TEST PIT NO. TP17-01

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE (5 10 15) / SHEAR STRENGTH	WATER CONTENT % (10 20 30) W_P W_L	REMARKS
0.0	**PEAT:** Black sand PEAT, trace silt, saturated (frost to 0.3 m), very loose to loose										Groundwater seepage at 0.3 m below ground surface
1.0				GS1	1						
1.2	**SAND:** Blackish grey SAND, some silt, wet, compact			GS2	2						
					4						
					4						
1.7	**SAND:** Grey SAND, some gravel, trace silt, occasional cobbles, compact				4						
2.0				GS3	4						
2.2	Test pit terminated upon refusal at 2.2 m below ground surface on BEDROCK.										Test pit open and dry upon completion of excavating
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 529506
Northing: 5513640

TEST PIT NO. TP17-03

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 26, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Black sand TOPSOIL, occasional rootlets, organics										Bedrock outcrop 20 m north runs east to west
0.3	**SAND:** Brown SAND, trace to some silt, moist, loose			GS1	1, 3, 4, 8, 17						
1.0	**SILTY CLAY:** Brown SILTY CLAY, trace sand, APL			GS2		17					
2.0					5, 5, 6, 10						
2.4	**SILTY CLAY:** Red SILTY CLAY interbedded with clayey silt, trace sand, APL, firm			GS3		22					Test pit caving at surface to 2.4 m below ground surface upon completion of excavating
3.4	**CLAYEY SILT:** Light brown to brown CLAYEY SILT, trace sand, DTPL, firm			GS4		19					
4.4	**SILT AND CLAY:** Grey SILT AND CLAY, trace sand, WTPL, soft			GS5		22					
5.6	Test pit terminated at 5.6 m below ground surface in SILT AND CLAY.										
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 529730
Northing: 5512790

TEST PIT NO. TP17-04

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE (5 10 15) / SHEAR STRENGTH	WATER CONTENT % (10 20 30) W_P W_L	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529740 Northing: 5512545
0.2	**PEAT:** Black sand PEAT with moss cover, wet										
	SAND: Dark brown SAND, some silt, occasional rootlets, moist, firm			GS1							
0.6	**SILTY CLAY:** Brown SILTY CLAY, trace sand, APL, soft to firm										
1.0				GS2		28					PP = 1.0 kg/cm^2 (Cu = 48 kPa)
2.0											
3.0											AL GS3: Liquid Limit: 33% Plastic Limit: 18% Plasticity Index: 15%
3.0	**SILTY CLAY:** Red SILTY CLAY interbedded every 10 mm with grey clayey silt varves (5 mm thick), trace sand, APL to WTPL			GS3		35					
4.0				GS4		27					AL GS4: Liquid Limit: 27% Plastic Limit: 20% Plasticity Index: 7%
4.0	**CLAYEY SILT:** Grey CLAYEY SILT, trace sand, WTPL, soft										GSA GS4: Gravel: 0% Sand: 0% Silt: 76% Clay: 24%
5.0											
5.9											
6.0	Test pit terminated at 5.9 m below ground surface in CLAYEY SILT.										Test pit open and dry upon completion of excavating
7.0											
8.0											

TEST PIT NO. TP17-05

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 27, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE (5 10 15) / SHEAR STRENGTH	WATER CONTENT % (10 20 30) W_P W_L	REMARKS
0.0	**PEAT:** Black sand PEAT with moss cover, trace silt, trace clay, saturated			GS1	1 3 4 5 7	17					
0.6	**SILTY SAND:** Brown SILTY SAND, trace clay, moist, compact			GS2		23					
1.2											
1.3	**SAND:** Brown SAND, some gravel, trace silt, trace clay, saturated			GS3		14					Test pit open upon completion, minor pooling of water at bottom of test pit
	Test pit terminated upon refusal at 1.3 m below ground surface on BEDROCK.										
1.0											
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 529467
Northing: 5512422

TEST PIT NO. TP17-06

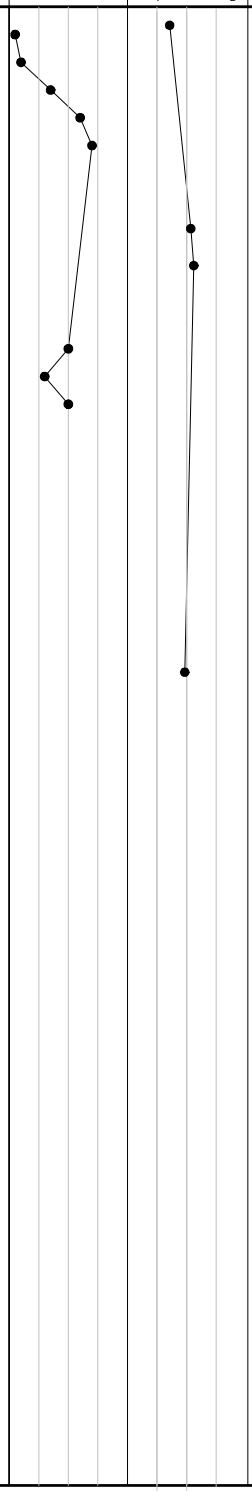
PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 27, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529339 Northing: 5512402
0.2	**TOPSOIL:** Greyish brown sand TOPSOIL, occasional rootlets, moist (frost to 0.3 m)			GS1	1	14					
	SAND: Brown SAND, trace silt, moist, compact to dense				2						
					7						
					12						
1.0					14						
				GS2		21					
	- Light brown, some silt			GS3		22					
2.0					10						
					6						
					10						
3.0											
3.6	**SILTY SAND:** Grey SILTY SAND, trace clay, wet			GS4		19					
4.0											
4.2	**SILT AND CLAY:** Grey SILT AND CLAY, trace sand, WTPL, soft										Test pit caving at surface to 4.2 m below ground surface upon completion of excavating
5.0											
				GS5		41					
6.0											
6.0	Test pit terminated at 6.0 m below ground surface on in SILT AND CLAY.										Test pit dry upon completion of excavating
7.0											
8.0											



TEST PIT NO. TP17-07A

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P – W_L)	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: 15 NAD: 83 Easting: 529138 Northing: 5512488
0.2	**TOPSOIL:** Black silty sand TOPSOIL, moss, moist										
	SAND: Brown SAND, some gravel, some cobbles and boulders, trace silt, moist										
0.7	Test pit terminated upon refusal at 0.7 m below ground surface on BEDROCK.			GS1		15				●	
1.0											
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-07B

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	UTM CO-ORDINATES / REMARKS
0.0	**TOPSOIL:** Dark brown sand TOPSOIL, trace silt, moss, organics, moist			GS1	2 4 20	17					UTM Zone: NAD: Easting: Northing:
0.6											
0.7	**SILTY SAND:** Brown SILTY SAND, moist			GS2							Test pit open and dry upon completion of excavating
1.0	Test pit terminated upon refusal at 0.7 m below ground surface on BEDROCK.										
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-08

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 23, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID
0.0								
0.2	**TOPSOIL:** Black sand TOPSOIL with moss cover, trace silt, organics, moist			GS1	1	59		
	SAND: Reddish brown SAND, trace silt, moist				1			
				GS2	2	21		
0.8					5			
1.0	**CLAY:** Red CLAY interbedded with grey clayey silt, DTPL, firm to stiff			GS3	7	32		
1.2				GS4		31		
	CLAYEY SILT: Greyish brown CLAYEY SILT interbedded with silty clay every 5 mm varves (2 mm thick), APL to WTPL, soft to firm				3			
					7			
					8			
2.0					12			
					7			
					10			
					11			
					12			
3.0								
3.4	**SILTY SAND:** Grey SILTY SAND, wet			GS5		20		
4.0								
4.1	Test pit terminated upon refusal at 4.1 m below ground surface on BEDROCK.							
5.0								
6.0								
7.0								
8.0								

CONE PENETRATION "DPT" VALUE: 5 10 15 — SHEAR STRENGTH

WATER CONTENT %: 10 20 30 — W_P W_L

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 529029
Northing: 5512380

REMARKS

Groundwater seepage at 0.8 m below ground surface

PP = 2.0 kg/cm^2 (Cu = 96 kPa)

Test pit caved from surface to 2.5 m below ground surface upon completion of excavating.

TEST PIT NO. TP17-09

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	PID
0.0	**TOPSOIL:** Black sand TOPSOIL with moss cover, trace silt, organics, saturated			GS1	0	22		
0.3	**SAND:** Dark brown SAND, some silt, wet				2			
					2			
				GS2	4			
					5			
0.9	**CLAYEY SILT:** Mottled light brown, brown CLAYEY SILT, trace sand, APL, firm			GS3				
1.0					3			
					7			
					7			
2.0					11			
					6			
					4			
					4			
					7			
3.0					9			
3.0	**SILTY SAND:** Light brown SILTY SAND, trace clay, moist to wet			GS4				
3.3	Test pit terminated upon refusal at 3.3 m below ground surface on BEDROCK.							
4.0								
5.0								
6.0								
7.0								
8.0								

CONE PENETRATION "DPT" VALUE: 5 10 15 — SHEAR STRENGTH

WATER CONTENT %: 10 20 30 — W_P W_L

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528969
Northing: 5512576

REMARKS

Test pit caved from surface to 0.9 m below ground surface upon completion of excavating.

Groundwater seepage at 0.9 m below ground surface

TEST PIT NO. TP17-10

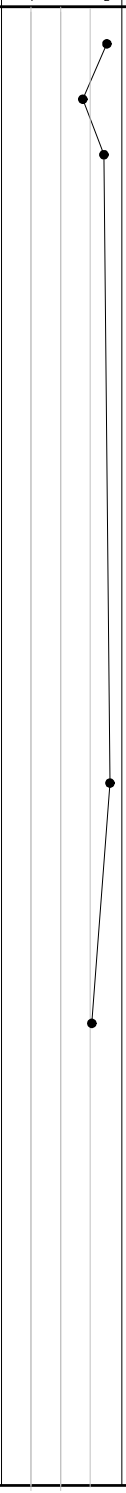
PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 21, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE (5 10 15) / SHEAR STRENGTH	WATER CONTENT % (10 20 30) W_P W_L	REMARKS
0.0	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, trace clay, organics, saturated			GS1		35					**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528411 Northing: 5512784
0.4	**SAND:** Dark brown SAND, some silt, saturated			GS2		27					
0.7	**SILTY CLAY:** Greyish brown SILTY CLAY, trace sand, WTPL, soft			GS3		34					
1.0											
2.0											
3.0											
4.0											
4.0	**SILTY CLAY:** Red SILTY CLAY interbedded with grey clayey silt, trace sand, APL, soft			GS4		36					
4.4	**CLAY AND SILT:** Grey CLAY AND SILT, trace sand, APL to WTPL, soft										
5.0											
				GS5		30					
6.0											
6.0	Test pit terminated at 6.0 m below ground surface in CLAY AND SILT.										
7.0											
8.0											



TEST PIT NO. TP17-11

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 21, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, organics, saturated				0						UTM CO-ORDINATES UTM Zone: 15 NAD: 83 Easting: 528471 Northing: 5512635
				GS1	0	65					
0.5	**SAND:** Dark brown SAND, some silt, trace clay, saturated				0						
				GS2	0	38					
0.8	**SILT:** Brown SILT, some sand, trace clay, moist				0						
1.0				GS3	4	21					GSA GS3: Gravel: 0% Sand: 14% Silt: 72% Clay: 14%
					1						
					2						
					5						
					5						
					8						
2.0											Test pit caving at 1.8 m below ground surface upon completion of excavating.
3.0											
3.0	**SILTY CLAY:** Red SILTY CLAY interbedded every 10 mm with grey clayey silt (10 mm thick), trace sand, APL, firm			GS4		33					AL GS4: Liquid Limit: 41% Plastic Limit: 19% Plasticity Index: 22%
4.0											
4.2	**CLAYEY SILT:** Grey CLAYEY SILT, trace sand, APL to WTPL, stiff			GS5		31					AL GS5: Liquid Limit: 27% Plastic Limit: 22% Plasticity Index: 5% GSA GS5: Gravel: 0% Sand: 0% Silt: 73% Clay: 27%
5.0											
6.0											
6.2	Test pit terminated at 6.2 m below ground surface in CLAYEY SILT.										
7.0											
8.0											

TEST PIT NO. TP17-12

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 21, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	PID
0.0	**TOPSOIL:** Black sandy silt TOPSOIL, organics, occasional rootlets, saturated			GS1				
0.5	**SAND:** Brown SAND, some silt, wet - Greyish brown			GS2	0	24		
					1			
1.0				GS3	2	12		
					4			
					4			
					5			
					2			
					3			
1.8	**CLAYEY SILT:** Grey CLAYEY SILT interbedded every 3 mm with light brown silty clay (1 mm thick), trace sand, DTPL, firm				1			
2.0					2			
				GS4	2	29		
3.0								
4.0								
4.2	**SILTY CLAY:** Red SILTY CLAY interbedded with clayey silt, trace sand, DTPL, stiff			GS5		66		
5.0								
5.0	**CLAY AND SILT:** Grey CLAY AND SILT, trace sand, WTPL, soft							
6.0				GS6		35		
6.1	Test pit terminated at 6.1 m below ground surface in CLAY AND SILT.							
7.0								
8.0								

CONE PENETRATION "DPT" VALUE (5, 10, 15) / SHEAR STRENGTH

WATER CONTENT % (10, 20, 30) — W_P W_L

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528596
Northing: 5512615

REMARKS

TEST PIT NO. TP17-13

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 21, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528761
Northing: 5512454

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH (5, 10, 15)	WATER CONTENT % (10, 20, 30; W_P, W_L)	REMARKS
0.0											
0.2	**TOPSOIL:** Black sandy silt TOPSOIL, with moss cover, trace clay, organics, saturated										
	CLAYEY SILT: Brown CLAYEY SILT, some sand, WTPL, very soft			GS1		21					PP = 0.0 kg/cm^2 (Cu = 0 kPa)
0.8											
1.0	**SILTY CLAY:** Brown SILTY CLAY, trace sand, APL, soft to firm										Test pit caving at 1.2 m below ground surface upon completion of excavating.
				GS2		31					PP = 1.0 kg/cm^2 (Cu = 48 kPa)
1.6											
	SILTY CLAY: Red SILTY CLAY interbedded with grey clayey silt, trace sand, DTPL, firm			GS3		42					Groundwater seepage at 1.6 m below ground surface
1.8											PP = 1.5 kg/cm^2 (Cu = 72 kPa)
2.0	**SILT AND CLAY:** Greyish brown SILT AND CLAY, some sand, DTPL to APL, firm										
3.0											
4.0											
4.0	**SANDY SILT:** Grey SANDY SILT, trace clay, wet, dilatant			GS4		31					
				GS5		29					
4.9	Test pit terminated upon refusal at 4.9 m below ground surface on BEDROCK.										
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-14A

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 21, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: 15 NAD: 83 Easting: 528766 Northing: 5512360
0.2	**TOPSOIL:** Black sandy silt TOPSOIL, trace clay, organics, moss, moist										
	Test pit terminated upon refusal at 0.2 m below ground surface on BEDROCK.										
1.0											
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-14B

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 21, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: NAD: Easting: Northing:
0.2	**TOPSOIL:** Black sandy silt TOPSOIL, trace clay, organics, moist			GS1							Excavated alternative test pit 8.0 m north to confirm bedrock depth
	SILTY SAND: Black SILTY SAND, trace clay, wet										
1.0	Test pit terminated upon refusal at 1.0 m below ground surface on BEDROCK.										Test pit open upon completion of excavating
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-15

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 20, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0									5 10 15	10 20 30	**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528664 Northing: 5512190
0.2	**TOPSOIL:** Black clayey silt TOPSOIL, some sand, organics, frost to 0.3 m			GS1		38					
	SILTY CLAY: Brown SILTY CLAY, trace sand, APL, firm										PP = 1.5 kg/cm^2 (Cu = 72 kPa)
1.0				GS2		30					AL GS2: Liquid Limit: 28% Plastic Limit: 21% Plasticity Index: 7%
1.2	**SILTY SAND:**			GS3		21					
1.4	Brown SILTY SAND, trace clay, dilatant, wet										
	SANDY SILT: Brown SANDY SILT, some clay, moist			GS4		28					
1.7	Test pit terminated upon refusal at 1.7m below ground surface on BEDROCK.										Test pit open and dry upon completion of excavating
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-16

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 20, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0									5 10 15	10 20 30	**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528551 Northing: 5512076
0.2	**TOPSOIL:** Black sandy silt TOPSOIL, organics, (frost to 0.3 m)			GS1		32					
	SAND: Brown SAND, some silt, moist			GS2		15					
0.5	**CLAYEY SILT:** Brown CLAYEY SILT, trace sand, APL, firm			GS3		20					PP = 1.5 kg/cm^2 (Cu = 72 kPa)
1.0											
1.9	**SILTY CLAY:** Red SILTY CLAY interbedded every 20 mm with clayey silt varves (10 mm thick), DTPL to APL, stiff										Groundwater seepage at 1.8 m below ground surface
2.0											
3.0				GS4		54					Test pit caving at 2.6 m below ground surface upon completion of excavating.
				GS5		32					
3.8	**CLAYEY SILT:** Brown CLAYEY SILT interbedded every 12 mm with clay varves (5 mm thick), DTPL to APL, stiff										
4.0											
4.9	**CLAYEY SILT:** Grey CLAY SILT, trace sand, APL to WTPL, soft										
5.0											
6.0											
6.0	Test pit terminated at 6.0 m below ground surface in CLAYEY SILT.			GS6							
7.0											
8.0											

TEST PIT NO. TP17-17

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 20, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Black clayey silt TOPSOIL, organics, trace sand, (frost to 0.6 m)			GS1		51					
0.5	**CLAYEY SILT:** Brown CLAYEY SILT, trace sand, APL, firm			GS2		30					PP = 1.0 kg/cm^2 (Cu = 48 kPa)
1.0	**CLAYEY SILT:** Light brown CLAYEY SILT interbedded every 2 mm with silty clay varves (2 mm thick), DTPL, stiff			GS3		30					PP = 3.0 kg/cm^2 (Cu = 144 kPa)
2.0											
3.0											
4.0											Groundwater seepage at 3.8 m below ground surface
4.3	**SILTY CLAY:** Red SILTY CLAY interbedded with grey clayey silt varves, trace sand, APL, firm			GS4							PP = 2.0 kg/cm^2 (Cu = 96 kPa)
				GS5		30					
4.8	**CLAYEY SILT:** Grey CLAYEY SILT, trace sand, dilatant, wet, loose										
5.0											
5.6	Test pit terminated at 5.6 m below ground surface in CLAYEY SILT.										
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528415
Northing: 5511884

TEST PIT NO. TP17-18

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH (5, 10, 15)	WATER CONTENT % (W_P, W_L) (10, 20, 30)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528202 Northing: 5511812
0.2	**SAND:** Brown SAND, some clay, occasional rootlets, moist			GS1							
	CLAY AND SILT: Brown CLAY AND SILT, trace sand, APL, firm										PP = 3.0 kg/cm^2 (Cu = 144 kPa)
1.0											AL GS2: Liquid Limit: 39% Plastic Limit: 22% Plasticity Index: 17%
				GS2							GSA GS2: Gravel: 0% Sand: 1% Silt: 53% Clay: 46%
2.0											
2.7	**SILTY CLAY:** Reddish brown SILTY CLAY with grey clayey silt varves (10 mm thick) APL, stiff			GS3							
3.0											
4.0											
4.4	**SILTY CLAY:** Brown SILTY CLAY, trace sand, APL to WTPL, firm to soft										
5.0				GS4		32				●	PP = 1.0 kg/cm^2 (Cu = 48 kPa)
5.4	**SILT:** Grey CLAYEY SILT to SILT, some clay, trace sand, wet, loose, dilatant										Groundwater seepage at 5.4 m below ground surface AL GS4: Liquid Limit: 29% Plastic Limit: 20% Plasticity Index: 9%
6.0											
6.1	Test pit terminated at 6.1 m below ground surface in SILT.			GS5							Test pit open upon completion of excavating.
7.0											
8.0											

TEST PIT NO. TP17-19

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528116 Northing: 5511695
0.1	**TOPSOIL:** Black sandy clay TOPSOIL, some silt, some organics, occasional rootlets, DTPL (frost to 0.6 m)			GS1		39					
	SILTY CLAY: Brown SILTY CLAY, APL, stiff										
1.0				GS2	5 5 7 7	29					PP = 2.5 kg/cm^2 (Cu = 120 kPa)
2.0											
	- DTPL			GS3		24					
3.0											
3.4											
3.6	**CLAYEY SILT:** Brown CLAYEY SILT, some sand, occasional cobbles and boulders			GS4		7					
	Test pit terminated upon refusal at 3.6 m below ground surface on BEDROCK.										Test pit open and dry upon completion of excavating.
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-20

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 20, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Black clay and silt TOPSOIL, some organics, occasional rootlets, (frost to 0.8 m)			GS1		24					
0.8	**SILTY CLAY:** Brown SILTY CLAY interbedded every 5 mm with grey clayey silt (2 mm thick), trace sand, DTPL, very stiff			GS2							PP = 4.0 kg/cm^2 (Cu = 192 kPa)
2.7	**SILTY CLAY:** Red SILTY CLAY with sandy silt varves (5 mm thick), trace sand, APL, stiff			GS3		36					
4.2	**SILT AND CLAY:** Grey SILT AND CLAY, trace sand, APL to WTPL, soft										
	- Grey, WTPL			GS4		38					
				GS5							
6.5	Test pit terminated at 6.5 m below ground surface in SILT AND CLAY.										Test pit open and dry upon completion of excavating.

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528257
Northing: 5511600

TEST PIT NO. TP17-21

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 20, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P – W_L)	REMARKS
0.0	**ORGANICS:** Black ORGANICS, trace silty clay, wet (Frost to 0.2 m)			GS1		76					**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528141 Northing: 5511434
0.8	**CLAYEY SILT:** Brown CLAYEY SILT, some sand, APL, soft			GS2		24					
2.0											Test pit caving at 2.0 m below ground surface upon completion of excavating.
3.0	**SILT AND CLAY:** Mottled grey, brown SILT AND CLAY, trace sand, APL, firm			GS3		37					GSA GS3: Gravel: 0% Sand: 1% Silt: 45% Clay: 55%
4.9	**CLAY AND SILT:** Grey CLAY AND SILT, trace sand, WTPL, very soft			GS4		38					AL GS4: Liquid Limit: 47% Plastic Limit: 22% Plasticity Index: 25%
5.6	Test pit terminated at 5.6 m below ground surface in CLAY AND SILT.										Test pit dry upon completion of excavating
6.0											
7.0											
8.0											

TEST PIT NO. TP17-22

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527766 Northing: 5511367
0.1	**TOPSOIL:** Black sandy clay TOPSOIL, some silt, some organics, occasional rootlets, DTPL			GS1							
	CLAY AND SILT: Brown to mottled brown - grey CLAY AND SILT, trace to some fine sand, occasional rootlets, DTPL to APL, firm			GS2		21					PP = 2.0 kg/cm^2 (Cu = 96 kPa) AL GS2: Liquid Limit: 41% Plastic Limit: 21% Plasticity Index: 20% GSA GS2: Gravel: 0% Sand: 3% Silt: 52% Clay: 45%
1.0					5						
					5						
					7						
2.0					7						
3.0											Groundwater seepage at 3.2 m below ground surface upon completion of excavating.
	- Grey, interbedded with red clay			GS3							
4.0											
4.1	**SILTY CLAY:** Grey SILTY CLAY, WTPL, very soft										
5.0				GS4							
5.0	Test pit terminated at 5.0 m below ground surface in SILTY CLAY.										Test pit terminated at 5.0 m due to max equipment reach. Test pit open upon completion of excavating.
6.0											
7.0											
8.0											

TEST PIT NO. TP17-23

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527740 Northing: 5511496
	SILTY CLAY: Grey SILTY CLAY, trace fine sand, some organics, occasional rootlets, DTPL (frost to 0.6 m)			GS1		18					
0.3	**SILTY CLAY:** Mottled grey, brown SILTY CLAY, trace fine sand, DTPL to APL, stiff			GS2		21					PP = 3.0 kg/cm^2 (Cu = 144 kPa)
1.0				GS3		34					PP = 2.5 kg/cm^2 (Cu = 120 kPa) AL GS3: Liquid Limit: 35% Plastic Limit: 23% Plasticity Index: 21%
2.0											
3.0				GS4		25					
3.2	**CLAYEY SILT:** Brown CLAYEY SILT, some sand, some gravel, occasional cobbles and boulders, moist										
3.4	Test pit terminated upon refusal at 3.4 m below ground surface on BEDROCK.										Test pit open and dry upon completion of excavating. Bedrock appears weathered
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-24

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 18, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE (5 10 15) / SHEAR STRENGTH	WATER CONTENT % (10 20 30) W_P W_L	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527474 Northing: 5511534
0.1	**TOPSOIL:**										
	SILTY CLAY: Brown to grey SILTY CLAY, some sand, APL, stiff			GS1		27					Groundwater seepage at 0.4 m below ground surface
1.0											
				GS2		34					PP = 3.0 kg/cm^2 (Cu = 144 kPa)
2.0	- DTPL										
3.0											
3.4	**SAND:**										
3.6	Brown SAND, some clay, occasional gravel, cobbles and boulders, wet			GS3		32					Test pit open and dry upon completion of excavating.
	Test pit terminated upon refusal at 3.6 m below ground surface on BEDROCK.										
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-25

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P W_L)	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: 15 NAD: 83 Easting: 527403 Northing: 5511388
0.1	**TOPSOIL:** Black silty clay TOPSOIL, organics, DTPL										
	SILTY CLAY: Red SILTY CLAY, some organics, occasional rootlets, APL, very soft			GS1		62					PP = 0.5 kg/cm^2 (Cu = 24 kPa)
0.6	**SILTY CLAY:** Grey SILTY CLAY, trace sand, APL, soft										
1.0											
2.0											PP = 2.0 kg/cm^2 (Cu = 96 kPa)
2.0	**CLAYEY SILT:** Brown CLAYEY SILT, some sand, DTPL, firm-stiff			GS2		33					Excavation walls starting to shear at approximately 2.0 m
3.0											
				GS3		31					
4.0											
4.2											Groundwater seepage at 4.2 m below ground surface
4.4	**CLAYEY SILT:** Brown CLAYEY SILT, some gravel, trace silt, occasional cobbles and boulders, firm-stiff			GS4		13					
	Test pit terminated upon refusal at 4.4 m below ground surface on BEDROCK.										
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-26

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0									5 10 15	10 20 30	UTM CO-ORDINATES UTM Zone: 15 NAD: 83 Easting: 527261 Northing: 5511538
0.1	**TOPSOIL:** Black silty clay TOPSOIL, organics, DTPL			GS1	6 4	12					
0.3	**SILTY CLAY:** Brown SILTY CLAY, some sand, occasional rootlets			GS2	7 7 14	27					PP = 2.5 kg/cm^2 (Cu = 120 kPa)
1.0	**SILTY CLAY:** Brown SILTY CLAY, some to trace sand, APL, stiff										
				GS3		34					PP = 3.0 kg/cm^2 (Cu = 144 kPa)
2.0											
3.0	- Grey clay interbedded with red clay varves (5 mm thick)			GS4		40					
	- Grey										
4.0											PP = 2.5 kg/cm^2 (Cu = 120 kPa)
4.9	Test pit terminated at 4.9 m below ground surface in CLAY.										Test pit open upon completion of excavating; Groundwater seepage at 4.9 m below ground surface
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-27

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527245 Northing: 5511644
0.1	**TOPSOIL:** Black silty clay TOPSOIL, organics, DTPL			GS2		14					
0.3	**SAND:** Brown SAND, moist										
	SILTY CLAY: Grey SILTY CLAY, some sand, DTPL, very stiff to hard			GS3		16					
1.0	- APL										PP = 4.5 kg/cm^2 (Cu = 216 kPa)
2.0				GS1		8					
				GS4		32					
2.8	**SAND:** Brown SAND, some gravel, some cobbles and boulders, moist			GS5		10					
3.0											
3.1	Test pit terminated upon refusal at 3.1 m below ground surface on BEDROCK.										Test pit open and dry upon completion of excavating.
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-28

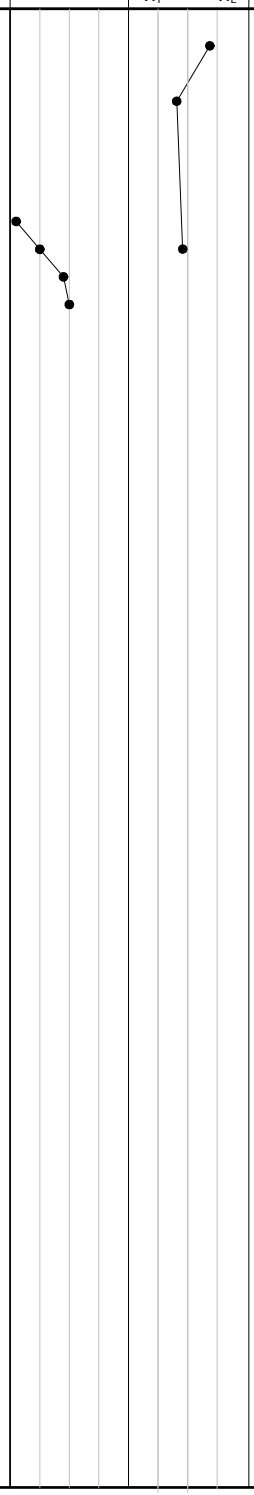
PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID
0.0								
0.1	**TOPSOIL:**							
0.3	**CLAYEY SAND:** Grey CLAYEY SAND, occasional rootlets, DTPL (frost to 0.6 m)			GS1		27		
0.6	**SILTY SANDY CLAY:** Grey SILTY SANDY CLAY, DTPL			GS2		16		
1.0	**SILT AND SAND:** Brown SILT AND SAND, trace clay, wet, compact				1			
				GS3	5	18		
1.5					9			
	Test pit terminated upon refusal at 1.5 m below ground surface on BEDROCK.				10			
2.0								
3.0								
4.0								
5.0								
6.0								
7.0								
8.0								



UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 527101
Northing: 5511892

REMARKS

GSA GS2:
Gravel: 0%
Sand: 28%
Silt: 23%
Clay: 49%

GSA GS3:
Gravel: 0%
Sand: 46%
Silt: 52%
Clay: 3%

Bedrock sloping south to north, bedrock depths varied from 1.4 to 1.5 m, bedrock appears weathered
Test pit open upon completion of excavating; Groundwater seepage at 1.5 m below ground surface

TEST PIT NO. TP17-29

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 23, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, trace clay, saturated			GS1		45					Groundwater seepage at 0.3 m below ground surface PP = 0.0 kg/cm^2 (Cu = 0 kPa) AL GS2: Liquid Limit: 27% Plastic Limit: 15% Plasticity Index: 12% GSA GS2: Gravel: 0% Sand: 26% Silt: 43% Clay: 31%
0.3	**SILTY CLAY:** Brown SILTY CLAY, some sand, WTPL, very soft			GS2		19					
0.6	**SANDY CLAYEY SILT:** Brown SANDY CLAYEY SILT, APL to WTPL, soft										
1.0				GS3		34					PP = 0.5 kg/cm^2 (Cu = 24 kPa)
	- Greyish brown										
2.0											
3.0											Test pit caving at surface to 3.0 m below ground surface upon completion of excavating
4.0	**SILTY CLAY:** Red SILTY CLAY with clayey silt varves, trace sand, APL, firm			GS4		49					
5.0	**SILT AND CLAY:** Grey SILT AND CLAY, trace sand, APL to DTPL, firm										
5.3	Test pit terminated at 5.3 m below ground surface in SILT AND CLAY.			GS5		29					
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 527119
Northing: 5512123

TEST PIT NO. TP17-30

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 23, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: 15 NAD: 83 Easting: 527391 Northing: 5512137
0.2	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, trace clay, organics, occasional rootlets										
	CLAY AND SILT: Brownish grey CLAY AND SILT, some sand, APL, firm			GS1							PP = 1.0 kg/cm^2 (Cu = 48 kPa)
1.0											
1.0	**SANDY SILT:** Brown SANDY SILT, some clay, WTPL, dilatant			GS2							
1.6				GS3							
	SAND: Brown SAND, some gravel, trace silt, trace clay, saturated										
2.0											
2.5	Test pit terminated upon refusal at 2.5 m below ground surface on BEDROCK.										Test pit open and dry upon completion of excavating
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-31

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 23, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527666 Northing: 5512113
0.2	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, trace clay, organics (frost to 0.4 m)										
0.5	**CLAY AND SILT:** Brown CLAY AND SILT, some sand, APL, firm-stiff			GS1	4						PP = 2.0 kg/cm^2 (Cu = 96 kPa)
				GS2	7						PP = 2.5 kg/cm^2 (Cu = 120 kPa)
	SILTY CLAY: Red SILTY CLAY with grey clayey silt varves (5 mm thick), trace sand, APL, stiff				13 14 15						
1.0					13 5						PP = 1.5 kg/cm^2 (Cu = 72 kPa)
1.4	**CLAYEY SILT:** Brown CLAYEY SILT, trace sand, APL, firm			GS3	13 8 10 11 10	34					AL GS3: Liquid Limit: 28% Plastic Limit: 19% Plasticity Index: 9% GSA GS3: Gravel: 0% Sand: 1% Silt: 63% Clay: 36%
2.0					8						
2.2	**CLAY AND SILT:** Mottled light brown, brown CLAY AND SILT, APL to DTPL, stiff			GS4	9 12	37					AL GS4: Liquid Limit: 34% Plastic Limit: 21% Plasticity Index: 13% GSA GS4: Gravel: 0% Sand: 0% Silt: 63% Clay: 37%
3.0											
4.0											
4.3	**SANDY SILT:**			GS5							
4.4	Brown SANDY SILT, some clay, trace gravel, rock fragments, WTPL Test pit terminated upon refusal at 4.4 m below ground surface on BEDROCK.										Test pit open upon completion of excavating
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-32

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 22, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE (5 10 15) / SHEAR STRENGTH	WATER CONTENT % (10 20 30) W_P W_L	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527574 Northing: 5512346
0.2	**TOPSOIL:** Grey sandy silt TOPSOIL, organics, frozen			GS1							
	SANDY SILT: Greyish brown SANDY SILT, trace clay, DTPL										
0.9				GS2							
1.0	**SAND:** Brown SAND, trace silt, moist			GS3	2						
1.2				GS4	5						
	SILTY SAND: Brown SILTY SAND, some clay, moist				5						
2.0					14						
					10						
2.4	Test pit terminated upon refusal at 2.4 m below ground surface on BEDROCK.										Test pit open and dry upon completion of excavating.
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-33

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 23, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	PID	CONE PENETRATION "DPT" VALUE (5 10 15) / SHEAR STRENGTH	WATER CONTENT % (10 20 30) W_P W_L	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527965 Northing: 5512344
0.2	**TOPSOIL:** Black sand TOPSOIL with moss cover, organics, wet										
	SAND: Dark brown to brown SAND, some to trace silt, moist to saturated			GS1	0						
					0						
					2						
				GS2							
0.8				GS3	2						
1.0	**CLAY AND SILT:** Brown CLAY AND SILT, trace sand, APL, firm				1						PP = 1.0 kg/cm^2 (Cu = 48 kPa)
					4						
					4						
					2						
					5						
2.0					2						
					6						
2.2					10						
	SILT AND CLAY: Mottled greyish brown, brown SILT AND CLAY, trace sand, DTPL, stiff										
3.0											
				GS4							
3.4				GS5							
	SILTY CLAY: Red SILTY CLAY with grey clayey silt varves (5 mm thick), trace sand, APL, firm										
4.0											
4.0	**CLAY AND SILT:** Grey CLAY AND SILT, trace sand, APL, soft										
5.0											
5.4				GS6		28					AL GS6: Liquid Limit: 29% Plastic Limit: 17% Plasticity Index: 12%
	Test pit terminated at 5.4 m below ground surface in CLAY AND SILT.										
6.0											
7.0											
8.0											

TEST PIT NO. TP17-34

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 23, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P W_L)	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: 15 NAD: 83 Easting: 528232 Northing: 5512321
0.2	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, trace clay, organics, occasional rootlets			GS1							
	SAND: Dark brown SAND, some to trace silt, moist										
	- Brown, saturated			GS2 GS3							
1.0											
1.0	**CLAY AND SILT:** Brown CLAY AND SILT, trace sand, APL, firm			GS4		31				●	AL GS4: Liquid Limit: 31% Plastic Limit: 20% Plasticity Index: 11% GSA GS4: Gravel: 0% Sand: 1% Silt: 57% Clay: 42%
2.0											
2.9	**SILT AND CLAY:** Mottled greyish brown, brown SILT AND CLAY, DTPL, stiff			GS5							
4.0											
4.1	**SILTY CLAY:** Red SILTY CLAY with grey clayey silt varves (5 mm thick), trace sand, APL, firm			GS6							
5.0											
5.1	**CLAY AND SILT:** Grey CLAY AND SILT, APL to WTPL, soft										
6.0											
6.0	Test pit terminated at 6.0 m below ground surface in CLAY AND SILT.			GS7							Test pit open and dry upon completion of excavating.
7.0											
8.0											

TEST PIT NO. TP17-35

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 23, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528211 Northing: 5512488
0.2	**TOPSOIL:** Black sand TOPSOIL with moss cover, organics, wet										
	SAND: Dark brown SAND, some to trace silt, moist				2						
					3						
	- Brown, saturated				5						Groundwater seepage at 0.7 m below ground surface
1.0					5						
					7						
1.2	**CLAY AND SILT:** Brown CLAY AND SILT, trace sand, WTPL, soft to firm			GS1							PP = 0.5 kg/cm^2 (Cu = 24 kPa)
					2						Groundwater seepage at 1.5 m below ground surface
					3						
					4						
2.0					3						
					6						
					9						
					8						
					10						
3.0											
	- Greyish brown			GS2							GSA GS2: Gravel: 0% Sand: 0% Silt: 58% Clay: 42%
4.0											
4.0	**SILTY CLAY:** Red SILTY CLAY interbedded with grey clayey silt, trace sand, APL, firm			GS3		50					AL GS3: Liquid Limit: 43% Plastic Limit: 17% Plasticity Index: 26%
5.0											
5.2	**CLAY AND SILT:** Grey CLAY AND SILT, trace sand, APL to WTPL, soft			GS4							
6.0											
6.1	Test pit terminated at 6.1 m below ground surface in CLAY AND SILT.										
7.0											
8.0											

TEST PIT NO. TP17-36

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 22, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0									5 10 15	10 20 30	**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527856 Northing: 5512640
0.2	**SAND:** Brownish grey SAND, trace silt, fozen			GS1		28					
0.4	**SILTY SAND:** Brown SILTY SAND, trace clay, wet										
1.0				GS2		25					
1.2	**SAND:** Brown SAND, some silt, saturated										Test pit caving at 1.2 m below ground surface upon completion of excavating.
1.9				GS3		25					
2.0	**SILTY SAND:** Brown SILTY SAND, trace clay, wet										
2.3	Test pit terminated upon refusal at 2.3 m below ground surface on BEDROCK.			GS4		93					
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-37

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 21, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P W_L)	REMARKS
0.0	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, trace clay, organics, wet										**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528329 Northing: 5512594
0.5	**SANDY SILT:** Dark brown to brown SANDY SILT, trace to some clay, wet			GS1		22					
1.0	**CLAYEY SILT:** Brown CLAYEY SILT, trace sand, DTPL, firm			GS3		24					
				GS2		27					PP = 1.5 kg/cm^2 (Cu = 72 kPa)
2.0											
	- APL										
3.0											
3.4	Test pit terminated upon refusal at 3.4 m below ground surface on BEDROCK.			GS4		26					Test pit open and dry upon completion of excavating.
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-38

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 21, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P W_L)	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: 15 NAD: 83 Easting: 528313 Northing: 5512677
0.2	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, trace clay, organics, saturated			GS1		24					
	SAND: Brown SAND, some silt, wet				1						
					1						
1.0					1						
				GS2	1	26					
1.2	**SILTY CLAY:** Brown SILTY CLAY, some sand, APL, soft			GS3	1	30					Groundwater seepage at 1.2 m below ground surface
2.0					1						
2.5	**SILTY CLAY:** Red SILTY CLAY interbedded with grey clayey silt (varying thicknesses), trace sand, APL, soft			GS4		58					
3.0											
3.1	**SILTY CLAY:** Brown SILTY CLAY, trace sand, APL, soft			GS5		28					
4.0											
4.0	**SILT AND CLAY:** Grey SILT AND CLAY, WTPL, soft			GS6		31					
5.0											
6.0											
6.2	Test pit terminated at 6.2 m below ground surface in SILT AND CLAY.										
7.0											
8.0											

TEST PIT NO. TP17-39

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 22, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527987 Northing: 5512805
0.2	**TOPSOIL:** Grey sand TOPSOIL, organics, trace silt (frost to 0.1 m)			GS1	1	11					
	SILTY SAND: Brown SILTY SAND, trace clay, moist				4						
				GS2	4	6					
					4						GSA GS2: Gravel: 0% Sand: 71% Silt: 23% Clay: 6%
1.0	- Greyish brown				7						
					5						
					9						
					9						
2.0				GS3		18					
2.3	Test pit terminated upon refusal at 2.3 m below ground surface on BEDROCK.										Test pit open and dry upon completion of excavating.
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-40

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 23, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527711 Northing: 5512496
0.2	**TOPSOIL:** Black sand TOPSOIL, some silt, organics (frost to 0.2 m)										
0.5	**SAND:** Brown SAND, trace silt, moist			GS1	1						
					2						
					3						
					5						
1.0					8						
					8						
				GS2	5						PP = 1.0 kg/cm^2 (Cu = 48 kPa)
					9						
1.5				GS3	11						Groundwater seepage at 1.5 m below ground surface
	CLAYEY SILT: Greyish brown CLAYEY SILT, trace sand, DTPL, soft-firm				17						
2.0											
2.3	**SANDY SILT:** Greyish brown SANDY SILT, trace clay, moist										
2.5	**SAND:** Brown SAND, trace silt, moist			GS4							Test pit open upon completion of excavating
	Test pit terminated upon refusal at 2.5 m below ground surface on BEDROCK.										
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-41

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 23, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	UTM CO-ORDINATES / REMARKS
0.0											
0.2	**TOPSOIL:** Black silty sand TOPSOIL, organics, frozen										
	SILTY SAND: Greyish brown SILTY SAND, trace clay, moist			GS1							
0.8				GS2							
1.0	**CLAYEY SILT:** Brown CLAYEY SILT, trace to some gravel, trace sand,wet to saturated										
1.1	Test pit terminated upon refusal at 1.1 m below ground surface on BEDROCK.			GS3		29				•	
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 527417
Northing: 5512270

REMARKS

Pooling of water at bottom of excavation to 0.95 m below ground surface
AL GS3:
Liquid Limit: 31%
Plastic Limit: 21%
Plasticity Index: 10%
GSA GS3:
Gravel: 0%
Sand: 1%
Silt: 66%
Clay: 33%
Test pit open upon completion of excavating

TEST PIT NO. TP17-42

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 23, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: 15 NAD: 83 Easting: 527274 Northing: 5512199
0.2	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, trace clay, organics (frost to 0.4 m)										
	CLAY AND SILT: Brownish grey CLAY AND SILT, some sand, APL, firm			GS1							PP = 1.5 kg/cm^2 (Cu = 72 kPa)
1.0											
1.1	**SANDY SILT:** Brown SANDY SILT, some clay, WTPL, dilatant										
				GS2							
1.6	**SAND:** Brown SAND, some gravel, trace silt, trace clay, saturated										
2.0											Test pit caving at 2.0 m below ground surface upon completion of excavating
2.3	Test pit terminated upon refusal at 2.3 m below ground surface on BEDROCK.			GS3							Pooling of groundwater at bottom of test pit
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-43

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 17, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 526948 Northing: 5512025
0.1	**TOPSOIL:** Black TOPSOIL, some sand, trace clay (frost to 0.6 m)			GS1		34					
	SILTY CLAY: Grey SILTY CLAY, DTPL to APL, stiff			GS2		19					PP = 2.0 kg/cm^2 (Cu = 96 kPa)
1.0					2						
					6						
					7						
					8						
					8						
					21				21		
2.0				GS3		30					
2.2	**SAND:** Brown SAND, trace clay, saturated										Test pit caving at 2.2 m below ground surface upon completion of excavating.
2.6	Test pit terminated upon refusal at 2.6 m below ground surface on BEDROCK.			GS4		15					Groundwater seepage at 2.6 m below ground surface
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-44

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	UTM CO-ORDINATES / REMARKS
0.0	**TOPSOIL:** Black TOPSOIL, some sand, organics, occasional rootlets			GS1							Test pit open and dry upon completion of excavation; Bedrock slopes south to north
0.3	Test pit terminated upon refusal at 0.3 m below ground surface on BEDROCK.										
1.0											
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 527147
Northing: 5511752

TEST PIT NO. TP17-45

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 18, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH (5, 10, 15)	WATER CONTENT % (W_P, W_L) (10, 20, 30)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 527000 Northing: 5511844
0.1	**TOPSOIL:** Black TOPSOIL, organics (frost to 0.6 m)			GS1							
0.3	**SILTY CLAY:** Grey SILTY CLAY, some sand, occasional rootlets			GS2							
	CLAYEY SILT: Grey CLAYEY SILT, DTPL to APL, stiff										PP = 2.0 kg/cm^2 (Cu = 96 kPa)
1.0											PP = 2.5 kg/cm^2 (Cu = 120 kPa)
				GS3		30				●	AL GS3: Liquid Limit: 25% Plastic Limit: 20% Plasticity Index: 5% GSA GS3: Gravel: 0% Sand: 0% Silt: 63% Clay: 37%
2.0											
2.0	**SAND:** Brown SAND, trace clay, saturated			GS4							Test pit caved at 2.0 m below ground surface upon completion of excavating; Significant groundwater seepage at 2.0 m below ground surface. 0.6 m pooled water at bottom of test pit
3.0											
3.8	Test pit terminated upon refusal at 3.8 m below ground surface on BEDROCK.										
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-46

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 18, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P W_L)	UTM CO-ORDINATES / REMARKS
0.0	**TOPSOIL:** Black silty clay TOPSOIL, organics, DTPL			GS1		45					
0.9	**CLAYEY SILT:** Brown CLAYEY SILT, some sand, APL, stiff			GS2		17					Groundwater seepage at 0.9 m and 3.8 m below ground surface PP = 2.0 kg/cm^2 (Cu = 96 kPa)
1.8	**SILTY CLAY:** Grey SILTY CLAY, trace sand, APL to WTPL, very stiff			GS3		33					PP = 3.5 kg/cm^2 (Cu = 168 kPa)
	- Grey clay with red clay varves (up to 25 mm thick)			GS4		65					
4.8	Test pit terminated at 4.8 m below ground surface in SILTY CLAY.										Test pit open upon completion of excavating.

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 527308
Northing: 5511441

TEST PIT NO. TP17-47

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: 15 NAD: 83 Easting: 527548 Northing: 5511337
0.1	**TOPSOIL/peat:** Black silty clay TOPSOIL/peat, some sand, organics, occasional rootlets, APL			GS1		23				●	
	SILTY CLAY: Brown SILTY CLAY, some sand, APL, soft			GS2							PP = 1.0 kg/cm^2 (Cu = 48 kPa)
1.0											
1.0	**SILTY CLAY:** Red SILTY CLAY with grey clayey silt varves (5 mm thick), APL, stiff										
1.3	**SILTY CLAY:** Grey SILTY CLAY, DTPL, very stiff			GS3							PP = 3.0 kg/cm^2 (Cu = 144 kPa)
2.0											
3.0											
4.0											
4.6	**CLAYEY SILT:** Grey CLAYEY SILT, trace sand, DTPL, soft			GS4							
5.0											
5.5	Test pit terminated at 5.5 m below ground surface in CLAYEY SILT.										Test pit open and dry upon completion of excavating.
6.0											
7.0											
8.0											

TEST PIT NO. TP17-48

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**SILTY CLAY:** Grey SILTY CLAY, some sand, organics, occasional rootlets, APL, very soft			GS1		24					PP = 0.5 kg/cm^2 (Cu = 24 kPa)
0.6	**SILTY CLAY:** Grey SILTY CLAY, trace sand, APL, firm to stiff				3						
1.0					5						
					5						
				GS2	7	22					PP = 2.0 kg/cm^2 (Cu = 96 kPa)
					6						
2.0					1						
					7						
2.2					6						
	CLAY AND SILT: Brown CLAY AND SILT, DTPL, stiff			GS3	4	24					
3.0					7						
					9						
3.0	**SAND:** Brown SAND, some silty clay, occasional cobble, moist										
3.5	Test pit terminated upon refusal at 3.5 m below ground surface on BEDROCK.			GS4		24					Test pit open and very little water at bottom of test pit
4.0											
5.0											
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 527676
Northing: 5511351

TEST PIT NO. TP17-49

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 19, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P – W_L)	UTM CO-ORDINATES / REMARKS
0.0	**SANDY CLAY:** Brown SANDY CLAY, organics, WTPL			GS1		42					
0.4	**SILTY CLAY:** Brown SILTY CLAY, some sand, WTPL, very soft										Significant groundwater seepage at 0.4 m below ground surface
1.0											
				GS2		40				●	
2.0											
2.2	**CLAYEY SILT:** Grey CLAYEY SILT, trace sand, APL, firm			GS3		41					PP = 2.0 kg/cm^2 (Cu = 96 kPa)
2.9	**SILTY CLAY:** Dark grey SILTY CLAY, trace sand, APL, firm										
3.0											
4.0											
				GS4		44					
5.0											
5.0	Test pit terminated at 5.0 m below ground surface in SILTY CLAY.										Test pit open and water at bottom of test pit
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528015
Northing: 5511493

TEST PIT NO. TP17-50

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 20, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P – W_L)	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: 15 NAD: 83 Easting: 528299 Northing: 5511732
0.2	**TOPSOIL:** Brown clayey silt TOPSOIL, occasional rootlets (frost to 0.8m)			GS1		61					
	CLAYEY SILT: Brown CLAYEY SILT, trace sand, APL, very soft										
1.0											
				GS2							PP = 0 kg/cm^2 (Cu = 0 kPa)
1.4	**SILTY CLAY:** Brown SILTY CLAY, trace sand, APL, firm to stiff			GS3		42					PP = 2.0 kg/cm^2 (Cu = 96 kPa) Groundwater seepage at 1.5 m below ground surface
2.0											
3.0											
3.2	**SILTY CLAY:** Mottled brown, grey SILTY CLAY, trace sand, APL to WTPL, firm			GS4		41					
4.0											
5.0											
5.0	**CLAYEY SILT:** Grey CLAYEY SILT, trace clay, WTPL, soft			GS5		31					
6.0											
6.4	Test pit terminated at 6.4 m below ground surface in CLAYEY SILT.										
7.0											
8.0											

TEST PIT NO. TP17-51

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 20, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Brown clayey silt TOPSOIL, some sand, organics (frost to 0.4m)			GS1		16					
0.4	**CLAYEY SILT:** Brown CLAYEY SILT, trace sand, APL, soft-firm			GS2		28					PP = 1.0 kg/cm^2 (Cu = 48 kPa)
1.0	- very stiff			GS3		33					AL GS3: Liquid Limit: 31%, Plastic Limit: 21%, Plasticity Index: 10%; GSA GS3: Gravel: 0%, Sand: 0%, Silt: 68%, Clay: 32%; PP = 3.0 kg/cm^2 (Cu = 144 kPa)
2.0											
3.0											
3.2	**SILTY CLAY:** Brown SILTY CLAY, some sand, occasional cobbles and boulders, APL, firm										
4.0											
4.0	Test pit terminated upon refusal at 4.0 m below ground surface on BEDROCK.			GS4		33					Test pit open and dry upon completion of excavating. Bedrock appears weathered
5.0											
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528475
Northing: 5511968

TEST PIT NO. TP17-52

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 20, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528748 Northing: 5512066
0.3	**TOPSOIL:** Brown sand TOPSOIL, some silty clay, organics, occasional rootlets (frost to 0.8 m)			GS1		36					
	SAND: Brown SAND, some clayey silt, moist			GS2		31					
0.7	**SILTY CLAY:** Brown SILTY CLAY, APL, soft to firm			GS3		36					PP = 1.0 kg/cm^2 (Cu = 48 kPa) PP = 2.5 kg/cm^2 (Cu = 120 kPa)
1.0	- Becoming stiff			GS4		22					AL GS4: Liquid Limit: 41% Plastic Limit: 19% Plasticity Index: 22% GSA GS4: Gravel: 0% Sand: 0% Silt: 36% Clay: 64%
2.0											
3.0											
4.0											
4.2	**SILTY CLAY:** Red SILTY CLAY interbedded with clayey silt (varying thicknesses), trace sand, APL			GS5		43					Groundwater seepage at 4.2 m below ground surface
4.9	**SILTY CLAY:** Grey SILTY CLAY, trace sand, WTPL, soft			GS6		37					
5.0											
5.9	Test pit terminated at 5.9 m below ground surface in SILTY CLAY.										
6.0											
7.0											
8.0											

TEST PIT NO. TP17-53

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 21, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH (5, 10, 15)	WATER CONTENT % (10, 20, 30; W_P, W_L)	REMARKS
0.0	**TOPSOIL:** Blackish brown sand TOPSOIL, some clayey silt, organics, occasional rootlets, moist			GS1		21					
0.4	**CLAYEY SILT:** Brown CLAYEY SILT, some sand, APL, soft-firm			GS2		25					PP = 1.0 kg/cm^2 (Cu = 48 kPa)
0.6	**SILTY CLAY:** Red SILTY CLAY interbedded every 10 mm with grey clayey silt (5 mm thick), trace sand, APL, firm			GS3		23					PP = 1.5 kg/cm^2 (Cu = 72 kPa)
0.9	**CLAY AND SILT:** Brown CLAY AND SILT, trace sand, APL, firm-stiff			GS4		35					PP = 1.5 kg/cm^2 (Cu = 72 kPa)
1.0											
2.0											Groundwater seepage at 1.7 m below ground surface
3.0											
3.6	**SANDY SILT:** Brown SANDY SILT, some clay, moist, compact										
4.0											
4.6	Test pit terminated upon refusal at 4.6 m below ground surface on BEDROCK.			GS5		30					Test pit open upon completion of excavating.
5.0											
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528768
Northing: 5512214

TEST PIT NO. TP17-54

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 21, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	PID
0.0	**TOPSOIL:** Reddish brown sand TOPSOIL, organics			GS1	0	18		
0.3	**SAND:** Reddish brown SAND, some silt, wet, loose to compact				1			
				GS2	1	21		
					1			
					2			
1.0					4			
					4			
					4			
					4			
2.0					4			
					3			
2.9	**SILT:** Grey SILT, some sand, trace clay, dilatant, wet			GS3		19		
3.0								
4.0								
5.0								
5.9								
6.0	**SILT:** Grey CLAYEY SILT TO SILT, some clay, trace sand, wet, dilatant			GS4		39		
6.1	Test pit terminated at 6.1 m below ground surface in SILT.							
7.0								
8.0								

CONE PENETRATION "DPT" VALUE: 5 10 15 — SHEAR STRENGTH

WATER CONTENT %: 10 20 30 — W_P W_L

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528668
Northing: 5512537

REMARKS

GSA GS2:
Gravel: 0%
Sand: 36%
Silt: 41%
Clay: 24%

Test pit caved from surface to 4.0 m below ground surface

GSA GS3:
Gravel: 0%
Sand: 14%
Silt: 81%
Clay: 5%

Groundwater seepage at 5.9 m below ground surface

TEST PIT NO. TP17-55

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, organics, saturated, loose			GS1	2						**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528879 Northing: 5513541
0.4	**SILTY SAND:** Dark grey SILTY SAND, wet, loose to compact				2						
				GS2	3						
					4						
1.0					4						
1.0	**CLAYEY SILT:** Grey CLAYEY SILT, trace sand, APL, firm to stiff			GS3							Groundwater seepage at 1.1 m below ground surface
					3						
					7						
					4						
2.0					6						
					3						
					4						
					5						
					5						
3.0											
4.0											
5.0											
5.4	Test pit terminated at 5.4 m below ground surface in CLAYEY SILT.										Excavation terminated at 5.4 m due to equipment reach and poor ground conditions
6.0											
7.0											
8.0											

TEST PIT NO. TP17-56

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Brown sand TOPSOIL, some silt, occasional rootlets, organics (frost to 0.4 m)			GS1							**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528874 Northing: 5513349
0.3	**SAND:** Brown SAND, trace silt, moist, loose to compact				2						
					4						
				GS2	5						
1.0					8						
1.1	**CLAYEY SILT:** Brown CLAYEY SILT, trace sand, DTPL, very stiff			GS3	13						
					5						
					10						
					20						
2.0					30				30		
					8						
				GS4	10	22					GSA GS4: Gravel: 0% Sand: 1% Silt: 85% Clay: 14%
					10						
3.0	- Grey, APL										
3.3	**SAND:** Grey SAND, some silt, moist										Test pit caved from 3.2 m to 4.8 m below ground surface
4.0											
				GS5							GSA GS5: Gravel: 0% Sand: 23% Silt: 40% Clay: 37%
4.8	Test pit terminated upon refusal at 4.8 m below ground surface on BEDROCK.										
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-57

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528856 Northing: 5513210
0.1	**TOPSOIL:** Greyish brown sand TOPSOIL, occasional rootlets, moist (frost to 0.3 m)			GS1							
	SAND: Brown SAND, some silt, wet										
0.7											
0.9	**CLAY AND SILT:** Brown CLAY AND SILT, some sand, APL, firm										
1.0	**SILTY CLAY:** Brown SILTY CLAY, some sand, APL, soft										
2.0											
2.0	Test pit terminated upon refusal at 2.0 m below ground surface on BEDROCK.										Test pit open and dry upon completion of excavating
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-58

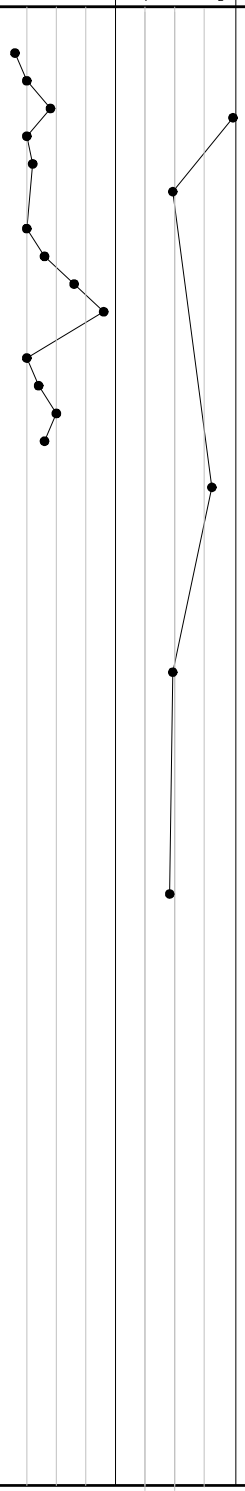
PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	PID
0.0								
0.2	**TOPSOIL:** Black silty sand TOPSOIL, organics, moss, wet			GS1	3	54		
	SAND: Brown SAND, trace silt, wet, compact				5			
				GS2	9	39		
0.8					5			
	SILTY SAND: Grey SILTY SAND, trace to some clay, moist, compact to dense				6			
1.0				GS3		19		
					5			
					8			
					13			
					18			
2.0					5			
					7			
					10			
2.4					8			
	CLAYEY SILT: Grey CLAYEY SILT, trace sand, APL, firm			GS4		32		
3.0								
3.4	**SILTY SAND:** Grey SILTY SAND, trace clay, wet			GS5		19		
4.0								
4.6								
4.8	**SAND:** Grey SAND, some silt to silty, some gravel, occasional cobbles and boulders, wet			GS6		18		
	Test pit terminated upon refusal at 4.8 m below ground surface in BEDROCK.							
5.0								
6.0								
7.0								
8.0								



UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528878
Northing: 5513071

REMARKS

Groundwater seepage at 0.8 m below ground surface

Test pit caving at surface to 2.4 m below ground surface upon completion of excavating

AL GS4:
Liquid Limit: 28%
Plastic Limit: 19%
Plasticity Index: 9%

GSA GS4:
Gravel: 0%
Sand: 1%
Silt: 72%
Clay: 27%

Pooling of groundwater at bottom of test pit

TEST PIT NO. TP17-59

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 27, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528870 Northing: 5512873
0.3	**PEAT:** Black sand PEAT with moss cover, occasional rootlets, frozen, moist (frost to 0.3 m)										Groundwater seepage at 0.3 m below ground surface; pooling of water at bottom of test pit
	SAND: Dark brown SAND, trace to some silt, wet			GS1		24					
1.0											
1.1	**SILTY SAND TO SANDY SILT:** Grey SILTY SAND TO SANDY SILT, trace clay, wet			GS2		19					GSA GS2: Gravel: 0% Sand: 71% Silt: 24% Clay: 5%
2.0				GS3		23					GSA GS3: Gravel: 0% Sand: 31% Silt: 67% Clay: 2%
2.8	**SILTY CLAY:** Red SILTY CLAY with grey clayey silt varves, trace sand, APL, stiff			GS4		30					Test pit caving at surface to 2.8 m below ground surface upon completion of excavating AL GS4: Liquid Limit: 28% Plastic Limit: 15% Plasticity Index: 13%
3.0											
3.1	**CLAYEY SILT:** Grey CLAYEY SILT, some sand, WTPL, soft			GS5		20					AL GS5: Liquid Limit: 21% Plastic Limit: 15% Plasticity Index: 6% GSA GS5: Gravel: 0% Sand: 15% Silt: 62% Clay: 24%
4.0											
5.0											
5.6	Test pit terminated at 5.6 m below ground surface in CLAYEY SILT.										Test pit terminated at 5.6 m due to test pit walls being unstable
6.0											
7.0											
8.0											

TEST PIT NO. TP17-60

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, organics, saturated			GS1	0	54					**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 528930 Northing: 5512686
0.3	**SILT:** Dark brown SILT, trace clay, trace sand, wet, loose to compact				1						
	- Grey				2						
					7						
1.0				GS4	7						GSA GS4: Gravel: 0% Sand: 7% Silt: 86% Clay: 7%
					4						
					3						
					4						
					4						
1.9	**SANDY SILT:** Grey SANDY SILT, trace clay, wet, dilatant, loose to compact			GS3	1						
2.0					2						
					9						
					8						
				GS2							
3.0											Test pit caving at surface to 3.0 m below ground surface upon completion of excavating
4.0											
4.0	**SILTY CLAY:** Red SILTY CLAY with grey clayey silt varves, trace sand										
5.0											
				GS5							
5.8	Test pit terminated at 5.8 m below ground surface in SILTY CLAY.										
6.0											
7.0											
8.0											

TEST PIT NO. TP17-61

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 27, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	UTM CO-ORDINATES / REMARKS
0.0	**PEAT:** Black sand PEAT with moss cover, frozen			GS1							Test pit location was moved 23 m south or proposed location due to rock outcrop
0.3	**SILTY SAND:** Brown SILTY SAND, some clay, frozen										
0.6	Test pit terminated upon refusal at 0.6 m below ground surface on BEDROCK.			GS2							Test pit open and dry upon completion of excavating
1.0											
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 529621
Northing: 5512495

TEST PIT NO. TP17-63

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P W_L)	UTM CO-ORDINATES / REMARKS
0.0											UTM Zone: 15 NAD: 83 Easting: 529710 Northing: 5513600
0.2	**TOPSOIL:** Black sand TOPSOIL with moss cover, occasional rootlets, organics			GS1							Moved 5 m north east, bedrock at 0.3 m below ground surface
0.3	**SAND:** Blackish grey SAND, trace silt, occasional rootlets, moist			GS2							
0.6	**SAND:** Reddish brown SAND, moist			GS3							Test pit open and dry upon completion of excavating.
1.0	Test pit terminated upon refusal at 0.6 m below ground surface on BEDROCK.										
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-64

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID
0.0								
0.2	**TOPSOIL:** Brown sand TOPSOIL with moss cover, trace silt, occasional rootlets, organics			GS1	1	19		
	CLAYEY SILT: Light brown CLAYEY SILT, some sand, moist to wet, loose to compact				2			
1.0					2			
				GS2	4	2		
					4			
2.0					3			
					4			
					7			
					13			
3.0				GS3		18		
4.0								
4.1	Test pit terminated at 4.1 m below ground surface in CLAYEY SILT.							
5.0								
6.0								
7.0								
8.0								

CONE PENETRATION "DPT" VALUE (5, 10, 15) / SHEAR STRENGTH

WATER CONTENT % (10, 20, 30) W_P W_L

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 529337
Northing: 5513639

REMARKS

GSA GS3:
Gravel: 0%
Sand: 20%
Silt: 59%
Clay: 21%

Test pit caved from surface to 3.0 m below ground surface

Excavation terminated at 4.1 m due to test pit wall instability

TEST PIT NO. TP17-65

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Dark brown sand TOPSOIL, occasional rootlets, organics, moist, loose			GS1	1	52					**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529163 Northing: 5513628
0.2	**SAND:** Brown SAND, some silt, moist, loose to compact				2						
					4						
					4						
				GS2	8	40					
1.0											Groundwater seepage at 1.0 m below ground surface
					2						
1.6	**SILT:** Grey SILT, trace sand, trace clay, wet, compact			GS3	5	22					GSA GS3: Gravel: 0% Sand: 8% Silt: 88% Clay: 3%
2.0					4						
					4						
3.0	**SILTY SAND:** Grey SILTY SAND, wet			GS4		18					
4.0											
4.5	Test pit terminated at 4.5 m below ground surface in SILTY SAND.										Excavation terminated at 4.5 m due to test pit wall instability
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-66

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529261 Northing: 5513434
0.2	**TOPSOIL:** Black sand TOPSOIL with moss cover, organics, saturated, loose			GS1	2 4 3 3 4	42					
	SAND AND SILT: Brown SAND AND SILT, trace clay, moist, compact										
1.0				GS2		84					GSA GS2: Gravel: 0% Sand: 46% Silt: 50% Clay: 4%
					10 20 22				22		
1.9	**SILTY SAND:** Brown SILTY SAND, trace clay, moist, compact to dense			GS3	30	18			30		
2.0											
3.0											
3.6	**SILT:** Grey SILT, some sand, trace clay, DTPL, hard			GS4		14					Excavator had difficulty sampling GS4 GSA GS4: Gravel: 0% Sand: 11% Silt: 86% Clay: 4%
4.0											
4.8	**CLAYEY SILT:** Grey CLAYEY SILT, trace sand, WTPL, soft to firm										
5.0											
				GS5		22					
5.9	Test pit terminated at 5.9 m below ground surface in CLAYEY SILT.										Test pit open and dry upon completion of excavating.
6.0											
7.0											
8.0											

TEST PIT NO. TP17-67

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 26, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 529478
Northing: 5513425

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											
0.2	**PEAT:** Black sand PEAT with moss cover, occasional rootlets, frozen, moist (frost to 0.3 m)										
0.4	**SAND:** Brown SAND, trace silt, moist, loose			GS1	1 2	22					
	SANDY SILT: Brown SANDY SILT, trace clay, moist, compact			GS2	4 16	19					
1.0				GS3	7	27					
1.4	**SILTY CLAY:** Red SILTY CLAY with grey clayey silt varves, trace sand, APL, firm			GS4		33					Test pit caving at surface to 1.4 m below ground surface upon completion of excavating
1.7	**SILTY SAND:** Brown SILTY SAND, trace clay, moist, dense			GS5	9 9 14 17	81					
2.0											
3.0											
4.0											
4.5	**CLAY AND SILT:** Grey CLAY AND SILT, trace sand, WTPL			GS6		26					
5.0											
5.5	Test pit terminated at 5.5 m below ground surface in CLAY AND SILT.										Test pit dry upon completion of excavating
6.0											
7.0											
8.0											

TEST PIT NO. TP17-68

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 27, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**PEAT:** Black sand PEAT with moss cover, saturated										**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529096 Northing: 5513197
0.4	**CLAYEY SILT:** Brown CLAYEY SILT, some sand, moist, compact										Groundwater seepage at 0.4 m below ground surface
					4						
				GS1	4	24					GSA GS1: Gravel: 0% Sand: 13% Silt: 58% Clay: 29%
1.0					10						
					7						
1.6	**SILTY SAND:** Mottled brown, grey SILTY SAND, trace clay, moist, compact to dense			GS2		25					GSA GS2: Gravel: 0% Sand: 70% Silt: 28% Clay: 2%
2.0					5						
					6						
					10						
2.4	**SILTY CLAY:** Grey SILTY CLAY, trace sand, APL, stiff			GS3	14	18					
3.0											
4.0											Test pit caved at 4.0 m below ground surface upon completion of excavating
5.0											
5.5	**SAND:** Grey SAND, trace silt, wet										
6.0											
6.1	Test pit terminated at 6.1 m below ground surface in SAND.			GS4		22					
7.0											
8.0											

TEST PIT NO. TP17-69

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 27, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE (5 10 15) / SHEAR STRENGTH	WATER CONTENT % (10 20 30) W_P W_L	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529355 Northing: 5513205
0.2	**TOPSOIL:** Greyish black sand TOPSOIL with moss cover, moist			GS1	3	30					Moved test pit locations 108 m south east of proposed location (swamp)
	SAND: Brown SAND, trace silt, moist, compact to dense				5						
					7						
				GS2	12	27					
1.0					16						
	- Some silt, saturated			GS3							Groundwater seepage at 1.2 m below ground surface
2.0	- Wet			GS4	4	21					
					5						
					4						
					16						
3.0					20						
3.2	**SILT:** Grey SILT with dark grey silty clay varves (3 mm thick), trace sand, APL, stiff			GS5		20					GSA GS5: Gravel: 0% Sand: 1% Silt: 84% Clay: 15%
4.0											
5.0											
6.0											GSA GS6: Gravel: 0% Sand: 1% Silt: 84% Clay: 15% Test pit open and dry upon completion of excavating
6.0	Test pit terminated at 6.0 m below ground surface in SILT.			GS6							
7.0											
8.0											

TEST PIT NO. TP17-70

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 26, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529545 Northing: 5513201
0.2	**PEAT:** Black PEAT with moss cover, fine to medium sand, wet										
	SAND: Dark brown SAND, trace silt, trace peat, wet, loose to compact			GS1	1 3 5 7 12						
0.8	**SILTY SAND:** Grey SILTY SAND, trace clay, moist, compact										
1.0				GS2							GSA GS2: Gravel: 0% Sand: 77% Silt: 21% Clay: 2%
2.0					4 3						
2.1	**CLAYEY SILT:** Grey CLAYEY SILT, some sand, DTPL to APL, firm			GS3	3 6						Test pit caving at surface to 2.1 m below ground surface upon completion of excavating
3.0											
3.2	**SANDY SILT:** Grey SANDY SILT, trace clay, moist										
4.0				GS4							
5.0											
5.5	Test pit terminated at 5.5 m below ground surface in SANDY SILT.										Test pit dry upon completion of excavating
6.0											
7.0											
8.0											

TEST PIT NO. TP17-71

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Dark brown sand TOPSOIL with moss cover, some silt, organics, moist			GS1							**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529185 Northing: 5513042
0.4	**SAND:** Brown SAND, some silt, moist			GS2							
1.0											
1.3	**CLAY AND SILT:** Grey CLAY AND SILT, trace sand, APL, firm			GS3		35				●	Test pit caving at surface to 1.3 m below ground surface upon completion of excavating AL GS3: Liquid Limit: 30% Plastic Limit: 17% Plasticity Index: 13% GSA GS3: Gravel: 0% Sand: 10% Silt: 53% Clay: 38% PP = 1.0 kg/cm^2 (Cu = 48 kPa)
2.0											
3.0											
3.6	**SILTY SAND:** Grey SILTY SAND, trace clay, moist			GS4							
4.0											
4.5	**CLAYEY SILT:** Grey CLAYEY SILT, some sand, DTPL to APL, firm										
5.0											
5.7	Test pit terminated at 5.7 m below ground surface in CLAYEY SILT.			GS5							
6.0											
7.0											
8.0											

TEST PIT NO. TP17-72

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 27, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	UTM CO-ORDINATES / REMARKS
0.0	**PEAT:** Black PEAT with moss cover, some sand, saturated										Cedar swamp
0.6	**SAND:** Dark brown SAND, some silt, some organics, moist										
2.3	**SAND AND SILT:** Grey SAND AND SILT, trace clay, moist										
3.4	**CLAY AND SILT:** Grey CLAY AND SILT, trace sand, APL										
5.0	Test pit terminated at 5.0 m below ground surface in CLAY AND SILT.										Groundwater pooling at bottom of test pit
6.0											
7.0											
8.0											

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 529366
Northing: 5513054

TEST PIT NO. TP17-73

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 26, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529517 Northing: 5513050
0.2	**TOPSOIL:** Black sand TOPSOIL with moss cover, occasional rootlets, frozen, moist (frost to 0.3 m)										
	SAND: Brown SAND, trace silt, moist, loose to compact				1						
				GS1	2	14					
0.8					2						
	SILTY SAND: Brown SILTY SAND, trace clay, wet, compact to dense				7						
1.0					8						
				GS2		17					GSA GS2: Gravel: 0% Sand: 64% Silt: 34% Clay: 2%
					4						
					6						
					9						
2.0					9						
					13						
2.5	**CLAYEY SILT:** Grey CLAYEY SILT, some sand, DTPL, firm			GS3		37					
2.8	**SILTY CLAY:** Red SILTY CLAY with grey clayey silt varves, trace sand, DTPL, firm			GS4		48					AL GS4: Liquid Limit: 24% Plastic Limit: 16% Plasticity Index: 8%
3.0											
3.3	**CLAYEY SILT:** Grey CLAYEY SILT, trace sand, WTPL, soft to firm										
4.0											
											AL GS5: Liquid Limit: 31% Plastic Limit: 22% Plasticity Index: 9%
5.0				GS5		34					GSA GS5: Gravel: 0% Sand: 1% Silt: 75% Clay: 24%
5.7	Test pit terminated at 5.7 m below ground surface in CLAYEY SILT.										Test pit open and dry upon completion of excavating
6.0											
7.0											
8.0											

TEST PIT NO. TP17-74

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

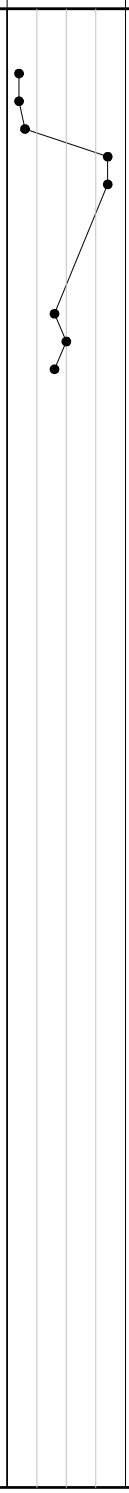
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

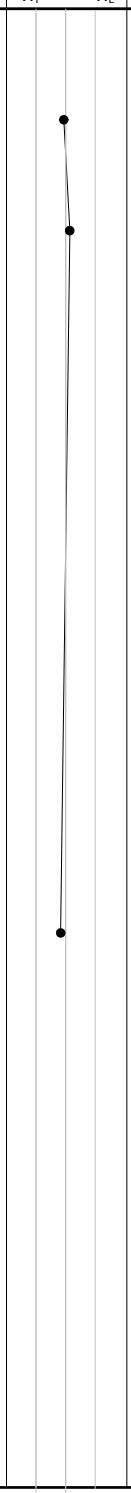
DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE 5 10 15 / SHEAR STRENGTH	WATER CONTENT % 10 20 30 / W_P W_L	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529169 Northing: 5512844
0.1	**TOPSOIL:** Black sand TOPSOIL with moss cover, some silt, organics, moist (frost to 0.2 m)			GS1	5						
0.3	**SANDY SILT:** Brown SANDY SILT, some clay, moist, compact				5						
	SILTY SAND: Grey SILTY SAND, trace clay, rust color streaks, moist, compact				3						
1.0					6						
				GS2	7						
1.2	Test pit terminated upon refusal at 1.2 m below ground surface on BEDROCK.										Test pit open and dry upon completion of excavating.
2.0											
3.0											
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-75

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 26, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID
0.0								
0.1	**TOPSOIL:** Black sand TOPSOIL with moss cover, occasional rootlets, moist (frost to 0.2 m)							
	SAND: Brown SAND, trace to some silt, moist, compact to dense				2			
					2			
				GS1	3	19		
					17			
1.0	- Some silt, wet to saturated				17			
				GS2		21		
					8			
					10			
2.0					8			
2.4	**SILTY SAND:** Grey SILTY SAND, wet							
3.0								
4.0								
5.0				GS3		18		
5.2	Test pit terminated at 5.2 m below ground surface in SILTY SAND.							
6.0								
7.0								
8.0								





UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 529411
Northing: 5512834

REMARKS

Groundwater seepage at 1.2 m below ground surface

Test pit caving at surface to 3.5 m below ground surface upon completion of excavating

TEST PIT NO. TP17-76

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 26, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 529388
Northing: 5512665

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Dark brown sand TOPSOIL with moss cover, some organics, occasional rootlets, moist			GS1	0	29					
0.2	**SAND:** Brown SAND, moist, compact to dense				3						
					4						
					7						
1.0					10						
1.0	**SAND AND SILT:** Grey SAND AND SILT, trace clay, moist, compact to dense			GS2		18					
					3						
				GS3	5	45					
					4						
2.0					9						
					12						
3.0											Test pit caving at surface to 3.0 m below ground surface upon completion of excavating
4.0											
4.2	**CLAY AND SILT:** Grey CLAY AND SILT, trace sand, WTPL, soft										
5.0											
5.2	Test pit terminated at 5.2 m below ground surface in CLAY AND SILT.			GS4							Test pit dry upon completion of excavating
6.0											
7.0											
8.0											

TEST PIT NO. TP17-77

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0	**TOPSOIL:** Greyish black sand TOPSOIL with moss cover, some silt, moist, loose			GS1	1, 2, 3, 3, 9						**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529209 Northing: 5512679
0.3	**SAND:** Brown SAND, some silt, moist, loose to compact			GS2	5, 10, 7, 10, 5, 6, 5, 7						
1.6	**CLAYEY SILT:** Grey CLAYEY SILT, trace sand, DTPL, firm			GS3		23					Groundwater seepage at 1.6 m below ground surface AL GS3: Liquid Limit: 26% Plastic Limit: 18% Plasticity Index: 8%
2.4	**CLAYEY SILT:** Grey CLAYEY SILT with dark grey silty clay (2 to 5 mm thick) varves, trace sand, DTPL to APL, stiff			GS4							
3.0	**SAND:** Brown SAND, some gravel, trace silt, trace clay, occasional cobbles/ boulders, wet			GS5							Groundwater pooling at bottom of test pit
3.3	Test pit terminated upon refusal at 3.3 m below ground surface on BEDROCK.										
4.0											
5.0											
6.0											
7.0											
8.0											

TEST PIT NO. TP17-78

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00

CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 27, 2017

TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB

GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	SAMPLE PID	CONE PENETRATION "DPT" VALUE / SHEAR STRENGTH	WATER CONTENT % (W_P – W_L)	REMARKS
0.0											**UTM CO-ORDINATES** UTM Zone: 15 NAD: 83 Easting: 529295 Northing: 5512318
0.2	**TOPSOIL:** Black sand TOPSOIL with moss cover, trace clay, moist, loose				1						
	SAND: Brown SAND, trace silt, moist, loose to compact				2						
					5						
					9						
					10						
1.0				GS1		28					
	- Light brown, some silt, wet										
				GS2		23					Groundwater seepage at 1.4 m below ground surface
					5						
2.0					9						
					20						
					16						
3.0											
3.0	**SILTY SAND:** Grey SILTY SAND, wet to saturated			GS3		19					
4.0											Test pit caving at surface to 4.0 m below ground surface upon completion of excavating
5.0											
5.2											
5.2	**CLAY AND SILT:** Grey CLAY AND SILT, trace sand										Unable to retrieve viable sample of CLAY AND SILT.
	Test pit terminated at 5.2 m below ground surface in CLAY AND SILT.										
6.0											
7.0											
8.0											

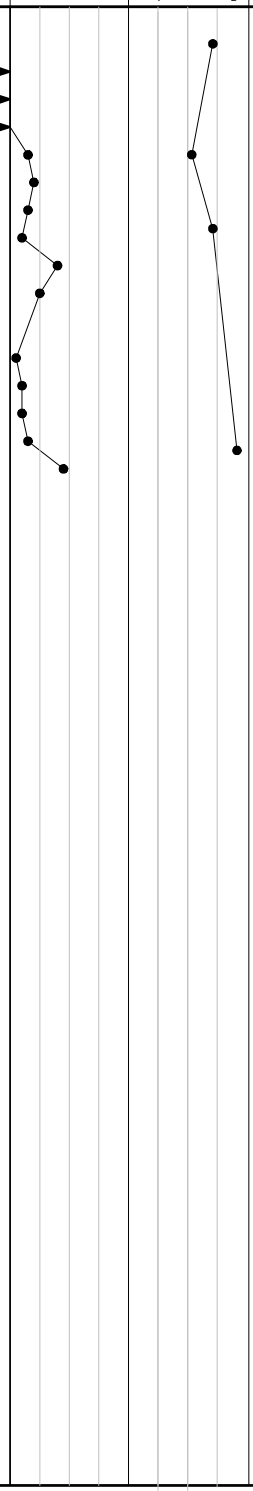
TEST PIT NO. TP17-79

PROJECT NAME: TSF PREFEASIBILTY DESIGN - SI DEVELOPMENT
PROJECT NO.: 161-15856-00
CLIENT: TREASURY METALS INC.
DATE COMPLETED: Jan 24, 2017
TEST PIT TYPE: OPEN HOLE EXCAVATION
SUPERVISOR: AJB
GROUND ELEVATION: NOT DETERMINED
REVIEWER: AY

DEPTH (m)	STRATIGRAPHIC DESCRIPTION	STRATIGRAPHY	MONITOR DETAILS	SAMPLE TYPE	SAMPLE DPT VALUE	SAMPLE % WATER	SAMPLE % RECOVERY	PID
0.0	**TOPSOIL:** Black sandy silt TOPSOIL with moss cover, organics			GS1		28		
0.3	**SAND:** Brown SAND, some silt, wet, loose to compact				WOH			
					WOH			
					WOH			
1.0				GS2	3	21		
					4			
					3			
1.2	**SAND:** Greyish brown SAND, some silt, saturated, loose to compact			GS3	2	28		
					8			
					5			
2.0					1			
					2			
					2			
2.4	**CLAY AND SILT:** Grey CLAY AND SILT with dark grey silty clay varves (3 mm thick), trace sand, APL, firm			GS4	3	36		
3.0					9			
4.0								
5.0								
5.9	Test pit terminated at 5.9 m below ground surface in CLAY AND SILT.							
6.0								
7.0								
8.0								

CONE PENETRATION "DPT" VALUE (5, 10, 15) / SHEAR STRENGTH

WATER CONTENT % (10, 20, 30) — W_P W_L



UTM CO-ORDINATES
UTM Zone: 15 NAD: 83
Easting: 528900
Northing: 5512448

REMARKS

Test pit caving at surface to 2.4 m below ground surface upon completion of excavating

AL GS4:
Liquid Limit: 32%
Plastic Limit: 18%
Plasticity Index: 14%

GSA GS4:
Gravel: 0%
Sand: 4%
Silt: 58%
Clay: 38%

Groundwater seepage at 2.4 m below ground surface