter	Description	Rating
Joint Roughness Number **(Jr)**	***Rock wall contact and rock wall contact before 10 cm shear***	
	discontinuous joints	4.0
	rough or irregular, undulating	3.0
	smooth, undulating	2.0
	slickensided, undulating	1.5
	rough or irregular, planar	1.5
	smooth, planar	1.0
	slickensided, planar	0.5
	No rock wall contact when sheared	
	zone containing clay minerals thick enough to prevent rock wall contact	1.0
	sandy, gravelly, or crushed zone thick enough to prevent rock wall contact	1.0

Source: Modified from Barton et al. 1974.
cm = centimetres; Jr = joint roughness number.

Similarly, the joint alteration number (Ja) is used to distinguish between fractures that are filled with alteration minerals such as clay and those that are not. Filled fractures lower the rock mass strength, thereby reducing the stability of excavations. The Ja number ranges from 0.75 for closed or healed features to 20 for discontinuities filled with swelling clay greater than 5 mm in thickness, as shown in Table 10.

Table 10: Rating Guide for Joint Alteration Number

Parameter	Description	Rating
Joint Alteration Number **(Ja)**	***Rock wall contact***	
	tightly healed, hard, non-softening, impermeable filling (e.g., quartz or epidote)	0.75
	unaltered joint walls, surface staining only	1
	slightly altered joint walls; non-softening mineral coatings, sandy particles, clay-free disintegrated rock, etc.	2
	silty- or sandy-clay coatings, small clay-fraction (non-softening)	3
	softening or low friction clay mineral coatings (e.g., kaolinite, mica, chlorite, talc, gypsum, graphite), and small quantities of swelling clays; discontinuous coatings, 1 to 2 mm or less in thickness	4
	Rock wall contact before 10 cm shear	
	sandy particles, clay-free disintegrated rock, etc.	4
	strongly over-consolidated, non-softening clay mineral fillings; continuous, less than 5 mm in thickness	6
	medium or low over-consolidated, softening, clay mineral fillings; continuous, less than 5 mm in thickness	8
	swelling clay fillings (e.g., montmorillonite); continuous, less than 5 mm in thickness; value of Ja depends on percent of swelling clay-size particles, access to water, etc.	8 to 12

Parameter	Description	Rating
	No rock wall contact when sheared	
	zones or bands of silty- or sandy clay, small clay fraction (non-softening)	5
	zones or bands of disintegrated or crushed rock and strongly over-consolidated, non-softening clay	6
	zones or bands of disintegrated or crushed rock and medium or low over-consolidated, softening clay	8
	zones or bands of disintegrated or crushed rock and swelling clay	8 to 12
	thick, continuous zones or bands of strongly over-consolidated, non-softening clay	10
	thick, continuous zones or bands of medium or low over-consolidated, softening clay	13
	thick, continuous zones or bands of swelling clay	13 to 20

Source: Modified from Barton et al. 1974.
mm = millimetres; cm = centimetres; Ja = joint alteration number.

Golder personnel collected Jr and Ja data for individual discontinuities. The Jr/Ja ratio gives an indication of the shear strength of the discontinuity surfaces, and ranges from 0.025 to 5.3. The Jr/Ja ratio was calculated for individual discontinuities, and the overall Jr/Ja ratio was estimated for each geotechnical interval logged. The interval Jr/Ja ratio was calculated as the average Jr/Ja of all the open discontinuities logged in that interval. A histogram showing the interval Jr/Ja distribution in the Jay pit geotechnical boreholes is presented in Figure C-5 in Appendix C. The percentages shown in the histogram are with respect to the total length of rock logged.

Based on the interval data, the estimates of interval Jr/Ja indicate the following:

- The overall average interval Jr/Ja ratio is 2.4.
- The length of intervals with a Jr/Ja ratio greater than 1.0 represents approximately 80% of the total length of rock logged.
- The length of intervals with a Jr/Ja ratio between 0.4 and 1.0 represents approximately 15% of the total length of rock logged.
- The length of intervals with a Jr/Ja ratio of 0.4 or less represents less than 6% of the total length of rock logged.

3.4.3 Direct Shear Testing

A total of 48 discontinuity samples from boreholes JGT-01 to JGT-06 were collected and shipped to Golder's Burnaby, British Columbia, laboratory for direct shear testing. Table 11 presents a summary of the samples collected for direct shear testing for each of the major rock types. Details of the samples selected for testing are included in Table B-3 in Appendix B.

Table 11: Summary of Samples Collected for Direct Shear Testing

Rock Type	Number of Samples
Diabase	4
Granitoid	32
Metasediments	12

All the diabase and metasediment samples and 20 of the granite samples have been selected for testing; however, the direct shear testing results were not available at the time of this report. The results will be presented under separate cover as part of the Jay Pit pre-feasibility design report.

3.5 Hydrogeological Testing Data

The hydrogeological testing data collected by Golder during the Jay Pit field investigation were analyzed to estimate a hydraulic conductivity value for each test, and to compile a hydraulic conductivity profile for each borehole. The analyses were carried out with HydroBench® (Version 3.6.4.3), a software package developed by Golder to analyze different types of hydrogeological field tests. A technical memorandum containing a detailed description of the hydrogeological data collected during the Jay Pit field investigation is presented in Appendix F.

A summary of the transmissivity and hydraulic conductivity values calculated for the tested intervals is presented in Table 12. The hydraulic conductivity values were calculated by dividing the transmissivity value by the length of the corresponding test interval. The table shows the test sequences carried out in each interval such as pressure static recovery (PSR), slug withdrawal (SW), and constant rate injection (RI). For each test interval, the test sequence with the most reliable pressure response data set was selected for analyses.

Table 12: Summary of Single-Well Test Results

Borehole ID	Test Number	Interval Top (mah)	Interval Bottom (mah)	Interval Length (m)	Test Sequences Conducted	Test Sequence Analyzed	Rock Type	Structural Feature	T (m^2/s)	K (m/s)
JGT-01	1	149.4	199.1	49.7	PSR, SW, RI	SW	GR	none	5E-08	1E-09
JGT-01	2	200.6	251.0	50.4	PSR, SW, RI	SW	GR	none	2E-07	5E-09
JGT-02	1	57.9	77.6	19.7	PSR, SW	SW	GR,	fault	1E-05	7E-07
JGT-02	2	75.9	173.6	97.7	PSR, SW	SW	GR	none	2E-05	2E-07
JGT-02	3	174.9	275.6	100.7	PSR, SW, RI	RI	GR	none	7E-06	7E-08
JGT-02	4	273.9	374.6	100.7	PSR, SW, RI	RI	GR, PEG	none	8E-06	7E-08
JGT-02	5	372.9	450.1	77.3	PSR, SW	SW	GR, DB	none	1E-06	2E-08
JGT-03	1	54.7	152.5	97.8	PSR, SW, RI	RI	DB, GR, PEG	none	9E-04	9E-06
JGT-03	2	147.7	251.5	103.8	PSR, SW	SW	GR	none	4E-07	3E-09
JGT-03	3	246.7	350.5	103.8	PSR, SW, RI	RI	GR, PEG	fault	3E-05	3E-07
JGT-03	4	348.7	449.5	100.8	PSR, SW, RI	RI	DB, GR	none	1E-04	1E-06
JGT-04	1	93.9	146.6	52.7	PSR, SW, RI	SW	MTSD	fault	5E-05	9E-07
JGT-04	2	144.9	251.6	106.7	PSR, SW, RI	SW	MTSD, GR,	fault	3E-05	3E-07
JGT-04	3	243.9	350.6	106.7	PSR, SW, RI	RI	MTSD, PEG, GR	none	2E-06	2E-08
JGT-05	1	22.1	47.8	25.7	PSR, SW, RI	SW	GR	none	1E-05	4E-07
JGT-05	2	49.1	101.8	52.7	PSR, SW, RI	SW	GR, MTSD	fault	2E-05	5E-07
JGT-05	3	103.1	152.8	49.7	PSR, SW, RI	SW	GR	none	9E-06	2E-07
JGT-05	4	151.1	200.8	49.7	PSR, SW	SW	GR, PEG	none	2E-06	5E-08
JGT-05	5	199.1	275.8	76.7	PSR, SW	SW	GR	none	8E-08	1E-09
JGT-05	6	274.1	326.8	52.7	PSR, SW	SW	GR, MTSD	none	5E-08	1E-09
JGT-05	7	436.1	452.8	16.7	PSR, SW, RI	RI	GR	none	8E-04	5E-05
JGT-06	1	144.0	195.4	51.4	PSR, SW	SW	GR	none	2.E-07	3E-09
JGT-06	2	198.0	251.3	53.3	PSR, SW	SW	GR	none	3.E-06	6E-08
JGT-06	3	246.0	299.3	53.3	PSR, SW	SW	GR	none	8.E-09	2E-10
JGT-06	4	297.0	350.3	53.3	PSR, SW	SW	GR	none	6.E-07	1E-08
JGT-06	5	348.0	380.3	32.3	PSR, SW, RI	SW	GR	fault	2.E-04	5E-06
JGT-06	6	345.0	398.3	53.3	PSR, SW, RI	SW	GR	fault	4.E-04	7E-06
JGT-06	7	396.0	461.3	65.3	PSR, SW	N/A	GR	fault	test not analyzed[(a)]	
JGT-06	8	396.0	461.3	65.3	PSR, SW, RI	RI	GR	fault	3.E-04	4E-06

a) Fast recovery during SW, test repeated (JGT-06 Test 8).

mah = metres along hole, relative to ground (or ice) surface; m = metres; m/s = metres per second; m^2/s = square metres per second; T = Transmissivity; K = Hydraulic conductivity; PSR = pressure static recovery sequence; SW = slug withdrawal sequence (rising head test); RI = constant rate injection sequence; GR = Granitoid; PEG = Pegmatite; DB = Diabase; MTSD = Metasediments; N/A = not applicable.

4.0 CLOSURE

This data report has provided a description of the Jay Pit field investigation that was carried out from February 11 to April 29, 2014.

This report should be read in conjunction with the ***"Study Limitations"*** which is appended at the beginning of the report. The reader's attention is specifically drawn to this information, as it is essential that it be followed for the proper use and interpretation of this report.

We trust this report satisfies your current requirements. If you have any questions or require further assistance, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES LTD.

Marisol Valerio, P.Eng. (BC)
Geotechnical Engineer, Mining Division

Jennifer Ramesch, M.Sc.
Geotechnical Specialist

Ermanno Rambelli, P.Geo. (BC)
Associate, Project Manager

REGISTERED PROFESSIONAL ENGINEER
J.C. CUNNING
LICENSEE
July 25/14

John Cunning, P.Eng.
Principal, Senior Geotechnical Engineer

MV/JJR/ER/ja/kp/rs/np/it

\\golder.gds\gal\burnaby\final\2013\1328\13-1328-0041\1313280041-e14041b-r-rev0-2010\1313280041-e14041b-r-rev0-2010-jay pit data report 23jul_14.docx

THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS and GEOPHYSICISTS OF THE NORTHWEST TERRITORIES
PERMIT NUMBER
P 049
GOLDER
ASSOCIATES LTD.
July 25 14

REFERENCES

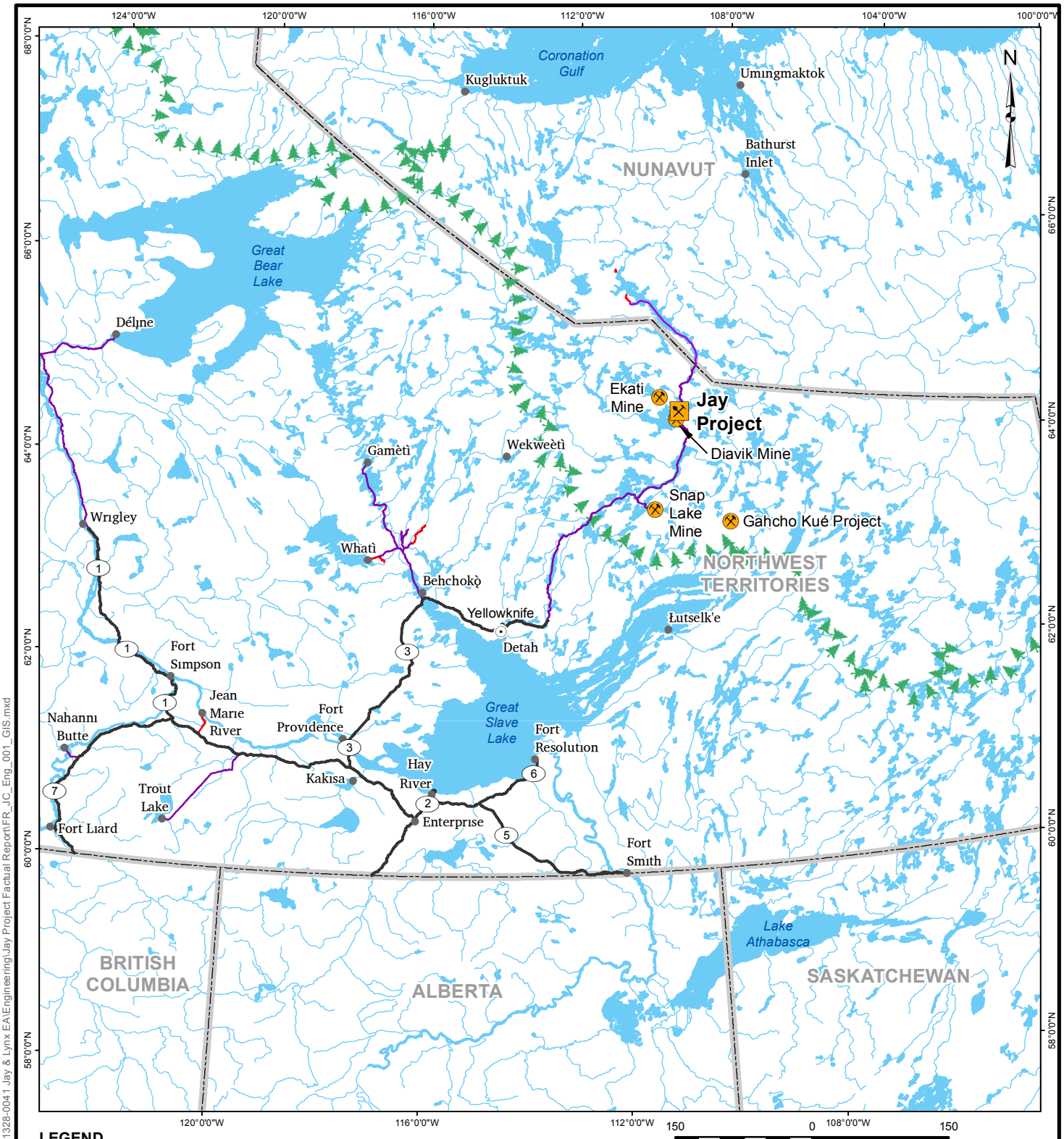
ASTM (American Society for Testing and Materials). 2008. Standard Test Method for Determination of the Point Load Strength Index of Rock and Application to Rock Strength Classifications. American Society for Testing of Materials, Designation D 5731 – 08.

Barton N, Lien R, Lunde J. 1974. Engineering classification of rock masses for the design of tunnel support. Rock Mechanics, 6, (4), pp 189-236.

Bieniawski ZT. 1976. Rock Mass Classifications in Rock Engineering. Proc. Symp. Exploration for Rock Engineering, Johannesburg, pp 97-107.

Golder (Golder Associates Ltd.) 2014. Field Procedures Manual on Collection of Geotechnical Data from Drill Core, Jay Field Investigation. January 2014.

Ulusay R, Hudson JA. 2007. The Complete ISRM Suggested Methods for Rock Characterization, Testing and Monitoring: 1974-2006. ISRM Turkish National Group, Ankara, Turkey, pp 35.



LEGEND

- JAY PROJECT
- EXISTING MINE OR PROJECT
- TERRITORIAL CAPITAL
- POPULATED PLACE
- HIGHWAY
- ALL-SEASON ROAD
- WINTER ROAD
- TERRITORIAL/PROVINCIAL BOUNDARY
- TREELINE
- WATERCOURSE
- WATERBODY

REFERENCE

WATER OBTAINED FROM ATLAS OF CANADA
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
PROJECTION: CANADA LAMBERT CONFORMAL CONIC

REV	DATE	REVISION DESCRIPTION	DES	GIS	CHK	RVW
2	2014-07-10	ISSUED FOR FINAL	FA	ANK	GJ	JCC
1	2014-06-30	ISSUED FOR DRAFT	LS	ANK	RQ	MD

PROJECT

DOMINION DIAMOND

JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE

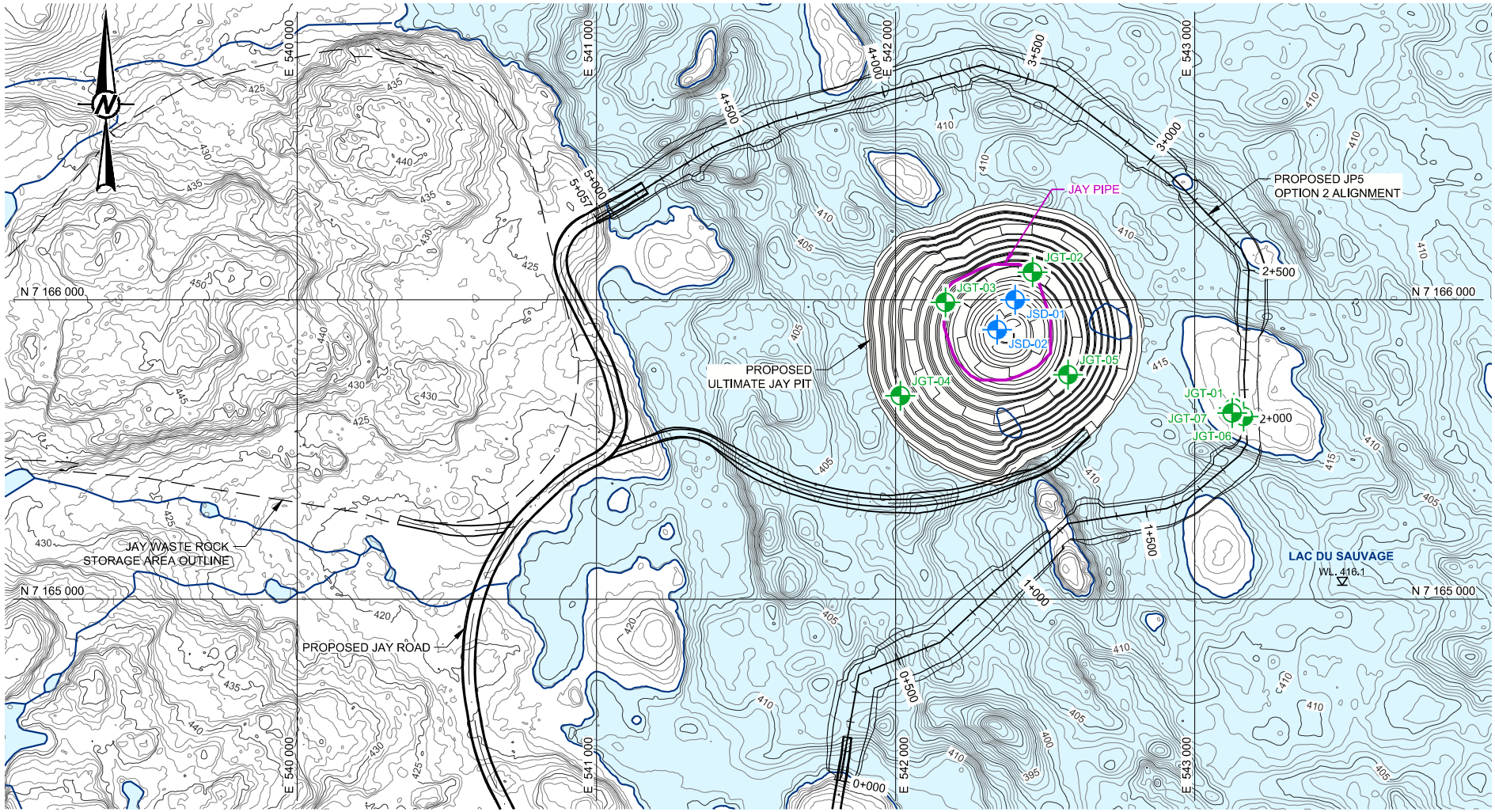
JAY PROJECT LOCATION

Golder Associates

PROJECT 13-1328-0041/2010			FILE No. FR_JC_Eng_001_GIS	
DESIGN	FA	2014-06-11	SCALE	AS SHOWN
GIS	ANK	2014-06-11	FIGURE	1
CHECK	GJ	2014-07-10		
REVIEW	JCC	2014-07-10		

G:\CLIENTS\DOMINION\DDEC Jay and Lynx Projects\Figures\13-1328-0041 Jay & Lynx EA\Engineering\Jay Project Factual Report\FR_JC_Eng_001_GIS.mxd

N:\Client\Dominion Diamond\Jay-Cardinal Project\99_PROJECTS\13-1328-0041\02_PRODUCTION\2010\70\1313280041-2010-70-02_B.dwg | Layout: 02 | Modified: jdeol 07/14/2014 10:10 AM | Plotted: jdeol 07/14/2014



LEGEND

- WATER BODY
- WATER COURSE
- EXISTING ROAD
- JAY PIPE LOCATION
- AS-BUILT SONIC BOREHOLE LOCATION
- AS-BUILT DIAMOND BOREHOLE LOCATION

NOTES

1. ALL UNITS ARE IN METRES UNLESS OTHERWISE NOTED.
2. GROUND SURFACE AND BATHYMETRY CONTOURS ARE SHOWN AT 1 m INTERVALS.
3. COORDINATES ARE SHOWN IN DATUM: NAD 83, PROJECTION: UTM ZONE 12.

REFERENCES

1. CONTOUR DATA PROVIDED BY AURORA GEOSCIENCES LTD., FILE: Final 1m Contours - Priority Area.dxf, DATE RECEIVED: OCTOBER 29, 2013.
2. JAY PIPE LOCATION RECEIVED FROM DOMINION DIAMOND CORPORATION, FILE: jay_kimberlite_pipe_OL.dxf, DATED: JULY 19, 2013.
3. ULTIMATE JAY PIT DESIGN: GOLDER ASSOCIATES LTD., JUNE 2014. JAY PRE-STRIPPING AND REVISED SCHEDULE TRADE-OFF STUDY. REFERENCE NO: 1313280041-E14042-TM-Rev0-2030. (FILE NAME: Ultimate_pit_surf_clipped.dxf).
4. BOREHOLE AS-BUILT SURVEY PROVIDED BY DOMINION DIAMOND CORPORATION, RECEIVED ON APRIL 30, 2014.

0 400 800 1,200
SCALE METRES

REV	DATE	REVISION DESCRIPTION	TD	JD	JJR	JCC
0	2014-07-14	ISSUED FOR FINAL				

PROJECT

DOMINION DIAMOND

JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE

JAY PROJECT
BOREHOLE LOCATIONS

Golder Associates

PROJECT No.	13-1328-0041.2010		FILE No.	1313280041-2010-70-02_B	
DESIGN	TD	2014-05-15	SCALE	AS SHOWN	
CADD	JD	2014-05-15	FIGURE		
CHECK	JJR	2014-07-11		2	
REVIEW	JCC	2014-07-11			

APPENDIX A

Geotechnical Core Logs

CORE LOG ABBREVIATIONS

masl - meters above sea level

deg – degrees

ISRM – International Society for Rock Mechanics

RQD – Rock Quality Designation

JCR – Joint Condition Rating

Jn – Joint Set Number

Jr – Joint Roughness Number

Ja – Joint Alteration Number

CORE LOG DEFINITIONS

Recovery: Records the total cumulative length of all core recovered in the core tube.

Fracture Count: A count of the number of naturally occurring discontinuities in a geotechnical interval.

Rock Quality Designation (RQD): The total cumulative length of sound core recovered in lengths greater than 10 cm, as measured along the centreline axis of the core. The 10 cm index length is independent of core size, and is applicable to BQ, NQ, HQ, PQ, 4-inch, and 6-inch core sizes.

Rock Strength Estimate: The strength of the pieces of intact core in the geotechnical interval can be estimated using the definitions in the “Descriptions of Rock Strength” table. A pocket knife and a hammer are required for this test.

Weathering: A measure of the level of rock mass degradation due to physical and/or chemical processes.

Feature Type: Geological description of prominent and distinct discontinuities within the rock, indicating whether the discontinuity is a joint, fault, contact,vein, shear, rubble zone or broken core.

Alpha Angle: The maximum angle of dip measured between the discontinuity plane and the core axis (0° = parallel to core axis; 90° = perpendicular to core axis).

Beta Angle: The circumferential angle, measured in a clockwise direction, from a reference line drawn on the core to the lowest point along the dip of the discontinuity, looking in a downhole direction.

Fault: An approximately planar fracture or discontinuity across which there has been significant displacement.

Fault Zone: A zone of complex deformation consisting of a concentration of faults, or the zone of fractured rock associated with a single fault.

ABBREVIATIONS FOR THE DESCRIPTION OF ROCK TYPES

Diabase	DB	Lost Core	LC
Fault	FLT	Metasediments	MTSD
Granitoid	GR	Soil	OVB
Kimberlite	KIMB	Pegmatite	PEG

DESCRIPTION OF ROCK STRENGTH

(Reference: Rock Characterization Testing and Monitoring: ISRM Suggested Methods, 1981)

Grade	Description	Field Identification	Approx. Range of Uniaxial Compressive Strength (MPa)
R0	Extremely weak	Indented by thumbnail.	0.25 – 1.0
R1	Very weak	Crumbles under firm blows with point of geological hammer, can be peeled by a pocket knife.	1.0 - 5.0
R2	Weak	Can be peeled by a pocket knife with difficulty, shallow indentations made by firm blow with point of geological hammer.	5.0 – 25
R3	Medium strong	Cannot be scraped or peeled with a pocket knife, specimen can be fractured with single firm blow of geological hammer.	25 – 50
R4	Strong	Specimen requires more than one blow of geological hammer to fracture it.	50 – 100
R5	Very strong	Specimen requires many blows of geological hammer to fracture it.	100 – 250
R6	Extremely strong	Specimen can only be chipped with geological hammer.	>250

DESCRIPTION OF WEATHERED STATE

(Reference: Rock Characterization Testing and Monitoring: ISRM Suggested Methods, 1981)

Term	Symbol	Description	Discoloration Extent	Fracture Condition	Surface Character
Fresh	W1	No visible sign of rock material weathering.	None	Closed or Discolored	Unchanged
Slightly Weathered	W2	Discoloration indicates weathering of rock material on discontinuity surfaces. Less than 5% of rock mass is weathered.	<20% of fracture spacing on both sides of fracture	Discolored, may contain thin filling	Partial discoloration
Moderately Weathered	W3	Less than 50% of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a discontinuous framework or as corestones.	>20% of fracture spacing on both sides of fracture	Discolored, may contain thick filling	Partial to complete discoloration, not friable except poorly cemented rocks
Highly Weathered	W4	More than 50% of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a discontinuous framework or as corestones.	Throughout	Filled with weathered material	Friable and possibly pitted
Completely Weathered	W5	100% of rock material is decomposed and/or disintegrated to soil. The original mass structure is still largely intact.	Throughout	Filled with weathered material	Resembles soil
Residual Soil	W6	All rock material is converted to soil. The mass structure and material fabric are destroyed. There is a large change in volume, but the soil has not been significantly transported.	Throughout	N/A	Resembles soil

JOINT SET NUMBER (Jn)

Description	Rating
Massive	0.5
One or two randomly oriented discontinuities	1
One discontinuity set	2
One discontinuity set plus randomly oriented discontinuities	3
Two discontinuity sets	4
Two discontinuity sets plus randomly oriented discontinuities	6
Three discontinuity sets	9
Three discontinuity sets plus randomly oriented discontinuities	12
Four or more discontinuity sets	15
Crushed rock	20

ABBREVIATIONS FOR THE DESCRIPTION OF DISCONTINUITIES

DISCONTINUITY TYPE

Broken Core	BC	Fault	FLT
Bedding	BD	Foliation	FOL
Closed Feature	CLF	Joint	JN
Closed Contact	CON	Open vein	VNO
Open Contact	CONO		

ORIENTATION RELIABILITY

1: Reliable orientation	2: Uncertain orientation	3: Unreliable or no orientation

JOINT ROUGHNESS NUMBER (Jr)

Description	Rating
Massive/solid core runs with no natural breaks	4
Rough and wavy/stepped	3
Smooth and wavy/stepped	2
Rough and planar	1.5
Slickensided/polished and wavy/stepped	1.5
Smooth and planar	1
Filled	1
Slickensided/polished and planar	0.5

JOINT ALTERATION NUMBER (Ja)

Description	Rating
Unfilled Discontinuities	
Massive/solid core runs with no natural breaks	0.75
Staining only, no alteration	1
Slightly altered surfaces	2
Silty or sandy coatings	3
Clay coatings	4
Filled Discontinuities	
Sand or crushed rock filling less than 5 mm thick	4
Sand or crushed rock filling more than 5 mm thick	5
Stiff clay filling less than 5 mm thick	6
Soft clay filling less than 5 mm thick	8
Stiff clay filling more than 5 mm thick	10
Swelling clay filling less than 5 mm thick	12
Soft clay filling more than 5 mm thick	15
Swelling clay filling more than 5 mm thick	20

JOINT CONDITION RATING (JCR) GUIDE:

(After: Bieniawski, Z.T. 1976. *Rock Mass Classifications in Rock Engineering.* Proc. Symp. Exploration for Rock Engineering, Johannesburg, pp. 97-107.)

Discontinuity Description					JCR Rating
Infilled (no wall contact)	Soft Gouge or Soft Infill >5mm				**0**
	Soft Infill >1mm to 5mm				**6**
Not Infilled (wall contact)	Polished or Slickensided Surfaces (not infilled)				**6**
	Soft Joint Wall Rock (not infilled)				**12**
	Clean, Stained, Slightly Altered, Partial Coating (PC) or Complete Coating (CC)	Planar Surface	Smooth	Predominantly Soft Coating	**12**
				Clean, Stained, Slightly Altered, or Hard Coating	**12**
			Rough	Predominantly Soft Coating	**12**
				Clean, Stained, Slightly Altered, or Hard Coating	**20**
			Very Rough	Predominantly Soft Coating	**12**
				Clean, Stained, Slightly Altered, or Hard Coating	**20**
		Wavy Surface (undulating, stepped, or irregular)	Smooth	Predominantly Soft Coating	**12**
				Clean, Stained, Slightly Altered, or Hard Coating	**20**
			Rough or Very Rough	Predominantly Soft Coating	**20**
				Clean, Stained, Slightly Altered, or Hard Coating	**25**
Healed or Closed Discontinuities					**25**

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
	0.00	0.81	ICE																			
	0.81	5.00	OVB																			
	5.00	5.50	OVB	100																		
	5.50	8.00	GR	100	94	6	W1	3	7			5.67	JN	35		3	25	3	2			
												6.75	BC	22		3	25	3	1			
												6.95	JN	30		3	20	1.5	3			

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
8	5.50	8.00	GR	100	94	6	W1	3	7			7.95	JN	46		3	20	3	4			
9	8.00	11.00	GR	100	100	6	W1	4	7			8.79	JN	64		3	25	3	2			
												8.94	JN	63		3	20	3	4			
												9.69	JN	41		3	20	3	4			
10												9.97	JN	56		3	20	1.5	1			
												10.08	JN	64		3	12	1.5	4			
												10.18	JN	36		3	25	3	2			
11												10.86	JN	40		3	25	3	1			
	11.00	12.50	GR	100	100	5	W1	1	2													
12																						
	12.50	14.00	GR	100	100	5	W1	1	1													
13																						
14	14.00	15.50	GR	100	100	5	W1	1	2													

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
16	14.00	15.50	GR	100	100	5	W1	1	2													
	15.50	17.00	GR	100	100	5	W1	1	1													
17												17.53	JN	36		3	20	3	4			
18												18.04	JN	49		3	25	3	1			
	17.00	20.00	GR	100	100	5	W1	1	7			18.56	JN	50		3	25	3	1			
19																						
20																						
21	20.00	23.00	GR	100	100	5	W1	1	3													
22																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
23	20.00	23.00	GR	100	100	5	W1	1	3													
24	23.00	26.00	GR	100	96	5	W1	3	7													
25																						
26																						
27	26.00	29.00	GR	100	97	5	W1	3	7													
28																						
29	29.00	32.00	GR	100	100	5	W1	3	4													

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
31	29.00	32.00	GR	100	100	5	W1	3	4													
32	32.00	35.00	PEG	100	100	5	W1	1	2													
33																						
34																						
35	35.00	36.46	GR	100	100	5	W1	1	2													
36	36.46	36.88	PEG	100	100	3	W1	1	1	Pink crystals that are 2-3cm in diameter.												
37	36.88	38.00	GR	100	100	5	W1	1	3													

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
38	36.88	38.00	GR	100	100	5	W1	1	3													
39	38.00	41.00	GR	100	93	5	W1	1	5													
40																						
41																						
42	41.00	44.00	GR	100	100	5	W1	1	3													
43																						
44	44.00	44.85	GR	100	100	5	W1	0.5	0													
	44.85	46.32	GR	100	100	6	W1	2	4	There is more pink (K-feldspar) in this interval. Extremely strong, which could be due to alteration.												

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
46	44.85	46.32	GR	100	100	6	W1	2	4	There is more pink (K-feldspar) in this interval. Extremely strong, which could be due to alteration.		45.04	JN	39		3	20	1.5	1			
												45.83	VNO	37		3	20	1.5	2			
												46.05	JN	38		3	12	1	4			
												46.16	JN	35		3	12	1	2			
	46.32	47.00	GR	100	100	5	W1	0.5	0													
47												47.15	JN	41		3	20	1.5	1			
												47.56	JN	80		3	20	1.5	1			
												47.59	JN	74		3	25	3	1			
48																						
	47.00	50.00	GR	100	99	5	W1	1	3													
49																						
50																						
51	50.00	53.00	GR	100	100	5	W1	1	1	Overall massive granitoid.												
52																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
53	50.00	53.00	GR	100	100	5	W1	1	1	Overall massive granitoid.												
54	53.00	56.00	GR	100	100	5	W1	2	5	Overall massive granitoid.												
55																						
56																						
57	56.00	59.00	GR	100	100	5	W1	1	1													
58																						
59	59.00	61.50	GR	100	100	5	W1	4	4													

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
61	59.00	61.50	GR	100	100	5	W1	4	4													
	61.50	62.00	GR	100	58	4	W2	4	3													
62																						
63	62.00	65.00	GR	100	93	4	W1	4	6													
64																						
65																						
66	65.00	68.00	GR	100	100	5	W1	1	3	Overall massive granitoid with zones of pegmatitic/porphyritic texture.												
67												67.18 67.20	JN JN	61 17		3 3	20 25	1.5 3	1 1			

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
68	65.00	68.00	GR	100	100	5	W1	1	3	Overall massive granitoid with zones of pegmatitic/porphyritic texture.		67.84	JN	25		3	20	1.5	1			
												68.37	JN	34		3	25	3	1			
69	68.00	71.00	GR	100	97	5	W1	4	8	From 69.30-69.50m rock is more pegmatitic texture with grain size approximately 5mm. Core is also yellowish in color.		69.47	JN	33	295	1	12	1.5	4			
												69.88	JN	6	100	1	25	3	1			
70												70.25	JN	7	100	1	25	3	1			
												70.37	JN	7	100	1	20	3	4			
71	71.00	71.48	GR	100	100	4	W1	0.5	0	Massive granite.		71.48	JN	45	45	1	20	1.5	3			
	71.48	72.26	GR	100	100	5	W1	1	2			72.26	JN	25	340	1	20	1.5	3			
72												72.60	JN	66	160	1	25	3	1			
	72.26	74.00	GR	100	100	6	W2	2	2			73.15	JN	57	160	1	25	3	1			
73																						
74	74.00	74.30	GR	100	100	6	W1	0.5	0													
	74.30	74.54	GR	100	100	4	W1	1	1	Pegmatite with k-feldspar from 2.5-3cm thick, also has muscovite, biotite, and tourmaline.		74.45	JN	57		3	25	3	1			
	74.54	77.30	GR	100	100	6	W1	1	4			74.68	JN	61		3	20	1.5	1			
75																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
76	74.54	77.30	GR	100	100	6	W1	1	4			75.46	JN	85		3	25	3	1			
												75.70	JN	65		3	25	3	1			
77																						
78	77.30	80.15	GR	100	97	4	W1	3	5	Chlorite and epidote alteration.		77.53	JN	15		3	20	3	4			
												78.41	JN	38		3	25	3	1			
												78.50	JN	57		3	20	3	4			
79												78.86	JN	75		3	25	3	1			
80												79.92	JN	70		3	20	1.5	1			
81	80.15	83.00	GR	100	100	6	W1	3	5			80.87	JN	58		3	25	3	2			
												81.13	JN	67			25	3	2			
												81.31	JN	46			20	1.5	2			
82												81.71	FLT	29		3	6	0.5	4			
												82.38	FOL	42		3	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
83	80.15	83.00	GR	100	100	6	W1	3	5		
84	83.00	84.00	GR	100	100	6	W1	1	2		
85	84.00	86.00	GR	100	100	6	W1	1	5		
86	86.00	86.98	GR	100	100	6	W1	0.5	0		
87	86.98	88.07	GR	100	94	4	W2	3	4	Joints split core longitudinally.	
88	88.07	89.00	GR	100	100	6	W1	0.5	0		
89	89.00	92.00	GR	100	100	6	W1	0.5	0	Overall massive granodiorite.	
90											

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
83.13	JN	19		3	25	3	1			
83.78	JN	75		3	25	3	3			
84.13	JN	65			25	3	3			
84.48	JN	77		3	20	1.5	2			
86.98	JN	78	30	1	20	1.5	1			
87.43	JN	3	350	1	20	1.5	1			
87.50	JN	51	10	3	20	3	4			
88.07	JN	51		1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
91	89.00	92.00	GR	100	100	6	W1	0.5	0	Overall massive granodiorite.	
92	92.00	93.38	GR	100	100	5	W1	2	2	Massive granodiorite. The two fractures in the interval are along foliation.	
93	93.38	95.00	GR	100	100	5	W1	0.5	0	Massive fine-grained granodiorite. There is significant reduction in grain sizecompared to previous interval.	
95	95.00	98.00	GR	100	100	5	W1	1	2		

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
92.38	FOL	59	30	1	20	3	4			
92.52	FOL	48	10	1	12	1.5	4			
93.83	CON	35			25	4	0.75			
95.27	CON	33			25	4	0.75			
95.29	CON	32			25	4	0.75			
95.30	CON	35			25	4	0.75			
95.33	CON	33			25	4	0.75			
95.57	CON	41			25	4	0.75			
95.62	CON	32			25	4	0.75			
95.64	CON	45			25	4	0.75			
95.66	CON	42			25	4	0.75			
96.09	CON	70			25	4	0.75			
96.12	CON	65			25	4	0.75			
96.82	CON				25	4	0.75			
97.05	FOL	12	155	1	12	1.5	4			
97.26	JN	80	340	1	20	1.5	1			
97.34	CON	20			25	4	0.75			
97.40	CON	55			25	4	0.75			

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
98	95.00	98.00	GR	100	100	5	W1	1	2			97.77	CON	40			25	4	0.75			
												97.81	CON	45			25	4	0.75			
99	98.00	99.20	GR	100	100	6	W1	1	2			98.71	JN	60	50	1	25	3	1			
												99.20	JN	22	190	1	12	1.5	4			
												99.26	CLF	28	350	1	25	4	0.75			
												99.50	JN	78	50	1	25	3	1			
												99.65	JN	30	75	1	25	3	1			
100	99.20	101.00	GR	100	100	5	W2	3	4	Granodiorite with potassic alteration in the first 25cm of the interval.		100.04	JN	32	145	1	20	1.5	1			
												100.66	JN	61	250	1	25	3	1			
101	101.00	102.04	GR	100	100	5	W1	1	2			101.65	JN	72	240	1	20	1.5	1			
102												102.04	CON				25	4	0.75			
												102.10	JN	63	240	1	25	3	1			
												102.53	JN	64	145	1	20	1.5	1			
												102.83	JN	36	355	1	12	1	1			
103	102.04	104.00	GR	100	100	6	W1	4	5			103.30	JN	52	190	1	20	3	4			
												103.40	JN	48	190	1	25	3	1			
104	104.00	107.00	GR	100	100	6	W1	3	3			104.22	JN	51	40	1	12	1	1			
												104.29	JN	56	210	1	20	3	4			
105												104.86	JN	31	230	1	20	3	4			

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
106	104.00	107.00	GR	100	100	6	W1	3	3													
107												107.09	JN	64	230	2	20	1.5	1			
108	107.00	110.00	GR	100	100	6	W1	1	3			108.34	JN	70	140	2	25	3	1			
109												109.36	JN	60	200	2	25	3	1			
110												110.18	JN	64	170	1	25	3	1			
												110.52	JN	61	230	1	25	3	1			
111	110.00	113.00	GR	100	100	5	W1	3	5			111.08	JN	75	260	1	20	3	4			
												111.75	JN	29	340	1	12	1	1			
112																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
113	110.00	113.00	GR	100	100	5	W1	3	5			112.58	JN	61	180	1	25	3	1			
												113.65	JN	66	210	2	25	3	1			
114	113.00	116.00	GR	100	100	6	W1	1	3	Some pegmatitic crystals between 113.25m and 113.50m.		114.74	JN	46	180	2	25	3	1			
												114.82	CLF	70	180	2	25	4	0.75			
115												115.26	JN	41	195	2	20	3	4			
116																						
												116.89	JN	49	200	1	25	3	1			
117												117.00	CLF	76	155	1	25	4	0.75			
	116.00	119.00	GR	100	100	6	W1	3	3			117.47	JN	14	150	1	25	3	1			
118												117.72	JN	39	195	1	25	3	1			
119																						
	119.00	122.00	GR	100	100	6	W1	1	3			119.56	JN	57	160	2	25	3	1			
120																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
121	119.00	122.00	GR	100	100	6	W1	1	3			120.25	JN	65	150	2	25	3	1			
												121.04	JN	57	170	2	25	3	1			
122																						
123	122.00	125.00	GR	100	100	5	W1	3	3			123.02	JN	54	300	1	20	2	1			
												123.57	JN	37	280	1	20	1.5	1			
124												124.47	JN	30	290	1	20	1.5	1			
125	125.00	126.50	GR	100	100	5	W1	1	1			125.07	JN	21	30	1	25	3	1			
126																						
												126.83	JN	16	280	1	20	3	4			
127	126.50	128.00	GR	100	100	5	W1	2	2	This interval has more iron-rich quartz (more yellowish, orange color) due to chemical alteration.		127.02	JN	7	300	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
128	126.50	128.00	GR	100	100	5	W1	2	2	This interval has more iron-rich quartz (more yellowish, orange color) due to chemical alteration.		127.68 127.73 128.00	CLF CLF JN	7 64 50	300 150 313	1 1 1	25 25 20	4 4 3	0.75 0.75 4			
129	128.00	129.50	GR	100	100	5	W1	3	4			128.13 128.56 128.78	JN JN JN	10 51 40	285 333 310	1 1 1	20 20 12	3 2 2	4 3 4			
130	129.50	131.00	GR	100	100	5	W1	1	1			130.26	JN	35	315	1	25	3	1			
131	131.00	132.50	GR	100	100	5	W1	1	1			132.31	JN	65	190	2	25	3	1			
133	132.50	134.00	GR	100	100	5	W1	1	2			132.88 133.28	JN JN	60 75	195 90	2 2	25 20	3 3	1 4			
134	134.00	135.50	GR	100	100	5	W1	0.5	0													
135																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
136	134.00	135.50	GR	100	100	5	W1	0.5	0													
	135.50	137.00	GR	100	100	5	W1	1	1			136.33	JN	85	182	1	25	3	1			
137	137.00	140.05	GR	100	100	5	W1	1	1			138.92	JN	51	340	1	20	2	1			
138																						
139																						
140																						
141	140.05	143.07	GR	100	100	5	W1	0.5	0	Microcracks exist parallel to the core axis from 142.5m to end of run. Cracks are infilled with muscovite/sericite.												
142																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
143	140.05	143.07	GR	100	100	5	W1	0.5	0	Microcracks exist parallel to the core axis from 142.5m to end of run. Cracks are infilled with muscovite/sericite.		143.39	CLF	34	34	1	25	4	0.75			
144	143.07	145.03	GR	100	100	5	W1	1	2	Overall massive granitoid.		144.49	JN	14	342	1	20	3	4			
												144.60	JN	71	230	1	25	3	1			
145												145.03	CON				25	4	0.75			
	145.03	145.33	GR	100	100	5	W1	0.5	0													
												145.33	CON				25	4	0.75			
146	145.33	146.05	GR	100	100	5	W1	0.5	0	Massive granodiorite.												
147	146.05	149.00	GR	100	100	6	W1	1	1	Small zones of pegmatite at 147.45m and 147.48m.		147.93	JN	30	184	1	20	3	4			
148																						
149	149.00	152.06	GR	100	100	5	W1	0.5	0		1 E-09 (149.4 - 199.1)											
150																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
151	149.00	152.06	GR	100	100	5	W1	0.5	0													
152																						
153	152.06	154.98	GR	100	100	5	W1	0.5	0	Stick core with randomly oriented microcracks throughout.	1 E-09 (149.4 - 199.1)											
154																						
155												155.65	JN	46	190	2	20	2	1			
156	154.98	157.80	GR	100	100	4	W1	1	4	Rock is foliated with bands of quartzite (2-12cm) and darker granitoid rock. Rock has oxide staining associated with sub-parallel joint at 165.64m.		156.25	JN	11	78	2	25	3	1			
												156.39	JN	66	179	2	25	3	1			
157																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
158	154.98	157.80	GR	100	100	4	W1	1	4	Rock is foliated with bands of quartzite (2-12cm) and darker granitoid rock. Rock has oxide staining associated with sub-parallel joint at 165.64m.		157.77	JN	25	156	2	20	1.5	1			
159												158.53	JN	17	194	1	25	3	1			
160	157.80	161.00	GR	100	100	5	W1	1	1	Mostly massive with lots of quartz and some bands of darker foliated granitoid.												
161																						
162											1 E-09 (149.4 - 199.1)											
163	161.00	164.00	GR	100	100	5	W1	1	1	Weak foliation (alpha=30deg) with some parts massive.		163.70	JN	81	185	1	20	2	2			
164																						
165	164.00	167.00	GR	100	100	5	W1	0.5	0	Stick core. Some veinlets of calcite/quartz following a weak foliation. Traces of muscovite and biotite.												

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
166	164.00	167.00	GR	100	100	5	W1	0.5	0	Stick core. Some veinlets of calcite/quartz following a weak foliation. Traces of muscovite and biotite.												
167												167.32	JN	23	335	1	25	3	2			
168																						
169	167.00	170.00	GR	100	100	5	W1	1	1		1 E-09 (149.4 - 199.1)	169.42	CLF	9	310	1	25	4	0.75			
170																						
171	170.00	173.00	GR	100	100	5	W1	0.5	0	Massive with some microdefects between 171m and 171.57m. Traces of muscovite and biotite.												
172																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
173	170.00	173.00	GR	100	100	5	W1	0.5	0	Massive with some microdefects between 171m and 171.57m. Traces of muscovite and biotite.		173.23	JN	39	62	1	12	1	4			
												173.53	JN	27	232	1	25	3	1			
174	173.00	176.00	GR	100	100	5	W1	1	2	Massive with microdefects parallel to the core axis. Traces of muscovite and biotite.												
175																						
176											1 E-09 (149.4 - 199.1)											
												176.79	JN	66	235	1	25	3	1			
177	176.00	179.00	GR	100	100	5	W1	1	1	Massive with some microdefects parallel core axis. Disseminated muscovite present. More quartz in the matrix.												
178																						
179																						
	179.00	182.00	GR	100	100	5	W1	0.5	0	Massive with disseminated muscovite.												
180																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
181	179.00	182.00	GR	100	100	5	W1	0.5	0	Massive with disseminated muscovite.												
182																						
183	182.00	183.95	GR	100	100	5	W1	0.5	0	Massive with some microdefects and disseminated muscovite.	1 E-09 (149.4 - 199.1)											
184	183.95	185.00	GR	100	100	5	W1	2	2	Massive with some microdefects which slightly alter the rock with chlorite. Microdefects are mainly subparallel to the core axis.		184.13 184.25	JN JN	32 30	290 280	1 1	12 20	1 2	1 2			
185																						
186	185.00	187.98	GR	100	100	6	W1	0.5	0													
187																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
188	185.00	187.98	GR	100	100	6	W1	0.5	0													
189	187.98	190.99	GR	100	100	6	W1	0.5	0													
190																						
191											1 E-09 (149.4 - 199.1)											
192	190.99	194.03	GR	100	100	5	W1	0.5	0	Some muscovite infilled microdefects are present.												
193																						
194	194.03	197.02	GR	100	100	5	W1	1	1													
195																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
196	194.03	197.02	GR	100	100	5	W1	1	1			195.52	JN	43	66	1	12	2	4			
197											1 E-09 (149.4 - 199.1)											
198	197.02	199.97	GR	100	100	5	W1	1	1													
199																						
200												199.97	JN	29	345	1	20	1.5	1			
201	199.97	203.00	GR	100	100	5	W1	1	1	Massive with disseminated biotite and muscovite.	5 E-09 (200.6 - 251.0)											
202																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
203	199.97	203.00	GR	100	100	5	W1	1	1	Massive with disseminated biotite and muscovite.		202.65	JN	52	25	1	20	3	4			
204	203.00	206.00	GR	100	100	5	W1	0.5	0	Massive granite with disseminated muscovite and biotite.												
205																						
206											5 E-09 (200.6 - 251.0)											
207	206.00	209.00	GR	100	100	5	W1	1	1	Massive granite with disseminated muscovite and biotite.												
208												207.98	JN	69	280	1	20	3	4			
209																						
210	209.00	212.00	GR	100	100	5	W1	0.5	0	Massive granite with disseminated biotite and muscovite.												

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
211	209.00	212.00	GR	100	100	5	W1	0.5	0	Massive granite with disseminated biotite and muscovite.												
212																						
213	212.00	215.00	GR	100	100	5	W1	0.5	0	Massive granite with disseminated biotite and muscovite.	5 E-09 (200.6 - 251.0)											
214																						
215																						
216	215.00	218.00	GR	100	100	5	W1	0.5	0													
217																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
218	215.00	218.00	GR	100	100	5	W1	0.5	0													
219	218.00	219.25	GR	100	100	5	W1	1	1			218.49	JN	62	316	1	12	1.5	4			
220	219.25	220.91	GR	100	100	5	W1	1	2			219.63 219.80	JN JN	53 9	58 340	1 1	20 25	1.5 3	3 3			
221											5 E-09 (200.6 - 251.0)	221.52 221.61	JN JN	68 16	190 248	1 1	12 20	1.5 1.5	4 1			
222												222.00	JN	18	260	1	25	3	1			
223	220.91	223.87	GR	100	97	6	W1	3	4	Small zone of pegmatite at 221.36m.		223.87	JN	48	51	1	20	2	3			
224	223.87	226.92	GR	100	100	6	W1	0.5	0													
225																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
226	223.87	226.92	GR	100	100	6	W1	0.5	0													
227																						
228	226.92	229.99	GR	100	100	5	W1	0.5	0		5 E-09 (200.6 - 251.0)											
229																						
230																						
231	229.99	233.09	GR	100	100	5	W1	0.5	0													
232																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
233	229.99	233.09	GR	100	100	5	W1	0.5	0													
234	233.09	236.04	GR	100	100	5	W1	0.5	0													
235																						
236											5 E-09 (200.6 - 251.0)											
237																						
238	236.04	239.02	GR	100	100	6	W1	0.5	0	A few small zones of pegmatite in this run.												
239	239.02	242.04	GR	100	100	5	W1	0.5	0													
240																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
241	239.02	242.04	GR	100	100	5	W1	0.5	0													
242												242.59	JN	59	335	1	20	2	3			
243	242.04	245.02	GR	100	100	6	W1	1	1		5 E-09 (200.6 - 251.0)											
244																						
245												245.40	JN	23	325	1	25	3	2			
246	245.02	248.00	GR	100	100	5	W1	1	2	Massive granite with disseminated bioitite and muscovite.												
247												246.95	JN	61	340	1	20	1.5	2			

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-01

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 1-Mar-2014 Logging Completion Date: 13-Mar-2014

Northing: 7165638.9 m
Easting: 543130.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.42 masl
Depth: 251.00 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
248	245.02	248.00	GR	100	100	5	W1	1	2	Massive granite with disseminated bioitite and muscovite.												
249	248.00	251.00	GR	100	100	5	W1	0.5	0	End of Hole - Massive granite with disseminated biotite and muscovite.	5 E-09 (200.6 - 251.0)											
250																						
251																						
252																						
253																						
254																						
255																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 11 to 17 m, from 20 to 44 m, and from 50 to 65 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
1	0.00	1.96	ICE																			
2	1.96	18.30	WATER																			
3																						
4																						
5																						
6																						
7																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
8																						
9																						
10																						
11	1.96	18.30	WATER																			
12																						
13																						
14																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
16																						
	1.96	18.30	WATER																			
17																						
18																						
19																						
20	18.30	21.50	OVB	5						Rounded rubble and gravel.												
21																						
22	21.50	26.55	GR	100	98	4	W2	6	7	Slightly weathered granite. Strength R3-R4. Weak foliation.		22.46	JN	71		3	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
23												22.54	JN	75		3	25	3	1			
												23.00	JN	60		3	25	3	1			
												23.25	JN	19		3	25	3	1			
24												23.75	JN	15		3	12	1.5	4			
	21.50	26.55	GR	100	98	4	W2	6	7	Slightly weathered granite. Strength R3-R4. Weak foliation.		24.36	JN	70		3	20	3	4			
25																						
26												26.02	JN	58		3	25	3	1			
27																						
28	26.55	29.71	GR	100	100	4	W2	3	4	Massive, slightly weathered granite with some zones of very weak foliation.		28.10	CLF	0	230	1	25	4	0.75			
												28.24	VNO	80	60	1	20	3	4			
												28.60	JN	36	18	1	25	3	1			
29												28.87	JN	42	70	1	25	3	1			
												29.27	JN	20	20	1	25	3	1			
	29.71	32.65	GR	100	100	4	W1	3	4	Massive to slightly foliated granite. Slightly altered with epidote.		29.75	CLF	10	15	1	25	4	0.75			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
31	29.71	32.65	GR	100	100	4	W1	3	4	Massive to slightly foliated granite. Slightly altered with epidote.		30.61	FOL	45	70	1	25	3	1			
												30.89	FOL	47	60	1	25	3	1			
32												32.13	VNO	20	240	1	12	1	4			
												32.56	JN	78	75	1	25	3	1			
33												33.00	JN	27	350	1	25	3	1			
34	32.65	35.55	GR	100	100	4	W1	4	2	Slightly foliated granite with mica present in the matrix.		34.43	JN	21	5	1	20	1.5	1			
35																						
												35.73	JN	38	10	1	25	3	1			
36												36.34	JN	53	30	1	25	3	1			
	35.55	38.55	GR	100	100	4	W1	6	3	Slightly foliated unaltered granite with disseminated mica in the matrix.		36.88	CLF	31	50	2	25	4	0.75			
37												37.15	JN	13	310	2	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
38	35.55	38.55	GR	100	100	4	W1	6	3	Slightly foliated unaltered granite with disseminated mica in the matrix.												
39	38.55	40.70	GR	100	100	5	W1	2	1	Fresh granite. Slightly foliated with disseminated mica		40.30	JN	70	50	1	25	3	1			
40																						
41	40.70	41.55	GR	100	100	5	W1	0.5	0	Pegmatite with large crystals of reddish quartz and veinlets of biotite and muscovite.		41.63	CLF	20	25	1	25	4	0.75			
42																						
43	41.55	44.55	GR	100	100	5	W1	3	1	Fresh slightly foliated granite with disseminated mica.		42.90	JN	61	50	1	20	1.5	1			
44	44.55	47.55	GR	100	100	5	W1	6	4	Foliated granite with some pegmatite zones, slightly altered with iron oxide.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
46	44.55	47.55	GR	100	100	5	W1	6	4	Foliated granite with some pegmatite zones, slightly altered with iron oxide.		45.25	JN	13	308	1	25	3	1			
												45.50	JN	12	280	1	25	3	1			
												46.10	JN	34	40	1	20	1.5	1			
47												46.75	JN	80	100	1	25	3	1			
												47.55	FOL	52	20	1	25	3	1			
48	47.55	49.45	GR	100	100	5	W1	6	3	Foliated granite with pegmatite zones, slightly altered with iron oxide.		48.28	JN	68	280	1	25	3	1			
												48.66	JN	22	20	1	25	3	1			
49												49.45	CLF	54	40	1	25	4	0.75			
												49.65	JN	48	330	1	20	2	1			
50	49.45	50.55	GR	100	100	5	W1	2	1	More fine grained,foliated granite with some pegmatite zones, slightly altered with iron oxide.												
51	50.55	53.55	GR	100	98	5	W1	6	4	Fine grained slightly foliated granite. Moderately altered with iron oxide												
52												52.08	JN	46	10	1	20	2	1			
												52.15	JN	47	10	1	20	2	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
53	50.55	53.55	GR	100	98	5	W1	6	4	Fine grained slightly foliated granite. Moderately altered with iron oxide		52.56	JN	20	355	1	20	1.5	1			
												53.17	JN	11	160	1	12	1	1			
54	53.55	55.22	GR	100	100	5	W1	2	2	Weakly foliated granite.		54.21	JN	72	166	2	25	3	1			
												54.51	JN	52	200	2	25	3	1			
55	55.22	56.55	GR	100	100	5	W1	2	2			55.83	JN	41	189	2	25	3	1			
												55.96	JN	36	200	2	25	3	1			
56																						
57	56.55	58.80	GR	100	98	5	W1	6	7	Foliated granite, altered with iron oxide.		56.84	FOL	64	180	1	25	3	1			
												57.23	JN	74	90	1	25	3	1			
												57.25	JN	75	80	2	25	3	1			
58												57.97	JN	62	130	2	20	2	2			
												58.08	BC	46	130	2	25	3	1			
												58.56	JN	24	35	2	25	3	1			
59	58.80	59.28	GR	100	79	3	W1	6	3	Moderately foliated zone, with joints or veins infilled with mica. Weak and altered with chlorite.	7 E-07 (57.9 - 77.6)	59.00	JN	35	100	2	12	2	4			
												59.17	JN	27	190	2	20	1.5	1			
												59.20	JN	38	80	2	12	1	4			
	59.28	59.55	GR	100	0	4	W1	6	12	Highly foliated zone, altered with chlorite. Some gouge is present on the surface of the joints.		59.30	FOL	44	100	2	12	2	4			
												59.50	BC			3	12	1	2			
												59.55	JN	22	340	2	12	1	2			
												59.59	BC			3	20	1.5	1			
	59.55	62.16	GR	100	96	4	W1	4	14	Moderately foliated granite, slightly altered with chlorite. Weaker.		59.68	JN	72	175	2	12	1	2			
												59.96	FOL	51	145	2	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
61	59.55	62.16	GR	100	96	4	W1	4	14	Moderately foliated granite, slightly altered with chlorite. Weaker.	
62	62.16	62.75	GR	100	100	3	W3	2	2	Highly weathered zone, with iron oxide. Rock is sandy and can be crushed easily along planes of weakness.	
63	62.75	63.23	LC	0	0			20	48		
	63.23	63.58	FLT	100	0	3	W4	20	35	Highly weathered porous fault zone. Infilled with broken rock, gravel and sand. Breaks easily along weak planes with very low angle (0-10 degrees) to the core axis.	7 E-07 (57.9 - 77.6)
64	63.58	65.10	GR	100	100	4	W3	2	1	Moderately to highly weathered and foliated zone. Porous and weak. Breaks easily along weak plane (foliation). Weathering decreases with depth.	
65	65.10	65.77	GR	100	0	4	W2	6	6	Broken zone, probably mechanical due to the weakness of the rock. Rock is altered with chlorite and less weathered than previous intervals. This is the contact with a fault.	
66	65.77	66.37	LC	0	0			20	60		
	66.37	67.04	FLT	100	0	0	W5	20	67	Fault zone. No rock visible, only gouge with some gravel and sand. Very clear contact at 67.04m.	
67	67.04	67.64	GR	100	0	4	W3	2	4	Slightly to moderately weathered zone. Joints are infilled with gravel and sand with highly weathered surfaces. Rock is competent.	

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
60.45	FOL	36	65	2	12	1	1			
60.77	FOL	41	65	2	12	1	1			
61.50	JN	0	305	2	6	1	8			
61.75	JN	20	25	2	12	1	4			
62.34	JN	52	25	2	20	2	2			
62.68	JN	23		3	12	1	2			
62.99	LC			3	0	0.5	20			
63.41	FLT			3	0	0.5	15			
64.65	JN	70		3	25	3	1			
65.44	BC			3	12	1	2			
66.07	LC			3	0	0.5	20			
66.71	FLT			3	0	0.5	15			
67.04	CON	24		3	25	4	0.75			
67.15	FOL	21		3	6	1	4			
67.26	FOL	22		3	12	1	3			
67.36	FOL	30		3	6	1	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
67	67.04	67.64	GR	100	0	4	W3	2	4	Slightly to moderately weathered zone. Joints are infilled with gravel and sand with highly weathered surfaces. Rock is competent.	
68	67.64	68.55	GR	100	100	5	W1	2	1	Slightly foliated granite. Slightly altered with iron oxide. Very strong.	
69	68.55	71.55	GR	100	96	5	W1	3	5	Massive granite with zones of pegmatite.	7 E-07 (57.9 - 77.6)
72	71.55	74.55	GR	100	98	5	W1	2	2	Slightly foliated granite with some zones of pegmatite. Very strong.	
74	74.55	77.55	GR	100	100	5	W1	3	2	Massive to foliated granite. No alteration. Very strong.	

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
67.59	FOL	11		3	20	1.5	2
67.74	CLF	72		3	25	4	0.75
68.33	JN	18		3	20	1.5	1
68.94	JN	54	70	1	25	3	2
69.54	JN	63	180	1	20	1.5	1
69.57	JN	67	50	1	20	1.5	1
70.74	JN	57	60	1	20	1.5	1
70.85	JN	56	350	1	25	3	1
73.90	JN	56	20	2	25	3	1
73.96	JN	61	60	2	20	1.5	1

Zones: Lost Core, Fault zone, Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
76	74.55	77.55	GR	100	100	5	W1	3	2	Massive to foliated granite. No alteration. Very strong.	7 E-07 (57.9 - 77.6)	75.52	JN	42	10	2	25	3	1			
77												77.22	JN	47	10	2	25	3	1			
78												77.81	JN	77	125	2	20	1.5	1			
												78.30	JN	74	161	2	25	3	3			
												78.32	JN	71	285	2	25	3	3			
												78.42	JN	41	295	2	6	1	4			
												78.51	BC			3	0	1	5			
79	77.55	80.55	GR	100	90	5	W1	6	17		2 E-07 (75.9 - 173.6)	79.26	JN	76	174	2	20	1.5	3			
												79.32	JN	80	232	2	25	3	3			
80												79.98	JN	57	193	2	20	3	4			
												80.25	JN	76	20	2	25	3	3			
												80.60	JN	43	115	2	25	3	3			
												80.83	JN	12	160	2	20	3	4			
81												80.98	JN	74	185	2	25	3	3			
												81.31	FOL	46	83	2	20	3	4			
												81.42	JN	86	45	2	20	3	4			
	80.55	83.55	GR	100	92	5	W1	6	9			81.61	JN	74	270	2	25	3	3			
82												81.69	JN	88	0	2	25	3	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
83	80.55	83.55	GR	100	92	5	W1	6	9			83.00	FOL	33	304	2	25	3	1			
84												83.95	JN	79	72	2	20	3	4			
												84.42	JN	64	30	1	20	3	4			
												84.61	JN	81	136	1	20	3	4			
												84.84	JN	72	315	1	25	3	3			
85	83.55	86.55	GR	100	96	5	W1	6	10	Intermittent foliation.		85.35	JN	60	318	1	20	3	4			
												85.46	JN	67	0	1	20	3	4			
												85.67	JN	63	340	1	20	3	4			
												85.83	JN	40	80	1	25	3	3			
86											2 E-07 (75.9 - 173.6)	86.41	JN	57	62	1	25	3	3			
												86.43	JN	53	88	1	20	3	4			
												86.81	JN	19	165	1	20	3	4			
												86.88	JN	33	140	1	20	3	4			
87												87.03	JN	48	22	1	25	3	3			
												87.52	JN	62	41	1	25	3	3			
												87.57	JN	52	37	1	25	3	1			
88	86.55	89.55	GR	100	95	4	W1	6	10			88.04	JN	10	80	1	20	3	4			
												88.61	JN	53	30	1	20	3	4			
89												88.63	JN	78	104	1	25	3	3			
	89.55	92.55	GR	100	90	5	W1	6	10			89.70	JN	55	43	1	25	3	3			
90												89.99	JN	79	315	1	25	3	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
91	89.55	92.55	GR	100	90	5	W1	6	10			90.09	JN	73	8	1	25	3	3			
												90.27	JN	73	82	1	25	3	3			
												90.51	JN	69	64	1	25	3	1			
												90.60	JN	63	42	1	20	3	4			
												90.97	JN	87	300	1	20	1.5	1			
												90.99	JN	86	305	1	20	1.5	1			
92												91.84	JN	69	311	1	25	3	3			
												91.96	JN	83	5	1	25	3	1			
93												92.58	JN	85	66	1	20	3	4			
												93.15	JN	73	242	1	20	3	4			
94	92.55	95.55	GR	100	99	5	W1	3	8	Talc-like material at top of run.	2 E-07 (75.9 - 173.6)	94.02	JN	73	348	1	20	3	4			
												94.26	JN	62	0	1	6	1	6			
												94.33	JN	75	245	1	6	1	6			
												94.56	JN	62	109	1	25	3	1			
												94.71	JN	70	355	1	20	3	4			
95												94.97	JN	82	340	1	12	1.5	4			
	95.55	96.14	GR	100	100	4	W2	1	3			95.70	JN	67	319	1	6	1	6			
												95.92	JN	10	285	1	20	3	4			
96												96.08	JN	59	215	1	20	3	4			
												96.36	JN	76	178	1	6	1	6			
	96.14	98.55	GR	100	100	5	W1	3	5			96.71	JN	62	48	1	20	3	4			
97												97.07	JN	87	20	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
98	96.14	98.55	GR	100	100	5	W1	3	5			98.19	JN	85	317	1	20	1.5	1			
99												98.92	JN	69	40	1	25	3	1			
												98.98	JN	67	65	1	25	3	1			
												99.47	JN	75	80	1	25	3	1			
100	98.55	101.63	GR	100	98	5	W1	2	5	Slightly foliated granite.		100.83	JN	73	50	1	25	3	1			
101											2 E-07 (75.9 - 173.6)	101.04	JN	67	80	1	25	3	1			
												101.67	JN	84	160	1	20	1.5	3			
102												101.97	JN	65	25	1	25	3	1			
103	101.63	104.55	GR	100	97	5	W1	3	7			103.16	JN	66	110	1	20	1.5	1			
												103.24	JN	13	0	1	25	3	3			
												103.38	JN	73	80	1	25	3	1			
104												103.97	JN	76	160	1	25	3	1			
105	104.55	107.55	GR	100	97	5	W1	1	3	Some areas of the run have foliations. One joint at top of run. No apparent sets of joints.		104.63	JN	69	20	1	20	3	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
106	104.55	107.55	GR	100	97	5	W1	1	3	Some areas of the run have foliations. One joint at top of run. No apparent sets of joints.		105.76	JN	24	340	1	25	3	3			
107												106.67	JN	70	15	1	25	3	1			
108												108.10	JN	75		3	25	3	1			
												108.38	JN	33		3	20	3	4			
												108.44	JN	81			20	3	4			
												108.51	JN	26		3	12	1.5	4			
109	107.55	110.53	GR	100	97	5	W1	4	10		2 E-07 (75.9 - 173.6)	108.80	JN	23		3	25	3	3			
												109.02	JN	83	140	1	12	2	4			
												109.32	JN	27	20	1	25	3	1			
110												109.58	JN	21	15	1	20	1.5	3			
												110.29	JN	69	150	1	12	1.5	4			
111	110.53	113.61	GR	100	100	5	W1	1	3	3 fractures are random. Smaller grain size from 110.55m to 110.81 m.		111.02	JN	77	80	1	25	3	1			
112												111.64	JN	76	25	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
113	110.53	113.61	GR	100	100	5	W1	1	3	3 fractures are random. Smaller grain size from 110.55m to 110.81 m.		112.62	JN	59	45	1	25	3	1			
114																						
115	113.61	116.55	GR	100	100	5	W1	1	2			115.36	JN	35	210	1	12	1	3			
116											2 E-07 (75.9 - 173.6)	116.02	JN	72		3	12	1	4			
												116.59	JN	67		3	25	3	1			
117																						
118	116.55	119.55	GR	100	87	5	W1	12	13	2 joints added at broken zone from 118.96m to 119.02m.		117.38	JN	87			25	3	1			
												118.25	JN	70			25	3	3			
												118.42	JN	66			25	3	3			
												118.47	CLF	54			25	4	0.75			
												118.81	FLT	63			0	1	15			
119												118.89	JN	77			25	3	3			
												118.95	BC			3	20	3	4			
												119.25	JN	19	270	1	25	3	1			
												119.43	JN	33	270	1	25	3	1			
												119.48	JN	61	275	1	25	3	3			
120	119.55	122.55	GR	100	91	5	W1	6	7													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
121	119.55	122.55	GR	100	91	5	W1	6	7			120.42	JN	9	150	1	12	1	4			
												120.65	JN	80	310	1	20	3	4			
122												122.03	JN	25	285	1	20	1.5	1			
												122.09	JN	74	20	1	12	1.5	4			
												122.24	JN	72	45	1	12	1.5	4			
												122.34	JN	25	80	1	25	3	3			
123												123.49	JN	82	315	1	25	3	3			
												123.58	JN	24	80	1	25	3	1			
124	122.55	125.63	GR	100	97	5	W1	6	5	Slightly foliated, hard granite.	2 E-07 (75.9 - 173.6)	124.34	JN	67	320	1	25	3	1			
125												124.79	JN	71	70	1	25	3	3			
												125.15	JN	11	105	1	25	3	1			
126	125.63	128.58	GR	100	100	5	W1	2	3			126.27	JN	53	23	1	25	3	1			
127												127.32	JN	50	330	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
128	125.63	128.58	GR	100	100	5	W1	2	3			128.22	JN	51	310	1	20	1.5	1			
129												129.36	JN	32	340	1	12	1	3			
												129.67	FOL	46	20	1	25	3	1			
130	128.58	131.58	GR	100	100	5	W1	3	4	Slightly foliated, hard granite.		130.20	FOL	49	30	1	25	3	1			
												130.87	JN	24	340	1	12	1	3			
131											2 E-07 (75.9 - 173.6)											
												131.85	JN	78	260	2	20	1.5	3			
132												132.16	JN	26	170	2	12	1	4			
												132.69	JN	9	260	2	20	3	4			
133	131.58	134.58	GR	100	100	5	W1	6	5			133.19	CLF	79	170	1	25	4	0.75			
												133.35	JN	59	170	1	12	1	3			
134																						
												134.71	FOL	69	70	1	25	3	1			
135	134.58	137.65	GR	100	100	5	W1	4	6													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Golder Associates

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
136	134.58	137.65	GR	100	100	5	W1	4	6			135.97	JN	21	230	1	20	2	3			
												136.45	JN	67	140	1	12	1	3			
												136.60	JN	40	205	1	20	1.5	1			
137												136.82	JN	42	205	1	20	1.5	1			
												137.38	JN	38	200	1	12	1.5	4			
138	137.65	140.65	GR	100	96	5	W1	4	7			137.95	JN	43	330	1	25	3	1			
												138.22	JN	29	220	1	12	1.5	4			
												138.26	JN	32	230	1	12	1.5	4			
											2 E-07 (75.9 - 173.6)	138.78	FOL	54	30	1	25	3	1			
												138.86	FOL	55	25	1	25	3	1			
139												138.95	JN	21	250	1	20	2	3			
												139.03	JN	64	170	1	25	3	1			
140																						
141	140.65	142.69	GR	100	100	5	W1	1	2			140.87	JN	70		3	20	2	3			
												141.48	JN	78		3	20	1.5	1			
												141.48	CLF	5			25	4	0.75			
142																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
140	140.65	142.69	GR	100	100	5	W1	1	2													
	142.69	143.64	GR	100	63	4	W2	3	28	Fault at 142.69 m to 142.94 m. Gouge infill.		142.81	FLT	42	60	1	0	1	15			
												143.00	JN	49	40	1	20	3	4			
												143.12	JN	63	350	1	12	1	4			
												143.16	CLF	60	350	1	25	4	0.75			
												143.24	JN	23	80	1	20	3	4			
144												143.79	JN	80	80	1	25	3	1			
												143.92	JN	20	110	1	20	1.5	1			
												144.17	JN	18	5	1	20	1.5	1			
145	143.64	146.64	GR	100	100	5	W1	3	7			144.76	JN	82	310	1	20	2	1			
												145.39	JN	76	300	1	20	2	2			
												145.73	JN	80	320	1	6	1	8			
146											2 E-07 (75.9 - 173.6)	146.25	CLF	8	340	1	25	4	0.75			
												146.92	JN	71	270	1	20	2	3			
147																						
148	146.64	149.67	GR	100	97	5	W1	3	6			148.53	JN	75	142	1	25	3	1			
												148.69	JN	74	138	1	25	3	1			
149																						
												149.33	JN	75	170	1	25	3	2			
												149.39	JN	75	277	1	25	3	3			
150	149.67	152.39	GR	100	93	5	W1	3	12													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
151	149.67	152.39	GR	100	93	5	W1	3	12			150.40	VNO	30	95	2	25	3	2			
												150.86	JN	64	230	2	25	3	2			
												151.09	JN	46	239	2	20	1.5	2			
												151.47	JN	23	288	2	25	3	2			
												151.50	JN	69	250	2	6	1	8			
152												151.72	FLT	44	240	2	6	0.5	4			
												151.79	JN	67	274	2	25	3	2			
												151.92	FLT	45	222	2	6	0.5	8			
												152.00	JN	59	227	2	20	3	4			
												152.23	JN	40	220	2	20	3	4			
												152.39	JN	25	180	2	12	1.5	4			
153												152.39	JN	47	143	2	25	3	2			
												153.06	JN	16	195	1	20	1.5	2			
												153.31	JN	51	290	1	25	3	2			
												153.47	JN	79	191	1	25	3	2			
154	152.39	155.39	GR	100	100	5	W1	1	3		2 E-07 (75.9 - 173.6)											
155																						
												155.70	JN	70		3	20	1.5	1			
156												156.19	JN	90		3	25	3	2			
	155.39	158.54	GR	100	100	5	W1	2	4	2 fractures added for 1cm BC zone.												
157												156.71	BC			3	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
158	155.39	158.54	GR	100	100	5	W1	2	4	2 fractures added for 1cm BC zone.												
159												159.72	JN	27	91	1	25	3	2			
160	158.54	161.55	GR	100	100	5	W1	3	4			160.45	JN	78	142	1	25	3	1			
												160.64	JN	41	267	1	20	1.5	2			
161											2 E-07 (75.9 - 173.6)	161.37	JN	70	199	1	25	3	1			
162																						
163	161.55	164.51	GR	100	100	5	W1	0.5	0													
164																						
165	164.51	167.55	GR	100	100	5	W1	3	3			164.70	JN	8	158	1	12	2	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
166	164.51	167.55	GR	100	100	5	W1	3	3			165.38	JN	12	138	1	25	3	2			
167												167.36	VNO	46	49	1	12	2	4			
168																						
169	167.55	170.55	GR	100	100	5	W1	1	1		2 E-07 (75.9 - 173.6)											
170												170.23	JN	77	217	1	25	3	2			
171	170.55	173.50	GR	100	99	5	W1	2	4			171.00	JN	67	192	2	25	3	2			
												171.57	JN	17	14	2	25	3	1			
172												172.11	JN	77	226	2	25	3	1			
												172.13	JN	87	280	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
173	170.55	173.50	GR	100	99	5	W1	2	4		2 E-07 (75.9 - 173.6)	173.60	JN	64	290	1	20	1.5	1			
174																						
175	173.50	176.59	GR	100	100	6	W1	1	2			175.44	JN	86	190	1	20	2	1			
176																						
177											7 E-08 (174.9 - 275.6)	177.66	JN	47	235	1	20	1.5	1			
178	176.59	179.55	GR	100	100	6	W1	1	1													
179																						
180	179.55	182.53	GR	100	100	6	W1	3	3			179.76	JN	45	250	1	20	2	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
181	179.55	182.53	GR	100	100	6	W1	3	3			181.11	JN	25	335	1	20	2	1			
182												181.74	JN	25	110	1	12	1	3			
183												183.30	CLF	29	220	1	25	4	0.75			
												183.39	JN	41	220	1	20	2	3			
184	182.53	185.53	GR	100	99	6	W1	3	5	Alteration makes granite look pink.	7 E-08 (174.9 - 275.6)											
185												184.94	JN	50	250	1	25	3	1			
												185.11	JN	25	260	1	20	2	3			
												185.20	JN	14	250	1	20	2	1			
186	185.53	188.57	GR	100	100	6	W1	3	2	Alteration makes granite look pink.		186.61	JN	46	210	1	20	1.5	1			
187												187.52	FOL	51	40	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
188	185.53	188.57	GR	100	100	6	W1	3	2	Alteration makes granite look pink.												
189												189.79	JN	75	345	2	25	3	1			
												189.86	JN	32	220	1	12	1	4			
190	188.57	191.53	GR	100	98	6	W1	3	5	Alteration makes granite look pink.												
												190.58	JN	32	170	1	12	1	4			
												190.77	JN	35	260	1	20	2	2			
191												191.16	JN	11	255	1	12	2	4			
											7 E-08 (174.9 - 275.6)											
												191.68	JN	42	10	1	25	3	3			
												191.73	JN	35	190	1	25	3	3			
												191.77	JN	28	340	1	25	3	3			
192												192.18	JN	37	270	1	12	2	4			
												192.22	JN	38	270	1	12	2	4			
												192.86	FOL	35	355	1	25	3	1			
193	191.53	194.57	GR	100	93	5	W1	6	8	Alteration makes granite look pink.		192.97	JN	63	180	1	12	1	4			
												193.40	JN	20	330	1	20	2	3			
194																						
195	194.57	197.53	GR	100	100	6	W1	3	3	Alteration makes granite look pink.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
196	194.57	197.53	GR	100	100	6	W1	3	3	Alteration makes granite look pink.		195.40	JN	40	245	1	12	1	1			
197												196.82	JN	43	205	1	12	1	4			
												196.92	JN	29	280	1	20	1.5	1			
198	197.53	200.60	GR	100	100	6	W1	1	2		7 E-08 (174.9 - 275.6)	198.03	JN	52	330	1	25	3	1			
199																						
200												199.96	FOL	38	10	1	25	3	1			
												200.37	CON	65			25	4	0.75			
201	200.60	203.55	GR	100	93	6	W1	4	5	Alteration makes granite look pink.		201.73	JN	81	110	1	20	2	1			
												201.82	JN	60	210	1	12	1	1			
												201.88	JN	78	105	1	12	1	4			
202												201.95	JN	57	260	1	12	1	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
203	200.60	203.55	GR	100	93	6	W1	4	5	Alteration makes granite look pink.		203.02	JN	81	300	1	12	1	1			
												203.63	JN	13	148	1	12	1.5	4			
204												204.55	JN	75	160	1	25	3	1			
												204.59	JN	44	113	1	20	3	4			
												204.84	JN	79	198	1	12	1.5	4			
205	203.55	206.55	GR	100	99	5	W1	3	7			205.22	JN	67	192	1	20	3	4			
												205.45	JN	30	338	1	20	1.5	2			
206											7 E-08 (174.9 - 275.6)	206.02	JN	32	180	1	12	2	4			
												206.64	JN	15	270	1	20	3	4			
207	206.55	207.58	GR	100	100	6	W1	2	2			207.12	JN	9	269	1	25	3	2			
	207.58	207.93	GR	100	100	5	W1	1	1	Pegmatite with 2-4 cm crystals.		207.72	JN	26	309	1	25	3	1			
208																						
	207.93	209.55	GR	100	100	5	W1	1	1			208.57	JN	27	291	1	20	3	4			
209																						
	209.55	212.53	GR	100	100	5	W1	1	2	Red hematite alteration gradually fades out of rock toward the end of this run.		209.55	JN	40	253	1	12	1.5	4			
210												210.01	JN	14	274	1	20	3	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
211	209.55	212.53	GR	100	100	5	W1	1	2	Red hematite alteration gradually fades out of rock toward the end of this run.												
212																						
213	212.53	215.55	GR	100	100	5	W1	0.5	0	This run has alternating bands of pink granite and dark grey biotite-rich granodiorite. All very strong and fresh with no features.	7 E-08 (174.9 - 275.6)											
214																						
215																						
216	215.55	218.55	GR	100	100	5	W1	1	3	Pink-orange granite with some foliation and signifiicant biotite.		217.22	FOL	39	70	1	12	2	4			
217																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
218	215.55	218.55	GR	100	100	5	W1	1	3	Pink-orange granite with some foliation and signifiicant biotite.		217.91	JN	80	40	1	20	3	4			
												218.24	JN	81	282	1	20	3	4			
219												219.25	JN	68	117	1	25	3	1			
												219.40	JN	4	265	1	25	3	1			
												219.57	JN	33	356	1	12	1.5	4			
												219.61	JN	64	103	1	20	1.5	1			
												219.68	JN	36	18	1	12	1.5	4			
220	218.55	221.55	GR	100	96	5	W1	3	10			219.87	JN	53	0	1	25	3	2			
												220.46	JN	54	315	1	20	3	4			
												220.70	JN	32	333	1	20	1.5	1			
												220.73	JN	46	39	1	20	3	4			
221												220.79	JN	35	345	1	25	3	1			
											7 E-08 (174.9 - 275.6)											
222																						
223	221.55	224.48	GR	100	100	5	W1	3	3			223.39	JN	30	312	1	20	1.5	1			
224												224.03	JN	30	321	1	12	1.5	4			
												224.42	JN	26	12	1	12	1.5	4			
225	224.48	227.48	GR	100	100	5	W1	3	5			224.75	JN	3	90	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
226	224.48	227.48	GR	100	100	5	W1	3	5			225.61	JN	31	310	1	20	1.5	1			
												225.97	JN	21	317	1	20	1.5	2			
												226.53	JN	26	330	1	12	1.5	4			
227												226.72	JN	66	189	1	25	3	1			
228												228.13	JN	65	187	1	25	3	3			
												228.27	JN	65	187	1	20	1.5	3			
												228.50	JN	19	90	1	25	3	3			
												228.63	JN	18	90	1	12	1.5	4			
229	227.48	230.55	GR	100	100	5	W1	4	5		7 E-08 (174.9 - 275.6)											
230												230.46	JN	20	95	1	25	3	3			
231	230.55	231.59	GR	100	100	5	W1	1	1	Massive granite, slightly altered with iron oxide. Some pegmatite.		231.11	JN	13	85	1	25	3	1			
232	231.59	232.28	GR	100	100	5	W1	0.5	0	Granite and pegmatite with large crystals of mica and quartz. Moderately altered with hematite.												
	232.28	233.55	GR	100	100	5	W1	1	1	Massive to foliated granite, slightly altered with iron oxide.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
233	232.28	233.55	GR	100	100	5	W1	1	1	Massive to foliated granite, slightly altered with iron oxide.	
234	233.55	235.50	GR	100	91	5	W1	6	6	Slightly to moderatly altered granite, with hematite. Slightly foliated.	
235											
236	235.50	236.62	GR	100	100	5	W1	0.5	0	Massive granite. Weak foliation with mica is present. Slightly altered with hematite.	7 E-08 (174.9 - 275.6)
237											
238	236.62	239.55	GR	100	97	5	W1	4	5	Massive to slightly foliated granite. Slightly altered with hematite, highly altered 5cm before and after the open joint at 237.26m.	
239											
240	239.55	242.50	GR	100	100	5	W1	3	4	Massive granite slightly altered with hematite. More altered with more healed joint around 241m. Weak foliation.	

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
232.80	JN	28	100	1	25	3	1			
233.89	JN	66	120	1	20	1.5	2			
234.00	JN	68	120	1	20	1.5	2			
234.07	JN	84	120	1	20	1.5	1			
234.21	JN	78	65	1	20	1.5	1			
234.42	JN	65	100	1	20	1.5	2			
234.82	JN	31	80	1	25	3	1			
237.26	JN	20	85	1	0	1	15			
237.34	JN	62	310	1	12	1	2			
238.37	JN	79	90	1	20	1.5	2			
238.46	CLF	29	305	1	25	4	0.75			
238.53	JN	83	55	1	20	1.5	2			
239.34	JN	78	35	1	20	1.5	2			
239.88	CLF	33	345	1	25	4	0.75			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
241	239.55	242.50	GR	100	100	5	W1	3	4	Massive granite slightly altered with hematite. More altered with more healed joint around 241m. Weak foliation.		240.28	JN	65	50	1	20	1.5	1			
												241.03	JN	37	205	1	12	1	4			
242												241.46	JN	26	290	1	12	1	3			
												241.97	JN	19	140	1	12	2	4			
243																						
244	242.50	245.55	GR	100	100	5	W1	1	1	Massive to slightly foliated. Iron alteration decrease with the depth. Some pegmatite.	7 E-08 (174.9 - 275.6)	243.67	FOL	51	0	1	20	1.5	1			
245																						
246	245.55	248.55	GR	100	100	5	W1	4	3	Massive to slightly foliated granite. Rock is unaltered but still iron oxide on the surfaces of some joints.												
247												246.92	JN	72	35	1	20	1.5	2			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
248	245.55	248.55	GR	100	100	5	W1	4	3	Massive to slightly foliated granite. Rock is unaltered but still iron oxide on the surfaces of some joints.		248.16	JN	76	50	1	20	1.5	2			
												248.35	JN	71	40	1	20	1.5	2			
249																						
250	248.55	251.62	GR	100	100	5	W1	6	5	Massive to slightly foliated granite. Slightly altered with hematite.		250.56	JN	74	30	1	20	1.5	2			
												250.95	JN	77	70	1	20	1.5	1			
251												251.10	JN	58	60	1	20	1.5	1			
												251.26	JN	48	350	1	20	1.5	1			
											7 E-08 (174.9 - 275.6)	251.52	JN	77	10	1	20	1.5	2			
252												251.86	FOL	46	0	1	25	3	1			
												252.25	JN	72	65	1	20	1.5	1			
253	251.62	253.88	GR	100	100	4	W1	3	2	Slightly foliated granite with weak iron alteration that increases with depth.												
254	253.88	254.55	GR	100	96	4	W1	1	1	Massive granite. Moderately altered with iron oxide. Alteration increases around the infilled joint.		254.13	JN	24	120	1	0	1	15			
												254.53	CLF	11	100	1	25	4	0.75			
	254.55	257.55	GR	100	100	5	W1	3	2	Foliated granite with biotite veinlets along foliation. Slightly altered with hematite.		254.64	FOL	39	0	1	20	2	1			
255												255.08	CLF	13	100	1	25	4	0.75			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
256	254.55	257.55	GR	100	100	5	W1	3	2	Foliated granite with biotite veinlets along foliation. Slightly altered with hematite.		256.90	JN	84	80	1	20	1.5	2			
257																						
258	257.55	260.55	GR	100	100	5	W1	0.5	0	Foliated granite, slightly altered with hematite.	7 E-08 (174.9 - 275.6)											
259																						
260																						
261	260.55	263.55	GR	100	100	5	W1	1	1	Foliated granite with hematite alteration.		261.94	FOL	30	20	1	12	1	1			
262																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
263	260.55	263.55	GR	100	100	5	W1	1	1	Foliated granite with hematite alteration.												
264	263.55	266.55	GR	100	100	5	W1	1	3		7 E-08 (174.9 - 275.6)	263.77	JN	62	60	1	20	1.5	2			
												264.79	JN	25	338	1	20	1.5	1			
265												266.50	JN	44	263	1	20	3	4			
266												266.65	JN	43	162	1	20	3	4			
												266.85	JN	24	156	1	20	3	4			
267	266.55	268.73	GR	100	99	5	W1	3	6			267.67	JN	28	162	1	12	1	4			
268												268.19	JN	18	161	1	20	3	4			
												268.33	JN	82	12	1	25	3	2			
												268.56	JN	47	131	1	12	1.5	4			
												268.73	JN	62	78	1	12	1.5	4			
												268.83	JN	22	246	1	12	1.5	4			
269	268.73	269.49	GR	100	50	5	W1	3	10	Hematite alteration and iron staining throughout rock mass, including mechanical breaks.		269.04	JN	41	171	1	25	3	2			
												269.08	JN	45	290	1	12	1.5	4			
												269.10	JN	50	262	1	12	1.5	4			
												269.15	JN	31	3	1	12	1.5	4			
												269.19	JN	77	100	1	20	3	4			
												269.29	JN	44	274	1	20	3	4			
												269.37	JN	41	233	1	12	1.5	4			
												269.42	JN	49	268	1	12	1.5	4			
	269.49	272.43	GR	100	89	5	W1	3	10			269.66	JN	75		3	20	1.5	2			
												269.73	JN	52		3	12	1.5	4			
270												269.79	JN	50		3	12	1.5	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
271	269.49	272.43	GR	100	89	5	W1	3	10			270.17 270.22 270.31 270.53	JN JN JN JN	84 79 78 63	 0	3 3 3 2	20 20 25 25	1.5 3 3 3	1 4 2 2			
272												271.92 271.95 271.96	JN JN JN	81 84 86	230 225 230	2 2 2	12 20 12	1.5 3 1.5	4 4 4			
273	272.43	275.53	GR	100	100	5	W1	3	4		7 E-08 (174.9 - 275.6)	272.43 272.60 272.80 273.03	JN JN JN JN	84 79 52 77	160 128 356 222	2 2 2 2	12 25 20 20	1.5 3 1.5 3	4 1 1 4			
276												276.10 276.30 276.44	JN JN JN	83 50 8	112 190 280	1 1 1	25 25 25	3 3 3	1 1 1			
277	275.53	278.55	GR	100	100	6	W1	3	5		7 E-08 (273.9 - 374.6)											

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
				25. 50. 75. 100.	25. 50. 75. 100.						
278	275.53	278.55	GR	100	100	6	W1	3	5		
279	278.55	281.55	GR	100	100	6	W1	0.5	0	Slightly foliated to massive unaltered granite. Extremely strong.	7 E-08 (273.9 - 374.6)
280											
281											
282	281.55	284.55	GR	100	94	6	W1	4	3	Massive to foliated granite. Extremely strong. There is a zone with more alteration, with iron oxide between 283.50m and 283.80m, and with more microdefects.	
283											
284	284.55	287.55	GR	100	92	6	W1	2	7	Massive to slightly foliated granite. Surfaces of joints are altered with iron oxide and with chlorite.	
285											

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
277.62	JN	75	175	1	25	3	3			
278.36	JN	88	0	1	20	1.5	3			
283.62	JN	86	160	1	12	1	4			
283.70	JN	83	145	1	20	1.5	3			
283.80	JN	86	165	1	20	1.5	2			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
286	284.55	287.55	GR	100	92	6	W1	2	7	Massive to slightly foliated granite. Surfaces of joints are altered with iron oxide and with chlorite.		285.17	JN	72	160	1	20	1.5	2			
												285.73	JN	58	170	1	20	3	4			
												286.02	JN	77	160	1	20	1.5	1			
												286.12	JN	78	165	1	20	1.5	1			
												286.67	JN	84	170	1	12	1	4			
												286.70	JN	72	180	1	12	1.5	4			
287												286.80	JN	51	185	1	20	2	2			
288	287.55	290.55	GR	100	100	6	W1	1	1	Massive to slightly foliated unaltered granite.	7 E-08 (273.9 - 374.6)	289.11	FOL	26	20	1	20	2	2			
289																						
290																						
291	290.55	293.63	GR	100	100	6	W1	1	2	Massive to slightly foliated granite. Some alteration with hematite after 291.10m.												
292																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
293	290.55	293.63	GR	100	100	6	W1	1	2	Massive to slightly foliated granite. Some alteration with hematite after 291.10m.		292.80	JN	42	200	1	20	1.5	1			
												293.30	JN	52	140	1	20	1.5	2			
294												293.68	CLF	19	10	1	25	4	0.75			
295	293.63	296.58	GR	100	100	6	W1	1	1	Mostly massive unaltered granite.												
296											7 E-08 (273.9 - 374.6)	296.35	JN	22	90	1	20	1.5	1			
	296.58	297.04	GR	100	78	5	W1	1	2	Slightly altered granite with hematite and pegmatite with many microdefects (healed joints).		296.72	CLF	55	10	1	25	4	0.75			
297												296.92	JN	67	10	1	20	1.5	1			
												297.02	JN	47	40	1	20	2	1			
	297.04	298.37	GR	100	100	5	W1	1	1	Massive granite, alteration with hematite increases with depth. Some small intervals of pegmatite at the end.												
298												298.02	CLF	27	160	1	25	4	0.75			
												298.26	JN	20	105	1	20	2	1			
	298.37	298.94	PEG	100	100	4	W1	0.5	0	Pegmatite with large crystals of quartz altered with hematite and mica. Brittle along microdefects.												
299	298.94	299.53	GR	100	100	6	W1	0.5	0	Massive granite with weak alteration.												
	299.53	300.40	GR	100	100	5	W1	1	1	Massive granite, slightly altered with hematite. Alteration increases with depth.		299.99	VNO	30	25	1	20	2	1			
300																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
301	299.53	300.40	GR	100	100	5	W1	1	1	Massive granite, slightly altered with hematite. Alteration increases with depth.												
	300.40	301.10	PEG	100	100	4	W1	0.5	0	Quartzite and Pegmatite. Quartz is altered with hematite.												
302	301.10	302.55	GR	100	97	5	W1	1	4	Massive granite, still with some traces of hematite alteration. Lots of spun core.		301.37 301.42 301.92 302.45 302.55 302.62	JN JN JN JN JN JN	78 76 78 37 83 78	65 240 140 160 120 85	1 1 1 1 1 1	20 20 12 25 20 12	1.5 3 1 3 1.5 1.5	2 4 2 1 1 4			
303	302.55	303.96	GR	100	95	5	W1	1	2	Massive granite, unaltered and very strong.	7 E-08 (273.9 - 374.6)	303.96	CON	38			25	4	0.75			
304	303.96	304.93	PEG	100	100	4	W1	0.5	0	Quartzite and pegmatite with large crystals of mica. Quartz is altered with hematite. Many microdefects, and rock is brittle along these planes of weakness.		304.93	CON	33			25	4	0.75			
305	304.93	305.66	GR	100	100	5	W1	0.5	0	Massive granite with weak hematite alteration.												
306	305.66	308.51	GR	100	99	5	W1	2	3	Three healed defects with chlorite coating near the end of the run. Not logged as they were mechanically opened.		306.04	JN	69	128	1	12	1.5	4			
307																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
308	305.66	308.51	GR	100	99	5	W1	2	3	Three healed defects with chlorite coating near the end of the run. Not logged as they were mechanically opened.		307.96 307.98	JN JN	81 80	130 129	1 1	20 25	3 3	4 2			
309												308.84 309.00	JN JN	19 16	252 248	1 1	20 25	3 3	4 1			
310	308.51	311.55	GR	100	100	5	W1	3	5			309.64 310.18	JN JN	74 20	144 254	1 1	25 20	3 1.5	2 1			
311											7 E-08 (273.9 - 374.6)	311.26	JN	77	99	1	12	1.5	4			
313	311.55	314.55	GR	100	100	6	W1	0.5	0	One closed feature logged to capture foliation orientation. Foliation is weakly defined and quite strong (core doesn't break easily on foliation).		313.00	CLF	30	36	1	25	4	0.75			
314																						
315	314.55	317.55	GR	100	100	5	W1	3	4													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
316	314.55	317.55	GR	100	100	5	W1	3	4			315.24	FOL	26	356	1	6	0.5	4			
												315.80	JN	53	138	1	6	0.5	6			
												315.86	JN	50	282	1	25	3	2			
												316.03	JN	35	288	1	25	3	1			
317																						
318												318.05	JN	31	238	1	12	1.5	4			
												318.09	JN	55	100	1	20	3	4			
												318.15	FLT	34	236	1	6	1	8			
												318.20	JN	31	248	1	20	1.5	2			
												318.21	JN	46	65	1	25	3	2			
												318.31	JN	32	278	1	20	3	4			
												318.52	JN	35	247	1	20	1.5	2			
												318.61	JN	55	208	1	20	3	4			
319	317.55	320.55	GR	100	88	5	W1	6	11	6 closely spaced joints from 318.05m to 318.31m.	7 E-08 (273.9 - 374.6)	318.84	JN	43	262	1	12	1.5	4			
												319.67	JN	52	232	1	25	3	1			
320												320.01	JN	57	180	1	25	3	1			
												320.56	JN	61	195	1	25	3	2			
												320.64	JN	15	290	1	20	3	4			
												320.74	JN	73	211	1	20	3	4			
												320.82	JN	74	171	1	20	3	4			
321												321.09	JN	48	259	1	20	1.5	2			
												321.23	JN	31	330	1	25	3	2			
	320.55	323.52	GR	100	95	5	W1	3	7	Some weakly defined foliation.												
322												321.90	JN	35	338	1	25	3	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
323	320.55	323.52	GR	100	95	5	W1	3	7	Some weakly defined foliation.												
324												323.73	JN	51	309	1	25	3	3			
325	323.52	326.48	GR	100	100	5	W1	3	4			325.21	JN	48	318	1	20	3	4			
												325.33	JN	20	227	1	25	3	1			
326											7 E-08 (273.9 - 374.6)	326.03	JN	32	234	1	20	1.5	1			
327												327.58	CLF	24	5	1	25	4	0.75			
328	326.48	329.40	GR	100	100	5	W1	1	2	Massive granite with a sparse alteration with hematite. This alteration is more present around a 30cm pegmatite zone with a lot of microdefects between 327.70m to 328.00m.		327.83	JN	34	210	1	12	1	4			
329												328.43	JN	42	315	1	20	1.5	1			
330	329.40	332.41	GR	100	100	5	W1	0.5	0	Massive to slightly foliated unaltered granite.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
331	329.40	332.41	GR	100	100	5	W1	0.5	0	Massive to slightly foliated unaltered granite.		331.66	CLF	20	20	1	25	4	0.75			
332	332.41	333.10	GR	100	100	5	W1	0.5	0	Mix of massive granite and pegmatite with a weak hematite alteration.		332.55	CLF	30	240	1	25	4	0.75			
333	333.10	334.30	GR	100	100	5	W1	0.5	0	Fine grained massive granite.	7 E-08 (273.9 - 374.6)	334.30	CON	16			25	4	0.75			
334	334.30	334.75	GR	100	100	5	W1	0.5	0	Granite, quartzite and pegmatite with no alteration and traces of mica.		334.75	CON	56			25	4	0.75			
335	334.75	335.55	GR	100	100	5	W1	1	1	Slightly foliated granite and some pegmatite with mica at the end.		335.50	JN	13	200	1	12	1	2			
336	335.55	338.06	GR	100	100	5	W1	0.5	0	Slightly foliated granite and pegmatite, slightly altered with hematite.												
337																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
338	335.55	338.06	GR	100	100	5	W1	0.5	0	Slightly foliated granite and pegmatite, slightly altered with hematite.												
	338.06	338.55	GR	100	90	5	W1	2	3	Massive to foliated unaltered granite.		338.36 338.38 338.41	JN JN JN	59 74 78	140 170 120	1 1 1	12 6 12	1 0.5 1	4 4 2			
339												338.59 338.62 338.68 338.70	JN JN JN JN	65 67 27 23	125 100 190 170	1 1 1 1	20 20 12 12	1.5 1.5 1 2	2 2 2 4			
340	338.55	341.55	GR	100	94	5	W1	6	5	Massive to slightly foliated unaltered granite.												
341											7 E-08 (273.9 - 374.6)	341.07	FOL	42	20	1	20	1.5	2			
342																						
343	341.55	344.61	GR	100	100	5	W1	0.5	0	Slightly foliated granite with some zones of pegmatite. Very strong.												
344																						
345	344.61	347.55	GR	100	97	5	W1	3	5	Massive to foliated unaltered granite.		344.82 344.92 345.09	JN JN JN	83 81 73	80 140 170	2 1 1	20 25 25	1.5 3 3	1 1 1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
346	344.61	347.55	GR	100	97	5	W1	3	5	Massive to foliated unaltered granite.		345.88	JN	73	260	1	25	3	1			
347												347.24	JN	38	70	1	12	1	4			
348	347.55	350.60	GR	100	100	5	W1	0.5	0	Massive granite that is lighter in colour than previous intervals.	7 E-08 (273.9 - 374.6)	347.78	CLF	30	90	2	25	4	0.75			
349												348.47	CLF	34	80	2	25	4	0.75			
350																						
351	350.60	353.55	GR	100	100	5	W1	0.5	0	Massive unaltered granite.												
352																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
353	350.60	353.55	GR	100	100	5	W1	0.5	0	Massive unaltered granite.		353.68	JN	41	180	2	25	3	3			
354												354.67	JN	37	98	2	20	1.5	3			
355	353.55	356.55	GR	100	100	5	W1	1	3													
356											7 E-08 (273.9 - 374.6)	355.90	JN	37	33	2	20	3	4			
357												357.65	JN	29	39	1	12	1.5	4			
358	356.55	359.55	GR	100	99	5	W1	3	5			357.90	JN	24	17	1	6	0.5	4			
359												359.00	JN	79	70	1	25	3	1			
												359.36	JN	51	36	1	20	3	4			
												359.41	JN	39	327	1	25	3	1			
360	359.55	362.55	GR	100	100	5	W1	3	4			359.61	JN	42	319	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
361	359.55	362.55	GR	100	100	5	W1	3	4			360.25	JN	80	104	1	25	3	1			
362												362.13	JN	29	350	2	25	3	3			
												362.26	JN	18	3	1	20	3	4			
363												363.18	JN	76	126	2	25	3	1			
												363.29	JN	77		3	25	3	1			
												363.63	JN	76		3	20	3	4			
364	362.55	365.55	GR	100	99	5	W1	3	6		7 E-08 (273.9 - 374.6)	363.92	JN	26		3	20	3	4			
												364.48	BC			3	25	3	1			
365																						
366	365.55	368.55	GR	100	100	5	W1	3	4													
367												367.30	JN	69	90	1	25	3	1			
												367.56	JN	47	60	1	25	3	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
368	365.55	368.55	GR	100	100	5	W1	3	4			367.90	JN	18	38	1	12	2	4			
												368.14	JN	65	68	1	25	3	2			
369																						
370	368.55	371.55	GR	100	100	5	W1	2	2													
371											7 E-08 (273.9 - 374.6)	370.93	JN	67	62	1	25	3	2			
												371.04	JN	60	80	1	25	3	2			
372												372.13	JN	55	139	1	25	3	1			
												372.79	JN	17	31	1	12	1.5	4			
373	371.55	374.55	GR	100	100	5	W1	1	2													
374											2 E-08 (372.9 - 450.1)											
	374.55	377.50	GR	100	100	5	W1	3	7	Massive unaltered granite.		374.59	JN	75	55	1	20	1.5	1			
375												374.99	JN	80	70	1	20	1.5	1			
												375.11	JN	78	30	1	12	1.5	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
376	374.55	377.50	GR	100	100	5	W1	3	7	Massive unaltered granite.		375.29	JN	70	50	1	20	1.5	1			
												375.41	JN	82	50	1	20	1.5	1			
												376.04	JN	30	80	1	25	3	1			
377												376.93	JN	23	40	1	20	2	2			
378												378.61	JN	74	130	1	20	1.5	1			
												378.81	JN	58	120	1	20	1.5	1			
379	377.50	380.50	GR	100	91	5	W1	2	8	Massive unaltered granite with some hematite alteration around 379m.	2 E-08 (372.9 - 450.1)	378.91	JN	83	130	1	20	1.5	1			
												379.60	JN	76	90	1	25	3	2			
												379.71	JN	72	80	1	20	1.5	1			
												379.86	JN	85	100	1	20	1.5	3			
380												379.93	JN	75	100	1	20	1.5	1			
												380.05	JN	78	100	1	20	1.5	1			
381	380.50	383.52	GR	100	98	5	W1	1	3	Massive unaltered granite.		380.98	JN	16	10	1	12	2	4			
												381.12	JN	48	290	1	20	1.5	1			
												381.18	JN	53	295	1	20	1.5	1			
382																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
383	380.50	383.52	GR	100	98	5	W1	1	3	Massive unaltered granite.												
384																						
385	383.52	386.37	GR	100	100	5	W1	1	2	Massive unaltered granite.		385.18	JN	12	90	1	25	3	1			
386											2 E-08 (372.9 - 450.1)	386.19	JN	51	160	1	20	1.5	1			
												386.57	CLF	24	308	2	25	4	0.75			
												386.67	CLF	50	290	2	25	4	0.75			
387																						
388	386.37	388.88	GR	100	100	5	W1	1	1	Small diabase dike at 386.63m.		388.85	JN	36	106	2	25	3	3			
389	388.88	391.92	GR	100	97	5	W1	3	4			389.73	JN	36	153	2	25	3	2			
												389.81	JN	42	100	2	25	3	1			
390																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
391	388.88	391.92	GR	100	97	5	W1	3	4			390.57	JN	29	97	2	20	1.5	1			
												391.72	JN	19	88	2	20	1.5	2			
392	391.92	392.55	GR	100	100	5	W1	3	2			392.04	CONO	9	321	1	25	3	1			
												392.17	JN	22	151	1	12	1.5	4			
393												392.85	JN	87	81	1	20	3	4			
394	392.55	395.55	GR	100	100	6	W1	1	1		2 E-08 (372.9 - 450.1)											
395																						
396												396.19	JN	71	60	1	20	3	4			
397	395.55	398.25	GR	100	100	5	W1	1	2	Brick red hematite alteration that gradually increases approaching the diabase contact. This doesn't seem to affect strength.		397.04	JN	72	83	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
398	395.55	398.25	GR	100	100	5	W1	1	2	Brick red hematite alteration that gradually increases approaching the diabase contact. This doesn't seem to affect strength.		398.25	CON	33	271		25	4	0.75			
399	398.25	401.55	DB	100	100	6	W1	3	5	This is a diabase zone with lots of small calcite veins.	2 E-08 (372.9 - 450.1)	399.38	VNO	37	37	1	20	1.5	3			
400												400.39	JN	7	205	1	25	3	3			
												400.69	JN	31	291	1	20	1.5	3			
401												400.91	JN	69	202	1	20	1.5	1			
												401.41	JN	72	136	1	25	3	3			
402												401.85	JN	70	178	2	20	1.5	3			
												402.69	JN	15	45	2	20	2	3			
403	401.55	404.55	DB	100	97	6	W1	3	9			403.09	JN	69	122	2	20	1.5	3			
												403.33	JN	21	222	2	20	2	3			
404												404.45	BC			3	12	2	4			
												404.55	JN	64	180	2	20	1.5	3			
	404.55	407.55	DB	100	100	6	W1	3	6													
405												405.00	JN	66	48	1	20	3	4			
												405.02	JN	72	89	1	20	1.5	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
406	404.55	407.55	DB	100	100	6	W1	3	6			405.43	JN	74	79	1	12	1	3			
												405.75	VNO	85	181	1	6	1	4			
407												406.37	JN	84	118	1	20	3	4			
												407.56	JN	56	53	1	12	1	4			
408	407.55	410.55	DB	100	100	6	W1	2	3		2 E-08 (372.9 - 450.1)	408.34	JN	80	104	1	25	3	3			
409												409.34	JN	71	106	1	12	1	3			
410																						
	410.55	413.55	DB	100	92	5	W1	4	17	Several healed joints that are nearly perpendicular to the core axis.		410.75	BC	76		3	0	1	5			
411												411.04	JN	69	18	1	20	3	4			
												411.19	JN	82	110	1	12	1	4			
												411.30	JN	77	55	1	20	3	4			
												411.33	JN	76	90	1	12	1.5	4			
												411.55	JN	84	88	1	20	1.5	3			
												411.59	JN	73	54	1	25	3	3			
412												411.86	JN	73	141	1	20	3	4			
												412.12	JN	79	20	1	12	1.5	4			
												412.54	JN	79	155	1	12	1.5	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Golder Associates

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
413	410.55	413.55	DB	100	92	5	W1	4	17	Several healed joints that are nearly perpendicular to the core axis.		412.70	JN	80	17	1	20	3	4			
												412.86	JN	72	195	1	12	1.5	4			
												413.02	JN	73	25	1	12	1.5	4			
												413.24	JN	72	211	1	20	3	4			
414																						
												414.18	JN	63	30	1	12	2	4			
												414.41	JN	76	170	1	12	1	4			
												414.84	JN	55	190	1	20	2	2			
415	413.55	416.62	DB	100	100	6	W1	3	6	Extremely strong diabase with few microdefects.		414.97	JN	23	300	1	12	1	2			
												415.72	JN	61	235	1	12	1	2			
416												416.04	JN	50	45	1	20	2	2			
											2 E-08 (372.9 - 450.1)											
417												416.93	JN	13	300	1	12	2	4			
												417.06	JN	52	200	1	12	1	4			
												417.34	JN	56	220	1	20	1.5	2			
418												417.95	JN	66	50	1	20	2	2			
	416.62	419.66	DB	100	98	6	W1	6	7	Diabase with few microdefects.		418.13	JN	69	75	1	20	2	2			
												418.18	JN	75	80	1	20	2	1			
419												418.32	JN	78	100	1	12	1	1			
	419.66	421.82	DB	100	100	6	W1	2	4	Drill blocked.												
420																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
421	419.66	421.82	DB	100	100	6	W1	2	4	Drill blocked.		420.27	JN	57	205	1	12	2	4			
												421.18	JN	78	90	1	20	1.5	1			
												421.45	JN	74	70	1	12	1	4			
422	421.82	422.55	DB	100	93	6	W1	1	1			421.82	JN	57	240	1	20	2	2			
												421.89	JN	76	300	1	20	1.5	1			
423												423.16	JN	28	55	1	6	1	8			
												423.60	JN	32	263	1	25	3	1			
424	422.55	425.55	DB	100	100	6	W1	1	2		2 E-08 (372.9 - 450.1)											
425																						
426	425.55	428.55	DB	100	97	6	W1	3	6			426.43	JN	73	58	1	12	1.5	4			
427												427.25	JN	29	244	1	20	3	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
428	425.55	428.55	DB	100	97	6	W1	3	6			427.64	JN	74	97	1	25	3	1			
												427.93	JN	35	232	1	20	3	4			
												428.40	JN	74	212	1	12	1.5	4			
												428.42	JN	74	207	1	20	1.5	1			
												428.56	JN	79	178	1	20	3	4			
												428.66	JN	65	27	1	12	1.5	4			
429												428.98	JN	48	24	1	12	1.5	4			
												429.52	JN	44	20	1	20	3	4			
430	428.55	431.55	DB	100	100	6	W1	4	8			430.19	JN	67	210	1	20	3	4			
												430.70	JN	39	170	1	12	1.5	4			
431												431.22	FLT	41	18	1	6	0.5	4			
											2 E-08 (372.9 - 450.1)	431.49	FLT	41	47	1	6	0.5	6			
												431.63	JN	44	180	1	25	3	3			
432												432.39	JN	54	100	1	25	3	3			
												432.64	FLT	21	195	1	6	1	6			
433	431.55	434.55	DB	100	94	6	W1	6	7	Microdefects in vicinity of joints. Some healed joints.		433.39	JN	76	40	1	25	3	3			
												433.41	JN	78	40	1	20	2	3			
434												434.14	JN	70	128	1	12	2	4			
												434.20	JN	70	180	1	12	1.5	4			
435	434.55	437.55	DB	100	100	6	W1	3	4													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.							435.16	JN	77	70	1	25	3	1			
												435.62	JN	58	180	1	20	3	4			
436												435.91	JN	25	195	1	12	1.5	4			
	434.55	437.55	DB	100	100	6	W1	3	4													
437												437.55	JN	72	135	1	20	3	4			
												437.80	JN	70	100	1	20	1.5	1			
438																						
												438.60	JN	8	81	1	25	3	3			
439	437.55	440.55	DB	100	100	6	W1	1	2		2 E-08 (372.9 - 450.1)											
440																						
												440.55	JN	58	349	1	20	2	3			
												440.66	JN	55	357	1	12	2	4			
												440.89	JN	56	175	1	20	2	3			
441												441.04	BC			3	12	2	4			
												441.13	JN	62	350	1	25	3	1			
												441.41	JN	74	157	1	20	1.5	1			
												441.43	JN	75	161	1	12	1	3			
												441.49	JN	64	177	1	20	3	4			
	440.55	443.55	DB	100	90	6	W1	9	16			441.61	JN	80	138	1	12	2	4			
												441.74	JN	74	112	1	20	2	3			
												441.84	JN	46	173	1	12	2	4			
442												442.03	JN	64	109	1	20	1.5	3			
												442.41	JN	76	149	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-02

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 14-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7166092.8 m
Easting: 542458.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.82 masl
Depth: 451.00 m
Planned Azimuth: 25 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
443	440.55	443.55	DB	100	90	6	W1	9	16			443.66	JN	50	163	1	20	1.5	1			
444												444.38	JN	53	170	1	12	1.5	4			
												444.44	JN	56	194	1	20	3	4			
												444.64	JN	35	200	1	20	2	1			
445	443.55	446.55	DB	100	100	6	W1	3	7			444.93	JN	46	175	1	12	1.5	4			
												445.61	JN	75	76	1	20	3	4			
446												445.64	JN	68	262	1	25	3	1			
											2 E-08 (372.9 - 450.1)											
447												446.81	JN	80	162	1	12	1.5	4			
448	446.55	449.55	DB	100	93	6	W1	3	6			447.99	JN	53	180	1	12	1	1			
												448.02	JN	56	125	1	20	2	2			
												448.43	JN	46	37	1	20	2	1			
449												449.21	JN	64	202	1	20	3	4			
												449.30	JN	26	200	1	20	3	4			
	449.55	450.13	DB	100	100	6	W1	0.5	0													
450																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
1	0.00	1.73	ICE																			
2	1.73	33.54	WATER																			
3																						
4																						
5																						
6																						
7																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
8																						
9																						
10																						
11	1.73	33.54	WATER																			
12																						
13																						
14																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
16																						
17																						
18																						
19	1.73	33.54	WATER																			
20																						
21																						
22																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
23																						
24																						
25																						
26	1.73	33.54	WATER																			
27																						
28																						
29																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
31																						
	1.73	33.54	WATER																			
32																						
33																						
34	33.54	35.04	OVB	43						Overburden; only recovery of gravel and cobbes												
35																						
36	35.04	38.04	OVB	22						Overburden; only recovery of gravel and cobbles.												
37																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
38	35.04	38.04	OVB	22						Overburden; only recovery of gravel and cobbles.												
39	38.04	41.04	KIMB	19	0	0	W5	20	300	Overburden; only recovery of gravel and cobbles.		39.26	LC			3	0	0.5	20			
40																						
41																						
42	41.04	44.04	KIMB	48	0	0	W5	20	300	Kimberlite. Soil-like, very weak and disintegrated with poor recovery.		41.85	LC			3	0	0.5	20			
43																						
44	44.04	47.04	KIMB	74	0	0	W5	20	300			44.43	LC			3	0	0.5	20			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
46	44.04	47.04	KIMB	74	0	0	W5	20	300		
47	47.04	47.22	KIMB	100	0	0	W5	20	18	Last interval of kimberlite.	
48	47.22	50.04	DB	100	93	6	W1	6	16	Weakly magnetic, not foliated, dark, fine grained mafic mineral matrix with feldspar and other unknown felsic inclusions. Rock is very hard and pings when struck. Can't break a sample during strength test.	
49											
50	50.04	50.49	DB	100	0	5	W1	20	20		
51	50.49	53.04	DB	100	93	6	W1	6	13		
52											

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
47.22	CONO	71		3	25	3	1
47.56	JN	24		3	6	1	8
47.66	JN	58		3	6	1	8
47.71	JN	23		3	12	1	4
47.82	JN	36		3	6	1	8
47.97	JN	30		3	20	2	1
48.11	FLT	56		3	0	1	15
48.43	JN	60		3	6	1	8
48.54	JN	20		3	12	2	4
49.17	BC	42		3	6	1	8
49.28	FLT	37		3	6	1	8
49.29	JN	32		3	12	1	4
49.88	JN	31		3	20	1.5	1
50.27	BC	30		3	12	2	4
50.95	BC	71		3	12	2	4
51.31	JN	35		3	20	1.5	1
51.81	JN	32		3	20	1.5	1
51.90	JN	33		3	12	2	4
52.09	FLT	63		3	0	1	15
52.27	JN	67		3	12	1	4
52.32	JN	40		3	12	1	4
52.36	JN	58		3	12	1	4

Zones		
Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
53	50.49	53.04	DB	100	93	6	W1	6	13			52.87	JN	20		3	12	2	4			
54	53.04	56.04	DB	100	100	6	W1	3	5	Two faults infilled with gouge with evidence of shearing, though core did not open up at either of these features during drilling.		53.53 54.04	JN FLT	47 17		3 3	12 6	1 1	4 8			
55												55.04 55.38 55.49	FLT JN JN	45 51 47		3 3 3	6 20 12	1 2 2	8 1 4			
56	56.04	56.35	DB	100	100	6	W1	3	1			56.19	JN	59	192	1	12	1.5	4			
57	56.35	57.56	DB	100	100	6	W1	0.5	0		9 E-06 (54.7 - 152.5)											
58	57.56	59.48	DB	100	96	6	W1	3	8	Areas of healed defecting; some mechanical fractures opening along these		57.56 57.71 57.95 58.02 58.22	JN JN FLT JN JN	57 48 63 47 19		3 3 3 3 3	20 12 6 12 12	1.5 1.5 1 2 2	3 4 8 4 4			
59												58.69 58.81 59.28	JN JN FLT	48 59 30	339 328 328	2 2 2	20 20 0	2 1.5 1	1 1 15			
	59.48	62.48	DB	100	100	6	W1	3	8			59.73	JN	60	172	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
61	59.48	62.48	DB	100	100	6	W1	3	8		
64	62.48	65.48	DB	100	91	6	W1	6	24		9 E-06 (54.7 - 152.5)
67	65.48	68.48	GR	100	96	5	W1	6	12		

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
60.38	VNO	28	357	1	20	2	3
60.68	JN	52	318	1	6	1	4
60.92	JN	47	167	1	6	1	8
61.50	JN	30	332	1	12	2	4
61.70	JN	27	89	1	12	1.5	4
62.01	JN	18	3	1	12	1.5	4
62.21	JN	58	188	1	20	2	3
62.88	JN	30	239	1	12	2	4
63.48	JN	39	163	1	12	1	3
64.01	JN	33	165	1	12	1	3
64.06	JN	59	172	1	6	1	6
64.54	JN	2	185	1	6	1	8
64.60	JN	3	195	1	12	2	4
64.92	JN	40	325	1	12	1	1
65.07	JN	42	180	1	20	2	3
65.09	BC	80		3	12	1	3
65.20	JN	50	343	1	20	2	3
65.26	JN	45	83	1	20	2	3
65.43	BC			3	0	1	5
65.48	CONO	48		3	20	1.5	3
66.10	JN	60		3	25	3	2
66.54	JN	40		3	20	1.5	1
67.43	JN	50		3	25	3	1
67.46	BC	65		3	0	1	5

Zones	Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
68	65.48	68.48	GR	100	96	5	W1	6	12			67.86	JN	62		3	25	3	1			
												68.30	BC	60		3	25	3	3			
69																						
												69.25	JN	41	160	1	25	3	1			
												69.76	JN	30	3	1	20	1.5	2			
												69.84	JN	46	10	1	25	3	2			
70	68.48	71.48	GR	100	93	5	W1	9	13	Grey pink, pegmatitic sections.		69.94	JN	42	68	1	25	3	1			
												70.12	JN	25	0	1	25	3	2			
												70.22	JN	20	175	1	25	3	1			
												70.53	JN	35	10	1	25	3	1			
												70.58	JN	40	3	1	20	1.5	3			
												70.72	JN	26	157	1	20	2	3			
71												70.78	JN	33	158	1	20	2	3			
												70.93	BC	68		3	0	1	5			
											9 E-06 (54.7 - 152.5)											
												71.50	JN	33		3	12	1	3			
72																						
												72.16	JN	39		3	25	3	1			
												72.30	JN	15		3	12	1	1			
73	71.48	74.48	GR	100	98	5	W1	6	9			73.14	JN	48		3	20	1.5	1			
												73.17	JN	25		3	25	3	1			
												73.21	JN	28		3	20	1.5	1			
												73.52	JN	17		3	12	1	4			
74																						
												74.16	JN	24		3	20	1.5	1			
												74.32	JN	25			20	1.5	1			
												74.50	JN	59		3	20	1.5	2			
												74.60	JN	41		3	20	1.5	3			
	74.48	77.68	GR	100	94	5	W1	6	13	Massive to foliated some pegmatite.		74.75	JN	40		3	12	2	4			
75												74.98	JN	46		3	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
76	74.48	77.68	GR	100	94	5	W1	6	13	Massive to foliated some pegmatite.		75.07	BC	66		3	0	1	5			
												75.97	JN	38	138	1	25	3	1			
												76.61	JN	40	357	1	25	3	1			
												76.65	JN	41	356	1	20	1.5	1			
77												76.69	JN	41	356	1	20	1.5	1			
												77.72	JN	38		3	25	3	1			
												77.79	JN	41		3	20	1.5	2			
												77.87	JN	49		3	25	3	1			
78												77.91	JN	65		3	12	1	3			
												78.08	JN	33		3	25	3	1			
												78.22	BC	45		3	25	3	2			
79	77.68	80.48	GR	100	77	5	W1	9	28	Some pegmatite and foliation.	9 E-06 (54.7 - 152.5)	79.07	BC	72		3	0	1	5			
												79.13	JN	15	51	1	20	1.5	3			
												79.23	BC	75		3	0	1	5			
												79.27	JN	51	357	1	12	1	3			
												79.32	JN	48	180	1	25	3	1			
												79.37	JN	20	350	1	25	3	2			
80												79.88	JN	46	180	1	25	3	1			
												80.48	JN	44	255	1	25	3	1			
												80.59	JN	44	275	1	25	3	1			
												80.74	JN	53	245	1	12	1.5	4			
81												80.99	JN	38	295	1	20	1.5	1			
												81.05	JN	44	290	1	20	1.5	1			
	80.48	83.48	GR	100	90	5	W1	6	18	Massive granite. Unaltered and very strong with some pegmatite zones.		81.46	JN	34	300	1	20	1.5	1			
												81.52	JN	36	300	1	20	1.5	1			
82												81.80	JN	32	300	1	20	1.5	1			
												82.21	JN	38	310	1	20	1.5	1			
												82.41	JN	22	120	1	12	2	4			
												82.43	JN	37	300	1	20	1.5	1			
												82.47	JN	31	310	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
83	80.48	83.48	GR	100	90	5	W1	6	18	Massive granite. Unaltered and very strong with some pegmatite zones.	
84											
85	83.48	86.55	GR	100	98	5	W1	6	11	Alternation of massive to slighty foliated granite and zones of pegmatite. Pegmatite is more brittle, with many healed joints.	
86											9 E-06 (54.7 - 152.5)
87											
88	86.55	89.48	GR	100	97	5	W1	6	7	Alternation of massive to slighty foliated granite and zones of pegmatite. Pegmatite is more brittle.	
89											
90	89.48	92.48	GR	100	95	5	W1	6	9	Massive to slightly foliated granite. Pinkish pegmatite between 89.48 to 90.40m and from 91.10m to 91.60.	

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
82.63	JN	39	300	1	20	1.5	1			
82.67	JN	38	300	1	20	1.5	1			
82.94	JN	36	310	1	20	1.5	1			
82.98	JN	42	310	1	20	1.5	1			
83.10	JN	34	300	1	20	1.5	1			
83.15	JN	43	310	1	20	1.5	1			
83.50	JN	0	320	1	12	1	4			
83.84	JN	32	340	1	25	3	1			
83.85	JN	49	25	1	12	1	2			
84.08	JN	34	340	1	20	1.5	1			
84.25	JN	25	345	1	20	1.5	1			
84.30	JN	35	350	1	20	1.5	1			
85.31	JN	38	320	1	20	1.5	1			
85.50	CLF	40	100	1	25	4	0.75			
85.55	JN	42	220	1	25	3	1			
86.01	JN	42	340	1	20	1.5	1			
86.13	JN	43	330	1	20	1.5	1			
86.35	JN	38	330	1	25	3	1			
86.56	JN	44	330	1	20	1.5	1			
86.66	JN	51	330	1	20	1.5	1			
86.77	JN	45	325	1	20	1.5	1			
87.22	JN	48	340	1	20	1.5	2			
87.48	JN	41	330	1	20	1.5	2			
88.35	JN	44	170	1	12	1.5	4			
89.38	JN	44	320	1	20	1.5	1			
89.48	CONO	24	140	1	12	2	4			
89.70	JN	44	330	1	20	1.5	1			
89.90	JN	41	325	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
91	89.48	92.48	GR	100	95	5	W1	6	9	Massive to slightly foliated granite. Pinkish pegmatite between 89.48 to 90.40m and from 91.10m to 91.60.		90.40	CON	32			25	4	0.75			
												90.83	JN	53	305	1	20	1.5	1			
												90.98	JN	47	320	1	20	1.5	1			
												91.16	JN	59	320	1	20	1.5	1			
												91.34	JN	60	320	1	20	1.5	1			
												91.60	CON	10			25	4	0.75			
92												92.02	JN	64	305	1	20	1.5	1			
												92.09	JN	65	300	1	20	1.5	1			
												92.51	CLF	29	75	1	25	4	0.75			
93												93.00	JN	53	330	1	20	2	1			
												93.45	JN	44	5	1	12	1	1			
94	92.48	95.48	GR	100	96	5	W1	6	9	Foliated granite, with few zones of pegmatite.	9 E-06 (54.7 - 152.5)	94.06	JN	19	220	1	25	3	1			
												94.29	JN	36	350	1	6	1	8			
												94.48	JN	43	325	1	12	1	2			
												94.53	JN	23	280	1	12	1	2			
95												95.12	JN	44	350	1	20	1.5	1			
												95.18	JN	49	340	1	20	1.5	1			
												95.34	FOL	46	80	1	12	2	4			
96												95.60	JN	55	10	1	20	1.5	2			
												95.62	JN	49	10	1	20	1.5	1			
	95.48	98.48	GR	100	93	5	W1	9	11	Moderately foliated granite with some pinkish pegmatite.		96.52	JN	44	10	1	25	3	1			
												96.57	JN	42	20	1	25	3	1			
												96.81	JN	41	320	1	20	1.5	3			
97												96.85	JN	52	325	1	20	2	1			
												97.25	JN	47	335	1	12	1	3			
												97.36	CLF	46	100	1	25	4	0.75			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
98	95.48	98.48	GR	100	93	5	W1	9	11	Moderately foliated granite with some pinkish pegmatite.	
99											
100	98.48	101.60	GR	100	99	5	W1	9	9	Moderately foliated granite, with some pinkish pegmatite. Slightly oxidized. From 100.25m its more fine grained and the rock is slightly porous.	
101											9 E-06 (54.7 - 152.5)
102											
103	101.60	104.48	GR	100	100	5	W1	9	5	Moderatly foliated granite and some pegmatite with large crystals of mica.	
104											
105	104.48	107.54	GR	100	97	5	W1	6	7	Foliated granite, no pegmatite.	

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
97.85	JN	49	0	1	25	3	1			
97.90	JN	44	345	1	25	3	1			
98.06	JN	45	5	1	20	1.5	1			
98.35	JN	44	350	1	25	3	1			
98.54	JN	45	0	1	25	3	1			
98.80	JN	83	60	1	20	2	2			
99.26	JN	27	330	1	20	1.5	1			
99.45	JN	46	320	1	20	2	1			
100.00	JN	25	230	1	25	3	1			
100.04	JN	56	325	1	20	1.5	1			
100.20	CLF	34	130	1	25	4	0.75			
100.40	JN	27	330	1	25	3	1			
101.21	JN	53	120	1	25	3	2			
101.22	JN	8	190	1	25	3	1			
101.76	JN	20	350	1	25	3	1			
102.05	CLF	44	5	1	25	4	0.75			
102.27	JN	36	10	1	20	1.5	1			
102.83	CLF	17	260	1	25	4	0.75			
103.60	JN	8	60	1	25	3	1			
103.74	JN	41	350	1	20	1.5	1			
104.10	CLF	40	120	1	25	4	0.75			
104.31	JN	52	0	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
106	104.48	107.54	GR	100	97	5	W1	6	7	Foliated granite, no pegmatite.	9 E-06 (54.7 - 152.5)
109	107.54	110.48	GR	100	97	5	W1	6	6	Slightly foliated granite with traces of oxide alteration.	
112	110.48	113.58	GR	100	98	3	W1	4	9	Slightly foliated granite with some whitish and pinkish pegmatite with large crystals of quartz.	

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
105.21	JN	42	345	1	20	1.5	1			
105.84	JN	46	335	1	20	1.5	1			
106.16	FOL	34	130	1	12	1	4			
106.24	JN	37	350	1	20	1.5	1			
106.47	JN	38	350	1	25	3	1			
106.81	JN	46	350	1	20	1.5	1			
107.26	JN	43	340	1	25	3	1			
107.54	JN	50	340	1	25	3	1			
107.57	JN	36	350	1	20	1.5	1			
107.65	JN	43	340	1	20	1.5	1			
108.84	JN	61	90	1	6	0.5	4			
109.02	CLF	23	320	1	25	4	0.75			
109.15	JN	58	295	1	25	3	1			
109.50	CLF	51	100	1	25	4	0.75			
109.73	JN	41	350	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
113	110.48	113.58	GR	100	98	3	W1	4	9	Slightly foliated granite with some whitish and pinkish pegmatite with large crystals of quartz.		114.07	JN	16	255	1	20	1.5	1			
114												114.55	JN	40	355	1	20	1.5	1			
												114.65	JN	42	0	1	20	1.5	1			
												114.66	JN	42	350	1	25	3	1			
115	113.58	116.48	GR	100	95	5	W1	6	5	Slightly foliated granite.		114.71	JN	49	350	1	25	3	1			
116											9 E-06 (54.7 - 152.5)											
117																						
118	116.48	119.55	GR	100	100	5	W1	0.5	0	Slightly foliated, very strong granite.												
119																						
120	119.55	120.92	GR	100	100	5	W1	3	1	Foliated granite.		119.63	JN	38	295	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
121	119.55	120.92	GR	100	100	5	W1	3	1	Foliated granite.		120.85	CLF	47	125	1	25	4	0.75			
												120.92	JN	52	20	1	12	1	4			
	120.92	121.59	GR	100	100	5	W1	2	3	Mix between quartzite and granite with many microdefects and healed joints. Rock is brittle along these planes of weakness.		121.34	JN	44	30	1	20	2	2			
												121.59	CONO	45	25	1	6	1	8			
122	121.59	122.48	GR	100	100	5	W1	3	1	Slightly foliated granite.		122.48	JN	29	330	1	25	3	1			
123																						
124	122.48	125.48	GR	100	100	5	W1	0.5	0		9 E-06 (54.7 - 152.5)											
125												125.48	JN	65	80	1	25	3	3			
126	125.48	128.48	GR	100	97	5	W1	4	5	Slight but very minor foliation due to biotite alignment.		126.51	JN	50	130	1	25	3	3			
127																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
128	125.48	128.48	GR	100	97	5	W1	4	5	Slight but very minor foliation due to biotite alignment.		128.16	JN	33	350	1	25	3	1			
												128.23	JN	43	70	1	25	3	3			
												128.38	JN	35	10	1	25	3	1			
129	128.48	129.60	GR	100	100	5	W1	0.5	0	Some areas where biotite is aligned giving very minor foliation.												
130	129.60	131.48	GR	100	100	5	W1	3	3			130.07	JN	49	120	1	25	3	3			
131												131.10	JN	9	230	1	20	3	4			
											9 E-06 (54.7 - 152.5)	131.29	JN	41	260	1	20	1.5	3			
132																						
133	131.48	134.48	GR	100	97	5	W1	2	4			132.79	JN	40	0	1	25	3	1			
												132.86	JN	40	0	1	25	3	1			
												133.26	JN	44	10	1	20	1.5	1			
134												133.88	JN	31	345	1	25	3	3			
	134.48	135.70	GR	100	100	5	W1	2	1	Slight but minor foliation visible due to aligned biotite.												
135																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
136	134.48	135.70	GR	100	100	5	W1	2	1	Slight but minor foliation visible due to aligned biotite.		135.14	JN	60	10	2	20	1.5	1			
												136.10	JN	51	7	1	20	1.5	1			
												136.32	JN	54	142	1	25	3	2			
137	135.70	137.48	GR	100	100	5	W1	2	3			137.00	JN	68	20	1	25	3	1			
138	137.48	138.75	GR	100	100	4	W1	0.5	0	Transition to pegmatite right at the top of run.												
139	138.75	139.92	PEG	100	100	4	W1	1	1		9 E-06 (54.7 - 152.5)	139.61	JN	20	70	2	20	3	4			
												139.92	CON	85			25	4	0.75			
140	139.92	140.48	GR	100	100	6	W1	0.5	0													
141	140.48	143.48	GR	100	100	6	W1	1	1	Massive to slightly foliated granite. Extremely strong.		140.98	JN	26	275	1	12	1	4			
142																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
143	140.48	143.48	GR	100	100	6	W1	1	1	Massive to slightly foliated granite. Extremely strong.												
144																						
145	143.48	146.48	GR	100	100	6	W1	0.5	0	Massive to slightly foliated granite. Extremely strong.												
146											9 E-06 (54.7 - 152.5)											
147																						
148	146.48	149.54	GR	100	100	6	W1	1	1	Massive to slightly foliated granite. Extremely strong.												
149											3 E-09 (147.7 - 251.5)	148.97	JN	36	0	1	20	1.5	1			
150	149.54	152.48	GR	100	100	6	W1	1	1	Massive to slightly foliated granite. Extremely strong.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
151	149.54	152.48	GR	100	100	6	W1	1	1	Massive to slightly foliated granite. Extremely strong.	9 E-06 (54.7 - 152.5)	151.10	JN	34	340	1	25	3	1			
154	152.48	155.48	GR	100	100	5	W1	2	2	Run has two small zones of metasediments from 154.39m to 154.51m and 154.68m to 154.76m. These zones are weaker, around an R3-R4. Fractures are foliation breaks in the metasediment zones.	3 E-09 (147.7 - 251.5)	154.39 154.40 154.51 154.68 154.73 154.76	CON FOL CON CON FOL CON	42 41 50 56 61 49	140 120	2 2	25 25 25 25 20 25	4 3 4 4 3 4	0.75 3 0.75 0.75 4 0.75			
156	155.48	158.48	GR	100	100	5	W1	3	3			156.15 156.70	JN JN	30 40	0 0	2 2	20 25	1.5 3	1 3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
158	155.48	158.48	GR	100	100	5	W1	3	3			158.12	JN	34	10	2	20	1.5	1			
159												159.63	JN	46	140	1	25	3	3			
160	158.48	161.48	GR	100	100	5	W1	1	2													
161											3 E-09 (147.7 - 251.5)	161.38	JN	16	150	1	25	3	3			
162												161.83 161.87	CLF CLF	12 26	0 0	1 1	25 25	4 4	0.75 0.75			
163	161.48	164.48	GR	100	100	5	W1	1	1	Top of run from 161.48 to 162.30m is slightly more pink in colour but strength is still R5.		162.26	JN	26	0	1	25	3	3			
164																						
165	164.48	167.48	GR	100	100	5	W1	1	3													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
166	164.48	167.48	GR	100	100	5	W1	1	3			165.92	JN	15	275	1	25	3	3			
												166.17	JN	28	20	1	25	3	1			
167												166.39	JN	49	130	1	25	3	3			
168																						
169	167.48	170.48	GR	100	100	5	W1	1	1	Some small zones of pegmatitic texture throughout run.	3 E-09 (147.7 - 251.5)	169.05	JN	31	20	2	25	3	3			
170																						
171	170.48	173.48	GR	100	100	5	W1	1	1													
172																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
173	170.48	173.48	GR	100	100	5	W1	1	1			173.40	JN	56	110	2	25	3	3			
174												173.73	JN	30	285	2	20	1.5	1			
175	173.48	176.48	GR	100	100	5	W1	1	2			174.69	JN	53	90	2	20	3	4			
176											3 E-09 (147.7 - 251.5)											
177																						
178	176.48	179.48	GR	100	100	6	W1	0.5	0													
179																						
180	179.48	182.48	GR	100	100	6	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
181	179.48	182.48	GR	100	100	6	W1	0.5	0													
182																						
183	182.48	185.48	GR	100	100	5	W1	3	4	From approximately 184.75m there is a slightly pegmatitic texture but strength remains R5.	3 E-09 (147.7 - 251.5)	182.79	JN	28	5	1	25	3	1			
184												183.13	JN	27	0	1	25	3	3			
												184.15	JN	34	290	1	20	1.5	3			
185												184.82	JN	60	130	1	25	3	1			
186	185.48	186.79	GR	100	100	5	W1	1	1			186.35	JN	26	38	1	25	3	1			
187	186.79	188.48	GR	100	100	5	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
188	186.79	188.48	GR	100	100	5	W1	0.5	0													
189												189.23	JN	32	10	1	25	3	1			
190	188.48	191.48	GR	100	100	5	W1	3	3			190.50	JN	83	190	1	25	3	1			
												190.70	JN	70	170	1	25	3	3			
191											3 E-09 (147.7 - 251.5)											
192																						
193	191.48	194.48	GR	100	100	5	W1	2	2													
194												194.48	JN	40	280	1	12	1	2			
												194.48	JN	44	320	1	12	1	2			
195	194.48	197.48	GR	100	100	6	W1	0.5	0	Very hard to break with PLT/geological hammer.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
196	194.48	197.48	GR	100	100	6	W1	0.5	0	Very hard to break with PLT/geological hammer.												
197																						
198	197.48	200.57	GR	100	100	6	W1	3	4		3 E-09 (147.7 - 251.5)	198.18	JN	25	0	1	20	2	1			
												198.54	JN	34	0	1	20	2	1			
												198.73	JN	34	40	1	12	1	1			
199																						
200												199.73	JN	8	240	1	20	2	3			
201	200.57	203.46	GR	100	100	6	W1	3	4			200.90	JN	71	90	1	20	2	1			
												201.54	FOL	48	90	1	20	2	1			
202												202.35	JN	33	0	1	12	1	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
203	200.57	203.46	GR	100	100	6	W1	3	4			203.26	JN	59	110	1	20	2	1			
204												204.18	FOL	57	135	1	12	1	1			
205	203.46	206.44	GR	100	100	6	W1	3	2			204.98	JN	34	350	1	20	1.5	1			
206											3 E-09 (147.7 - 251.5)											
207												207.39	JN	69	160	1	25	3	1			
208	206.44	209.48	GR	100	100	6	W1	6	4			208.77	JN	44	350	1	20	1.5	1			
209												208.90	JN	33	250	1	20	2	3			
												209.38	JN	18	215	1	12	1	2			
210	209.48	212.48	GR	100	100	6	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
211	209.48	212.48	GR	100	100	6	W1	0.5	0													
212																						
213																						
214	212.48	215.53	GR	100	100	6	W1	3	2		3 E-09 (147.7 - 251.5)	214.45	JN	35	350	1	25	3	1			
215												215.10	JN	71	180	1	25	3	1			
216	215.53	216.77	GR	100	100	6	W1	0.5	0	Stick core.												
217	216.77	217.88	GR	100	100	6	W1	1	1			217.33	JN	10	50	1	20	2	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
218	216.77	217.88	GR	100	100	6	W1	1	1													
	217.88	218.46	GR	100	100	6	W1	0.5	0													
219												219.28	CON	85	230	1	25	4	0.75			
												219.40	CON	85			25	4	0.75			
220	218.46	221.50	GR	100	100	6	W1	2	1													
221											3 E-09 (147.7 - 251.5)	221.42	FOL	40	30	1	25	3	1			
222												222.14	FOL	25	60	1	25	3	1			
223	221.50	224.54	GR	100	100	6	W1	2	1													
224																						
225	224.54	227.52	GR	100	100	6	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
226	224.54	227.52	GR	100	100	6	W1	0.5	0													
227																						
228												227.97	JN	26	40	1	12	1	3			
229	227.52	230.52	GR	100	100	6	W1	1	1		3 E-09 (147.7 - 251.5)											
230																						
231	230.52	233.48	GR	100	100	6	W1	0.5	0													
232																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
233	230.52	233.48	GR	100	100	6	W1	0.5	0													
234																						
235	233.48	236.48	GR	100	100	6	W1	0.5	0		3 E-09 (147.7 - 251.5)											
236																						
237																						
238	236.48	239.48	GR	100	100	6	W1	0.5	0													
239																						
240	239.48	242.48	GR	100	100	6	W1	3	4	Small zone of pegmatitic texture from 241.34m to 241.50m. Strength is approximately R5 (long joint through zone so couldn't hit with hammer). Subparallel joint from 239.25m to 240.54m, does not cross core axis.		239.94	JN	55	155	2	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
241	239.48	242.48	GR	100	100	6	W1	3	4	Small zone of pegmatitic texture from 241.34m to 241.50m. Strength is approximately R5 (long joint through zone so couldn't hit with hammer). Subparallel joint from 239.25m to 240.54m, does not cross core axis.		240.54	JN	60	5	2	25	3	3			
												241.34	JN	40	55	2	25	3	3			
												241.52	JN	16	245	2	25	3	3			
242																						
243																						
244	242.48	245.48	GR	100	100	6	W1	1	1		3 E-09 (147.7 - 251.5)	244.72	JN	37	25	2	25	3	1			
245																						
246	245.48	248.48	GR	100	100	6	W1	0.5	0													
247											3 E-07 (246.7 - 350.5)											

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
248	245.48	248.48	GR	100	100	6	W1	0.5	0													
249																						
250	248.48	251.48	GR	100	100	6	W1	1	1		3 E-09 (147.7 - 251.5)											
251												250.72	JN	58	80	1	25	3	3			
252											3 E-07 (246.7 - 350.5)											
253	251.48	254.48	GR	100	100	6	W1	0.5	0													
254																						
255	254.48	257.48	GR	100	100	5	W1	1	2													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
256	254.48	257.48	GR	100	100	5	W1	1	2			255.12	VNO	42	90	1	25	3	1			
257												257.04	JN	35	281	1	12	1	1			
258	257.48	260.48	GR	100	100	6	W1	1	1		3 E-07 (246.7 - 350.5)											
259												259.30	JN	29	30	1	12	1	3			
260																						
261	260.48	263.47	GR	100	100	6	W1	0.5	0													
262																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
263	260.48	263.47	GR	100	100	6	W1	0.5	0													
264												264.74	FOL	35	150	1	20	2	3			
265	263.47	266.50	GR	100	100	6	W1	3	2													
266											3 E-07 (246.7 - 350.5)	265.67	JN	39	250	1	12	1	1			
267																						
268	266.50	269.44	GR	100	100	6	W1	2	1													
269												268.68	JN	24	20	1	20	2	1			
270	269.44	272.46	GR	100	100	6	W1	6	6	Minor foliation and some iron alteration. Rock strength is unchanged. Some pegmatite (larger crystals) throughout interval.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
271	269.44	272.46	GR	100	100	6	W1	6	6	Minor foliation and some iron alteration. Rock strength is unchanged. Some pegmatite (larger crystals) throughout interval.		270.49	JN	35	37	1	20	2	1			
												270.64	JN	66	280	1	25	3	1			
												270.75	JN	63	340	1	20	2	1			
												270.91	JN	82	280	1	12	1	1			
												271.15	JN	27	40	1	12	1	1			
												271.35	JN	21	220	1	20	2	1			
272																						
273	272.46	275.43	GR	100	100	6	W1	0.5	0		3 E-07 (246.7 - 350.5)											
274																						
275																						
276	275.43	278.45	GR	100	100	6	W1	4	4	Minor iron alteration to 277.43m.		276.82	JN	45	280	1	12	1	1			
												277.15	VNO	55	270	1	25	3	1			
277												277.21	JN	39	260	1	12	1	1			
												277.55	FOL	58	95	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
278	275.43	278.45	GR	100	100	6	W1	4	4	Minor iron alteration to 277.43m.												
279																						
280	278.45	281.47	GR	100	100	6	W1	0.5	0		3 E-07 (246.7 - 350.5)											
281																						
282																						
283	281.47	284.48	GR	100	100	6	W1	1	1													
284												284.02	JN	47	35	1	25	3	1			
285	284.48	287.48	GR	100	89	6	W1	6	10	Mechanical broken zone from 285.59m to 285.73m. Broken upon removal from core barrel with hammer. Splits not used as the core has been very intact.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
286	284.48	287.48	GR	100	89	6	W1	6	10	Mechanical broken zone from 285.59m to 285.73m. Broken upon removal from core barrel with hammer. Splits not used as the core has been very intact.		285.29	JN	43	225	1	12	1	4			
												285.37	JN	68	260	1	25	3	2			
												285.49	JN	54	225	1	20	2	3			
												285.66	JN	55		3	20	2	2			
												285.73	JN	45	250	1	12	1	4			
												285.83	JN	55	225	1	20	2	2			
												285.98	JN	24	15	1	25	3	1			
												286.21	JN	39	340	1	20	1.5	1			
287												287.06	JN	48	95	1	12	1	2			
												287.28	JN	68	95	1	20	2	2			
288	287.48	290.53	GR	100	100	6	W1	0.5	0		3 E-07 (246.7 - 350.5)											
289																						
290																						
291	290.53	293.48	GR	100	100	6	W1	0.5	0													
292																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
293	290.53	293.48	GR	100	100	6	W1	0.5	0													
294	293.48	296.48	GR	100	100	5	W1	1	1	Diabase dike from 293.46m-294.00m and 295.67m-295.95m.	3 E-07 (246.7 - 350.5)	295.05	JN	26	65	1	25	3	3			
295																						
296																						
297																						
298	296.48	299.48	GR	100	100	5	W1	0.5	0	Moderately foliated granite.												
299																						
300	299.48	300.81	GR	100	94	5	W1	3	5	Faulted with partial healing between 299.88m - 300.81m. Pegmatite dike from 300.29m - 300.39m at 55 degrees.		300.08	FLT	18	200	1	6	1	8			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
299	299.48	300.81	GR	100	94	5	W1	3	5	Faulted with partial healing between 299.88m - 300.81m. Pegmatite dike from 300.29m - 300.39m at 55 degrees.		300.39 300.46 300.62	JN FLT FLT	48 30 16	122 100 220	1 1 1	25 6 6	3 1 1	3 8 8			
301	300.81	302.48	GR	100	100	5	W1	1	1			301.01	JN	56	132	1	20	1.5	1			
303	302.48	305.48	GR	100	100	5	W1	0.5	0	Minor foliation.	3 E-07 (246.7 - 350.5)											
305	305.48	308.48	GR	100	100	5	W1	0.5	0	Moderately foliated.												
307																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
308	305.48	308.48	GR	100	100	5	W1	0.5	0	Moderately foliated.												
309																						
310	308.48	311.48	GR	100	100	5	W1	0.5	0	Periodic foliation. Rock is fine grained between 309.63m - 309.88m.	3 E-07 (246.7 - 350.5)											
311																						
312																						
313	311.48	314.39	GR	100	100	5	W1	0.5	0													
314																						
315	314.39	317.40	GR	100	100	5	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
316	314.39	317.40	GR	100	100	5	W1	0.5	0													
317																						
318	317.40	320.48	GR	100	100	5	W1	3	4		3 E-07 (246.7 - 350.5)	318.34	JN	24	130	2	25	3	1			
												318.50	JN	61	5	2	20	1.5	1			
319												318.85	JN	65	119	2	25	3	3			
320												320.38	JN	56	180	2	25	3	1			
321	320.48	323.58	GR	100	100	5	W1	2	4			321.23	JN	58	187	2	12	1	3			
322												322.19	JN	61	199	2	12	1	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
323	320.48	323.58	GR	100	100	5	W1	2	4			322.68	JN	70	210	2	12	1	1			
												322.98	JN	53	200	2	6	1	4			
324	323.58	325.00	GR	100	100	5	W1	2	1			323.58	JN	71	234	1	12	1	1			
325	325.00	326.48	GR	100	95	5	W1	2	4	Dominated by a large low angle fracture causing extra breaks with more healed fractures around the large feature.	3 E-07 (246.7 - 350.5)	325.50	JN	0	90	1	25	3	3			
326												325.80	JN	45	179	1	20	2	1			
												325.87	JN	30	70	1	20	1.5	1			
												325.99	JN	34	112	1	20	3	4			
327	326.48	329.48	GR	100	94	5	W1	4	6			326.51	JN	38	261	1	20	2	3			
328												328.02	JN	18	95	1	12	1	3			
												328.80	JN	18	93	1	12	1	3			
												328.82	JN	49	324	1	20	1.5	1			
329												328.88	JN	39	3	1	25	3	1			
												328.88	JN	25	90	1	25	3	3			
330	329.48	332.48	GR	100	97	5	W1	4	8			329.61	JN	29	60	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
331	329.48	332.48	GR	100	97	5	W1	4	8			330.17	JN	16	50	1	20	1.5	3			
												330.65	JN	12	80	1	25	3	3			
												330.69	JN	22	230	1	20	2	3			
												330.77	JN	58	270	1	12	1	3			
												330.98	JN	44	119	1	20	1.5	1			
332												331.91	JN	15	60	1	12	1	3			
												332.16	JN	49	250	1	25	3	1			
												332.48	JN	38	129	1	20	1.5	3			
333	332.48	335.39	GR	100	100	6	W1	6	7	Slightly foliated.	3 E-07 (246.7 - 350.5)	333.00	JN	14	61	1	25	3	3			
												333.67	JN	57	139	1	20	1.5	3			
334												333.94	JN	45	117	1	20	1.5	1			
												334.15	JN	29	109	1	20	1.5	3			
335												334.84	JN	58	162	1	20	1.5	2			
												335.01	JN	41	177	1	20	1.5	1			
336												335.39	JN	29	337	1	20	1.5	1			
	335.39	338.41	GR	100	100	6	W1	1	2	Some small pegmatitic zones with epidote.		336.29	JN	79	190	1	25	3	1			
337																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
338	335.39	338.41	GR	100	100	6	W1	1	2	Some small pegmatitic zones with epidote.												
339												338.78	JN	45	124	1	20	1.5	3			
												339.27	JN	57	116	1	20	1.5	2			
												339.74	JN	56	118	1	20	1.5	1			
												339.81	JN	55	119	1	20	1.5	3			
	338.41	341.42	GR	100	93	6	W1	3	11	Slightly foliated granite with some feldspathic veins.		339.89	JN	66	116	1	12	1.5	4			
340												340.02	JN	69	115	1	20	1.5	3			
												340.08	JN	48	114	1	20	1.5	2			
												340.56	JN	72	132	1	25	3	1			
												340.84	JN	44	88	1	20	1.5	3			
341												340.95	JN	46	82	1	25	3	1			
											3 E-07 (246.7 - 350.5)	341.42	JN	60	79	1	20	1.5	1			
												341.47	BC			3	20	1.5	1			
												341.51	JN	32		3	20	1.5	2			
342	341.42	342.54	GR	100	92	6	W1	12	7	Broken rock zone at start of run could be mechanical as pieces from the ACT tool were found in the split. Rock is generally massive with some feldspathic bands.		342.54	CON	21			25	4	0.75			
												342.73	JN	71		3	20	1.5	1			
												342.86	JN	68		3	25	3	1			
343																						
												343.37	JN	49		3	20	1.5	1			
	342.54	344.48	PEG	100	93	5	W1	12	18	Very strong pegmatitc rock with a broken core zone towards end of run. Epidotes, biotites, feldspars and quartz are present.		343.72	VNO	58		3	6	1	8			
344												343.91	JN	71		3	20	1.5	1			
												344.24	JN	54		3	25	3	1			
												344.27	JN	41		3	20	1.5	2			
												344.33	BC			3	20	1.5	3			
	344.48	345.68	GR	100	82	5	W1	3	4													
345												345.02	JN	36		3	20	2	2			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
	344.48	345.68	GR	100	82	5	W1	3	4		
346	345.68	346.49	FLT	100	0	3	W4	20	81	Fault zone with gouge.	
347	346.49	347.48	GR	100	93	5	W1	6	10		
348	347.48	349.40	DB	100	92	4	W1	12	10	Transition zone with some pink pegmatite inclusions and heavy microfracturing.	3 E-07 (246.7 - 350.5)
349											
350	349.40	350.48	DB	100	86	5	W1	6	11		
351	350.48	353.48	DB	100	100	5	W1	6	7		
352											

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
345.11	JN	61		3	25	3	1
345.19	JN	57		3	25	3	1
345.25	JN	71		3	25	3	1
346.08	FLT	51		3	0	0.5	15
347.05	JN	15		3	25	3	3
347.06	JN	40		3	20	1.5	3
347.30	BC	41		3	0	1	5
347.40	JN	5		3	25	3	1
347.60	FLT	40		3	6	0.5	4
347.63	JN	35		3	20	2	1
347.70	JN	35		3	6	1	4
347.99	JN	58		3	25	3	1
348.10	JN	34		3	12	1	3
348.50	JN	26		3	12	1	3
348.51	JN	59		3	20	2	3
349.40	JN	32		3	20	3	4
349.73	JN	55		3	20	3	4
349.89	JN	38		3	12	1.5	4
349.92	BC	39		3	20	3	4
350.04	JN	10		3	20	3	4
350.16	JN	45		3	12	1.5	4
350.34	JN	72		3	20	3	4
350.71	JN	18	10	1	12	1.5	4
351.16	JN	48	0	1	20	3	4
351.53	JN	36	105	1	20	1.5	1
351.80	JN	39	340	1	25	3	1
352.20	JN	43	130	1	20	3	4

Zones: Lost Core, Fault zone, Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
353	350.48	353.48	DB	100	100	5	W1	6	7			352.93	JN	30	100	1	12	1.5	4			
												353.26	JN	53	140	1	20	3	4			
												353.48	JN	46	130	1	20	1.5	1			
354												354.41	JN	64	160	1	12	1.5	4			
355	353.48	356.48	DB	100	99	5	W1	6	7			355.01	JN	47	310	1	25	3	3			
												355.07	JN	35	50	1	12	1.5	4			
												355.72	JN	48	140	1	20	3	4			
												355.82	JN	24	45	1	25	3	1			
356												355.92	JN	35	70	1	20	3	4			
												356.81	JN	36	255	1	12	1.5	4			
357												357.18	JN	56	140	1	20	3	4			
												357.57	JN	56	100	1	25	3	1			
												357.73	JN	54	160	1	12	1.5	4			
358	356.48	359.48	DB	100	97	5	W1	6	12			357.90	JN	68	180	1	20	3	4			
												358.29	JN	67	180	1	12	1.5	4			
												358.57	JN	60	220	1	20	3	4			
359												359.08	JN	32	345	1	12	1.5	4			
												359.12	JN	71	160	1	12	1.5	4			
												359.14	JN	67	180	1	20	3	4			
												359.37	JN	28	0	1	20	3	4			
												359.39	JN	11	270	1	20	3	4			
	359.48	362.48	DB	100	67	5	W1	6	24	Lots of micro fractures/defects in this run.		359.61	JN	70	180	2	12	1.5	4			
360												359.94	JN	25	320	2	0	1	10			
												360.02	JN	34	340	2	12	1.5	4			
												360.11	JN	40	300	2	20	3	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
361	359.48	362.48	DB	100	67	5	W1	6	24	Lots of micro fractures/defects in this run.	
364	362.48	365.48	DB	100	95	5	W1	3	11		
366	365.48	368.55	DB	100	93	6	W1	12	14	Extremely strong diabase. Brittle along microdefects.	

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
360.14	JN	22	320	2	20	3	4
360.22	JN	25	260	2	20	3	4
360.41	JN	64	180	2	12	1.5	4
360.53	FLT	62	210	2	6	1.5	4
360.98	JN	62	150	2	20	3	4
361.24	JN	63	180	2	25	3	1
361.29	FLT	46	240	2	6	1.5	4
361.36	JN	15	30	1	20	3	4
361.48	JN	44	270	2	20	3	4
361.54	JN	10	40	2	20	3	4
361.72	JN	60	320	2	20	3	4
361.78	JN	19	30	2	20	3	4
361.97	JN	54	130	2	20	3	4
362.04	JN	15	30	2	20	3	4
362.29	JN	73	180	2	20	3	4
362.38	BC	62		3	0	1	5
362.59	JN	50	148	1	12	1	4
362.98	JN	35	45	1	25	3	3
363.21	JN	29	147	1	12	1	1
363.30	JN	14	242	1	12	1.5	4
363.42	JN	74	230	1	20	2	3
363.66	JN	40	280	1	12	2	4
363.68	JN	51	340	1	20	3	4
363.69	JN	68	273	1	20	3	4
364.20	JN	25	260	1	12	2	4
365.34	JN	49	130	1	12	1.5	4
365.41	JN	45	110	1	12	2	4
365.86	JN	49	114	2	12	1.5	4
366.28	JN	35	268	2	12	1.5	4
366.49	JN	39	251	2	6	1	6
366.64	JN	34	178	2	20	3	4
366.76	JN	35	275	2	12	1.5	4
366.90	JN	32	353	2	12	1.5	4

Zones	Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
368	365.48	368.55	DB	100	93	6	W1	12	14	Extremely strong diabase. Brittle along microdefects.		367.66	JN	58	3	2	20	3	4			
												367.73	JN	55	357	2	12	1.5	4			
												367.80	JN	65	262	2	20	3	4			
												367.99	VNO	57	358	2	0	1	10			
												368.18	VNO	27	288	2	6	1	6			
												368.35	BC			3	12	1.5	4			
369												368.58	BC	68		3	12	1.5	4			
												368.75	JN	54	7	1	12	1.5	4			
												368.80	JN	46	3	1	12	1.5	4			
												368.85	JN	46	5	1	12	1.5	4			
												368.99	JN	56	182	1	12	1.5	4			
												369.03	JN	41	358	1	12	1.5	4			
												369.10	JN	50	14	1	12	1.5	4			
												369.19	VNO	62	174	1	0	1	10			
370	368.55	371.55	DB	100	76	6	W1	6	22	Extremely strong diabase. Brittle along microdefects.		369.82	JN	71	179	1	12	1.5	4			
												370.18	JN	39	138	1	20	3	4			
371												370.88	JN	44	149	1	20	3	4			
												371.15	JN	51	133	1	6	1	6			
												371.25	JN	48	262	1	12	1.5	4			
												371.33	JN	36	302	1	12	1.5	4			
												371.40	JN	51	192	1	12	1.5	4			
372												371.76	JN	51	188	1	20	3	4			
												371.93	JN	58	141	1	20	3	4			
												372.30	VNO	54	138	1	6	1	6			
373	371.55	374.49	DB	100	100	6	W1	6	7			373.00	JN	22	36	1	20	3	4			
												373.73	JN	41	288	1	12	1.5	4			
374												373.99	JN	59	279	1	12	1.5	4			
												374.15	JN	30	118	1	12	1.5	4			
	374.49	377.48	DB	100	100	6	W1	6	9			374.82	JN	66	170	1	25	3	1			
375												375.01	JN	70	140	1	12	1.5	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.							375.12	JN	23	310	1	20	3	4			
												375.22	JN	86	140	1	12	1	4			
376	374.49	377.48	DB	100	100	6	W1	6	9			376.34	JN	50	35	1	20	3	4			
												376.77	JN	71	120	1	20	3	4			
												376.80	JN	64	150	1	12	1.5	4			
377												377.00	JN	60	100	1	20	3	4			
												377.27	JN	55	190	1	20	3	4			
378												378.20	JN	54	100	2	20	3	4			
												378.47	JN	54	40	2	12	1.5	4			
												378.63	JN	54	160	2	6	1	6			
379	377.48	380.48	DB	100	100	6	W1	3	4			379.50	JN	38	270	2	20	3	4			
380																						
												380.80	JN	66	220	1	20	3	4			
381												380.96	JN	71	120	1	20	3	4			
												381.16	JN	50	280	1	12	1.5	4			
	380.48	383.48	DB	100	100	6	W1	3	6			381.58	JN	61	150	1	12	1.5	4			
												381.73	JN	70	320	1	20	3	4			
382												382.17	JN	55	180	1	20	3	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
383	380.48	383.48	DB	100	100	6	W1	3	6													
384												383.82	JN	63	260	1	6	1	6			
385	383.48	386.48	DB	100	98	6	W1	3	4			385.43	JN	56	270	1	12	1.5	4			
386												386.23 386.27	JN JN	52 54	190 130	1 1	6 20	1 3	6 4			
387																						
388	386.48	389.48	DB	100	100	6	W1	2	1													
389												388.90	JN	63	130	1	12	1.5	4			
390	389.48	392.48	DB	100	100	6	W1	2	4													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
391	389.48	392.48	DB	100	100	6	W1	2	4			392.07	JN	35	220	1	20	3	4			
												392.18	JN	44	350	1	6	1	6			
392												392.20	JN	55	0	1	12	1.5	4			
												392.22	JN	55	0	1	12	1.5	4			
393												392.98	JN	10	50	1	20	3	4			
												393.01	JN	44	10	1	20	3	4			
												393.09	JN	87	100	1	20	3	4			
												393.21	BC	71		3	20	3	4			
394	392.48	395.48	DB	100	94	6	W1	6	12			393.28	JN	59	160	1	20	3	4			
												394.44	JN	62	50	1	12	1	4			
395												395.00	JN	50	30	1	20	3	4			
												395.38	JN	64	350	1	20	3	4			
												395.41	JN	41	330	1	12	1.5	4			
396	395.48	398.48	DB	100	92	6	W1	6	18			395.59	JN	66	30	1	12	1	4			
												395.75	JN	68	50	1	12	1	4			
												396.02	JN	67	40	1	12	2	4			
												396.16	JN	60	50	1	12	2	4			
												396.27	BC	60		3	20	3	4			
397												396.53	JN	41	220	1	12	1	4			
												396.86	JN	40	330	1	12	1	3			
												397.40	JN	41	150	1	12	1.5	4			
												397.52	JN	57	240	1	12	1.5	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
398	395.48	398.48	DB	100	92	6	W1	6	18			397.87	JN	22	140	1	20	1.5	3			
												398.14	JN	50	150	1	20	3	4			
	398.48	398.88	DB	100	100	6	W1	2	1			398.85	JN	50	260	2	20	3	4			
												398.88	JN	26	0	2	6	1	8			
399																						
400	398.88	401.48	GR	100	100	6	W1	2	1	Some zones of pegmatitic texture.												
401																						
402																						
403	401.48	404.48	GR	100	100	6	W1	2	1													
404												403.91	JN	13	130	1	25	3	3			
	404.48	407.48	GR	100	100	6	W1	3	3	Some zones of pegmatitic texture.												
405												405.03	JN	16	140	2	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
406	404.48	407.48	GR	100	100	6	W1	3	3	Some zones of pegmatitic texture.												
407												407.18	JN	46	140	2	25	3	3			
												407.34	FLT	28	240	2	6	0.5	4			
408												408.03	JN	41	150	1	25	3	1			
409	407.48	410.48	GR	100	100	6	W1	1	1	Some zones of pegmatitic texture.												
410																						
411	410.48	413.48	GR	100	100	6	W1	0.5	0	Some zones of pegmatitic texture throughout.												
412																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
413	410.48	413.48	GR	100	100	6	W1	0.5	0	Some zones of pegmatitic texture throughout.		413.56	JN	38	148	1	25	3	3			
414																						
415	413.48	416.48	GR	100	97	6	W1	1	2	Extremely strong granite with some pegmatite zones.		415.04	JN	36	248	1	6	0.5	3			
416																						
417												416.71	JN	25	132	2	20	3	4			
												416.86	JN	42	182	2	20	1.5	1			
												416.96	JN	36	164	2	20	1.5	1			
												417.00	JN	64	142	2	25	3	2			
												417.10	JN	54	152	2	20	1.5	1			
												417.18	JN	34	177	2	12	1.5	4			
												417.30	JN	36	179	2	25	3	1			
												417.43	JN	39	136	2	25	3	1			
												417.65	JN	59	98	2	25	3	3			
												417.65	JN	54	96	2	20	1.5	1			
418	416.48	419.48	GR	100	93	6	W1	3	16			418.16	JN	54	92	2	25	3	3			
												418.31	JN	58	98	2	20	1.5	1			
419												419.02	JN	39	129	2	20	3	4			
												419.13	BC			3	12	1.5	4			
												419.48	JN	60	192	1	20	1.5	3			
												419.55	JN	63	166	1	20	1.5	3			
420	419.48	422.54	GR	100	94	6	W1	2	5	Granitic rock with some major pegmatite zones.		420.10	JN	53	123	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
421	419.48	422.54	GR	100	94	6	W1	2	5	Granitic rock with some major pegmatite zones.		420.14	JN	61	118	1	25	3	3			
												420.93	JN	57	117	1	25	3	1			
422																						
												422.62	JN	31	248	2	6	0.5	4			
												422.69	JN	39	139	2	25	3	1			
423												422.78	BC			3	20	1.5	1			
												422.85	JN	58	114	2	20	1.5	1			
424	422.54	425.48	GR	100	88	6	W1	6	11	Some pegmatite zones.		424.21	JN	21	328	2	20	1.5	1			
												424.72	JN	58	117	2	20	1.5	1			
425												424.76	JN	61	103	2	25	3	3			
426												426.18	JN	13	132	1	25	3	3			
	425.48	428.53	GR	100	100	6	W1	6	8	Some pegmatite zones.		426.52	JN	39	236	1	6	0.5	1			
427												426.91	JN	61	129	1	20	1.5	1			
												427.20	JN	36	98	1	20	3	4			
												427.48	JN	56	118	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
428	425.48	428.53	GR	100	100	6	W1	6	8	Some pegmatite zones.		427.73	JN	66	117	1	25	3	3			
												427.83	JN	70	121	1	20	1.5	1			
												428.23	JN	53	121	1	25	3	1			
												428.68	JN	71	111	1	25	3	1			
												428.78	JN	62	101	1	20	1.5	3			
429												429.20	JN	16	103	1	20	1.5	2			
430	428.53	431.53	GR	100	100	6	W1	3	6			430.10	JN	61	92	1	12	1.5	4			
												430.30	JN	65	118	1	20	1.5	2			
431												431.10	JN	63	119	1	25	3	1			
												431.80	JN	54	118	1	20	1.5	1			
432												432.35	JN	59	123	1	20	1.5	1			
433	431.53	434.49	GR	100	100	6	W1	3	3			433.11	JN	22	335	1	25	3	1			
434																						
	434.49	437.49	GR	100	88	6	W1	2	14			434.86	JN	58	109	1	20	1.5	3			
435																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
436	434.49	437.49	GR	100	88	6	W1	2	14			435.25	JN	62	119	1	20	1.5	3			
												435.63	JN	58	124	1	20	1.5	1			
												435.75	JN	68	119	1	25	3	1			
												435.78	JN	54	123	1	20	1.5	1			
												436.05	JN	49	145	1	20	3	4			
												436.14	JN	56	117	1	20	1.5	3			
												436.17	JN	62	116	1	20	1.5	3			
												436.23	JN	45	136	1	25	3	2			
437												436.94	JN	60	130	1	12	1.5	4			
												436.97	JN	61	128	1	20	1.5	3			
438	437.49	440.48	GR	100	100	6	W1	1	2			437.68	JN	21	345	1	20	1.5	1			
439																						
440												439.81	JN	76	122	1	20	1.5	1			
441	440.48	443.48	GR	100	95	6	W1	2	9			440.60	JN	66	142	1	20	1.5	3			
												440.79	JN	64	128	1	20	1.5	3			
												441.03	JN	58	127	1	20	1.5	3			
												441.45	JN	58	138	1	20	1.5	3			
												441.51	JN	46	128	1	25	3	1			
442												442.11	JN	57	121	1	20	1.5	3			
												442.14	JN	48	121	1	25	3	3			
												442.20	JN	61	129	1	20	1.5	3			
												442.30	JN	39	141	1	25	3	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-03

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 16-Apr-2014 Logging Completion Date: 23-Apr-2014

Northing: 7165991.4 m
Easting: 542166.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.76 masl
Depth: 449.48 m
Planned Azimuth: 310 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
443	440.48	443.48	GR	100	95	6	W1	2	9													
444												444.26	JN	60	120	1	20	1.5	1			
445	443.48	446.48	GR	100	96	6	W1	3	5			445.03	JN	34	128	1	25	3	1			
												445.69	JN	49	118	1	25	3	3			
												445.74	JN	39	122	1	20	1.5	1			
446												445.81	JN	57	118	1	20	3	4			
												446.56	JN	62	142	1	20	1.5	3			
447												446.91	JN	58	114	1	25	3	1			
												447.18	JN	46	117	1	20	1.5	1			
												447.36	JN	44	138	1	25	3	1			
												447.41	JN	46	130	1	20	1.5	1			
												447.56	JN	44	127	1	20	1.5	3			
448	446.48	449.48	GR	100	96	6	W1	2	6													
449																						
450																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
1	0.00	1.80	ICE																			
2	1.80	10.80	WATER																			
3																						
4																						
5																						
6																						
7																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
8																						
9	1.80	10.80	WATER																			
10																						
11																						
12																						
13	10.80	30.28	OVB	100																		
14																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
16																						
17																						
18																						
19	10.80	30.28	OVB	100																		
20																						
21																						
22																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
23																						
24																						
25																						
26	10.80	30.28	OVB	100																		
27																						
28																						
29																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
	10.80	30.28	OVB	100						Overburden: most likely boulders of granite and metasediments. Massive structure, rough and angular, clean surfaces and no indication of weathering.	
	30.28	30.42	OVB	100							
	30.42	30.92	MTSD	100	24	4	W2	1	7	Broken up top of bedrock with some infilled joints at the bottom of the run.	
31	30.92	32.58	MTSD	100	100	4	W1	4	6		
33	32.58	33.20	MTSD	100	47	3	W1	6	6	Interval before fault zone. Bedrock is schist.	
	33.20	33.52	FLT	100	0	3	W3	20	19		
34	33.52	34.15	MTSD	100	76	3	W1	3	3		
	34.15	34.75	FLT	100	30	2	W4	20	38	Interval includes 2 fault zones with some core recovery in between. Core is soft and moderately altered with hematite alteration. Core in this zone is much more foliated than rest of drill run with some quartz veins. Mineralization in core. No pattern to mineralization formation (not along foliation as this core is massive). Foliation is lost due to quartz/hematite breccia. Sulphides present.	
	34.75	35.05	MTSD	100	100	4	W1	0.5	0		
35	35.05	35.38	LC	0	0			20	33	Entire drill run is missing 33cm. Could be lost core or possibly washout at fault zones within drill run as fault zones include clay infill and rubble.	
	35.38	35.58	MTSD	100	0	3	W1	2	5		
36	35.58	36.43	MTSD	100	98	4	W1	3	4	Large broken core zone that was blocked 2 times during drilling. Blocking occurred at approximately 36.50m and 37.00m. Areas of broken core zone could account for lost core in drill run. Broken core occurred along randomly oriented joints as well as some foliated zones. Orientation line was able to be drawn back from the end of run by matching up rock with foliation line pattern. Rock does not sit flush together at end of run. Orientation reliability is 2. Some alteration of minerals within foliation and microdefects. Two breaks were noticed along microdefects with mineral coating. Rock is very brittle in some zones.	
37	36.43	37.07	MTSD	100	0	3	W1	20	66		
	37.07	38.22	MTSD	100	51	3	W1	6	23		

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
30.82	JN	49		3	6	1	8
30.90	JN	50		3	6	1	8
31.00	JN	30		3	20	3	4
31.34	FOL	39		3	25	3	1
31.60	FOL	37		3	6	1.5	4
32.05	FOL	48		3	6	1.5	4
32.38	FOL	39		3	6	1.5	4
32.44	JN	69		3	6	1	8
33.24	FLT			3	0	1	15
33.33	JN	24		3	12	1.5	4
33.43	FLT	49		3	0	1	15
33.47	JN	65		3	12	1.5	4
33.52	FOL	42		3	12	1	4
33.58	JN	38		3	20	1.5	1
34.06	JN	76		3	20	1.5	1
34.15	JN	41		3	12	1	4
34.28	FLT				0	1	15
34.41	FOL	28		3	12	1.5	4
34.47	JN	64		3	6	1	8
34.70	FLT	44		3	0	1	15
35.22	LC			3	0	0.5	20
35.38	FOL	56		3	12	1.5	4
35.41	FOL	57		3	12	2	4
35.45	FOL	56		3	20	2	1
35.50	FOL	52		3	12	1	1
35.58	FOL	47		3	12	1	2
35.59	BC	56		3	20	1.5	2
35.99	VNO	84		3	25	3	3
36.61	FOL	38		3	20	1.5	1
36.75	BC			3	0	1	5
36.93	JN	32		3	20	2	1
37.07	FOL	37	18	2	12	1	1
37.13	FOL	41	16	2	12	1	1
37.17	FOL	34	6	2	12	1	1
37.24	FOL	29	348	2	12	1	1
37.30	BC			3	12	1	1
37.41	JN	59	246	2	20	2	3
37.46	FOL	32	327	2	12	1	1

Zones	Lost Core	Fault zone	Broken Core

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Geotechnical Interval Data

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments
38	37.07	38.22	MTSD	100	51	3	W1	6	23	Orientation line was able to be drawn back from the end of run by matching up rock with foliation line pattern. Rock does not sit flush together at end of run. Orientation reliability is 2. Some alteration of minerals within foliation and microdefects. Two breaks were noticed along microdefects with mineral coating. Rock is very brittle in some zones. Lost core could be due to broken core zones within run.
	38.22	38.58	LC	0	0			20	36	
39										
40	38.58	41.49	MTSD	100	85	3	W2	6	24	Core becomes more foliated schist at approx 40.47m. Rock is very brittle in some zones.
41										
42										
43	41.49	44.40	MTSD	100	67	5	W1	6	30	Short run could be due to broken core zone at end of run.
44	44.40	44.58	LC	0	0			20	18	Lost core or shortened drill run due to broken core zone.
	44.58	47.46	MTSD	100	75	4	W1	12	32	Shortened run could be due to broken rock zone. Rock is brittle and schisty.

Hydraulic Conductivity (m/s)

Discontinuities

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
37.63	FOL	31	321	2	12	1	1
37.68	JN	54	117	2	20	3	4
37.69	JN	66	114	2	20	3	4
37.86	FOL	49	332	2	12	1	1
37.99	BC			3	20	3	4
38.02	FOL	44	329	2	12	1	4
38.06	FOL	21	19	2	12	1	1
38.19	FOL	36	289	2	20	1.5	2
38.22	FOL	34	18	2	20	1.5	1
38.40	LC			3	0	0.5	20
38.58	FOL	38		3	20	2	1
38.83	JN	72		3	20	1.5	3
39.09	FOL	54		3	20	2	1
39.35	FOL	50		3	12	1	1
39.41	FOL	46		3	12	1	1
40.01	FOL	31		3	20	2	1
40.19	JN	76		3	25	3	1
40.27	FOL	18		3	20	3	4
40.33	JN	17		3	25	3	1
40.47	VNO	41		3	12	1	2
40.78	JN	51		3	12	1	4
40.92	FOL	51		3	20	1.5	1
40.97	FOL	39		3	20	1.5	3
41.05	FLT	58		3	0	0.5	15
41.11	FOL	42		3	25	3	1
41.25	FOL	46		3	25	3	2
41.27	BC			3	0	1	5
41.49	FOL	39		3	25	3	2
41.65	JN	29		3	25	3	2
41.74	FOL	44		3	12	1	1
41.77	FOL	46		3	12	1	1
41.85	JN	69		3	25	3	1
41.93	FOL	44		3	20	1.5	1
42.04	FOL	42		3	20	1.5	1
42.08	FOL	41		3	20	1.5	3
42.20	JN	51		3	25	3	1
42.23	JN	49		3	20	2	1
42.27	FOL	47		3	20	2	1
42.32	JN	56		3	20	1.5	3
42.35	FOL	49		3	20	1.5	2
42.39	FOL	51		3	25	3	1
42.44	JN	69		3	20	2	1
42.55	FOL	37		3	12	1.5	4
42.65	JN	55		3	12	1.5	4
42.68	FOL	44		3	20	1.5	1
42.72	JN	48		3	25	3	1
42.86	FOL	41		3	20	1.5	1
43.11	FOL	42		3	20	2	1
43.47	FOL	42		3	12	1	4
43.67	FOL	40		3	20	2	1
44.08	JN	31		3	25	3	1
44.29	BC			3	25	3	1
44.49	LC			3	0	0.5	20
44.67	BC			3	20	1.5	1
44.87	JN	64		3	25	3	1
45.01	FOL	38		3	12	1	1

Zones

Lost Core	Fault zone	Broken Core
■		
■		

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Geotechnical Interval Data

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
46	44.58	47.46	MTSD	100	75	4	W1	12	32	Shortened run could be due to broken rock zone. Rock is brittle and schisty.	
47	47.46	47.58	LC	0	0			20	12	Lost core could be due to broken core zones.	
48	47.58	48.98	MTSD	100	88	4	W1	6	10	From 47.85m to 48.00m is fine grained metasediment interbedding.	
49	48.98	50.58	PEG	100	74	4	W1	6	14	Pegmatite.	
51	50.58	53.58	PEG	100	92	4	W1	6	16		

Discontinuities

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
45.14	FOL	18		3	20	1.5	1
45.16	JN	79		3	25	3	1
45.20	JN	57		3	25	3	1
45.30	JN	72		3	25	3	1
45.38	FOL	46		3	25	3	1
45.43	JN	87		3	25	3	1
45.49	FOL	33		3	12	1	1
45.69	FOL	38		3	20	1.5	1
45.96	BC		44	3	20	1.5	1
46.04	FOL	46	61	1	6	1	8
46.46	FOL	41	352	1	20	2	1
46.60	JN	42	151	1	25	3	1
46.87	FOL	36	332	1	25	3	1
47.20	JN	41	173	1	25	3	2
47.24	JN	43	139	1	6	1	8
47.46	FOL	39	296	1	20	1.5	1
47.52	LC			3	0	0.5	20
47.58	BD	26	325	2	25	3	1
47.73	JN	71	100	2	25	3	3
47.89	BD	36	340	2	6	0.5	2
48.04	JN	75	154	2	25	3	2
48.52	JN	39	275	2	25	3	2
48.69	BD	40	315	2	25	3	2
48.69	BD	40	345	2	20	3	4
48.78	BD	54	320	2	25	3	2
48.89	BD	52	350	2	25	3	2
48.92	FLT	53	30	2	0	1	15
49.02	JN	47	25	2	25	3	2
49.04	JN	47	265	2	25	3	2
49.12	JN	78	30	2	25	3	2
49.24	JN	33	310	2	25	3	2
49.27	JN	54	205	2	6	1	4
49.96	JN	75	210	2	25	3	2
50.33	JN	78	30	2	25	3	2
50.39	BC			3	0	1	5
50.46	JN	35		3	25	3	2
50.52	JN	58		3	25	3	2
50.58	JN	32		3	25	3	3
51.03	JN	37	140	2	25	3	1
51.08	JN	39	130	2	20	3	4
51.11	JN	54	0	2	20	3	4
51.46	JN	52	130	2	20	3	4
51.57	JN	40	20	2	20	3	4
51.78	JN	37	20	2	25	3	1
51.91	JN	54	70	2	20	3	4
52.09	JN	69	180	2	20	3	4
52.15	JN	57	250	2	25	3	1
52.17	FLT	59	120	2	0	1	15

Zones

Lost Core	Fault zone	Broken Core
■		

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
53	50.58	53.58	PEG	100	92	4	W1	6	16		
54	53.58	54.69	PEG	100	100	4	W1	1	2		
55	54.69	55.75	FLT	100	17	1	W1	20	88	Fault zone. Rock is severely sheared and altered. Some surfaces have chlorite alteration or lots of mica. Clay infilled and rubble in areas. Able to log some joints in the faulted zone.	
56	55.75	56.25	PEG	100	80	2	W1	1	11	This interval is pegmatitic and still within the fault zone but is more intact rock. Broken core at bottom of run is due to lifter case being pulled off.	
	56.25	56.58	PEG	100	100	4	W1	1	2		
57	56.58	58.03	PEG	100	83	2	W1	6	12	Lots of mica and most joints coated in muscovite.	
58	58.03	59.58	PEG	100	91	4	W1	3	5	Stronger than previous interval and very reddish pink with large pegmatitic crystals and lots of mica.	
59	59.58	62.58	PEG	100	100	4	W1	3	8	Competent pegmatite with fewer fractures.	

Discontinuities							
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
52.75	JN	53	120	2	25	3	1
52.88	JN	72	150	2	20	1.5	1
54.28	JN	23		3	25	3	1
54.66	JN	36		3	25	3	1
54.69	JN	51		3	6	1	8
54.86	JN	33		3	6	1	8
54.93	JN	45		3	20	3	4
55.10	FLT	32		3	0	1	15
55.67	FLT	35		3	0	1	15
56.05	JN	33		3	6	1	8
56.20	BC				0	1	5
56.36	JN	37		3	20	3	4
56.56	JN	62		3	20	3	4
56.74	JN	45		3	20	3	4
56.86	JN	49		3	20	3	4
56.92	JN	50		3	25	3	1
57.00	JN	50		3	20	3	4
57.12	JN	44		3	25	3	1
57.14	JN	58		3	20	3	4
57.18	JN	59		3	20	3	4
57.36	JN	59		3	0	1	10
57.51	JN	35		3	20	3	4
57.55	JN	77		3	20	3	4
57.70	JN	54		3	0	1	10
57.88	JN	20		3	20	3	4
58.21	JN	45		3	25	3	1
58.52	JN	58		3	25	3	1
58.73	JN	30		3	20	3	4
58.77	JN	75		3	25	3	1
59.38	JN	45		3	20	3	4
59.70	JN	33		3	20	3	4

Zones		
Lost Core	Fault zone	Broken Core
	■	

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
61	59.58	62.58	PEG	100	100	4	W1	3	8	Competent pegmatite with fewer fractures.		60.18	JN	73		3	25	3	1			
												60.76	JN	55		3	20	3	4			
												60.87	JN	40		3	20	3	4			
62												61.73	JN	67		3	25	3	1			
												62.13	CLF	49		3	25	4	0.75			
												62.23	CLF	48		3	25	4	0.75			
												62.43	JN	36		3	20	3	4			
63	62.58	65.58	PEG	100	87	4	W1	3	15			62.59	JN	76		3	20	3	4			
												62.64	JN	60		3	20	3	4			
												62.70	JN	41		3	25	3	1			
												62.73	JN	48		3	20	3	4			
												62.76	JN	68		3	20	3	4			
												62.81	JN	35		3	20	3	4			
												62.99	JN	43		3	20	3	4			
												63.03	JN	59		3	25	3	1			
64												63.33	JN	23		3	20	3	4			
												63.38	JN	58		3	25	3	1			
												63.71	JN	68		3	20	3	4			
65												64.56	JN	56		3	25	3	3			
												65.20	JN	48		3	25	3	3			
												65.26	JN	56		3	20	3	4			
												65.29	JN	46		3	25	3	1			
66	65.58	68.58	PEG	100	95	4	W1	3	4													
67																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
68	65.58	68.58	PEG	100	95	4	W1	3	4		
69											
70	68.58	71.58	PEG	100	98	4	W1	6	12		
71											
72	71.58	72.68	MTSD	100	22	2	W1	6	40	Blocked run of very weak metasediments. These are heavily foliated with a very broken zone.	
73	72.68	74.28	MTSD	100	87	3	W1	6	16		
74	74.28	74.58	MTSD	100	100	3	W1	1	2		
75	74.58	75.88	MTSD	100	58	3	W1	6	31		

Discontinuities							
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
67.53	JN	30		3	12	1.5	4
67.57	JN	56		3	20	3	4
67.63	JN	31		3	12	2	4
68.54	JN	23		3	20	3	4
68.84	JN	43	190	1	25	3	1
69.74	JN	38	120	1	20	3	4
69.77	JN	55	140	1	20	3	4
69.96	JN	58	140	1	12	2	4
70.24	JN	47	320	1	25	3	1
70.52	JN	64	150	1	20	3	4
70.65	JN	42	270	1	20	3	4
70.74	JN	36	190	1	25	3	1
71.00	JN	34	280	1	20	3	4
71.12	JN	36	350	1	25	3	1
71.37	JN	33	260	1	20	3	4
71.56	JN	41	320	1	20	3	4
71.72	BC	42		3	0	1	15
71.85	JN	67		3	20	3	4
71.94	BC	55		3	0	1	15
72.05	JN	36		3	20	3	4
72.10	JN	52		3	20	3	4
72.19	JN	47		3	6	1	8
72.21	JN	60		3	20	3	4
72.26	FOL	41		3	20	3	4
72.34	JN	28		3	20	3	4
72.45	JN	25		3	20	3	4
72.46	FOL	50		3	20	3	4
72.50	JN	15		3	20	3	4
72.57	BC	70		3	20	3	4
72.69	FOL	44		3	20	3	4
72.79	FOL	39		3	20	3	4
72.79	JN	71		3	20	3	4
72.97	JN	31		3	20	3	4
73.08	FOL	36		3	20	3	4
73.25	JN	76		3	20	3	4
73.29	FOL	33		3	12	1	4
73.33	FOL	36		3	20	3	4
73.41	FOL	35		3	20	3	4
73.49	CON	30			25	4	0.75
73.61	CON	29			25	4	0.75
73.64	FOL	38		3	20	3	4
74.09	JN	38		3	20	3	4
74.23	JN	23		3	20	3	4
74.26	BC	35		3	20	3	4
74.30	JN	14	270	2	20	3	4
74.40	JN	33	140	2	20	3	4
74.70	BC	28		3	0	1	15
74.82	FOL	38		3	20	2	1

Zones		
Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
76	74.58	75.88	MTSD	100	58	3	W1	6	31	Foliated metasediments with the presence of disseminated hematite(small crystals) in the leucocratic layers.	
77	75.88	77.58	MTSD	100	100	3	W1	6	4		
78	77.58	80.58	MTSD	100	100	3	W1	6	8		
80	80.58	82.00	MTSD	100	100	3	W2	3	5		
82	82.00	82.60	MTSD	100	0	3	W2	3	10	Highly fractured area with the presence of disseminated hematite.	

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
75.10	FOL	40		3	20	3	4
75.22	JN	19		3	20	3	4
75.28	JN	57		3	0	1	15
75.41	JN	45		3	20	3	4
75.48	JN	40		3	20	3	4
75.57	BC	65		3	0	1	15
75.71	BC	80		3	0	1	15
75.88	FOL	44		3	20	3	4
76.11	JN	28	150	1	25	3	1
76.37	JN	20	340	1	20	3	4
76.80	FOL	43	10	1	20	3	4
77.20	FOL	43	350	1	12	2	4
78.02	FOL	50	350	1	12	2	4
78.16	JN	10	0	1	12	2	4
78.29	FOL	31	330	1	12	2	4
78.39	FOL	38	340	1	12	2	4
78.75	FOL	50	340	1	12	2	4
78.89	FOL	45	340	1	12	2	4
80.09	FOL	52	340	1	12	2	4
80.34	FOL	65	340	1	12	2	4
81.26	FOL	47		3	12	1.5	4
81.37	JN	40		3	25	3	1
81.54	FOL	48		3	12	1.5	4
81.88	FOL	49		3	12	1.5	4
82.00	FOL	49		3	12	1.5	4
82.04	FOL	50		3	12	1.5	4
82.12	BC			3	0	1	5
82.13	FLT	48		3	6	0.5	4
82.24	FOL	42		3	20	3	4
82.30	FOL	44		3	12	1.5	4
82.39	FOL	44		3	12	1.5	4
82.47	FOL	45		3	12	1.5	4

Zones	Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
	82.00	82.60	MTSD	100	0	3	W2	3	10	Highly fractured area with the presence of disseminated hematite.		82.60	FOL	52		3	20	1.5	1			
83	82.60	83.58	MTSD	100	79	3	W2	3	6	Presence of iron oxides and a 20cm long quartz-rich zone present in the interval.		82.99 83.07 83.10 83.20 83.25 83.33 83.47 83.51	CON JN JN CON FOL FOL FLT FLT	 56 55 54 46 55 50	 	 3 3 3 3 3 3	25 25 25 25 12 12 12 0	4 3 3 4 1.5 1.5 1.5 1	0.75 1 1 0.75 4 4 4 15			
84	83.58	86.17	MTSD	100	73	3	W1	3	30			83.88 84.03 84.25 84.34 84.43 84.67 85.01 85.19 85.36 85.45 85.54 85.59 85.78	FOL JN BC BC BC FOL JN BC FOL FOL FOL FOL FOL	30 47 57 50 43 41 50 46 55 53 46	54 97 4 	2 2 2 3 3 3 3 3 3 3 3	20 12 0 20 0 20 25 12 20 20 20 20 20	1.5 1.5 1 2 1 1.5 3 1 1.5 1.5 2 2 2	1 4 5 1 5 1 1 1 1 1 1 1 1			
86	86.17	87.14	MTSD	100	100	3	W1	3	3			86.44 86.78 86.99	JN JN FOL	22 14 37	 	3 3 3	20 20 25	1.5 1.5 3	1 1 1			
87	87.14	88.36	MTSD	100	34	2	W2	20	34	Lots of broken core and rubble in this geotechnical interval.		87.15 87.24 87.30 87.31 87.42 87.54 87.67 87.81 87.89 88.03 88.10 88.37 88.38 88.44 88.51 88.71 88.81	BC JN JN JN BC BC BC JN BC FOL FOL BC JN JN JN BC JN	62 53 51 73 74 50 60 42 40 39 36	 358	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 2	0 20 20 20 12 0 0 20 0 25 20 20 12 20 20 0 20	1 2 2 2 2 1 1 2 1 3 2 2 1.5 1.5 2 1 1.5	5 1 1 1 4 5 5 1 5 1 3 1 4 1 1 5 1			
88	88.36	89.58	MTSD	100	77	3	W1	3	13			89.35	JN	10	357	2	20	3	4			
89	89.58	90.46	MTSD	100	70	3	W1	6	27			89.79 89.81 89.92	FOL JN BC	62 49 	102 28 	2 2 3	20 25 25	2 3 3	1 1 2			
90																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
91	89.58	90.46	MTSD	100	70	3	W1	6	27	Granite interfingering in metasediments. Alteration at upper contact where rock is foliated granite with chlorite. Bottom contact is sharp.		90.03	FOL	61	48	1	20	3	4			
												90.23	FOL	41	58	1	20	1.5	1			
												90.42	FOL	55	58	1	25	3	1			
												90.46	CON	48			25	4	0.75			
	90.46	90.88	MTSD	100	100	5	W2	1	2			90.54	JN	78	46	1	25	3	1			
												90.88	CONO	61	52	1	12	1	4			
												90.93	FLT	68	78	1	0	0.5	15			
												91.01	FOL	62	68	1	25	3	1			
												91.02	JN	74	26	1	25	3	1			
												91.05	FOL	61	9	1	25	3	1			
												91.27	FLT	31	72	1	20	3	4			
												91.33	JN	66	89	1	25	3	1			
												91.45	FOL	52	38	1	25	3	1			
												91.59	FOL	62	30	1	20	1.5	1			
												91.62	JN	69	116	1	20	3	4			
92	90.88	92.67	MTSD	100	82	3	W1	6	12			92.50	JN	26	179	2	12	1.5	4			
												92.60	FOL	64	17	1	20	1.5	2			
93												93.01	JN	69	195	1	20	3	4			
												93.47	FOL	54	6	1	20	1.5	1			
												93.58	FOL	51	354	1	20	1.5	1			
												93.86	JN	80	358	1	25	3	1			
94	92.67	95.67	MTSD	100	100	5	W1	3	8	More competent metasediments. Pyrite is indication of sulphides present.		94.39	JN	49	336	1	20	1.5	1			
95												94.98	FOL	54	354	1	20	1.5	1			
												95.35	FOL	52	358	1	20	1.5	1			
												95.52	JN	24	238	1	25	3	1			
96	95.67	96.18	MTSD	100	100	3	W1	0.5	0	Fine grained.	9 E-07 (93.9 - 146.6)											
												96.33	JN	67	190	2	25	3	2			
												96.40	CLF				25	4	0.75			
97	96.18	98.58	MTSD	100	100	3	W2	6	7	Occasional zones of finer grained rock with many microdefects.		96.90	JN	63	350	2	12	1	4			
												97.15	FOL	47	335	2	25	3	1			
												97.35	JN	39	140	2	20	3	4			
												97.45	JN	57	0	2	20	1.5	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Golder Associates

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
98	96.18	98.58	MTSD	100	100	3	W2	6	7	Occasional zones of finer grained rock with many microdefects.	
99											
100	98.58	101.58	MTSD	100	100	4	W2	6	9	Similar to previous interval, but joints are more coated with a white material that is hard but feels kind of talc-like when scraped into a powder.	9 E-07 (93.9 - 146.6)
101											
102	101.58	102.94	MTSD	100	96	5	W2	1	3		
103	102.94	104.58	MTSD	100	100	5	W1	4	6		
104											
105	104.58	107.58	MTSD	100	99	4	W1	6	8		

Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
97.65	FOL	47	0	2	25	3	2
98.42	FOL	40	0	2	25	3	2
98.79	FOL	66	55	2	25	3	3
99.14	JN	39	105	2	6	1.5	4
99.25	FOL	47	310	2	20	3	4
99.48	FOL	52	15	2	25	3	3
99.79	JN	49	205	2	20	1.5	3
100.58	JN	55	340	2	6	1	4
101.40	JN	47	145	2	6	1	6
101.65	JN	47	130	2	25	3	3
101.73	JN	58	120	2	25	3	3
102.33	JN	37	70	2	25	3	3
103.05	FOL	40	330	2	6	0.5	4
103.14	JN	54	120	2	12	1.5	4
103.40	FOL	49	340	2	20	1.5	3
103.89	JN	52	160	2	20	3	4
104.03	FOL	51	350	2	20	3	4
104.32	JN	39	150	2	25	3	3

Zones	Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
106	104.58	107.58	MTSD	100	99	4	W1	6	8		
107											
108	107.58	110.58	MTSD	100	92	5	W1	6	22		9 E-07 (93.9 - 146.6)
109											
110											
111	110.58	112.15	MTSD	100	100	4	W1	3	2		
112	112.15	113.58	MTSD	100	100	3	W2	3	2		

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
105.04	JN	50	140	2	25	3	3			
105.88	JN	54	120	2	20	3	4			
106.16	JN	48	280	2	20	3	4			
106.37	JN	35	230	2	20	3	4			
106.57	JN	37	100	2	20	1.5	3			
106.80	JN	22	230	2	20	3	4			
107.08	FOL	49	330	2	25	3	1			
107.10	FOL	51	330	2	20	3	4			
107.70	FLT	38		3	0	1	15			
107.87	JN	50		3	20	3	4			
107.89	JN	59		3	20	3	4			
108.80	JN	35		3	12	2	4			
108.86	JN	64		3	6	1	6			
108.98	JN	42		3	20	3	4			
109.13	JN	36		3	20	3	4			
109.35	JN	36		3	12	1	4			
109.62	JN	58		3	25	3	3			
109.76	FOL	34		3	12	2	4			
109.93	FOL	50		3	12	1	1			
110.49	CLF	41		3	25	4	0.75			
110.51	FOL	58		3	12	1	4			
111.16	JN	16	230	1	25	3	3			
111.68	FOL	45	320	1	20	2	3			
112.17	JN	19	110	1	20	3	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
113	112.15	113.58	MTSD	100	100	3	W2	3	2		
114											
115	113.58	116.58	MTSD	100	97	3	W2	3	9		
116											9 E-07 (93.9 - 146.6)
117											
118	116.58	119.58	MTSD	100	97	3	W2	3	6		
119											
120	119.58	122.58	MTSD	100	86	4	W1	6	18		

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
112.80	CLF	76	160	1	25	4	0.75			
113.37	JN	52	140	1	6	1	8			
114.12	JN	16	258	2	12	2	4			
114.29	FOL	42	2	2	12	1	1			
114.52	JN	67	170	2	6	1	8			
114.54	JN	85	238	2	20	3	4			
114.65	JN	57	159	2	6	1	6			
115.11	JN	50	127	2	12	1.5	4			
115.55	JN	74	81	2	6	1	8			
115.62	JN	69	125	2	20	3	4			
116.56	JN	64	180	2	6	1	8			
117.29	FOL	30	340	1	12	1	1			
118.28	JN	36	200	1	20	3	4			
118.29	FOL	41	40	1	20	3	4			
119.11	FOL	36	0	1	12	1	4			
119.20	FOL	30	0	1	20	1.5	3			
119.44	FOL	28	330	1	20	1.5	3			
119.67	JN	30	250	1	20	3	4			
119.98	JN	28	260	1	6	1	8			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
121	119.58	122.58	MTSD	100	86	4	W1	6	18		
124	122.58	125.58	MTSD	100	96	4	W1	6	11		9 E-07 (93.9 - 146.6)
127	125.58	128.58	MTSD	100	81	4	W1	6	22	Some areas have massive structure but the majority is foliated. At 127.22m to 127.34m there is an altered zone of metasediment, which is more light green in colour.	

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
120.41	JN	64	160	1	6	1	8
120.47	JN	65	160	1	6	1	8
120.52	JN	31	130	1	12	1.5	4
120.71	JN	20	270	1	20	3	4
121.21	JN	56	170	1	20	3	4
122.16	JN	26	350	1	12	1	4
122.24	JN	36	140	1	20	3	4
122.28	FOL	40	230	1	6	1	8
122.36	BC	25	240	1	0	1	5
122.40	FOL	40	230	1	20	3	4
122.79	JN	36	230	1	20	3	4
123.24	JN	75	160	1	12	1.5	4
123.27	JN	66	130	1	12	1	4
123.40	FOL	30	340	1	25	3	3
123.49	JN	21	240	1	12	1	4
123.63	JN	23	220	1	12	1	4
123.77	JN	25	250	1	20	3	4
123.97	JN	36	240	1	25	3	1
124.19	JN	42	220	1	12	1	4
124.73	JN	25	240	1	12	1.5	4
124.85	JN	64	120	1	20	3	4
125.72	JN	45	290	1	25	3	1
125.79	JN	34	232	1	12	1.5	3
125.94	JN	54	160	1	20	3	4
126.54	JN	45	160	1	6	1	4
126.88	FOL	48	0	1	12	2	4
127.01	JN	32	250	1	6	1	8
127.04	FOL	38	0	1	12	1	4
127.15	JN	62	230	1	25	3	3
127.17	FOL	42	340	1	12	1	4
127.21	FOL	40	340	1	12	1	4
127.27	FOL	33	280	1	25	3	1
127.29	JN	9	270	1	25	3	3
127.48	FOL	26	305	1	20	3	4

Zones: Lost Core, Fault zone, Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
128	125.58	128.58	MTSD	100	81	4	W1	6	22	Some areas have massive structure but the majority is foliated. At 127.22m to 127.34m there is an altered zone of metasediment, which is more light green in colour.	
129											
130	128.58	131.58	MTSD	100	73	4	W1	6	27	Sections of pegmatite in the metasediments (logged as contacts). Areas of massive and foliated metasediments (majority foliated). The metasediments are altered but strength remains the same.	9 E-07 (93.9 - 146.6)
131											
132											
133	131.58	134.58	MTSD	100	92	4	W1	6	9		
134											
135	134.58	135.90	MTSD	100	96	4	W2	1	2	Metasediments with widespread closed microcracks that are potentially filled by clay. Some mechanical breaks occur along those cracks.	

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
127.58	JN	21	250	1	20	3	4
127.59	JN	63	160	1	20	3	4
127.64	JN	54	180	1	25	3	1
127.95	FOL	41	0	1	12	1	4
128.01	JN	67	0	1	25	3	1
128.15	JN	74	340	1	25	3	3
128.22	FOL	42	340	1	12	1	1
128.24	FOL	42	340	1	12	1	1
128.36	FOL	42	340	1	12	1	2
128.87	FOL	46	320	2	12	1.5	4
128.95	FOL	37	320	2	12	1	4
129.07	JN	5	0	2	20	2	1
129.14	FLT	32	300	2	0	1	15
129.25	FOL	42	340	2	12	1	1
129.43	JN	31	240	2	25	3	3
129.48	FOL	28	330	2	20	3	4
129.67	JN	28	20	2	25	3	1
129.86	FOL	42			20	3	4
129.87	CON	58	0	2	25	4	0.75
130.02	CON	71			25	4	0.75
130.16	CON	46			25	4	0.75
130.22	JN	3	50	2	20	3	4
130.32	CON	52			25	4	0.75
130.48	FOL	56	50	2	12	1.5	4
130.51	JN	37	70	2	12	2	4
130.58	JN	76	100	2	25	3	3
130.63	JN	45	20	2	12	1	4
130.70	JN	45	140	2	25	3	1
130.82	FLT	55	140	2	0	1	15
130.99	JN	43	290	2	6	1	6
131.11	JN	36	90	2	25	3	3
131.25	JN	28	80	2	25	3	3
131.30	FOL	38	60	2	25	3	1
131.38	FOL	45	60	2	25	3	1
131.84	JN	69	0	2	20	3	4
132.89	JN	46	120	2	20	3	4
132.96	JN	61	90	2	6	1	8
133.05	FOL	35	60	2	12	1	1
133.53	FOL	56	60	2	12	1	4
133.95	FOL	83	100	2	12	2	4
134.05	JN	22	80	2	12	2	4
134.09	FOL	60	80	2	20	1.5	1
134.14	JN	45	30	2	20	3	4
134.63	JN	29	171	2	25	3	2
134.83	JN	25	148	2	25	3	2

Zones	Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Golder Associates

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
				25. 50. 75. 100.	25. 50. 75. 100.						
136	134.58	135.90	MTSD	100	96	4	W2	1	2	Metasediments with widespread closed microcracks that are potentially filled by clay. Some mechanical breaks occur along those cracks.	
	135.90	136.68	MTSD	100	100	5	W2	1	4	Quartz-rich pegmatite.	
137	136.68	137.53	MTSD	100	51	3	W2	6	9	Strongly altered metasediments. The structure ranges from massive with porphyritic texture to foliated. Strong alteration induced by the pegmatite and granitoid.	
138	137.53	138.64	MTSD	100	100	3	W2	3	5	Highly foliated metasediments.	
139	138.64	139.18	FLT	100	0	2	W2	20	54	Highly foliated rock with several faults along it.	9 E-07 (93.9 - 146.6)
	139.18	139.60	MTSD	100	71	4	W2	1	3	Altered metasediments with widespread oxide and chloritic alteration within the contact.	
140	139.60	140.26	MTSD	100	0	2	W2	12	66	Broken core zone. Overall planar and smooth surfaces completely coated by chlorite.	
	140.26	140.62	MTSD	100	100	4	W2	1	1	Interval consists of foliated metasediments and massive pegmatite. The fault logged in this interval defines the contact between the metasediments and the pegmatite.	
141	140.62	141.97	MTSD	100	85	4	W1	3	10	Top of run is broken. Some breaks are mechnical and some may be joints.	
142	141.97	142.21	MTSD	100	100	5	W1	0.5	0		
	142.21	143.58	MTSD	100	95	4	W1	1	4		

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
135.90	CON	41			25	4	0.75			
136.03	JN	66	181	2	25	3	1			
136.25	JN	36	296	2	6	1	4			
136.53	JN	81	286	2	25	3	1			
136.68	JN	75	201	2	20	1.5	2			
136.68	CONO	29	122	2	25	3	2			
136.72	JN	45	145	2	20	3	4			
136.92	JN		100	2	12	1.5	4			
136.96	JN	81	223	2	20	1.5	1			
136.98	JN	76	98	2	25	3	1			
137.06	JN	80	0	2	25	3	1			
137.09	JN	90	351	2	12	2	4			
		21								
137.38	JN	54	264	2	25	3	2			
137.41	JN	80	199	2	25	3	1			
137.87	JN	79	92	2	12	1.5	4			
137.98	JN	30	140	2	20	3	4			
138.10	JN	52	42	2	12	1.5	4			
138.32	FOL	29	350	2	12	1	4			
138.64	FLT	39	0	2	6	0.5	4		■	
138.76	BC			3	6	0.5	4		■	
138.90	FLT	20	240	2	0	0.5	15		■	
139.05	BC	22		3	6	0.5	4		■	
139.18	FLT	31	180	2	6	0.5	4			
139.50	JN	48	180	2	12	2	4			
139.54	JN	89	0	2	12	1.5	4			
139.60	JN	12	220	2	12	1	4			■
139.93	BC				12	1	4			■
140.46	FLT	49		3	0	1	10			
140.63	JN	17	50	1	25	3	2			
140.71	FOL	34	20	1	20	3	4			
141.79	FOL	66	25	1	25	3	2			
141.80	FOL	58	30	1	25	3	2			
141.96	FOL	61	15	1	20	1.5	2			
142.21	CONO	40	30	1	25	3	2			
142.47	FOL	41	5	1	25	3	2			
142.54	JN	81	70	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
143	142.21	143.58	MTSD	100	95	4	W1	1	4		
144	143.58	145.24	MTSD	100	100	4	W1	1	3	Fine to medium grained, interbedded.	9 E-07 (93.9 - 146.6)
145	145.24	145.84	MTSD	100	0	4	W1	20	40	Broken rock along near vertical joint.	
146	145.84	146.58	MTSD	100	65	4	W1	3	6		
147	146.58	149.58	MTSD	100	82	4	W1	3	9		3 E-07 (144.9 - 251.6)
149	149.58	152.58	MTSD	100	100	5	W1	6	5	Required many hits to break along foliation.	

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
143.45	FOL	26	5	1	25	3	2			
143.90	FOL	29	25	1	12	1	2			
144.22	JN	48	80	1	25	3	2			
144.85	JN	70	115	1	25	3	2			
145.54	BC	33	350	1	12	1	2			
145.93	FOL	30	345	1	12	1	4			
146.21	FOL	32	350	1	25	3	1			
146.31	FOL	37	350	1	25	3	2			
146.51	JN	72	40	1	20	1.5	3			
146.54	FOL	34	350	1	25	3	2			
146.62	FOL	1	350	1	25	3	2			
146.90	JN	44	220	1	20	1.5	3			
147.16	FOL	31	0	1	20	3	4			
147.36	FOL	33	345	1	20	1.5	3			
147.61	FOL	33	350	1	6	1	8			
148.19	FOL	31	345	1	20	1.5	3			
148.58	JN	66	210	1	20	3	4			
148.97	FOL	31	345	1	25	3	3			
149.30	JN	14	25	1	6	1	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
151	149.58	152.58	MTSD	100	100	5	W1	6	5	Required many hits to break along foliation.	
152											
153	152.58	155.58	MTSD	100	100	5	W1	6	5		3 E-07 (144.9 - 251.6)
154											
155											
156	155.58	158.58	MTSD	100	87	5	W1	6	20	From 156.95m to 157.19m massive metasediment zone with strength R5.	
157											

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
150.50	FOL	41	330	2	20	2	2			
150.96	JN	51	145	1	25	3	2			
151.06	JN	26	175	1	25	3	2			
151.50	FOL	15	345	1	20	3	4			
151.95	JN	11	337	1	25	3	2			
152.63	FOL	20	0	2	25	3	1			
152.95	FOL	34	350	2	20	3	4			
153.30	FOL	20	350	2	12	2	4			
153.43	FOL	15	180	2	12	2	4			
154.96	FOL	21	350	2	12	2	4			
156.09	FOL	41	340	2	12	1	4			
156.70	FOL	50	350	2	12	1	4			
156.77	JN	12	245	2	20	3	4			
156.95	JN	53	330	2	12	1.5	4			
156.99	JN	31	310	2	12	2	4			
157.13	JN	31	280	2	20	1.5	3			
157.19	FOL	50	20	2	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
158	155.58	158.58	MTSD	100	87	5	W1	6	20	From 156.95m to 157.19m massive metasediment zone with strength R5.	
159	158.58	161.58	MTSD	100	92	5	W1	6	21	Some small areas of massive metasediments with few pegmatitic crystals in these massive areas. Very strong.	3 E-07 (144.9 - 251.6)
162	161.58	164.58	MTSD	100	99	5	W1	6	6	Some areas of massive metasediments but generally foliated.	
165	164.58	167.10	MTSD	100	62	4	W1	6	29		

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
157.86	JN	46	180	2	25	3	3
158.00	FOL	38	310	2	6	1	8
158.18	FOL	62	350	2	12	2	4
158.28	FLT	46	280	2	0	1	15
158.63	FOL	52	340	1	12	2	4
159.07	JN	5	240	1	25	3	1
159.38	FOL	37	310	1	12	1	4
159.53	FOL	53	90	1	25	3	3
159.60	JN	25	230	1	25	3	3
159.70	JN	45	180	1	25	3	1
160.52	JN	71	60	1	20	3	4
160.84	FOL	38	280	1	25	3	1
161.13	FOL	39	300	1	25	3	1
161.20	FLT	26	230	1	0	1	15
161.56	JN	46	180	1	20	3	4
161.57	FOL	39	340	1	20	1.5	1
162.24	JN	56	148	1	6	1	6
162.62	FOL	34	12	1	12	1	1
163.05	JN	58	88	1	12	1.5	4
163.58	FOL	33	12	1	12	1	2
163.90	JN	49	212	1	6	1	6
163.94	FOL	36	12	1	12	1	4
164.70	FOL	41	0	2	12	1	4
164.71	JN	46	190	2	20	3	4

Zones	Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Geotechnical Interval Data										Hydraulic Conductivity (m/s)
Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments
166	164.58	167.10	MTSD	100	62	4	W1	6	29	
167	167.10	167.58	MTSD	100	100	4	W1	3	1	
168	167.58	170.58	MTSD	100	91	5	W1	6	16	3 E-07 (144.9 - 251.6)
170	170.58	173.58	MTSD	100	87	5	W1	6	15	This interval is into more massive metasediments with slight foliation bands at top ~10cm of run.

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
165.10	JN	32	260	2	25	3	3			
165.18	FOL	33	10	2	25	3	1			
165.23	FOL	35	350	2	12	1	4			
165.37	FOL	35	350	2	12	1	1			
165.52	JN	27	120	2	6	1	8			
165.91	FOL	40	350	2	12	1	1			
166.02	JN	13	130	2	20	3	4			
166.23	FOL	36	350	2	20	2	3			
166.27	FOL	45	350	2	20	3	4			
166.35	JN	27	240	2	20	3	4			
166.38	FOL	35	340	2	12	2	4			
166.52	FOL	43	320	2	12	1	1			
166.56	JN	32	120	2	20	3	4			
166.65	FOL	42	340	2	12	1	4			
166.68	FOL	35	340	2	12	1	4			
166.72	FOL	47	340	2	12	1	1			
166.75	FOL	40	330	2	12	1	4			
166.79	FOL	44	330	2	12	1	1			
166.87	FOL	48	330	2	12	1	4			
166.94	FOL	48	330	2	12	1	1			
166.99	FOL	46	340	2	12	1	4			
167.08	BC	34		3	20	3	4			
167.22	JN	21		3	20	3	4			
167.58	FOL	33	330	1	12	2	4			
167.63	FOL	32	330	1	12	2	4			
167.92	FOL	44	330	1	12	1	1			
168.14	FOL	44	330	1	12	1	4			
168.28	JN	27	150	1	12	2	4			
168.38	FOL	39	340	1	12	1	1			
168.54	JN	60	140	1	20	3	4			
168.60	JN	63	140	1	20	3	4			
168.84	FOL	37	300	1	12	1	4			
168.90	JN	51	90	1	20	3	4			
169.01	CON	50			25	4	0.75			
169.11	CON	46			25	4	0.75			
169.45	JN	42	200	1	20	3	4			
169.64	JN	63	130	1	20	3	4			
169.68	FOL	33	325	1	12	1	4			
169.75	JN	71	350	1	20	3	4			
170.07	JN	60	200	1	20	3	4			
170.46	JN	1	90	1	6	1	4			
170.63	JN	9	90	1	20	3	4			
170.89	FOL	44	320	1	12	1	1			
170.94	JN	41	210	1	25	3	1			
171.03	JN	45	220	1	20	1.5	1			
171.04	JN	8	80	1	20	1.5	1			
171.10	JN	43	220	1	20	1.5	3			
171.23	JN	49	260	1	20	3	4			
171.48	JN	48	340	1	20	1.5	3			
171.58	FLT	54	140	1	0	1	15			
171.69	JN	46	200	1	12	1.5	4			
172.25	JN	16	220	1	25	3	3			
172.28	JN	31	220	1	25	3	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
173	170.58	173.58	MTSD	100	87	5	W1	6	15	This interval is into more massive metasediments with slight foliation bands at top ~10cm of run.	
174											
175	173.58	176.58	MTSD	100	91	5	W1	3	15		
176											3 E-07 (144.9 - 251.6)
177											
178	176.58	179.58	MTSD	100	81	5	W1	6	25	Rock begins as massive and becomes more foliated at approximately 178.75m. Rock joints are altered with chlorite.	
179											
180	179.58	182.58	MTSD	100	81	4	W1	6	24	Rock varies in strength between R4 and R5.	

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
173.00	JN	57	180	1	25	3	3
173.44	JN	38	340	1	20	1.5	1
173.63	FLT	41	220	2	0	1	15
173.72	JN	57	210	2	20	3	4
173.82	JN	50	240	2	20	3	4
173.98	JN	71	220	2	25	3	3
174.03	JN	22	0	2	20	3	4
174.05	JN	40	290	2	25	3	3
174.20	JN	25	50	2	25	3	3
174.82	CLF	56	220	2	25	4	0.75
174.85	JN	51	220	2	12	1.5	4
174.89	JN	49	220	2	20	3	4
176.36	JN	52	50	2	12	1.5	4
176.49	FLT	55	220	2	0	1	15
176.85	JN	58	204	2	20	1.5	3
177.05	JN	59	229	2	20	1.5	3
177.49	JN	64	202	2	6	1	6
177.54	JN	49	188	1	20	1.5	3
177.63	JN	50	181	2	12	1.5	4
177.64	JN	64	176	2	12	1.5	4
177.92	JN	71	178	2	20	1.5	3
178.00	VNO	16	148	2	25	3	3
178.02	FOL	48	184	2	20	1.5	1
178.41	JN	72	242	2	25	3	3
178.44	JN	68	162	2	20	1.5	3
178.83	FOL	36	351	2	20	1.5	1
179.30	FOL	46	332	2	20	1.5	1
179.40	FOL	43	342	2	20	1.5	1
179.48	FOL	46	351	2	20	1.5	2
179.53	BC			3	0	1	5
179.59	FOL	51	332	2	20	1.5	1
179.67	FOL	44	341	2	12	1	1
179.73	FOL	43	339	2	12	1	1
179.76	FLT	43	341	2	6	1	8
179.81	FOL	45	339	2	12	1	1
179.88	FOL	46	349	2	12	1	1
179.92	BC			3	20	1.5	1
179.96	FOL	41	342	1	20	3	4

Zones	Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
181	179.58	182.58	MTSD	100	81	4	W1	6	24	Rock varies in strength between R4 and R5.	
182	182.58	182.98	MTSD	100	78	5	W1	1	2	Iron oxide in alteration.	
183	182.98	183.36	MTSD	100	0	5	W1	15	12	Drill run was blocked at the end. Broken core with larger rock fragments, not crushed rock. Estimated 12 fractures.	
	183.36	183.66	MTSD	100	37	4	W1	2	3		
184	183.66	184.20	MTSD	100	0	3	W1	20	30	Drill run was blocked at end.	3 E-07 (144.9 - 251.6)
	184.20	184.66	MTSD	100	0	3	W1	20	46	Broken zone with some large pieces and also some crushed rock. Altered with sericite and mostly planar and rough.	
185	184.66	185.58	MTSD	100	91	4	W1	4	8	Foliated metasediments with some massive zones . Moderately altered with sericite. Strength varies between R3 and R4.	
186	185.58	188.55	MTSD	100	93	5	W1	3	22	Foliated metasediments with some massive zones. Lost orientation line at broken core zone. Very strong and slightly altered with sericite.	
187											

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
180.42	JN	64	352	1	25	3	1
180.51	JN	41	338	1	20	2	1
180.64	JN	46	329	1	25	3	1
180.99	JN	51	224	1	25	3	1
181.30	FOL	41	342	1	20	1.5	2
181.54	JN	26	298	1	25	3	1
182.00	JN	24	139	1	20	1.5	1
182.12	FOL	45	336	1	20	1.5	1
182.58	FOL	40	337	1	12	1	1
182.84	FOL	38	332	2	12	1	4
182.98	JN	21	160	2	12	1.5	4
183.17	BC			3	12	1.5	4
183.36	FOL	45		3	12	1	4
183.42	FLT	41		3	6	0.5	4
183.54	FLT	44		3	6	0.5	4
183.70	JN	16		3	12	2	4
183.76	BC			3	12	1	4
183.87	JN	12		3	12	2	4
184.06	FOL	37		3	12	1.5	4
184.12	BC			3	12	1	4
184.43	BC	31		3	12	1.5	4
184.77	FOL	39		3	20	2	2
184.99	FOL	42		3	20	2	2
185.01	JN	43		3	12	1	4
185.09	BC	41		3	0	1	5
185.24	FOL	37		3	20	2	2
185.24	FOL	41		3	20	2	2
185.90	FOL	43		3	20	2	2
186.18	FOL	35		3	20	2	2
186.40	BC			3	0	1	5
186.93	FOL	39	260	2	20	1.5	2

Zones	
Lost Core	
Fault zone	
Broken Core	

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
188	185.58	188.55	MTSD	100	93	5	W1	3	22	Foliated metasediments with some massive zones. Lost orientation line at broken core zone. Very strong and slightly altered with sericite.		188.17	BC	41	300	2	12	1	1			
												188.20	JN	10	290	2	20	2	2			
189												188.67	JN	45	280	2	12	1	1			
190	188.55	191.46	MTSD	100	100	5	W1	3	4	Moderately foliated metasediments. Very strong and slightly altered.		189.84	CLF	42	260	2	25	4	0.75			
												190.23	JN	54	45	1	20	2	2			
												190.56	JN	22	74	2	12	2	4			
191												190.79	JN	76	110	2	12	2	4			
											3 E-07 (144.9 - 251.6)	191.50	CLF	46	210	2	25	4	0.75			
												191.67	JN	41	220	2	12	1	2			
192												192.05	CLF	46	220	2	25	4	0.75			
193	191.46	194.58	MTSD	100	96	5	W1	3	4	Moderately foliated metasediments. Slightly altered with sericite and very strong.		193.03	JN	71	200	2	25	3	2			
194												194.07	JN	21	55	2	20	1.5	2			
												194.17	FOL	45	220	2	12	1	1			
195	194.58	195.75	MTSD	100	94	5	W1	2	2	Moderately foliated metasediments. Very strong.		195.03	JN	63	310	2	12	1	2			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
				25. 50. 75. 100.	25. 50. 75. 100.						
196	194.58	195.75	MTSD	100	94	5	W1	2	2	Moderately foliated metasediments. Very strong.	
	195.75	196.39	MTSD	100	95	4	W1	2	4	Highly foliated metasediments. Weaker and slightly altered with sericite.	
197	196.39	197.58	MTSD	100	100	5	W1	2	1	Moderately foliated metasediments. Very strong and slightly altered with sericite.	
198											
199	197.58	200.58	MTSD	100	99	4	W1	3	5	Moderately to highly foliated metasediments. Slightly to moderately altered with sericite.	3 E-07 (144.9 - 251.6)
200											
201	200.58	203.65	MTSD	100	94	5	W1	4	16	Moderately foliated metasediments that are slightly altered with sericite. Some zones are more foliated and brittle with microdefects with low angles.	
202											

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
195.10	JN	56	300	2	20	1.5	2			
195.83	FLT	71	315	2	0	1	15			
196.17	FOL	54	340	2	12	1	2			
196.48	FOL	56	350	2	12	1	4			
196.68	CLF	24	140	2	25	4	0.75			
197.97	FOL	69	330	1	12	1	2			
198.18	CLF	21	170	1	25	4	0.75			
198.29	FOL	58	320	1	25	3	2			
199.73	FOL	67	280	1	12	1	1			
199.75	JN	39	230	1	12	1	2			
200.43	FOL	69	320	1	12	1	2			
200.62	FOL	59	335	1	20	1.5	2			
200.77	FOL	51	330	1	12	1	4			
201.46	CLF	22	90	1	25	4	0.75			
201.80	CLF	11	120	1	25	4	0.75			
202.06	FOL	51	350	1	12	1	1			
202.13	JN	35	355	1	6	1	8			
202.29	JN	23	330	1	12	1	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
203	200.58	203.65	MTSD	100	94	5	W1	4	16	Moderately foliated metasediments that are slightly altered with sericite. Some zones are more foliated and brittle with microdefects with low angles.		202.74	BC	56	335	1	0	1	5			
												203.24	JN	66	340	1	12	1	2			
204	203.65	205.95	MTSD	100	100	4	W1	3	3	Brittle rock due to a moderate presence of microdefects. Moderately foliated with some undulations.		203.82	FOL	56	305	2	12	1	2			
205												205.58	FOL	60	280	2	20	2	1			
												205.92	JN	64	290	2	20	2	2			
206	205.95	206.58	MTSD	100	100	4	W1	0.5	0	Highly foliated metasediments. Strong but broke along foliation.	3 E-07 (144.9 - 251.6)											
												206.80	FOL	62	20	2	12	1	2			
207	206.58	207.98	MTSD	100	95	4	W1	3	4	Moderately foliated metasediments. Altered with hematite and biotite. Sparse undulating microdefects.		207.23	JN	43	190	2	25	3	2			
												207.30	FOL	56	350	2	20	1.5	1			
												207.72	FOL	41	20	2	20	2	2			
208	207.98	208.55	PEG	100	100	4	W1	0.5	0	Grey pinkish pegmatite with large crystals of granite, muscovite and quartz. Is altered with hematite and brittle.												
												208.63	FOL	34	310	1	20	2	1			
209	208.55	209.58	MTSD	100	100	4	W1	1	1	Moderately foliated metasediments altered with hematite.												
	209.58	210.85	MTSD	100	86	3	W1	2	2	Moderately to highly foliated metasediments with a fault zone between 210.52m and 210.75m. Slightly altered with sericite and hematite.		209.87	FOL	57	70	3	20	2	2			
210																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
211	209.58	210.85	MTSD	100	86	3	W1	2	2	Moderately to highly foliated metasediments with a fault zone between 210.52m and 210.75m. Slightly altered with sericite and hematite.		210.57	FLT	64		3	6	1	8			
	210.85	212.20	MTSD	100	100	5	W1	1	1	Moderately foliated metasediments. Almost fresh and very strong. Quartz grains are present in the matrix.		211.45	FOL	43	355	2	20	2	1			
212	212.20	212.58	MTSD	100	100	3	W1	2	1	Foliated metasediment. Weak and brittle along weak planes (microdefects or foliation).		212.21	FOL	70	340	2	12	1	2			
												212.64	JN	69	268	1	25	3	3			
												212.80 212.82	JN CON	54	183	1	25 25	3 4	2 0.75			
213												213.36	JN	11	342	1	12	1.5	4			
214	212.58	215.58	GR	100	98	6	W1	3	8	Overall massive granite. Top of the interval from 212.58m to 212.82m represents the end of the transition zone between the metasediments and the granite. Not a sharp contact. Contact defined by a zone of highly deformed rock.	3 E-07 (144.9 - 251.6)	213.92	JN	25	178	1	20	1.5	3			
												214.22	JN	39	210	1	25	3	1			
215												215.10	JN	35	225	1	6	1	4			
												215.22	JN	56	77	1	25	3	1			
												215.32	JN	36	235	1	20	1.5	3			
216	215.58	216.25	GR	100	99	6	W1	1	1	Massive granite with texture changing from fine grained, to porphyritic to pegmatitic.		216.21 216.25	JN CON	71	248	2	25 25	3 4	1 0.75			
	216.25	217.41	MTSD	100	83	4	W1	3	7	Foliated metasediments. Overall slightly altered with a highly altered zone between 217.15m to 217.25m with a chloritic and albitic alteration. Oxides present.		216.50 216.53 216.59 216.66 216.70	FOL JN FOL FOL FOL	54 44 57 55 58	356 338 2 36 359	2 2 2 2 1	20 20 20 20 20	1.5 1.5 1.5 1.5 1.5	2 2 2 2 3			
217												216.98	FOL	74	17	1	20	1.5	2			
	217.41	218.58	GR	100	100	6	W1	1	1			217.41	CONO	73	234	1	20	1.5	2			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
218	217.41	218.58	GR	100	100	6	W1	1	1			217.79	FOL	71	19	1	25	3	1			
219	218.58	220.80	GR	100	100	5	W1	1	5			218.78 219.07	JN JN	56 52	341 358	2 2	20 20	1.5 1.5	1 1			
220												220.03 220.43 220.71 220.80 220.85 221.00 221.16	JN FOL FLT FLT JN FOL FOL	19 42 71 65 16 68 39	252 338 278 356 335 341 57	1 1 1 1 1 1 1	20 20 12 0 20 20 20	1.5 1.5 1 0.5 1.5 1.5 1.5	2 2 4 15 2 2 3			
221	220.80	221.58	MTSD	100	94	4	W1	6	5		3 E-07 (144.9 - 251.6)	221.30	FLT	58	2	1	6	0.5	8			
222												221.60 221.70 221.74 221.77 221.83 221.95 222.05 222.20 222.32 222.35 222.50 222.65 222.82	FOL FOL BC FOL FOL BC JN JN JN CON CON FOL FOL	59 44 48 51 48 54 76 39 62 64	352 15 354 348 307 321 338	2 2 3 3 3 1 1 1 1 1	20 20 0 20 12 0 20 20 25 25 20 20	3 1.5 1 1.5 1.5 1 3 3 1.5 4 4 3 1.5	4 2 5 2 4 10 4 4 2 0.75 0.75 4 2			
223	221.58	224.58	MTSD	100	71	3	W1	4	27	Foliated metasediments with the presence of a pegmatite interval between 222.32m to 222.50m.		223.07 223.14 223.21 223.25 223.30 223.38	FOL FOL FOL FOL JN FOL	58 64 64 61 65 56	345 349 337 338 52 342	1 1 1 1 1 1	20 12 25 20 12 12	1.5 1.5 3 1.5 1.5 1.5	3 4 3 2 4 4			
224												223.94 224.17 224.20 224.27 224.29	JN FOL FOL JN FOL	69 63 57 54 58	279 328 294 356 308	1 1 1 1 1	25 20 20 25 12	3 1.5 1.5 3 1.5	2 3 3 3 4			
225	224.58	226.52	MTSD	100	91	5	W1	6	10	Presence of chloritc alteration and sulphides and oxides.		224.72 224.83 224.96	JN FOL JN	36 45 63	314 8 60	2 2 1	25 20 20	3 1.5 1.5	3 2 2			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
	224.58	226.52	MTSD	100	91	5	W1	6	10	Presence of chloritc alteration and sulphides and oxides.	
226	226.52	226.98	FLT	100	0	3	W2	20	42	Series of faults filled with gouge and calcite. Highly altered zone with presence of chlorite and clay alteration.	
227	226.98	227.58	MTSD	100	43	4	W1	2	5		
228	227.58	229.89	MTSD	100	68	3	W1	6	18		3 E-07 (144.9 - 251.6)
229	229.89	230.58	FLT	100	0	0	W2	20	70	Fault zone interval defined by series of parallel faults.	
230	230.58	230.96	MTSD	100	0	3	W1	4	13		
231	230.96	231.28	MTSD	100	47	4	W1	6	9		
	231.28	231.59	LC	0	0			20	31	Lost core zone in blocked zone that is 31 cm long.	
232	231.59	233.58	MTSD	100	70	4	W1	4	31		

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
225.40	JN	82	146	1	20	1.5	3			
225.59	CONO	59	357	1	20	3	4			
225.66	CONO	58	38	1	25	3	2			
225.78	FOL	56	356	1	20	3	4			
226.16	JN	56	288	1	20	3	4			
226.34	FOL	48	21	1	12	1.5	4			
226.52	FLT	65	40	1	6	0.5	4			
226.57	FLT	49	345	1	6	0.5	4			
226.76	BC	50		3	6	0.5	4			
226.98	FLT	34	278	1	0	0.5	15			
227.05	FOL	67	328	1	20	1.5	2			
227.12	FOL	59	5	1	20	1.5	3			
227.17	FOL	54	336	1	20	1.5	3			
227.25	FOL	61	335	1	20	1.5	3			
227.29	FOL	59	340	1	20	1.5	3			
227.91	FOL	62	334	2	20	1.5	2			
228.01	FOL	57	334	2	20	1.5	2			
228.10	BC	58		3	12	1.5	4			
228.17	FOL	45	315	2	20	1.5	3			
228.25	FOL	61	333	2	12	1.5	4			
228.35	FOL	55	311	2	12	1.5	4			
228.47	FOL	50	315	2	12	1.5	4			
228.51	FOL	45	320	2	20	1.5	2			
228.76	FOL	47	305	2	20	1.5	2			
228.77	FOL	52	295	2	12	1.5	4			
228.93	JN	50	285	2	25	3	2			
229.10	FOL	42	300	2	20	1.5	2			
229.49	FOL	53	311	2	12	1.5	4			
229.52	FOL	51	315	2	12	1.5	4			
229.89	JN	27	307	2	12	1.5	4			
229.90	FLT	45	320	2	6	0.5	4			
229.95	BC	53		3	6	0.5	4			
230.18	FLT	37		3	6	0.5	8			
230.38	BC	57		3	0	0.5	15			
230.60	BC			3	20	2	3			
230.67	JN			3	20	2	1			
230.69	JN	55		3	20	2	1			
230.74	JN	47		3	20	2	3			
230.81	JN	32		3	20	2	3			
230.90	FOL			3	12	2	4			
230.92	JN	55		3	20	2	3			
230.95	BC	43		3	20	2	1			
230.98	JN	86		3	20	2	3			
231.00	JN	81		3	20	2	3			
231.15	FOL	55		3	20	2	1			
231.16	FOL	43		3	20	2	1			
231.25	BC	41		3	0	1	5			
231.44	LC			3	0	0.5	20			
231.62	BC			3	0	1	5			
231.69	FOL	60		3	20	2	1			
231.74	BC	45	311	2	0	1	5			
231.85	FOL	60	332	2	12	1	1			
232.01	BC			3	0	1	5			
232.15	FOL	47	228	2	20	2	1			
232.18	FOL	48	333	2	20	2	1			
232.22	CONO	55	317	2	20	2	3			
232.25	CONO	49	322	2	20	2	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
233	231.59	233.58	MTSD	100	70	4	W1	4	31		
234											
235	233.58	236.58	MTSD	100	92	5	W1	4	11		3 E-07 (144.9 - 251.6)
236											
237											
238	236.58	239.58	MTSD	100	92	6	W1	3	8	A number of wavy to planar smooth discontinuities have opened along foliation. It's difficult to discern mechanical vs. natural fractures.	
239											
240	239.58	240.25	MTSD	100	100	5	W1	0.5	0	Stick core metasediments. Highly foliated mafics with the presence of pyrite within foliated rock.	

Discontinuities							
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
232.71	FOL	48	317	2	12	1	4
232.96	BC	62	306	2	12	2	4
233.37	JN	69	283	2	20	1.5	3
234.03	JN	60	192	1	20	2	1
234.37	FOL	52	295	1	20	2	3
234.44	JN	64	291	1	20	2	3
234.46	JN	70	238	1	20	2	3
234.57	FOL	66	307	1	20	2	1
234.65	JN	27	19	1	25	3	2
234.97	FOL	62	248	1	12	1	1
235.04	FOL	55	312	1	12	1	4
235.19	FOL	58	297	1	12	1	2
235.48	JN	62	296	1	20	1.5	2
235.68	FOL	46	292	1	25	3	2
237.14	FOL	43	283	1	20	3	4
237.23	FOL	62	317	1	6	0.5	1
237.48	FOL	56	313	1	20	2	1
237.55	FOL	58	330	1	12	1	1
237.93	FOL	58	318	1	12	1	1
237.99	JN	43	283	1	6	1	6
238.00	FOL	50	323	1	12	1	1
238.11	FOL	51	317	1	12	2	4

Zones		
Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
241	239.58	240.25	MTSD	100	100	5	W1	0.5	0	Stick core metasediments. Highly foliated mafics with the presence of pyrite within foliated rock.												
242	240.25	242.58	MTSD	100	100	6	W1	0.5	0	Transitioning into granite. More interfingering foliation at the top of interval. Pyritization within intact rock.												
243												243.54	FOL	72	32	1	12	2	4			
244	242.58	245.58	MTSD	100	94	5	W1	2	24	Most of rock is unweathered/unaltered, except around the fault features.	3 E-07 (144.9 - 251.6)	244.30	FLT	45	8	1	0	1	15			
245												244.96	FLT	50	348	1	0	0.5	15			
												245.15	FLT	46	20	1	12	1.5	4			
												245.27	FOL	55	0	1	12	2	4			
												245.38	FOL	52	0	1	6	0.5	3			
												245.49	FOL	40	10	1	20	2	3			
246	245.58	248.58	MTSD	100	98	4	W1	3	7	Several small (<15cm) bands of quartz-rich granite.	2 E-08 (243.9 - 350.58)	246.41	FOL	59	280	1	12	1.5	4			
247												246.94	JN	50	122	1	20	1.5	3			
												247.19	FOL	52	288	1	12	2	4			
												247.22	FOL	53	292	1	12	2	4			
												247.34	FOL	44	281	1	12	2	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
				25. 50. 75. 100.	25. 50. 75. 100.						
248	245.58	248.58	MTSD	100	98	4	W1	3	7	Several small (<15cm) bands of quartz-rich granite.	
249											
250	248.58	251.58	MTSD	100	93	4	W1	3	12	Hard rock, breaks easily on foliation.	3 E-07 (144.9 - 251.6)
251											2 E-08 (243.9 - 350.58)
252	251.58	252.88	MTSD	100	100	4	W1	2	3	Moderately foliated metasediments with some pegamtite and quartz veins. Strong but brittle along foliation (mechanical breaks).	
253	252.88	254.58	PEG	100	100	5	W1	1	1	Slightly foliated massive fresh pegmatite.	
254	254.58	256.07	PEG	100	91	4	W2	6	7	Pegmatite: Overall massive, with foliation appearing approaching the contact with the metasediments.	
255											

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
247.68	FOL	46	299	1	12	2	4
248.22	FOL	46	304	1	25	3	3
249.20	FOL	48	310	1	20	3	4
249.67	FOL	52	300	1	20	3	4
250.47	FOL	48	269	1	20	3	4
250.61	FOL	47	258	1	6	1	8
250.69	FOL	48	260	1	12	1.5	4
250.77	FOL	38	257	1	12	1.5	4
251.10	JN	29	81	1	25	3	3
251.29	BC			3	25	3	1
252.07	FOL	47	320	1	20	2	1
252.28	FOL	51	350	1	20	1.5	3
252.76	FOL	36	20	1	20	2	1
254.71	JN	36	148	1	25	3	1
255.00	JN	86	277	1	25	3	1
255.04	JN	25	21	1	25	3	1

Zones	Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Golder Associates

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
256	254.58	256.07	PEG	100	91	4	W2	6	7	Pegmatite: Overall massive, with foliation appearing approaching the contact with the metasediments.	
	256.07	256.38	MTSD	100	100	4	W2	1	1	Metasediments are overall massive with foliation defining the top and bottom contact with the pegmatite. Strong chlorite alteration especially at the contact zone.	
	256.38	256.94	GR	100	100	5	W1	0.5	0		
257	256.94	257.41	MTSD	100	49	4	W2	3	9		
258	257.41	258.49	MTSD	100	94	5	W2	4	6	Interval with equal proportions of pegmatite and metasediments. The interval is defined by 2 pegmatitic intervals and 2 metasediment intervals.	
259	258.49	259.50	MTSD	100	91	5	W1	3	4		2 E-08 (243.9 - 350.58)
	259.50	259.90	MTSD	100	0	3	W2	3	19	Fractured zone with a major fault between 259.80m and 259.90m.	
260	259.90	260.53	MTSD	100	92	4	W1	2	3	Interval containing 50% pegmatite and 50% metasediments. Pegmatite is overall massive with discrete foliated zone.	
261	260.53	263.57	MTSD	100	97	6	W1	3	4	Transition zone between metasediments and granite with several healed cracks oriented perpendicular to the core axis.	
262											

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
255.24	JN	74	116	1	25	3	1
255.45	JN	45	157	1	25	3	1
255.53	JN	69	91	1	25	3	1
255.87	FOL	51	332	1	12	1.5	4
256.07	CON	42			25	4	0.75
256.17	FOL	56	318	1	20	1.5	3
256.38	CON	32			25	4	0.75
256.94	CONO	45	356	1	12	1.5	4
257.00	BC	51		3	20	3	4
257.14	FLT	40	318	1	6	1	8
257.24	FLT	50	356	1	6	0.5	8
257.30	VNO	71	140	1	25	3	3
257.50	FOL	50	318	1	12	1.5	4
257.65	JN	69	60	1	25	3	2
257.81	FOL	34	10	1	12	1.5	4
258.19	JN	65	104	1	20	1.5	2
258.26	CONO	63	84	1	12	1.5	4
258.40	JN	66	284	1	25	3	3
258.49	CON	34			25	4	0.75
258.53	FOL	44	340	1	20	1.5	1
258.92	JN	51	84	1	20	1.5	1
259.15	FOL	39	318	1	12	1.5	4
259.24	FOL	37	315	1	20	1.5	3
259.50	FOL	46	284	1	12	1.5	4
259.53	FOL	46	287	1	12	1.5	4
259.55	FOL	45	282	1	12	1.5	4
259.58	FOL	48	281	1	12	1.5	4
259.64	FOL	43	289	1	12	1.5	4
259.69	FOL	59	271	1	20	3	4
259.71	CON	54	199	1	25	4	0.75
259.74	JN	49	301	1	20	3	4
259.85	FLT	59	336	1	0	0.5	15
259.90	FLT	54			6	0.5	4
260.25	CONO	69	317	1	25	3	1
260.31	JN	46	199	1	20	1.5	1
260.44	JN	66	218	1	25	3	2
260.85	FOL	39	321	1	25	3	1
260.93	FOL	42	317	1	20	1.5	2

Zones	Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
263	260.53	263.57	MTSD	100	97	6	W1	3	4	Transition zone between metasediments and granite with several healed cracks oriented perpendicular to the core axis.		262.73	JN	53	326	1	25	3	1			
												263.10	JN	59	201	1	20	1.5	3			
264												264.17	FOL	31	330	1	12	1.5	4			
												264.21	FOL	35	304	1	20	1.5	1			
265	263.57	266.63	MTSD	100	99	6	W1	2	5	Presence of disseminated pyrite within the metasediments. From 266.25m to the end of the run massive granite is present.		265.18	FOL	40	290	1	25	3	1			
												265.65	FOL	30	328	1	20	1.5	3			
266											2 E-08 (243.9 - 350.58)	266.10	FOL	42	314	1	12	1.5	4			
												266.87	CON				25	4	0.75			
267												267.21	FOL	58	302	2	20	1.5	3			
												267.34	FOL	39	308	2	25	3	1			
	266.63	268.50	MTSD	100	100	5	W1	1	2	Presence of disseminated sulphides.												
268												268.50	CON	61			25	4	0.75			
269	268.50	269.58	GR	100	100	5	W1	0.5	0	Overall massive granite with strong evidence of alteration. Alteration is potentially chlorite and epidote and gives a greenish secondary color to the rock.												
270	269.58	272.69	GR	100	100	6	W1	0.5	0	Massive granitoid rock with chlorite and epidote alteration that does not seem to affect the mechanical properties of the rock.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
271	269.58	272.69	GR	100	100	6	W1	0.5	0	Massive granitoid rock with chlorite and epidote alteration that does not seem to affect the mechanical properties of the rock.		270.15	CON	79			25	4	0.75			
												270.23	CON	85			25	4	0.75			
												270.60	CON				25	4	0.75			
												270.83	CON				25	4	0.75			
												271.04	CON	36			25	4	0.75			
												271.26	CON				25	4	0.75			
272																						
273	272.69	275.51	GR	100	100	6	W1	0.5	0	Massive granite with the presence of a pegmatite zone between 273.47m to 273.90m.	2 E-08 (243.9 - 350.58)	273.47	CON				25	4	0.75			
												273.90	CON	36			25	4	0.75			
274																						
275																						
276	275.51	278.58	GR	100	100	6	W1	0.5	0													
277																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
278	275.51	278.58	GR	100	100	6	W1	0.5	0													
279																						
280	278.58	281.58	GR	100	100	5	W1	0.5	0	Spun core at 279.97 m.	2 E-08 (243.9 - 350.58)											
281																						
282												281.84	JN	78	180	2	25	3	1			
283	281.58	284.58	GR	100	100	4	W1	1	1													
284																						
285	284.58	287.58	GR	100	100	5	W1	0.5	0	Massive unaltered granite. Very strong.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
286	284.58	287.58	GR	100	100	5	W1	0.5	0	Massive unaltered granite. Very strong.												
287																						
288	287.58	290.65	GR	100	100	5	W1	0.5	0	Massive to slightly foliated unaltered granite with biotite along the foliation. A zone with higher foliation and small grain size exists from 290.0m to 290.3m.	2 E-08 (243.9 - 350.58)											
289																						
290																						
291	290.65	292.90	GR	100	100	5	W1	0.5	0	Massive to slightly foliated granite with biotite along foliation.												
292																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
293	290.65	292.90	GR	100	100	5	W1	0.5	0	Massive to slightly foliated granite with biotite along foliation.												
	292.90	293.58	GR	100	100	4	W1	0.5	0	Pegamatite with large crystals of quatz and mica. 10cm of massive granite at the end. More brittle.												
294	293.58	294.68	GR	100	100	4	W1	0.5	0	Mix of foliated fine grained granite and pegmatite with large crystals of quartz.												
295	294.68	296.58	GR	100	100	5	W1	0.5	0	Moderately foliated unaltered granite. Fine to medium grained. Very strong.												
296											2 E-08 (243.9 - 350.58)											
297	296.58	298.45	GR	100	100	5	W1	0.5	0	Foliated medium grained granite with sparse pegmatite. Very strong.												
298												298.56	CLF	19	85	1	25	4	0.75			
299	298.45	299.58	GR	100	97	4	W1	3	3	Massive, slightly altered granite. Microdefects (closed joints) at the beginning of the interval. Alteration decreases towards the end.		298.89 299.27 299.30	JN JN JN	29 39 36	165 185 50	1 1 1	12 12 20	2 1 1.5	4 4 3			
300	299.58	302.58	GR	100	100	6	W1	1	1	Slightly foliated unaltered granite. Some pegamtite around 301m. Extremely strong.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
301	299.58	302.58	GR	100	100	6	W1	1	1	Slightly foliated unaltered granite. Some pegamtite around 301m. Extremely strong.		300.80	JN	23	180	1	20	2	3			
302	302.58	302.94	GR	100	100	5	W1	0.5	0	Pegamtite with large crystals of quartz, biotite and muscovite. Quartz is greenish.		302.94	CON	25			25	4	0.75			
303											2 E-08 (243.9 - 350.58)											
304	302.94	305.58	GR	100	100	6	W1	0.5	0	Unaltered slightly foliated granite. Extremely strong.												
305																						
306	305.58	308.64	GR	100	100	6	W1	0.5	0	Slightly foliated unaltered granite. Extremely strong.												
307																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
308	305.58	308.64	GR	100	100	6	W1	0.5	0	Slightly foliated unaltered granite. Extremely strong.												
309																						
310	308.64	311.61	GR	100	100	6	W1	0.5	0	Slightly foliated granite with some small pegmatic intrusions. Extremely strong rock.	2 E-08 (243.9 - 350.58)											
311																						
312																						
313	311.61	314.44	GR	100	100	6	W1	0.5	0	Rock is becoming less foliated with smaller pegmatic intrusions. Core spun twice during drilling.												
314																						
315	314.44	317.49	GR	100	100	6	W1	0.5	0	Slightly foliated, extremely strong granite. Minor chlorite alteration.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
316	314.44	317.49	GR	100	100	6	W1	0.5	0	Slightly foliated, extremely strong granite. Minor chlorite alteration.												
317																						
318												318.50	JN	74	276	1	25	3	1			
												318.56	JN	68	244	1	25	3	1			
319	317.49	320.56	GR	100	98	5	W1	3	4	Very strong granitic rock with a strong pegmatitic intrusion.	2 E-08 (243.9 - 350.58)	318.79	JN	68	271	1	20	1.5	1			
320												319.91	CON				25	4	0.75			
												320.04	CON				25	4	0.75			
321												320.98	JN	18	349	2	12	1.5	4			
	320.56	323.63	GR	100	100	6	W1	1	1	Foliated granite with some chlorite alteration bands. Some pegmatite also found.												
322																						

Notes: - Length of drill data per page: 7.5 m

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
323	320.56	323.63	GR	100	100	6	W1	1	1	Foliated granite with some chlorite alteration bands. Some pegmatite also found.												
324																						
325	323.63	326.55	GR	100	100	6	W1	0.5	0	Extremely strong foliated granite with some quartz.	2 E-08 (243.9 - 350.58)											
326																						
327																						
328	326.55	329.42	GR	100	100	6	W1	0.5	0	Extremely strong granite rock with slight foliation, some strong pegmatic inclusions, and some biotite bands.												
329																						
	329.42	332.62	GR	100	96	6	W1	3	5	Slightly foliated unaltered granite. Extremely strong.		329.49	JN	80	0	1	20	1.5	1			
												329.58	JN	80	240	1	20	1.5	1			
												329.63	JN	81	180	1	20	1.5	1			
330												330.01	JN	66	200	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
331	329.42	332.62	GR	100	96	6	W1	3	5	Slightly foliated unaltered granite. Extremely strong.		330.38	JN	74	320	1	20	1.5	1			
332																						
333	332.62	333.49	GR	100	100	6	W1	1	1	Slightly foliated granite.		332.98	JN	71	200	1	25	3	1			
334	333.49	335.58	GR	100	100	5	W1	1	2	Rock is R4-R5 and brittle. Some epidote alteration at the end.	2 E-08 (243.9 - 350.58)	334.05	JN	62	245	1	25	3	1			
335												334.90	JN	71	170	1	25	3	1			
336	335.58	338.58	GR	100	100	6	W1	2	2	Slightly foliated granite with some pegmatite.		336.09	JN	73	20	1	20	1.5	1			
337												337.31	JN	56	340	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
338	335.58	338.58	GR	100	100	6	W1	2	2	Slightly foliated granite with some pegmatite.	
339											
340	338.58	341.58	GR	100	99	6	W1	1	4	Slightly foliated granite with zones of pegmatite.	
341											2 E-08 (243.9 - 350.58)
342											
343	341.58	344.55	GR	100	100	6	W1	3	3	Foliated granite with zones of pegmatite. Mica along foliation.	
344											
345	344.55	347.58	GR	100	100	6	W1	0.5	0	Moderately foliated granite with mica along foliation. Slightly altered with epidote.	

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
338.99	CONO	57	15	1	25	3	1			
339.29	JN	6	70	1	12	1	3			
340.89	JN	52	150	1	20	1.5	2			
340.91	JN	28	45	1	20	2	2			
342.24	JN	77	50	1	25	3	1			
342.89	CLF	46	320	1	25	4	0.75			
344.22	JN	39	55	1	12	2	4			
344.38	JN	67	90	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-04

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 4-Apr-2014 Logging Completion Date: 11-Apr-2014

Northing: 7165679.1 m
Easting: 542015.9 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 350.58 m
Planned Azimuth: 70 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
346	344.55	347.58	GR	100	100	6	W1	0.5	0	Moderately foliated granite with mica along foliation. Slightly altered with epidote.	2 E-08 (243.9 - 350.58)											
347																						
348																						
349	347.58	350.58	GR	100	100	6	W1	0.5	0	Moderately foliated granite, slightly altered with epidote.												
350																						
351																						
352																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
1	0.00	1.70	ICE																			
2	1.70	8.80	WATER																			
3																						
4																						
5																						
6																						
7																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
8	1.70	8.80	WATER																			
9	8.80	12.66	OVB	17						Overburden. Recovered material is only gravel and cobbles. Gravel composed of both granite and metasediments; cobbles are metasediments.												
10																						
11																						
12																						
13	12.66	14.77	PEG	100	90	4	W1	3	17	Large feldspar grains. Core has spun at 12 locations along the run. Difficult to determine natural vs. mechanical fractures. Also difficult to characterize discontinuity sets.		12.81 13.01 13.30 13.49 13.68 13.87 14.09 14.23 14.32 14.37 14.59	JN BC JN JN JN JN JN JN JN JN JN	87 55 73 88 59 85 81 83 90 88		3 3 3 3 3 3 3 3 3 3	20 0 20 25 12 20 20 20 20 20 12	1.5 1 2 3 1 2 2 2 1.5 1.5 1	1 5 1 1 1 1 1 1 1 1 1			
14	14.77	15.24	PEG	100	55	4	W1	6	16	Two rubble zones.		14.85	BC			3	0	1	5			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
	14.77	15.24	PEG	100	55	4	W1	6	16	Two rubble zones.	
	15.24	15.79	MTSD	100	100	4	W1	3	1	Gradational contact between metasediments and granite, with feldspar crystals within the metasediments. Mica-rich metasediments.	
16	15.79	16.44	MTSD	100	75	4	W1	3	9		
17	16.44	17.46	FLT	100	32	4	W2	12	24	Fault zone. Granite with some metasediments along a weak foliation throughout. Weathered and altered with chlorite and biotite. Some gouge filling the joints.	
	17.46	17.70	LC	0	0			20	24		
18	17.70	18.22	FLT	100	0	1	W3	20	15	Fault zone: highly altered and weathered with gouge and soft gravel infill. Slightly porous.	
19	18.22	20.17	GR	100	97	4	W1	3	6	Reduced to R4. Intact rock is strong (R5) but micro veins are present that create weakness.	
20	20.17	20.77	GR	100	83	3	W2	6	5	Reduced to R3 because of increased microdefects and fracturing around small fault.	
21	20.77	23.77	GR	100	97	4	W1	3	10		
22											4 E-07 (22.1 - 47.8)

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
15.02	JN	87		3	12	1	1			
15.18	BC			3	0	1	5			
15.69	FOL	70		3	20	2	1			
16.10	FOL	16.1		3	12	1	1			
16.23	JN	28		3	12	1	4			
16.35	BC			3	12	1	2			
16.42	JN	26	91	1	20	1.5	2			
16.45	BC	42		3	20	1.5	2			
16.56	JN	37		3	12	1.5	4			
16.60	JN	28		3	12	1.5	4			
16.62	JN	40		3	12	1	4			
16.65	JN	90		3	20	3	4			
16.70	JN	13		3	6	1	6			
16.70	JN	69		3	12	1	1			
16.74	JN	71		3	12	1	1			
16.82	BC	32		3	0	1	5			
16.91	JN	32		3	12	1	4			
16.92	JN	47		3	20	2	1			
16.96	JN	54		3	12	1	4			
17.07	BD	45		3	6	1	8			
17.11	BD			3	0	1	15			
17.22	JN	46		3	12	1.5	4			
17.33	JN	16		3	20	1.5	1			
17.42	JN	49			20	1.5	1			
17.58	LC			3	0	0.5	20			
17.76	JN	9		3	25	3	2			
17.86	BC			3	25	3	1			
17.90	FOL	34	279	2	12	1.5	4			
17.96	FOL	33	275	2	0	1	5			
18.15	FLT	35	244	2	0	1	15			
18.25	JN	44	232	2	20	3	4			
18.38	JN	28	249	2	25	3	1			
18.86	JN	49	246	2	25	3	3			
19.06	JN	59	260	2	25	3	3			
19.68	JN	76	271	2	25	3	3			
19.97	JN	51	350	2	25	3	2			
20.22	JN	65	220	2	12	2	4			
20.40	FLT	71	233	2	0	1	5			
20.51	JN	72	322	2	25	3	1			
20.64	JN	44	268	2	20	3	4			
21.07	JN	60	248	1	25	3	1			
21.28	JN	39	87	1	20	1.5	1			
21.30	JN	62	305	1	20	1.5	1			
21.75	JN	50	243 226	1	20	3	4			
21.81	JN	28	243	1	12	2	4			
21.82	JN	56		1	25	3	3			
22.29	JN	67	276	1	25	3	1			
22.39	JN	62	27	1	20	3	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
23	20.77	23.77	GR	100	97	4	W1	3	10			23.19 23.20	JN JN	18 60	191 281	1 1	25 25	3 3	1 1			
24	23.77	25.76	GR	100	100	4	W1	1	3			23.87 24.04 24.53	JN JN JN	63 65 34	6 278 253	2 2 2	25 25 12	3 3 1.5	1 1 4			
25																						
26	25.76	26.77	GR	100	50	4	W2	4	18	Foliated granitoid rock with visible crystals. Small layer of fine-grained metasediment type rock from 25.9m to 26.06m.	4 E-07 (22.1 - 47.8)	26.12 26.21 26.28 26.38 26.43 26.49 26.57 26.60	FOL FOL FOL JN FLT JN FOL FOL	41 50 52 53 52 41 34	271 255 249 280 258 280 273	2 2 2 2 2 2 2	20 20 25 20 0 25 20 0	3 3 3 3 1 3 3 1	4 4 3 4 5 3 4 10			
27																						
28	26.77	29.77	GR	100	97	5	W1	3	8			27.06 27.11 27.48 27.76 28.34 28.47 28.92	FOL FOL FOL FOL JN JN JN	28 37 51 34 44 64 61	242 240 235 249 220 258 281	1 1 1 1 1 1 1	20 20 25 20 25 6 25	2 2 3 1.5 3 1.5 3	3 3 3 3 3 4 1			
29	29.77	32.72	GR	100	95	4	W1	6	9	Minor foliation and parallel microdefects present.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
31	29.77	32.72	GR	100	95	4	W1	6	9	Minor foliation and parallel microdefects present.		30.30	JN	67	298	1	25	3	1			
												30.39	JN	30	325	1	25	3	1			
												30.69	JN	46	200	1	25	3	1			
												30.82	JN	63	292	1	20	1.5	1			
												31.21	JN	32	25	1	20	1.5	1			
												31.60	JN	29	351	1	25	3	1			
32												31.77	JN	85	245	1	25	3	1			
												31.82	JN	22	50	1	20	3	4			
												32.41	FOL	47	289	1	20	3	4			
33																						
											4 E-07 (22.1 - 47.8)											
34												34.00	FOL	46	222	1	12	2	4			
												34.01	JN	80	252	1	25	3	1			
	32.72	35.74	GR	100	100	5	W1	3	5	Mostly massive with a few layers of foliation throughout.		34.23	JN	75	245	1	25	3	1			
35												35.09	JN	90	0	1	25	3	1			
												35.28	JN	60	262	1	25	3	1			
36												35.84	JN	51	209	1	25	3	1			
												36.32	JN	74	261	1	25	3	1			
	35.74	38.75	GR	100	100	5	W1	3	5			36.80	JN	57	228	1	20	1.5	1			
37																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
38	35.74	38.75	GR	100	100	5	W1	3	5			37.72	JN	53	209	1	12	1.5	4			
												38.04	JN	50	315	1	25	3	1			
39												38.94	JN	84	240	2	25	3	1			
												39.42	JN	69	270	2	25	3	1			
40												39.82	JN	79	215	2	25	3	1			
	38.75	41.65	GR	100	95	5	W1	6	7	Mostly massive with some banding. Portions of this interval have a yellowish tinge in the rock mass (not just staining on joint surfaces).	4 E-07 (22.1 - 47.8)	40.43	JN	61	262	2	25	3	1			
41												41.05	JN	68	205	2	20	3	4			
												41.11	JN	25	135	2	6	0.5	1			
42												41.85	JN	49	226	2	25	3	1			
												41.89	JN	25	135	2	12	1	2			
												41.98	JN	78	238	2	25	3	3			
												42.18	JN	72	288	2	25	3	1			
												42.26	JN	82	258	2	25	3	1			
43												42.42	JN	64	268	2	25	3	1			
												42.83	JN	36	327	2	25	3	1			
	41.65	44.71	GR	100	93	4	W1	9	9			43.17	JN	56	238	2	25	3	1			
44												44.13	JN	52	138	2	20	3	4			
	44.71	47.84	GR	100	96	5	W1	2	5	Massive granite with no alteration, some sparse microdefects and traces of muscovite.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
46	44.71	47.84	GR	100	96	5	W1	2	5	Massive granite with no alteration, some sparse microdefects and traces of muscovite.	4 E-07 (22.1 - 47.8)	45.57	JN	53	250	1	25	3	1			
												45.66	JN	50	210	1	25	3	1			
												46.51	JN	63	185	1	25	3	1			
47												46.88	JN	61	174	1	12	1.5	4			
												46.92	JN	61	230	1	25	3	1			
48												47.88	JN	22	312	1	20	1.5	3			
												47.90	JN	51	213	1	20	3	4			
												48.49	VNO	47	236	1	25	3	3			
49												49.19	JN	73	248	1	25	3	1			
	47.84	50.89	GR	100	98	4	W1	4	8			49.53	VNO	37	229	1	20	3	4			
50												49.89	JN	21	302	1	25	3	1			
												49.92	JN	68	301	1	20	1.5	1			
												50.45	JN	26	222	1	12	1.5	4			
51											5 E-07 (49.1 - 101.8)	51.19	JN	21	158	2	12	1.5	4			
												51.25	JN	23	103	2	25	3	2			
	50.89	51.58	GR	100	72	4	W1	3	4			51.31	JN	48	273	2	25	3	1			
												51.38	JN	76	169	2	25	3	1			
52												51.66	BC	37	75	2	0	1	5			
	51.58	52.08	GR	100	0	4	W1	20	23	Includes mechanical breaks along microdefects. Fault at lower end of interval with slickensided surfaces and sand/clay fill.		51.85	FLT	52	108	1	6	0.5	6			
												52.05	FLT	16	144	1	0	0.5	15			
	52.08	53.84	GR	100	100	4	W1	3	4													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
53	52.08	53.84	GR	100	100	4	W1	3	4			52.69	JN	44	275	1	25	3	1			
												52.81	JN	67	238	1	25	3	1			
												53.51	JN	18	210	1	25	3	1			
												53.84	JN	32	164	1	25	3	3			
54												54.31	JN	41	24	1	25	3	1			
												54.69	JN	39	100	1	20	1.5	1			
												54.80	JN	46	256	1	25	3	3			
55	53.84	56.76	GR	100	97	5	W1	6	7	Mostly granite with some small pegmatite zones throughout. A few mechanical breaks along healed discontinuities (alpha=46 beta=18).		55.64	JN	48	228	1	20	3	4			
												55.73	JN	60	278	1	25	3	1			
56											5 E-07 (49.1 - 101.8)	56.16	JN	80	128	1	20	3	4			
												56.76	JN	59	79	1	25	3	3			
57																						
	56.76	58.91	GR	100	99	5	W1	2	3			57.90	JN	79		3	20	3	4			
58												58.43	JN	54		3	25	3	1			
												58.46	JN	75		3	25	3	1			
59	58.91	59.41	FLT	100	0	3	W2	20	50	Fault zone with shattered rock and very little clay. Rock pieces are slightly weathered.		59.13	BC			3	0	1	5			
												59.38	FLT	28	86	1	0	1	15			
	59.41	62.62	GR	100	97	6	W1	3	6	Rock near some of the joints in this interval has a yellow-orange tinge.		59.64	JN	78	235	1	20	3	4			
												59.80	JN	43	220	1	12	1.5	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
61	59.41	62.62	GR	100	97	6	W1	3	6	Rock near some of the joints in this interval has a yellow-orange tinge.		60.44	JN	73	64	1	25	3	1			
												61.19	JN	33	44	1	25	3	3			
												61.28	JN	64	153	1	25	3	3			
62												62.03	JN	76	142	1	25	3	3			
63												63.06	JN	44	38	2	25	3	3			
												63.34	JN	61	319	2	20	3	4			
64	62.62	65.15	GR	100	97	5	W1	3	7		5 E-07 (49.1 - 101.8)	63.90	JN	61	295	2	25	3	3			
												64.31	JN	88	310	1	25	3	3			
												64.39	JN	25	91	1	12	1.5	4			
												64.67	JN	21	229	1	20	3	4			
65												64.92	JN	85	277	1	0	1	10			
	65.15	65.44	MTSD	100	52	3	W2	2	5	This is a transitional zone between granitoid and metasediments. Thick (>1cm) layers of soft biotite form planes of weakness.		65.30	JN	32	216	1	0	1	10			
												65.40	BC			3	0	1	5			
	65.44	66.29	MTSD	100	100	6	W1	1	3			65.54	JN	26	62	1	25	3	2			
66												66.11	JN	50	209	1	12	2	4			
												66.29	CONO	28	280	1	20	3	4			
	66.29	68.79	GR	100	98	4	W1	3	5			67.06	JN	32	99	1	25	3	1			
67												67.31	JN	35	27	1	20	1.5	3			
												67.36	JN	31	24	1	20	1.5	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
68	66.29	68.79	GR	100	98	4	W1	3	5			67.91	JN	72	275	1	25	3	1			
												68.49	JN	66	295	1	25	3	2			
69												69.74	JN	59	15	2	25	3	1			
												69.89	JN	71	240	2	25	3	1			
70												70.05	JN	80	175	2	25	3	1			
	68.79	71.79	GR	100	99	5	W1	3	7			70.34	JN	70	280	2	25	3	1			
												70.36	JN	66		3	6	1.5	1			
												70.73	JN	81		3	25	3	1			
71											5 E-07 (49.1 - 101.8)											
												71.39	JN	71	77	1	25	3	3			
72												71.95	JN	40	154	1	25	3	1			
												72.06	JN	33	150	1	25	3	3			
73												72.37	JN	80	102	1	20	1.5	3			
	71.79	74.77	GR	100	100	6	W1	3	6			73.15	JN	56	286	1	25	3	3			
74												73.70	JN	54	355	1	25	3	3			
												74.46	JN	61	256	1	25	3	1			
75	74.77	77.77	GR	100	100	5	W1	1	2	Massive to slightly foliated granite. Muscovite along foliation.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
76	74.77	77.77	GR	100	100	5	W1	1	2	Massive to slightly foliated granite. Muscovite along foliation.		75.96	CLF	18	355	1	25	4	0.75			
												76.30	JN	52	230	1	25	3	1			
77												77.05	JN	47	355	1	25	3	1			
78	77.77	80.77	GR	100	100	5	W1	1	1	Fresh massive granite, with a high concentration of muscovite and some biotite.	5 E-07 (49.1 - 101.8)											
80												80.24	JN	87	0	2	25	3	1			
81	80.77	83.21	GR	100	100	5	W1	3	3	Massive fresh granite with a high concentration of muscovite and some biotite. Some parts are pegmatite at the beginning.		80.86	JN	63	330	1	20	1.5	1			
												81.24	JN	72	260	1	25	3	1			
82												82.14	JN	67	310	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
83	80.77	83.21	GR	100	100	5	W1	3	3	Massive fresh granite with a high concentration of muscovite and some biotite. Some parts are pegmatite at the beginning.												
	83.21	83.77	GR	100	100	5	W1	1	1	Pegmatite/Granite that is slightly foliated and slightly porous.		83.45	JN	64	200	1	25	3	1			
84	83.77	86.77	GR	100	100	5	W1	3	3	Slightly foliated granite. Mostly fresh but some parts are slightly altered with iron oxidation (orange colour). Less biotite and muscovite than previous intervals. Finely grained.		84.55	JN	33	33	1	20	1.5	2			
												84.76	CLF	23	35	1	25	4	0.75			
85																						
86											5 E-07 (49.1 - 101.8)	85.48	JN	68	310	1	25	3	1			
												86.51	JN	24	85	1	20	1.5	2			
87	86.77	87.58	GR	100	100	5	W1	0.5	0	Slightly foliated fresh granite with biotite following the foliation.												
88	87.58	89.77	GR	100	100	5	W1	0.5	0	Massive fresh granite with some biotite and muscovite.												
89																						
90	89.77	92.77	GR	100	100	5	W1	1	2	Massive, fresh granite with some pegmatite texture.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
91	89.77	92.77	GR	100	100	5	W1	1	2	Massive, fresh granite with some pegmatite texture.		90.20	JN	60	240	1	25	3	1			
92												92.03	JN	59	250	1	20	1.5	2			
												92.80	JN	14	355	1	12	2	4			
93	92.77	93.78	GR	100	100	4	W1	1	2	Massive pegmatite, with large crystals of quartz and mica. Brittle R4.		93.04	JN	78	60	1	25	3	1			
94	93.78	95.77	GR	100	100	5	W1	0.5	0	Massive and fresh granite, with sparse bioitite and muscovite.	5 E-07 (49.1 - 101.8)											
95																						
96												96.11	JN	18	25	1	20	2	1			
	95.77	98.77	GR	100	100	5	W1	3	4	Massive granite, with disseminated biotite and zones of pegmatite.		96.37	JN	68	290	1	25	3	1			
97												97.14	JN	67	250	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
98	95.77	98.77	GR	100	100	5	W1	3	4	Massive granite, with disseminated biotite and zones of pegmatite.		98.13	JN	79	260	1	25	3	1			
99												98.93	JN	42	63	1	25	3	3			
100	98.77	101.77	GR	100	100	5	W1	1	3	Fresh granite.	5 E-07 (49.1 - 101.8)	100.47	JN	63	230	1	25	3	1			
101												101.25	JN	0	199	1	20	3	4			
102												101.80	JN	16	26	1	25	3	1			
103	101.77	104.69	GR	100	100	5	W1	1	3	A couple of small pegmatite zones present.												
104											2 E-07 (103.1 - 152.8)	104.01	JN	39	10	1	25	3	1			
												104.51	JN	27	325	1	25	3	3			
105	104.69	106.81	GR	100	100	5	W1	3	4													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
106	104.69	106.81	GR	100	100	5	W1	3	4			105.39	JN	43	309	2	25	3	1			
												105.72	JN	44	97	2	20	1.5	1			
												106.42	JN	34	296	2	20	1.5	3			
												106.63	JN	54	102	2	12	1.5	4			
												106.81	JN	24	50	2	12	1.5	4			
107	106.81	107.19	GR	100	92	4	W2	3	4	Interval has a zone with increased weathering, soft coated features and a small fault.		107.06	FLT	24	16	2	0	1	5			
												107.19	JN	20	89	2	25	3	1			
	107.19	107.77	GR	100	100	5	W1	1	1													
108																						
												108.20	JN	55	70	2	20	3	4			
												108.32	JN	29	12	2	25	3	1			
											2 E-07 (103.1 - 152.8)											
109	107.77	110.34	GR	100	97	5	W1	3	11			109.13	JN	80	95	2	25	3	1			
												109.24	JN	59	236	2	25	3	1			
												109.42	BC			3	0	1	5			
110																						
	110.34	110.71	GR	100	100	5	W1	1	2			110.46	JN	42	91	1	25	3	3			
												110.71	JN	61	12	1	25	3	1			
111																						
	110.71	113.48	GR	100	100	6	W1	1	4													
												111.83	JN	71	278	1	25	3	1			
112												112.03	JN	20	297	1	12	1.5	4			
												112.53	JN	44	21	1	20	3	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
113	110.71	113.48	GR	100	100	6	W1	1	4			112.75 112.75	JN JN	14 44	210 79	1 1	20 20	3 3	4 3			
114	113.48	116.20	GR	100	100	5	W1	3	3	Massive granite, with high concentration of mica. Very slightly weathered with iron oxide.		114.35	JN	19	355	1	20	1.5	3			
115												115.38	JN	5	340	1	25	3	1			
116												116.04	JN	18	340	1	25	3	1			
	116.20	116.77	GR	100	0	5	W1	20	20	Broken core. Crushed rock but no visible alteration. Possibly mechanical - core was stuck in tube and drillers had to hammer at it.	2 E-07 (103.1 - 152.8)	116.49	BC	33		3	0	1	5			■
117	116.77	117.25	GR	100	100	5	W1	1	1	Massive fresh granite. Mica seems to follow a weak foliation.		117.11	JN	70	315	1	25	3	1			
	117.25	117.55	GR	100	100	5	W1	1	1	Foliated granite with biotite and muscovite along foliation.		117.30	FOL	58	245	1	20	1.5	1			
												117.61	JN	29	135	1	12	1	2			
118	117.55	118.50	GR	100	95	5	W2	3	5	Massive granite, weathered with iron oxide.		117.88 117.90	JN JN	56 22	270 30	1 1	25 25	3 3	1 1			
												118.25 118.30	JN JN	44 57	85 95	1 1	20 25	1.5 3	1 1			
119												118.95	JN	24	80	1	20	1.5	1			
	118.50	119.77	GR	100	100	5	W1	1	1	Massive granite with zones of pegmatite.												
120	119.77	120.07	GR	100	0	5	W1	20	33	Core was redrilled.		119.92	BC				0	1	5			■

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
	119.77	120.07	GR	100	0	5	W1	20	33	Core was redrilled.												
121	120.07	121.65	GR	100	50		W1	6	15			120.86	BC				25	3	1			
122	121.65	122.77	GR	100	89	5	W1	6	10	Core was redrilled.		122.21	BC				20	1.5	1			
123												122.81	CLF	23	85	1	25	4	0.75			
												122.94	JN	67	120	1	25	3	1			
124	122.77	125.77	GR	100	97	5	W1	3	3	Massive granite, with some parts showing a weak foliation.	2 E-07 (103.1 - 152.8)	124.54	JN	74	270	1	20	1.5	1			
125												124.63	JN	79	310	1	25	3	1			
126	125.77	128.77	GR	100	100	5	W1	1	2	Slightly foliated granite. Mostly fresh but some iron oxidation is present close to the features. Some pegmatite.												
127																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
128	125.77	128.77	GR	100	100	5	W1	1	2	Slightly foliated granite. Mostly fresh but some iron oxidation is present close to the features. Some pegmatite.		128.16	JN	34	70	1	12	1	2			
												128.53	JN	71	290	1	12	2	4			
129												129.59	JN	79	300	1	25	3	1			
130	128.77	131.77	GR	100	100	5	W1	1	1	Massive granite with zones of pegmatite.												
131											2 E-07 (103.1 - 152.8)											
132																						
133	131.77	134.77	GR	100	100	5	W1	1	1	Slightly foliated fresh granite.		134.28	JN	67	280	1	25	3	1			
134																						
135	134.77	137.77	GR	100	100	5	W1	1	3													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
136	134.77	137.77	GR	100	100	5	W1	1	3			135.17	JN	62	300	1	25	3	1			
137												137.07	JN	32	105	1	20	1.5	1			
138	137.77	139.27	GR	100	100	5	W1	1	1		2 E-07 (103.1 - 152.8)											
139												139.11	JN	66	173	1	25	3	1			
140	139.27	140.77	GR	100	100	5	W1	0.5	0													
141												140.98	JN	65	219	1	25	3	1			
												141.29	JN	54	331	1	25	3	1			
												141.34	JN	60	315	1	25	3	1			
142	140.77	142.27	GR	100	97	5	W1	3	4			141.52	JN	45	75	1	20	1.5	1			
	142.27	143.77	GR	100	100	5	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
143	142.27	143.77	GR	100	100	5	W1	0.5	0													
144												143.86	JN	23	6	1	20	3	4			
												144.20	JN	34	107	1	12	1.5	4			
145	143.77	146.77	GR	100	100	6	W1	1	2													
146											2 E-07 (103.1 - 152.8)											
147												146.93	JN	44	96	1	20	3	4			
148												147.77	JN	35	68	1	20	1.5	1			
												148.03	JN	61	214	1	25	3	1			
												148.05	JN	53	225	1	25	3	1			
149	146.77	149.73	GR	100	100	5	W1	1	4													
150	149.73	152.77	GR	100	100	5	W1	3	4													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
151	149.73	152.77	GR	100	100	5	W1	3	4		2 E-07 (103.1 - 152.8)	151.67	JN	57	270	1	20	3	4			
												151.78	JN	31	77	1	20	3	4			
152												152.53	JN	45	75	1	25	3	1			
												152.64	JN	22	148	1	20	3	4			
153												153.21	JN	42	82	1	20	1.5	3			
												153.24	JN	51	220	1	25	3	1			
154												153.84	JN	65	244	1	25	3	1			
	152.77	155.72	GR	100	99	5	W1	3	4		5 E-08 (151.1 - 200.8)											
155												155.50	JN	72	339	1	25	3	1			
156	155.72	157.02	GR	100	100	5	W1	0.5	0													
157												157.02	CON	75			25	4	0.75			
	157.02	158.77	PEG	100	100	5	W1	1	2			157.30	JN	40	5	2	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
158	157.02	158.77	PEG	100	100	5	W1	1	2			157.71	JN	43	260	2	25	3	1			
												158.28	CLF	35	50	2	25	4	0.75			
159	158.77	159.81	PEG	100	100	5	W1	0.5	0	Massive pematite with larges crystals of quartz and mica. Brittle but still very strong rock.												
160	159.81	161.77	GR	100	100	5	W1	0.5	0	Massive, fresh granite, with some mica (veinlets or crystals) throughout and weak foliation.	5 E-08 (151.1 - 200.8)											
161																						
162																						
163	161.77	164.77	GR	100	100	5	W1	1	1	Massive, fresh granite, with some mica throughout and weak foliation.		163.32	JN	83	320	1	25	3	2			
164																						
165	164.77	165.45	GR	100	100	5	W1	1	1	Slightly foliated granite, slightly altered with iron oxide.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
166	164.77	165.45	GR	100	100	5	W1	1	1	Slightly foliated granite, slightly altered with iron oxide.		165.26	JN	26	70	1	6	1	8			
167	165.45	167.77	GR	100	100	5	W1	0.5	0	Massive granite with mica throughout.		166.75	CLF	28	38	1	25	4	0.75			
168	167.77	170.77	GR	100	100	5	W1	0.5	0	Slightly foliated then moderalty foliated from 170m with mica veinlets following the foliation.	5 E-08 (151.1 - 200.8)	170.15	CLF	44	280	1	25	4	0.75			
171	170.77	173.77	GR	100	100	5	W1	0.5	0	Slightly foliated fresh granite with disseminated mica.												
172																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
173	170.77	173.77	GR	100	100	5	W1	0.5	0	Slightly foliated fresh granite with disseminated mica.												
174																						
175	173.77	176.77	GR	100	100	5	W1	1	1	Mostly massive, biotite rich granite, but some parts with a weak foliation.	5 E-08 (151.1 - 200.8)	174.94	JN	48	45	1	25	3	1			
176																						
177																						
178	176.77	179.77	GR	100	100	4	W1	1	1	Slightly foliated then massive granite with disseminated mica.		179.05	JN	67	284	1	20	2	1			
179																						
180	179.77	182.77	GR	100	100	5	W1	1	2													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
181	179.77	182.77	GR	100	100	5	W1	1	2			180.37	JN	66	340	1	25	3	1			
												181.39	JN	26	72	1	20	1.5	1			
182																						
183												183.48	JN	85	269	1	20	1.5	1			
184	182.77	185.79	GR	100	98	6	W1	1	3		5 E-08 (151.1 - 200.8)	184.32 184.38	VNO JN	57 72	320 235	1 1	6 25	1.5 3	4 1			
185																						
186	185.79	188.71	GR	100	100	6	W1	1	1													
187																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
188	185.79	188.71	GR	100	100	6	W1	1	1			187.73	JN	45			25	3	1			
189																						
190	188.71	191.69	GR	100	100	5	W1	1	2			189.56	JN	14	350	1	25	3	1			
191											5 E-08 (151.1 - 200.8)	191.46	JN	37	66	1	12	1.5	4			
192																						
193	191.69	194.79	GR	100	100	6	W1	0.5	0													
194																						
195	194.79	196.75	GR	100	100	5	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
196	194.79	196.75	GR	100	100	5	W1	0.5	0			196.75	CLF	51	240	1	25	4	0.75			
197	196.75	197.64	GR	100	100	4	W1	0.5	0	Foliated granite. The black minerals show weak (not obvious) foliation parallel to the logged interval contact. Crystal size is smaller than the usual granites but still visible to naked eye. A few thin (1-2cm) bands of coarser-grained quartz are present and aligned with foliation.		197.68	CLF	19	220	1	25	4	0.75			
198											5 E-08 (151.1 - 200.8)											
199	197.64	200.74	GR	100	100	5	W1	1	1													
200												200.05	JN	28	55	1	25	3	1			
201											1 E-09 (199.1 - 275.8)											
202	200.74	203.77	GR	100	100	5	W1	0.5	0	Massive fresh granite with biotite following a weak foliation.												

Notes: - Length of drill data per page: 7.5 m

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
203	200.74	203.77	GR	100	100	5	W1	0.5	0	Massive fresh granite with biotite following a weak foliation.												
204																						
205	203.77	206.77	GR	100	100	5	W1	0.5	0	Massive fresh granite with disseminated mica.												
206											1 E-09 (199.1 - 275.8)											
207																						
208	206.77	209.85	GR	100	100	5	W1	0.5	0	Massive fresh granite with disseminated mica.												
209																						
210	209.85	212.00	GR	100	100	5	W1	0.5	0	Massive fresh granite.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
211	209.85	212.00	GR	100	100	5	W1	0.5	0	Massive fresh granite.												
212	212.00	212.85	GR	100	100	5	W1	0.5	0	Massive fresh granite.		212.02	CLF	19	150	1	25	4	0.75			
213	212.85	215.82	GR	100	100	5	W1	1	1	Massive fresh granite.	1 E-09 (199.1 - 275.8)	215.43	JN	34	75	1	20	1.5	2			
214																						
215																						
216	215.82	218.81	GR	100	100	5	W1	0.5	0	Massive fresh granite.		216.46	CLF	25	63	1	25	4	0.75			
217																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
218	215.82	218.81	GR	100	100	5	W1	0.5	0	Massive fresh granite.												
219																						
220	218.81	221.77	GR	100	100	6	W1	0.5	0													
221											1 E-09 (199.1 - 275.8)											
222																						
223	221.77	224.83	GR	100	100	6	W1	1	1			222.90	JN	30	49	1	25	3	1			
224																						
225	224.83	227.79	GR	100	100	5	W1	1	1	A foliated black inclusion from 227.66m to 227.73m looks like altered chlorite.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
226	224.83	227.79	GR	100	100	5	W1	1	1	A foliated black inclusion from 227.66m to 227.73m looks like altered chlorite.		225.26	JN	72	275	1	20	3	4			
227												227.66	CON	28			25	4	0.75			
												227.73	CON	85			25	4	0.75			
228	227.79	230.81	GR	100	100	5	W1	1	2	Increased biotite veining.	1 E-09 (199.1 - 275.8)	228.88	VNO	60	228	1	12	1.5	4			
229																						
230												230.55	JN	60	80	1	20	1.5	1			
231	230.81	233.77	GR	100	100	5	W1	0.5	0													
232																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
233	230.81	233.77	GR	100	100	5	W1	0.5	0													
234	233.77	236.77	GR	100	100	5	W1	0.5	0	Small bits of minor foliation.	1 E-09 (199.1 - 275.8)											
237	236.77	239.72	GR	100	100	5	W1	0.5	0													
240	239.72	242.76	GR	100	100	5	W1	1	1													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
241	239.72	242.76	GR	100	100	5	W1	1	1			241.02	JN	38	62	1	20	1.5	1			
242																						
243	242.76	245.79	GR	100	100	5	W1	0.5	0		1 E-09 (199.1 - 275.8)											
244																						
245																						
246	245.79	248.72	GR	100	99	5	W1	2	2			246.59 246.62	JN JN	43 47	60 49	1 1	25 20	3 3	3 4			
247																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
248	245.79	248.72	GR	100	99	5	W1	2	2													
249																						
250	248.72	251.74	GR	100	100	5	W1	1	1													
251											1 E-09 (199.1 - 275.8)	251.07	JN	50	42	1	20	1.5	3			
252																						
253	251.74	254.74	GR	100	100	5	W1	0.5	0													
254																						
255	254.74	257.76	GR	100	100	6	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
256	254.74	257.76	GR	100	100	6	W1	0.5	0													
257																						
258	257.76	260.77	GR	100	100	5	W1	0.5	0	Some incipient foliation and a 20 cm band of pegmatite (mostly quartz) around 260.5m.	1 E-09 (199.1 - 275.8)											
259																						
260												260.33	CLF	48	250	1	25	4	0.75			
												260.58	CLF	22	259	1	25	4	0.75			
261	260.77	263.76	GR	100	100	5	W1	0.5	0													
262																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
263	260.77	263.76	GR	100	100	5	W1	0.5	0													
264																						
265	263.76	266.77	GR	100	100	5	W1	0.5	0	Mostly massive with occasional minor foliation/banding at alpha 30-50 and beta 220-240.	1 E-09 (199.1 - 275.8)											
266																						
267																						
268	266.77	269.80	GR	100	100	5	W1	0.5	0	Massive fresh granite. Biotite veinlets seem to be following a weak foliation.												
269																						
270	269.80	272.79	GR	100	100	5	W1	0.5	0	Massive fresh granite with disseminated mica.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
271	269.80	272.79	GR	100	100	5	W1	0.5	0	Massive fresh granite with disseminated mica.		271.45	CON	70			25	4	0.75			
272																						
273	272.79	275.80	GR	100	100	5	W1	1	1		1 E-09 (199.1 - 275.8)											
274																						
275												275.38	JN	20	5	1	20	1.5	2			
276	275.80	278.77	GR	100	99	5	W1	4	9		1 E-09 (274.1 - 326.8)	275.84	JN	27	1	1	20	1.5	2			
												276.71	JN	71	260	1	6	0.5	4			
												276.79	JN	67	218	1	20	3	4			
277												277.18	JN	47	128	1	25	3	2			
												277.38	JN	36	55	1	20	1.5	2			
												277.56	JN	35	47	1	20	1.5	2			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
				25. 50. 75. 100.	25. 50. 75. 100.						
278	275.80	278.77	GR	100	99	5	W1	4	9		
279	278.77	280.72	MTSD	100	100	6	W1	1	2		
280											
281	280.72	281.55	MTSD	100	100	4	W1	0.5	0	Gradual contact starting at 280.72m. Slightly foliated with bands of mica with quartz in between associated with some green mineral (potentially epidote).	1 E-09 (274.1 - 326.8)
	281.55	281.77	MTSD	100	100	4	W1	0.5	0		
282											
283	281.77	284.77	MTSD	100	100	5	W1	3	4	Bands of mica and quartz. Very hard, competent rock.	
284											
285	284.77	287.77	MTSD	100	95	5	W1	3	3	Similar to previous run but foliation is not as apparent. When core is broken, all joints fall along foliation planes. Dark grey, hard and competent rock with some veinlets of quartz.	

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
278.44	JN	71	292	1	25	3	1
278.65	JN	61	80	1	12	1	1
278.77	JN	60	82	1	20	1.5	3
279.49	JN	50	80	1	25	3	3
279.62	JN	53	100	1	25	3	1
282.19	JN	22	230	1	12	2	4
282.70	JN	55	230	1	20	2	1
282.86	JN	43	285	1	12	1	1
283.55	JN	30	285	1	20	2	1

Zones: Lost Core, Fault zone, Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
286	284.77	287.77	MTSD	100	95	5	W1	3	3	Similar to previous run but foliation is not as apparent. When core is broken, all joints fall along foliation planes. Dark grey, hard and competent rock with some veinlets of quartz.		285.85	JN	24	260	2	20	2	1			
287												287.17	JN	47	265	2	12	1	4			
												287.26	JN	18	80	2	12	2	4			
288												288.54	JN	32	255	1	12	1	1			
289	287.77	290.77	MTSD	100	100	4	W1	2	3	Foliated rock with mica and quartz veinlets.	1 E-09 (274.1 - 326.8)	289.28	JN	49	290	1	12	1	1			
290												290.60	JN	45	270	1	25	3	1			
291	290.77	291.75	MTSD	100	100	4	W1	0.5	0	Foliated rock similar to previous run, with thicker chunks of quartz.												
292	291.75	292.27	MTSD	100	100	5	W1	0.5	0	Massive dark grey rock that is hard and competent. There is a gradual contact from foliated rock in previous interval.												
	292.27	292.77	MTSD	100	100	5	W1	0.5	0	Metasediment interval with a granite intrusion of 14cm. Dark grey and massive.		292.36	CON	46			25	4	0.75			
												292.50	CON	24			25	4	0.75			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
293	292.27	292.77	MTSD	100	100	5	W1	0.5	0	Metasediment interval with a granite intrusion of 14cm. Dark grey and massive.												
	292.77	293.77	GR	100	100	6	W1	0.5	0	Generally foliated granite with zones of massive granite (gradual contact from foliated to massive) amd bands of mica and quartz.												
294																						
	293.77	295.48	GR	100	100	5	W1	0.5	0	Overall a massive granite with some zones of foliated mica bands.												
295																						
	295.48	296.17	GR	100	100	5	W1	0.5	0	Massive granite with a couple of mica bands.												
296																						
	296.17	296.77	GR	100	100	5	W1	0.5	0	Still in granite but dominated by mica bands and quartz bands, all oriented (foliation). Orientation of foliation is alpha = 54 degrees beta = 270 degrees (measured off mechanical break along foliation).	1 E-09 (274.1 - 326.8)											
297																						
	296.77	299.18	GR	100	100	5	W1	0.5	0	Granite heavily dominated by mica and quartz bands, some of which are oriented along foliation and some of which are randomly oriented.												
298																						
299																						
	299.18	299.77	MTSD	100	100	5	W1	0.5	0													
	299.77	302.77	MTSD	100	100	5	W1	0.5	0	Top and bottom of run have massive metasediment that is logged as contacts. Heavily foliated rock with mica and quartz veinlets and some splotchy areas of quartz and associated minerals such as chlorite, epidote and plagioclase.		299.93	CON	19			25	4	0.75			
300																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Golder Associates

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
301	299.77	302.77	MTSD	100	100	5	W1	0.5	0	Top and bottom of run have massive metasediment that is logged as contacts. Heavily foliated rock with mica and quartz veinlets and some splotchy areas of quartz and associated minerals such as chlorite, epidote and plagioclase.		302.47	CON	26			25	4	0.75			
303	302.77	305.77	MTSD	100	94	4	W1	3	6		1 E-09 (274.1 - 326.8)	303.35	FOL	30	150	2	12	1	1			
												304.18	JN	48	0	2	12	1	4			
												304.38	FOL	20	160	2	12	1	4			
305												305.35	CLF	21	160	2	25	4	0.75			
												305.36	CLF	21	160	2	25	4	0.75			
												305.55	JN	50	180	2	25	3	1			
												305.56	FOL	20	160	2	12	1	1			
												305.61	JN	46	180	2	25	3	1			
306	305.77	308.77	MTSD	100	99	4	W1	3	6			306.04	CLF	25	250	1	25	4	0.75			
												306.12	JN	43	270	1	20	2	1			
												306.53	FOL	25	250	1	12	1	4			
												306.79	FOL	25	255	1	12	1	2			
307												307.55	FOL	52	250	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
308	305.77	308.77	MTSD	100	99	4	W1	3	6			307.62	JN	15	260	1	12	2	4			
												308.02	FOL	26	250	1	12	1	4			
309	308.77	310.32	MTSD	100	100	4	W1	0.5	0	Heavily foliated with some bands of mica and quartz.												
310																						
311	310.32	311.77	GR	100	100	5	W1	0.5	0	This interval is still metased but everything is more globular. There is some indication of foliation in some areas where minerals are aligned. The majority of the interval is globs of quartz with mica bands and globs. Hard, competent rock with more plagioclase and quartz than previous interval (also mica, chlorite and epidote present).	1 E-09 (274.1 - 326.8)										
312																						
313	311.77	314.77	GR	100	100	5	W1	3	3	Weakly foliated.		312.69	JN	42	102	1	12	1	2			
												312.85	CON	36			25	4	0.75			
												313.12	JN	65	109	1	12	2	4			
												313.22	JN	75	112	1	20	2	3			
314												314.11	CON	37			25	4	0.75			
												314.30	CON	39			25	4	0.75			
315	314.77	317.77	GR	100	96	5	W1	6	8													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
316	314.77	317.77	GR	100	96	5	W1	6	8		
317											
318	317.77	320.10	GR	100	100	5	W1	0.5	0		1 E-09 (274.1 - 326.8)
319											
320	320.10	320.77	GR	100	100	6	W1	0.5	0		
321	320.77	323.77	GR	100	100	5	W1	1	2	Granite with some biotite veining.	
322											

Discontinuities							
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
315.41	FOL	67	90	2	25	3	1
315.78	CONO	70	340	2	25	3	1
316.03	FOL	55	50	1	12	1.5	4
316.46	JN	15	240	1	25	3	1
316.47	FOL	32	220	1	25	3	1
316.86	FOL	38	232	1	20	3	4
317.10	FOL	45	225	1	20	2	1
317.16	FOL	45	220	1	20	2	1
320.10	CON	49		3	25	4	0.75
320.83	JN	65		3	25	3	1

Zones		
Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
323	320.77	323.77	GR	100	100	5	W1	1	2	Granite with some biotite veining.	1 E-09 (274.1 - 326.8)	323.68	JN	55	40	1	12	2	4			
324	323.77	324.60	GR	100	100	5	W1	0.5	0													
325	324.60	325.64	GR	100	100	5	W1	1	1			325.10	JN	44	75	2	12	1.5	4			
326	325.64	326.77	GR	100	100	5	W1	0.5	0													
327	326.77	329.77	GR	100	100	5	W1	1	1	From 327.28m-327.31m is mechanically broken core. Driller was having a hard time pushing through the rock (pieces have been spun). Metasediment intrusion from 327.70-327.93m.		327.64 327.70	JN CON	61 25	280	2	25 25	3 4	1 0.75			
328												327.93	CON	45			25	4	0.75			
329																						
330	329.77	332.77	GR	100	100	6	W1	0.5	0	Some areas of pegmatitic texture with crystals approximately 1.5cm in diameter.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
331	329.77	332.77	GR	100	100	6	W1	0.5	0	Some areas of pegmatitic texture with crystals approximately 1.5cm in diameter.												
332																						
333	332.77	335.05	GR	100	100	6	W1	0.5	0	Very hard granite with little mica banding.												
334																						
335	335.05	335.77	GR	100	100	5	W1	0.5	0	Not as strong as interval above.												
336	335.77	338.77	MTSD	100	100	5	W1	0.5	0	Very weakly foliated.												
337																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
338	335.77	338.77	MTSD	100	100	5	W1	0.5	0	Very weakly foliated.												
339																						
340	338.77	341.77	MTSD	100	100	5	W1	0.5	0	Very weakly foliated.												
341																						
342																						
343	341.77	344.77	MTSD	100	100	5	W1	0.5	0													
344																						
345	344.77	347.77	MTSD	100	100	5	W1	0.5	0	Weakly foliated.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
346	344.77	347.77	MTSD	100	100	5	W1	0.5	0	Weakly foliated.												
347																						
348	347.77	350.77	MTSD	100	100	4	W1	3	4			347.95	FOL	36	262	2	12	1	4			
349												349.18	JN	30	108	2	12	1.5	4			
350												349.81	JN	40	180	2	25	3	1			
												350.53	JN	56	178	2	12	1.5	4			
351	350.77	351.54	MTSD	100	88	4	W1	2	6			350.84 350.89 351.04 351.06	FOL FOL FOL FOL	54 55 42 42	280 240 280 280	1 1 1 1	12 20 12 20	1 2 2 2	4 1 4 1			
352	351.54	353.77	MTSD	100	100	5	W1	1	1	Closed vein of quartz from 352.81m-352.88m.		351.52 351.54	FOL FOL	53 54	240 250	1 1	12 12	2 1	4 3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
353	351.54	353.77	MTSD	100	100	5	W1	1	1	Closed vein of quartz from 352.81m-352.88m.		353.33	JN	24	80	1	20	2	3			
354																						
355	353.77	356.77	GR	100	100	6	W1	0.5	0	Massive granite with some mica bands (mixing zone) at top of run and a 5-6cm metasediments band at 354.16m.												
356																						
357																						
358	356.77	359.77	GR	100	100	6	W1	0.5	0													
359																						
360	359.77	360.50	GR	100	100	6	W1	0.5	0	Massive granite with some zones of pegmatitic texture.												

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
361	359.77	360.50	GR	100	100	6	W1	0.5	0	Massive granite with some zones of pegmatitic texture.												
	360.50	361.10	GR	100	100	5	W1	1	1	Granite is slightly weaker than previous interval and more yellowish colour with light grey and white (possibly iron alteration).		360.99	JN	25	55	1	25	3	1			
362	361.10	362.77	GR	100	100	6	W1	0.5	0													
363																						
364	362.77	365.77	GR	100	100	6	W1	0.5	0													
365																						
366	365.77	368.77	GR	100	100	6	W1	0.5	0	Small (2cm) zone of pegmatitic texture at 367.25m.												
367																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
368	365.77	368.77	GR	100	100	6	W1	0.5	0	Small (2cm) zone of pegmatitic texture at 367.25m.												
369																						
370	368.77	371.77	GR	100	100	6	W1	0.5	0													
371																						
372																						
373	371.77	374.77	GR	100	100	6	W1	0.5	0													
374																						
375	374.77	377.77	GR	100	100	6	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
376	374.77	377.77	GR	100	100	6	W1	0.5	0													
377																						
378	377.77	380.77	GR	100	100	6	W1	0.5	0													
379																						
380																						
381	380.77	383.77	GR	100	100	6	W1	0.5	0													
382																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
383	380.77	383.77	GR	100	100	6	W1	0.5	0													
384																						
385	383.77	386.77	GR	100	100	6	W1	0.5	0													
386																						
387																						
388	386.77	389.77	GR	100	93	5	W1	3	6			388.61	JN	52	140	1	25	3	1			
												388.68	JN	71	230	1	25	3	1			
389												388.92	JN	53	70	1	20	1.5	3			
												388.95	JN	64	230	1	20	1.5	1			
												389.18	JN	62	230	1	25	3	3			
												389.25	JN	37	230	1	25	3	3			
390	389.77	392.77	GR	100	99	5	W1	3	9	Some mica bands appear to be oriented but the majority are random.		389.92	JN	54		3	25	3	3			
												389.96	JN	64		3	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
391	389.77	392.77	GR	100	99	5	W1	3	9	Some mica bands appear to be oriented but the majority are random.		390.79	FOL	29		3	20	3	4			
												391.01	JN	20		3	20	3	4			
392												391.75	JN	10		3	12	1.5	4			
												392.06	JN	7	130	1	25	3	1			
												392.19	JN	21	190	1	20	3	4			
												392.45	JN	20		3	20	3	4			
												392.62	JN	37	255	1	25	3	1			
393	392.77	395.77	GR	100	97	5	W1	3	7	Some areas of apparent foliation where mica bands are oriented in a similar fashion to one another. Some mica bands are randomly oriented as well.		392.94	JN	71	210	2	20	3	4			
												393.47	JN	64		3	25	3	1			
												393.65	JN	39		3	25	3	3			
394												393.79	FOL	40		3	25	3	1			
												393.87	FOL	31		3	25	3	1			
												394.24	JN	20		3	20	3	4			
395												395.57	FOL	21		3	25	3	3			
396	395.77	398.77	GR	100	100	6	W1	1	2			396.54	JN	58	305	1	25	3	1			
397												397.19	JN	49	120	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
398	395.77	398.77	GR	100	100	6	W1	1	2													
399																						
400	398.77	401.77	GR	100	100	6	W1	1	4	Hard granite with some areas of mica banding indicating foliation. Rock hardness is still R6 in this area. Also some pegmatitic texture.		400.03	FOL	11	300	1	25	3	1			
												400.26	FOL	36	220	1	25	3	1			
												400.44	FOL	29	295	1	25	3	1			
401																						
												401.54	JN	27	80	1	20	1.5	3			
402																						
403	401.77	404.77	GR	100	100	6	W1	0.5	0													
404																						
405	404.77	407.77	GR	100	100	6	W1	1	1													

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
406	404.77	407.77	GR	100	100	6	W1	1	1			406.04	JN	6	350	1	12	1	2			
407																						
408	407.77	410.77	GR	100	100	6	W1	3	4	Low alpha JN starts at 410.65m and continues into next run.		409.25	JN	76	283	1	20	1.5	1			
409																						
410												409.89	JN	0		3	20	3	4			
												410.70	JN	63	190	1	25	3	1			
411												410.90	JN	8	180	1	25	3	3			
												411.16	JN	17	10	1	25	3	1			
412	410.77	413.77	GR	100	100	6	W1	6	4			411.76	JN	23	20	1	12	1.5	4			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
413	410.77	413.77	GR	100	100	6	W1	6	4		
414	413.77	415.10	GR	100	100	5	W1	4	2	Chlorite alteration and low intensity microfracturing.	
415	415.10	416.20	GR	100	100	5	W1	12	4	Chlorite alteration and high intensity microfracturing.	
416	416.20	416.77	FLT	100	46	5	W1	12	7	Chlorite alteration and intense microfracturing. Minor fault zone: Fresh, slightly chlorite altered, massive, light grey to grey, coarse to very coarse, very strong to extremely strong (R5-R6) GRANITOID. Joints are slickensided and chlorite, calcite, silt and clay coated. Intense fracturing and microfracturing from 416.20m to 416.63m. These are chlorite and clay coated, slickensided joints. No discrete faults, gouge or obvious sliding surface.	
417	416.77	419.77	GR	100	97	5	W1	6	9		
418											
419											
420	419.77	422.77	GR	100	100	5	W1	0.5	0		

Discontinuities							
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
413.23	JN	44	193	1	6	0.5	4
414.23	JN	38	0	2	20	1.5	3
414.49	JN	42	55	2	20	3	4
415.25	JN	27	78	2	20	1.5	3
415.89	JN	34	27	2	6	0.5	4
416.10	JN	34	352	2	6	0.5	4
416.20	JN	32	250	2	12	1.5	4
416.24	JN	31	30	2	12	1.5	4
416.36	JN	25	0	2	6	0.5	4
416.43	JN	0	29	2	6	0.5	4
416.47	JN	69	153	2	20	3	4
416.56	JN	73	170	1	12	1.5	4
416.63	JN	65	230	1	20	3	4
417.53	JN	15	0	1	25	3	2
417.53	JN	65	179	1	25	3	1
418.24	JN	45	208	1	20	1.5	3
418.43	JN	46	300	1	20	3	4
418.75	JN	36	290	1	20	3	4
418.77	JN	36	235	1	12	1	4
418.85	JN	54	183	1	12	1	4
418.95	JN	27	10	1	20	2	3
419.46	JN	46	311	1	12	2	4

Zones		
Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
421	419.77	422.77	GR	100	100	5	W1	0.5	0													
422																						
423	422.77	425.77	GR	100	100	6	W1	1	1													
424																						
425												425.40	JN	39	211	1	25	3	1			
426	425.77	428.77	GR	100	100	6	W1	1	1	Pegmatitic texture zone from 425.92m-426.02m and 426.42m-426.56m.		426.32	JN	32	140	1	25	3	1			
427																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
428	425.77	428.77	GR	100	100	6	W1	1	1	Pegmatitic texture zone from 425.92m-426.02m and 426.42m-426.56m.		428.98	JN	43	160	1	25	3	1			
429												429.58	JN	12	195	1	25	3	3			
430	428.77	431.77	GR	100	100	6	W1	3	5			430.80	JN	6	345	1	25	3	3			
431												431.18	JN	36	200	1	25	3	3			
												431.58	JN	29	300	1	25	3	3			
432												432.15	JN	42	220	1	20	3	4			
												432.23	JN	16	240	1	25	3	3			
												432.26	JN	28	245	1	12	1.5	4			
433	431.77	434.77	GR	100	96	6	W1	3	8			432.90	JN	25	300	1	25	3	1			
												433.18	JN	49	315	1	25	3	1			
434												433.99	JN	35	295	1	25	3	1			
												434.27	JN	34	70	1	12	1	4			
												434.59	JN	19	0	1	12	1	4			
435	434.77	437.77	GR	100	100	6	W1	1	2			434.96	JN	65	240	1	20	1.5	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
436	434.77	437.77	GR	100	100	6	W1	1	2			435.62	JN	47	210	1	25	3	1			
437																						
438	437.77	440.77	GR	100	88	6	W2	6	11	Some joints show indications of weathering.	5 E-05 (436.1 - 452.8)	439.32	JN	68	200	2	25	3	3			
439												439.78	JN	25	15	2	25	3	1			
440												440.08	JN	51	80	2	25	3	3			
												440.20	JN	27	55	2	25	3	3			
												440.22	JN	62	200	2	25	3	3			
												440.30	JN	4	240	2	12	1.5	4			
												440.35	JN	61	260	2	25	3	1			
												440.43	JN	5	260	2	20	3	4			
												440.47	JN	75	180	2	20	1.5	3			
												440.55	JN	14	300	2	25	3	3			
												440.67	JN	60	260	2	20	1.5	1			
441	440.77	441.57	GR	100	69	6	W1	3	13			441.10	JN	63	270	2	20	1.5	1			
												441.13	JN	17	270	2	20	1.5	1			
												441.15	JN	55	240	2	25	3	1			
												441.17	JN	63	270	2	20	1.5	1			
												441.41	BC	45	280	2	20	1.5	1			
												441.50	BC	90		3	20	1.5	1			
												441.55	JN	14		3	20	1.5	1			
	441.57	441.87	LC	0	0			20	30			441.72	LC				0	0.5	20			
442												442.02	JN	72	218	1	20	1.5	1			
	441.87	443.77	GR	100	93	6	W1	12	11	Weakly foliated. Broken core contributes 11 to fracture count.		442.17	JN	63	209	1	25	3	3			
												442.35	JN	33	80	1	20	3	4			
												442.41	JN	54	263	1	20	1.5	1			
												442.62	JN	43	170	1	25	3	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
443	441.87	443.77	GR	100	93	6	W1	12	11	Weakly foliated. Broken core contributes 11 to fracture count.	
444	443.77	446.77	GR	100	88	6	W1	6	27	Broken rock or cave at the top of this interval. The drillers were pulling and lowering rods before run was drilled.	5 E-05 (436.1 - 452.8)
447	446.77	449.77	GR	100	97	6	W1	6	11		
450	449.77	452.77	GR	100	100	6	W1	0.5	0		

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
443.42	JN	57	240	1	25	3	3			
443.55	JN	40	240	1	25	3	3			
443.70	JN	45			25	3	3			
443.75	JN	50		1	6	0.5	4			
443.76	JN	50	240	1	25	3	3			
443.77	JN	49	270	1	6	0.5	4			
443.83	BC	62	85	2	0	1	5			
			270	2						
			272							
444.04	JN	46		3	0	1	15			
444.09	JN	48		3	20	3	4			
444.13	JN	53		3	6	1	4			
444.17	JN	45		3	20	3	4			
444.19	JN	22		3	20	3	4			
444.41	JN	44		3	20	3	4			
444.44	JN	46		3	20	1.5	3			
444.72	JN	71		3	12	1.5	4			
444.92	JN	51		3	20	3	4			
445.07	JN	38		3	12	1.5	4			
445.21	JN	36			25	3	3			
445.35	JN	42		3	20	3	4			
445.82	JN	28		3	25	3	1			
445.87	JN	18		3	25	3	3			
445.95	JN	41		3	20	3	4			
446.00	JN	47		3	25	3	3			
446.83	JN	52		3	25	3	1			
446.93	JN	37		3	6	1	8			
447.69	JN	64		3	25	3	3			
447.81	JN	28		3	25	3	1			
447.93	JN	27		3	25	3	1			
448.43	JN	50		3	25	3	1			
448.46	JN	65		3	20	1.5	3			
449.33	JN	32		3	12	1	1			
449.45	JN	42		3	6	1	8			
449.50	JN	43		3	12	1	1			
449.61	JN	34		3	25	3	3			

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-05

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 17-Mar-2014 Logging Completion Date: 31-Mar-2014

Northing: 7165750.0 m
Easting: 542576.8 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 415.90 masl
Depth: 452.77 m
Planned Azimuth: 110 deg
Planned Dip: 70 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
451	449.77	452.77	GR	100	100	6	W1	0.5	0		5 E-05 (436.1 - 452.8)											
452																						
453																						
454																						
455																						
456																						
457																						

Notes: ***- Length of drill data per page: 7.5 m***

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Geotechnical Interval Data

From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments
200.30	206.30	GR	100	100	5	W1	3	6	The upper portion of this borehole to 200 metres was not logged because the same interval was logged in JGT-01. This interval logged only to highlight the presence of 4 main discontinuities (6 in total but 2 were not logged); it was decided to log this interval since the packer test performend on the 198.02m -251.3m interval showed a quicker recovery compared to the previous test performed on this hole. The relative faster recovery was interpreted to be influenced by 4 main structures that were logged.
206.30	248.30	GR	100	100	5	W2	0.5	0	42 m long stick core. Overall massive granidoriote with a 10cm long pegmatite dyke at 220m.

Hydraulic Conductivity (m/s): 6 E-08 (198.0 - 251.3)

Discontinuities

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
202.10	FLT	30		3	0	0.5	15
204.17	FLT	35		3	6	1	8
204.23	JN	30		3	12	1.5	4
204.28	CLF	33		3	25	4	0.75
204.30	JN	30			20	3	4

Zones: Lost Core, Fault zone, Broken Core

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
208																						
209																						
210																						
211	206.30	248.30	GR	100	100	5	W2	0.5	0	42 m long stick core. Overall massive granidoriote with a 10cm long pegmatite dyke at 220m.	6 E-08 (198.0 - 251.3)											
212																						
213																						
214																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
216																						
217																						
218																						
219	206.30	248.30	GR	100	100	5	W2	0.5	0	42 m long stick core. Overall massive granidoriote with a 10cm long pegmatite dyke at 220m.	6 E-08 (198.0 - 251.3)											
220																						
221																						
222																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
223																						
224																						
225																						
226	206.30	248.30	GR	100	100	5	W2	0.5	0	42 m long stick core. Overall massive granidoriote with a 10cm long pegmatite dyke at 220m.	6 E-08 (198.0 - 251.3)											
227																						
228																						
229																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
231																						
232																						
233																						
234	206.30	248.30	GR	100	100	5	W2	0.5	0	42 m long stick core. Overall massive granidoriote with a 10cm long pegmatite dyke at 220m.	6 E-08 (198.0 - 251.3)											
235																						
236																						
237																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
238																						
239																						
240																						
241																						
	206.30	248.30	GR	100	100	5	W2	0.5	0	42 m long stick core. Overall massive granidoriote with a 10cm long pegmatite dyke at 220m.	6 E-08 (198.0 - 251.3)											
242																						
243																						
244																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
246	206.30	248.30	GR	100	100	5	W2	0.5	0	42 m long stick core. Overall massive granidoriote with a 10cm long pegmatite dyke at 220m.	6 E-08 (198.0 - 251.3)											
247																						
248																						
249	248.30	251.30	GR	100	100	5	W1	0.5	0	3m long stick core with no features.	2 E-10 (246.0 - 299.3)											
250																						
251																						
252	251.30	254.30	GR	100	100	6	W1	1	1	Massive granodiorte. Disseminated alteration (mainly albite and epidote) along the run with no major effect on the overall strength of the rock.												

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
253	251.30	254.30	GR	100	100	6	W1	1	1	Massive granodiorte. Disseminated alteration (mainly albite and epidote) along the run with no major effect on the overall strength of the rock.		253.09	JN	32	325	1	20	1.5	1			
254																						
255	254.30	257.30	GR	100	100	5	W1	0.5	0	Overall massive granodiorite. Increase in microcracking in the bottom half section of the interval; these microcracks are healed with muscovite. No preferential orientation of microcracking, they are widespread within the rock.	2 E-10 (246.0 - 299.3)											
256																						
257																						
258	257.30	260.30	GR	100	100	6	W1	0.5	0													
259																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
261	257.30	260.30	GR	100	100	6	W1	0.5	0													
262	260.30	263.30	GR	100	100	6	W1	1	1													
263																						
264											2 E-10 (246.0 - 299.3)											
265	263.30	266.30	GR	100	100	6	W1	1	1			265.11	JN	39	76	1	25	3	1			
266																						
267	266.30	269.30	GR	100	100	6	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
268	266.30	269.30	GR	100	100	6	W1	0.5	0													
269																						
270	269.30	272.30	GR	100	100	6	W1	0.5	0		2 E-10 (246.0 - 299.3)											
271																						
272																						
273	272.30	275.30	GR	100	100	6	W1	1	2	One feature, JCR 12, but otherwise massive, so average is 20.		273.32	JN	50	338	1	12	1	1			
274																						
275												274.97	JN	49	340	1	20	1.5	1			

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
276	272.30	275.30	GR	100	100	6	W1	1	2	One feature, JCR 12, but otherwise massive, so average is 20.		275.36 275.45 275.48	JN JN JN	25 27 8	100 90 100	2 2 2	20 12 20	3 1.5 3	4 4 4			
277	275.30	278.30	GR	100	93	6	W1	1	3	Approximately 30 cm section with several steeply dipping joints.												
278																						
279											2 E-10 (246.0 - 299.3)											
280	278.30	281.30	GR	100	100	6	W1	0.5	0													
281																						
282	281.30	284.30	GR	100	100	6	W1	0.5	0	Stick core.												

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
283	281.30	284.30	GR	100	100	6	W1	0.5	0	Stick core.												
284																						
285	284.30	287.30	GR	100	100	6	W1	0.5	0	Stick core.	2 E-10 (246.0 - 299.3)											
286																						
287																						
288	287.30	290.30	GR	100	100	6	W1	0.5	0	Appears to be intact foliation around 299 m with approximately 40 degree alpha angle.												
289																						
290																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
291	287.30	290.30	GR	100	100	6	W1	0.5	0	Appears to be intact foliation around 299 m with approximately 40 degree alpha angle.		290.47	JN	60	200	1	12	1	4			
292	290.30	293.30	GR	100	100	6	W1	1	1	1 discontinuity in stick core. Appears to be more foliation (banding) in this run but no fractures along it.												
293																						
294											2 E-10 (246.0 - 299.3)											
295	293.30	296.30	GR	100	100	6	W1	0.5	0													
296																						
297	296.30	299.30	GR	100	100	6	W1	0.5	0	Pegmatitic dyke at 296.75m. Overall massive granodiorite with slight disseminated epidote alteration.	1 E-08 (297.0 - 350.3)	296.71 296.75	CON CON				25 25	4 4	0.75 0.75			

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
298	296.30	299.30	GR	100	100	6	W1	0.5	0	Pegmatitic dyke at 296.75m. Overall massive granodiorite with slight disseminated epidote alteration.	2 E-10 (246.0 - 299.3)											
299																						
300	299.30	302.30	GR	100	100	6	W2	1	1	Stick core with a localized fault at 300.4m localized in an area with a relative increase in grain size. Pyrite is present as a coating on the fault. Overall massive granodiorite.	1 E-08 (297.0 - 350.3)	300.40	FLT	56	80	1	6	0.5	3			
301																						
302																						
303	302.30	305.30	GR	100	100	4	W1	1	1	Overall massive granodiorite with an increase in percent of biotite with respect to the former runs.		303.55	JN	56	325	1	20	1.5	1			
304												304.04	CLF	29	180	1	25	4	0.75			
305																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
306	302.30	305.30	GR	100	100	4	W1	1	1	Overall massive granodiorite with an increase in percent of biotite with respect to the former runs.												
307	305.30	308.30	GR	100	100	6	W1	0.5	0	Massive granodiorite.												
308																						
309											1 E-08 (297.0 - 350.3)											
310	308.30	311.30	GR	100	100	6	W1	0.5	0	Overall massive granodiorite showing a decrease in grain size with respect to the previous runs.												
311																						
312	311.30	312.69	GR	100	100	6	W1	0.5	0	Massive granodiorite.												

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
				25. 50. 75. 100.	25. 50. 75. 100.						
313	311.30	312.69	GR	100	100	6	W1	0.5	0	Massive granodiorite.	
	312.69	313.20	GR	98	67	3	W2	3	5	Fractured zone. There is 1 fault at 312.78m with localized deformation and associated joints. Interval is moderately altered with an albite and epidote alteration and presence of chlorite. Joint and fault planes show presence of pyrite.	
314	313.20	314.30	GR	100	100	6	W1	0.5	0	Massive granodiorite showing no alteration in this interval.	
315	314.30	315.60	GR	100	100	6	W1	0.5	0	Massive granodiorite.	
316	315.60	317.30	GR	100	100	6	W1	1	1	One planar rough joint.	1 E-08 (297.0 - 350.3)
317	317.30	320.30	GR	100	100	6	W1	0.5	0		
318											
319											
320											

Discontinuities							
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
312.69	JN	44	50	1	12	1.5	4
312.78	FLT	61	25	1	6	0.5	8
312.86	JN	65	25	1	12	1.5	4
313.05	CLF	20		3	25	4	0.75
313.09	JN	5	290	1	20	3	4
313.20	JN	28	10	1	25	3	1
316.76	JN	27		3	20	1.5	1
317.50	CLF	54	359	1	25	4	0.75
319.30	CLF	66	185	1	25	4	0.75

Zones		
Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
321	317.30	320.30	GR	100	100	6	W1	0.5	0													
322	320.30	322.59	GR	100	100	6	W1	1	1			321.97	JN	58	340	1	12	1.5	4			
323	322.59	323.30	GR	100	100	6	W1	0.5	0													
324	323.30	326.30	GR	100	100	6	W1	1	1		1 E-08 (297.0 - 350.3)	325.39	JN	55	330	1	12	1.5	4			
325																						
326																						
327	326.30	328.09	GR	100	100	6	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
328	326.30	328.09	GR	100	100	6	W1	0.5	0													
329	328.09	329.30	GR	100	100	6	W1	0.5	0													
330	329.30	332.30	GR	100	88	6	W1	6	16		1 E-08 (297.0 - 350.3)	330.21	JN	6		3	25	3	1			
												330.25	BC	61		3	0	1	5			
												330.27	JN	66	340	3	12	1	4			
												330.29	JN	33	30	1	12	1.5	4			
												330.31	JN	30	50	1	12	1.5	4			
												330.32	JN	37	340	1	20	3	4			
												330.33	JN			1	20	3	4			
												330.42	JN	39	200	1	20	3	4			
												330.43	JN	39	300	1	12	1	4			
												330.48	JN	35	300	1	12	1	4			
												330.77	JN	10	200	1	12	2	4			
												331.56	JN	54	220	1	25	3	3			
												332.07	JN	36	100	1	25	3	1			
												332.11	JN	61	20	1	20	3	4			
												332.15	JN	74	110	1	12	1	4			
333	332.30	335.30	GR	100	100	6	W1	0.5	0													
334																						
335																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
336	332.30	335.30	GR	100	100	6	W1	0.5	0													
337	335.30	338.30	GR	100	100	6	W1	3	3			337.37 337.38 337.58	JN JN JN	66 55 42	30 70 310	1 1 1	25 12 12	3 1 1	1 4 4			
338																						
339											1 E-08 (297.0 - 350.3)											
340	338.30	341.30	GR	100	100	6	W1	0.5	0													
341																						
342	341.30	344.30	GR	100	100	6	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
343	341.30	344.30	GR	100	100	6	W1	0.5	0													
344																						
345												345.09	JN	74	300	1	12	1	4			
346	344.30	347.30	GR	100	100	6	W1	1	1		1 E-08 (297.0 - 350.3)											
347																						
348											7 E-06 (345.0 - 398.3)	348.37	JN	69	250	1	12	1.5	4			
349	347.30	350.30	GR	100	100	6	W1	1	1		5 E-06 (348.0 - 380.3)											
350																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
	347.30	350.30	GR	100	100	6	W1	1	1		1 E-08 (297.0 - 350.3)
	350.30	350.96	GR	100	100	6	W1	0.5	0		
351	350.96	352.19	GR	100	100	6	W2	1	4	Increase fracturing with respect to the previous run. Albite and epidote alteration are visible on closed cracks (there is a slight bleaching halo around the cracks).	
352	352.19	353.30	FLT	100	41	3	W2	12	12	Faulted zone. Granitoid host rock has an overall massive structure. Apart from the different discontinuities defined, the interval shows several sealed cracks cross-cutting the un-faulted section of the interval.	
353	353.30	353.70	GR	100	100	4	W2	0.5	0	Faulted zone but no fractures.	
354	353.70	355.40	GR	100	94	5	W1	4	5	Small broken core zone counted as 3 fractures.	7 E-06 (345.0 - 398.3) 5 E-06 (348.0 - 380.3)
355	355.40	356.30	FLT	100	0	3	W2	15	41	Fault zone.	
356	356.30	359.30	GR	100	81	5	W1	6	18		
357											

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
350.96	JN	25	180	1	12	1.5	4
351.19	JN	55	120	1	20	3	4
351.41	CLF	20		3	25	4	0.75
351.51	JN	64	220	1	20	1.5	1
351.83	JN	65	200	1	20	1.5	1
352.19	CLF	35	245	1	25	4	0.75
352.40	FLT	54		1	6	0.5	8
352.49	JN	85	160	1	20	3	4
352.50	CLF	45	0	1	25	4	0.75
352.51	CLF	60	165	1	25	4	0.75
352.56	FLT	32	10	1	6	0.5	8
352.58	FLT	60	175 180	1	6	1.5	4
352.71	FLT	64	180	1	6	0.5	4
352.74	FLT	28	180	1	6	0.5	4
352.81	JN	62	265	1	25	3	1
353.05	FLT	34	80	1	6	1	8
353.10	FLT	45	330	1	6	0.5	4
353.23	FLT	55	120	1	6	0.5	4
353.25	FLT	35	240	1	6	0.5	4
353.91	JN	70		3	25	3	1
355.20	JN	45		3	20	2	3
355.25	JN	50		3	12	1	3
355.45	FLT	60		3	0	1	10
355.60	JN	47		3	25	3	3
355.68	JN	49			25	3	1
355.75	FLT	63		3	0	1	5
355.86	JN	48		3	12	1	3
356.02	FLT	75		3	0	1	5
356.17	JN	66		3	12	1	1
356.20	FLT	66		3	0	1	15
356.30	JN	40		3	20	2	3
356.46	JN	85		3	20	2	3
356.80	JN	55	320	2	20	2	3
356.90	JN	10	211	2	25	3	1
357.02	JN	41	219	2	12	2	4
357.21	JN	56	10	2	25	3	3
357.30	JN	63	227	2	12	2	4
357.32	JN	80	30	2	12	2	4
357.35	JN	80	260	2	20	2	3
357.37	JN	38	180	2	20	2	3
357.46	JN	72	252	2	12	1	1

Zones: Lost Core, Fault zone, Broken Core

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
358	356.30	359.30	GR	100	81	5	W1	6	18			357.80	JN	73	285	2	12	1	3			
												357.89	JN	75	282	2	12	1	1			
												358.00	JN	56	221	2	12	1	3			
												358.09	JN	52	155	2	20	2	3			
												358.12	JN	25	203	2	25	3	1			
359												358.79	JN	75	290	2	12	1	1			
												358.79	JN	75	90	2	12	1	1			
360	359.30	362.30	GR	100	100	5	W1	2	2		7 E-06 (345.0 - 398.3) 5 E-06 (348.0 - 380.3)	360.16	JN	58	180	1	12	1	1			
361																						
362												361.84	JN	56	73	1	12	1	4			
363	362.30	365.30	GR	100	98	5	W1	1	4	Interval has some healed cracks and microfractures, possibly related to the fault zone above.		363.73	JN	56	120	1	25	3	1			
												363.86	JN	69	160	1	20	1.5	1			
												363.89	JN	61	90	1	25	3	3			
364												363.93	JN	66	110	1	25	3	3			
365																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
	362.30	365.30	GR	100	98	5	W1	1	4	Interval has some healed cracks and microfractures, possibly related to the fault zone above.												
366												365.94	JN	54		3	25	3	1			
												366.01	JN	45		3	25	3	1			
												366.16	JN	56		3	25	3	1			
												366.57	JN	49		3	25	3	1			
												366.62	JN	56		3	20	3	4			
												366.66	JN	55	320	3	20	3	4			
												366.67	BC	56	260	3	0	1	5			
												366.69	JN	59		1	12	2	4			
												366.76	JN	58		1	12	2	4			
367	365.30	368.30	GR	100	91	5	W1	3	10	Some healed cracks in first 20cm of run.												
368																						
369											7 E-06 (345.0 - 398.3) 5 E-06 (348.0 - 380.3)	369.47	JN	52	200	1	25	3	3			
370	368.30	371.30	GR	100	100	5	W1	2	2			370.25	JN	42	180	1	25	3	1			
371																						
372	371.30	374.30	GR	100	100	6	W1	0.5	0													

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
				25. 50. 75. 100.	25. 50. 75. 100.						
373	371.30	374.30	GR	100	100	6	W1	0.5	0		
374											
375	374.30	377.30	GR	100	100	6	W1	1	1		7 E-06 (345.0 - 398.3) 5 E-06 (348.0 - 380.3)
376											
377	377.30	379.42	GR	100	100	6	W2	1	3	Massive granodiorite with indication of weathering and alteration (greenish secondary colour).	
378											
379	379.42	379.80	GR	100	89	4	W2	3	3	Massive granodiorite - the interval is defined by a series of closed cracks filled by what is likely rock alteration product.	
380	379.80	380.30	GR	100	100	6	W1	0.5	0		

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
375.20	FLT	2	80	1	6	0.5	4			
377.54	JN	33	340	1	12	1.5	4			
377.76	CLF	69	260	1	25	4	0.75			
377.84	JN	54	250	1	20	1.5	1			
379.13	JN	74	300	1	20	3	4			
379.42	JN	56	265	1	25	3	1			
379.46	JN	77	265	1	12	1.5	4			
379.64	JN	64	265	1	20	3	4			
379.70	CLF	65	265	1	25	4	0.75			
379.80	CLF	60	270	1	25	4	0.75			

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Geotechnical Interval Data

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
				25. 50. 75. 100.	25. 50. 75. 100.						7 E-06 (345.0 - 398.3) 5 E-06 (348.0 - 380.3)
379	379.80	380.30	GR	100	100	6	W1	0.5	0		
381	380.30	383.30	GR	100	100	6	W1	1	2	Overall massive granodiorite. Localized presence of small intervals resembling pegmatitic dykes: one at 381.12m up to about 381.25m, and the second is 382.33m to 382.42m.	
384	383.30	386.30	GR	100	100	6	W1	1	1	Overall massive granodiorite with a change in structure between 384.01m to 384.27m from massive to porphyritic.	
387	386.30	387.55	GR	100	100	6	W1	0.5	0	Massive granodiorite with the presence of epidote and chlorite as the main alteration products. 0.3m long inteval with increased alteration and fracturing with respect to the previous interval. Along with 3 fractures, 2 closed cracks are present along the interval.	
	387.55	387.87	GR	100	100	4	W2	3	3		

Discontinuities

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
381.12	JN	50	205	1	25	3	3
381.50	FLT	75	90	1	6	0.5	4
384.01	JN	54	165	1	25	3	1
384.27	CON				25	4	0.75
387.55	JN	50	150	1	20	1.5	1

Zones

Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
	387.55	387.87	GR	100	100	4	W2	3	3	0.3m long inteval with increased alteration and fracturing with respect to the previous interval. Along with 3 fractures, 2 closed cracks are present along the interval.	
388	387.87	389.30	GR	100	99	6	W1	1	2		
389											
390											
	389.30	392.30	GR	100	94	3	W2	6	8		
391											7 E-06 (345.0 - 398.3)
392											
	392.30	395.30	GR	100	97	4	W1	3	6		
393											
394											
395											

Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja
387.58	CLF	51	150	1	25	4	0.75
387.60	CLF	48	150	1	25	4	0.75
387.73	CLF	50	150	1	25	4	0.75
387.76	JN	35	150	1	25	3	1
387.87	JN	66	140	1	25	3	1
388.40	JN	38	295	1	12	1.5	4
388.60	JN	67	220	1	25	3	1
389.49	JN	48	161	1	25	3	1
389.57	JN	46	161	1	25	3	1
390.43	JN	35	180	1	20	3	4
390.76	JN	50	184	1	20	3	4
390.78	JN	44	178	1	25	3	1
390.87	VNO	60	197	1	20	1.5	3
391.27	JN	31	185	1	12	2	4
392.20	JN	51	186	1	25	3	1
392.30	JN	37	154	1	25	3	3
392.86	JN	48	185	1	25	3	1
393.95	JN	45	195	1	20	3	4
394.09	JN	51	207	1	25	3	1
394.11	JN	58	198	1	25	3	1
394.18	JN	43	197	1	25	3	1

Zones		
Lost Core	Fault zone	Broken Core

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
396	392.30	395.30	GR	100	97	4	W1	3	6													
397	395.30	398.30	GR	100	92	4	W2	4	9	6 fractures attributed to broken core zone.	7 E-06 (345.0 - 398.3)	397.27	JN	48	182	2	25	3	1			
												397.37	BC	40		3	20	3	4			
												397.52	JN	56	250	2	20	1.5	1			
398												397.73	JN	50	75	2	20	3	4			
399	398.30	401.30	GR	100	91	5	W1	6	11		4 E-06 (396.0 - 461.3)	398.63	JN	58	49	1	25	3	1			
												398.84	JN	44	37	1	25	3	1			
												399.00	JN	60	9	1	25	3	1			
												399.20	BC			3	25	3	1			
												399.30	JN	61	141	1	25	3	3			
400												399.38	JN	61	183	1	20	3	4			
401																						
402	401.30	404.30	GR	100	100	5	W1	1	1			401.87	JN	58	160	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
403	401.30	404.30	GR	100	100	5	W1	1	1													
404																						
405	404.30	407.30	GR	100	100	5	W1	0.5	0		4 E-06 (396.0 - 461.3)											
406																						
407																						
408	407.30	410.30	GR	100	100	6	W1	1	1			408.04	JN	54	302	1	20	1.5	3			
409																						
410																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
	407.30	410.30	GR	100	100	6	W1	1	1													
411	410.30	412.01	GR	100	100	6	W1	0.5	0	Overall massive granodiorite with porphyritic texture in some discrete sections of the interval.												
412	412.01	412.24	FLT	100	0	3	W3	20	3	Fault zone within a moderately altered interval (albitic alteration). The original massive structure is obliterated by the alteration-induced bleaching of the rock. The damaged zone within the two main faults is defined by a series of closed cracks related to the fault deformation. The fault at 412.14m defines the top contact between the faulted zone and a pegmatitic section of the rock.		412.01 412.05 412.09 412.10 412.14 412.24	CON FLT CLF FLT FLT CON	46 15 32	262 278 280	1 3 1 1	25 6 25 6 6 25	4 0.5 4 0.5 0.5 4	0.75 8 0.75 4 4 0.75		■	
413	412.24	413.30	GR	100	100	6	W1	0.5	0													
414	413.30	416.30	GR	100	100	6	W1	0.5	0	Overall massive granodiorite with chloritic alteration.	4 E-06 (396.0 - 461.3)											
416																						
417	416.30	419.30	GR	100	99	6	W2	3	3													

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
418	416.30	419.30	GR	100	99	6	W2	3	3			417.91	JN	74	227	1	25	3	3			
												417.94	JN	59	190	1	25	3	3			
												418.25	JN	58	191	1	20	1.5	1			
419												419.33	CON	44			25	4	0.75			
												419.39	CON	36			25	4	0.75			
420												419.91	JN	66	238	1	20	1.5	3			
	419.30	422.30	GR	100	97	5	W1	3	5	Massive granodiorite with a 6cm wide pegmatite dyke at the beginning of the run (419.33m to 419.39m). There is a fault zone between 421.62m to 421.70m defined by 3 parallel faults filled with clay gouge. There are disseminated sulfides in the interval.	4 E-06 (396.0 - 461.3)											
421												421.62	FLT	53	225	1	6	0.5	8			
												421.68	FLT	54	230	1	0	0.5	15			
												421.70	FLT	55	235	1	6	0.5	8			
422												421.73	JN	61	215	1	20	1.5	1			
												422.54	CON	50			25	4	0.75			
												422.69	CON	48			25	4	0.75			
423																						
	422.30	425.30	GR	100	100	6	W1	0.5	0	Massive granodiorite with slight epidote alteration. Presence of a 15cm long pegmatitic interval between 422.54m to 422.69m.												
424																						
425																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
	422.30	425.30	GR	100	100	6	W1	0.5	0	Massive granodiorite with slight epidote alteration. Presence of a 15cm long pegmatitic interval between 422.54m to 422.69m.	
426	425.30	427.10	GR	100	100	5	W1	0.5	0	Massive granite with a pegmatitic interval between 426.68m and 426.76m.	
427	427.10	428.30	GR	100	100	5	W1	0.5	0		
428	428.30	431.30	GR	100	100	5	W1	1	1		4 E-06 (396.0 - 461.3)
429											
430											
431	431.30	434.30	GR	100	100	5	W1	1	2		
432											

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
426.68	CON	26			25	4	0.75			
426.76	CON	26			25	4	0.75			
430.08	JN	65	221	1	25	3	1			
432.39	JN	58	239	1	25	3	3			

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
433	431.30	434.30	GR	100	100	5	W1	1	2			432.97	JN	42	180	1	25	3	3			
434																						
435	434.30	437.28	GR	100	100	5	W1	1	1		4 E-06 (396.0 - 461.3)	436.69	JN	53	232	1	20	1.5	1			
436																						
437																						
438	437.28	439.46	GR	100	100	5	W1	1	2			438.09	JN	65	227	2	20	1.5	1			
439												439.15	JN	30	230	2	20	3	4			
												439.46	JN			2	25	3	3			
												439.51	BC	52	110	3	20	3	4			
												439.56	JN	50	199	2	20	3	4			
												439.57	JN	47	202	2	20	3	4			
												439.59	JN	63	195	2	25	3	1			
												439.62	JN	40	188	2	25	3	1			
	439.46	439.87	GR	100	0	4	W2	6	14			439.68	JN	40	190	1	12	1.5	4			
												439.72	JN	61	6	2	25	3	3			
												439.76	JN	52	228	2	20	3	4			
												439.82	JN	70	210	2	25	3	3			
440	439.87	440.30	GR	100	100	5	W1	1	1			439.94	JN	60	180	2	25	3	3			

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
439.87	440.30	GR	100	100	5	W1	1	1														
440.30	443.30	GR	100	98	5	W1	3	5				441.16	JN	55	240	1	25	3	1			
												441.52	JN	16	319	1	25	3	1			
												441.63	JN	66	250	1	25	3	3			
												441.70	JN	72	269	1	25	3	3			
												443.30	JN	65	202	1	25	3	3			
443.30	446.30	GR	100	100	5	W1	0.5	0			4 E-06 (396.0 - 461.3)											
446.30	449.30	GR	100	100	5	W1	1	2														

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)
				25. 50. 75. 100.	25. 50. 75. 100.						
448	446.30	449.30	GR	100	100	5	W1	1	2		
449	449.30	449.75	GR	100	100	5	W1	2	1	Transitional contact between typical granite and a finer grained slightly darker granite at 449.5m to 449.75m.	
450	449.75	451.10	GR	100	100	6	W1	0.5	0	Extremely strong, fine grained granite. Transitional contact at the top of interval, sharp contact at the bottom.	
451	451.10	452.30	GR	100	100	5	W1	2	1		4 E-06 (396.0 - 461.3)
452											
453	452.30	455.30	GR	100	100	5	W1	0.5	0		
454											
455											

Discontinuities								Zones		
Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
447.64	JN	51	229	2	20	1.5	1			
449.06	JN	69	196	2	25	3	3			
449.30	JN	62	219	1	20	3	4			
451.10	CON	54			25	4	0.75			
451.87	JN	48	191	1	25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-06

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 30-Mar-2014 Logging Completion Date: 4-Apr-2014

Northing: 7165609.9 m
Easting: 543163.3 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.57 masl
Depth: 461.30 m
Planned Azimuth: 200 deg
Planned Dip: 80 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25 50 75 100	25 50 75 100																	
456	452.30	455.30	GR	100	100	5	W1	0.5	0													
457	455.30	458.30	GR	100	100	6	W1	0.5	0	Overall massive granite.	4 E-06 (396.0 - 461.3)											
458																						
459	458.30	461.30	GR	100	100	6	W1	0.5	0	Massive granite.												
460																						
461																						
462																						

Notes: ***- Length of drill data per page: 7.5 m***
- No geotechnical data were collected from 0 to 200.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-07

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 10-Apr-2014 Logging Completion Date: 10-Apr-2014

Northing: 7165622.0 m
Easting: 543125.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.60 masl
Depth: 26.30 m
Planned Azimuth: 0 deg
Planned Dip: 90 deg

Depth (m)	Geotechnical Interval Data: From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
1																						
2																						
3	0.00	6.40	OVB	15						Overburden with recovery of cobbles. Recovered metasediment and granite cobbles. Depths are from the top of the ice pad.												
4																						
5																						
6																						
	6.40	6.80	GR	100	100	5	W1	3	1													
7	6.80	8.30	GR	100	94	5	W1	3	5	Some alteration and coating on joint surfaces.												

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 0 to 14.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-07

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 10-Apr-2014 Logging Completion Date: 10-Apr-2014

Northing: 7165622.0 m
Easting: 543125.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.60 masl
Depth: 26.30 m
Planned Azimuth: 0 deg
Planned Dip: 90 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
8	6.80	8.30	GR	100	94	5	W1	3	5	Some alteration and coating on joint surfaces.												
9	8.30	9.80	GR	100	95	5	W1	3	7													
10	9.80	11.30	GR	100	91	5	W1	3	7													
11	11.30	12.80	GR	100	100	5	W1	2	3													
12	12.80	14.30	GR	100	100	5	W1	1	1													
13	14.30	15.80	GR	100	92	5	W1	3	6			14.67	JN	80			25	3	2			
14																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 0 to 14.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-07

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 10-Apr-2014 Logging Completion Date: 10-Apr-2014

Northing: 7165622.0 m
Easting: 543125.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.60 masl
Depth: 26.30 m
Planned Azimuth: 0 deg
Planned Dip: 90 deg

Depth (m)	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments	Hydraulic Conductivity (m/s)	Discontinuities: Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Zones: Lost Core	Fault zone	Broken Core
				25. 50. 75. 100.	25. 50. 75. 100.																	
16	14.30	15.80	GR	100	92	5	W1	3	6			15.05	JN	76			25	3	3			
												15.12	JN	75			25	3	1			
												15.15	JN	84			25	3	1			
												15.17	JN	72			25	3	2			
												15.50	JN	88			25	3	2			
17	15.80	17.30	GR	100	90	5	W1	3	5			16.18	JN	75			25	3	3			
												16.31	JN	81			25	3	2			
												16.35	FOL	42			20	3	4			
												16.75	JN	75			25	3	3			
												17.11	JN	69			25	3	3			
18	17.30	18.80	GR	100	87	5	W1	6	7			17.74	JN	75			25	3	3			
												17.83	JN	26			25	3	2			
												18.00	JN	66			25	3	3			
												18.14	JN	64			25	3	3			
												18.18	JN	36			25	3	2			
												18.33	JN	55			25	3	3			
												18.40	JN	59			25	3	3			
19	18.80	20.30	GR	100	98	5	W1	4	4			19.11	JN	76			25	3	2			
												19.12	JN	76			25	3	3			
												19.30	JN	67			25	3	3			
20												20.30	JN	88			25	3	1			
												20.47	JN	68			25	3	3			
												20.61	JN	78			25	3	3			
21	20.30	21.80	GR	100	94	5	W1	6	7			20.86	JN	75			20	3	4			
												20.94	JN	26			25	3	2			
												21.15	JN	77			25	3	3			
												21.16	JN	60			25	3	3			
												21.27	JN	44			25	3	3			
22	21.80	23.30	GR	100	99	5	W1	3	3			21.89	JN	74			25	3	1			

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 0 to 14.30 m.

Checked By: MValerio
Check Date: 30-May-14

Geotechnical Core Log: JGT-07

Project: 13-1328-0041
JAY PROJECT
Geotechnical Site Investigation

Drilling Method: Diamond Drilling
Drilling Completed By: Major Drilling Ltd.
Logged By: Golder Associates Ltd.

Logging Start Date: 10-Apr-2014 Logging Completion Date: 10-Apr-2014

Northing: 7165622.0 m
Easting: 543125.5 m
As-Built UTM Coordinates, NAD 83 Zone 12 N
Elevation: 419.60 masl
Depth: 26.30 m
Planned Azimuth: 0 deg
Planned Dip: 90 deg

Depth (m)	Geotechnical Interval Data										Hydraulic Conductivity (m/s)	Discontinuities								Zones		
	From (m)	To (m)	Rock Type	Recovery (%)	RQD (%)	ISRM Rock Strength Estimate	Weathering	Jn	Fracture Count	Comments		Depth (m)	Type	Alpha	Beta	Reliability	JCR	Jr	Ja	Lost Core	Fault zone	Broken Core
23	21.80	23.30	GR	100	99	5	W1	3	3			22.53	JN	44			25	3	3			
												22.98	JN	58			25	3	1			
24	23.30	24.80	GR	100	99	5	W1	3	3			23.75	JN	72			25	3	3			
												23.77	JN	68			25	3	3			
												24.42	JN	28			25	3	3			
25	24.80	26.30	GR	100	100	5	W1	3	6			24.99	JN	70			25	3	3			
												25.41	JN	53			25	3	2			
												25.66	JN	74			25	3	2			
26												26.08	JN	73			25	3	2			
												26.21	JN	66			25	3	2			
												26.23	JN	73			25	3	2			
27																						
28																						
29																						

Notes: ***- Length of drill data per page: 7.5 m***
- No discontinuities were logged from 0 to 14.30 m.

Checked By: MValerio
Check Date: 30-May-14