



Ministry of Transportation and Infrastructure

Geotechnical and Materials Engineering

Southern Interior Region

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Stoney Creek Pit No. 0794

2015 Technical Information Report

Location: The pit is located approximately 8 km north of Fauquier on the east side of Highway 6, immediately north of Stoney Creek.



Legal Description: Ministry of Transportation and Infrastructure Section 16 Map Reserve legally described as Those parts of Parcel A of District Lots 7361 and 7362, Plan 977, together with those parts of District Lots 8689 and 12896, all of Kootenay District, containing 7.4 hectares, more or less. UTM coordinates are Grid Zone 11, 5,531,677 Northing, 428,130 Easting.

Gradation: The average and range of laboratory samples as well as oversize rock field estimates for material from the 2011 testing program contained within the suitability area of the pit are as follows:

Laboratory Samples

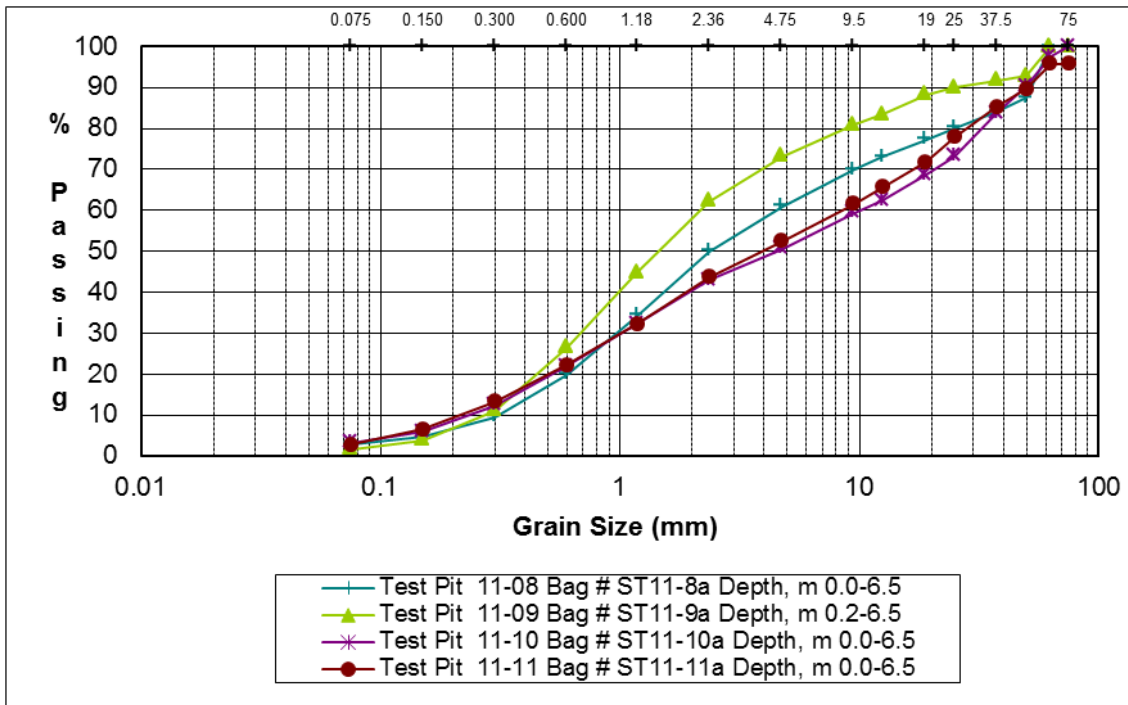
Classification:	Average (%)	Range (%)
Gravel (4.75-75mm)	45.9	26.9 – 55.0
Sand (0.075-4.75mm)	51.7	43.3 – 71.4
Fines (<0.075mm)	2.4	2.0 – 3.5

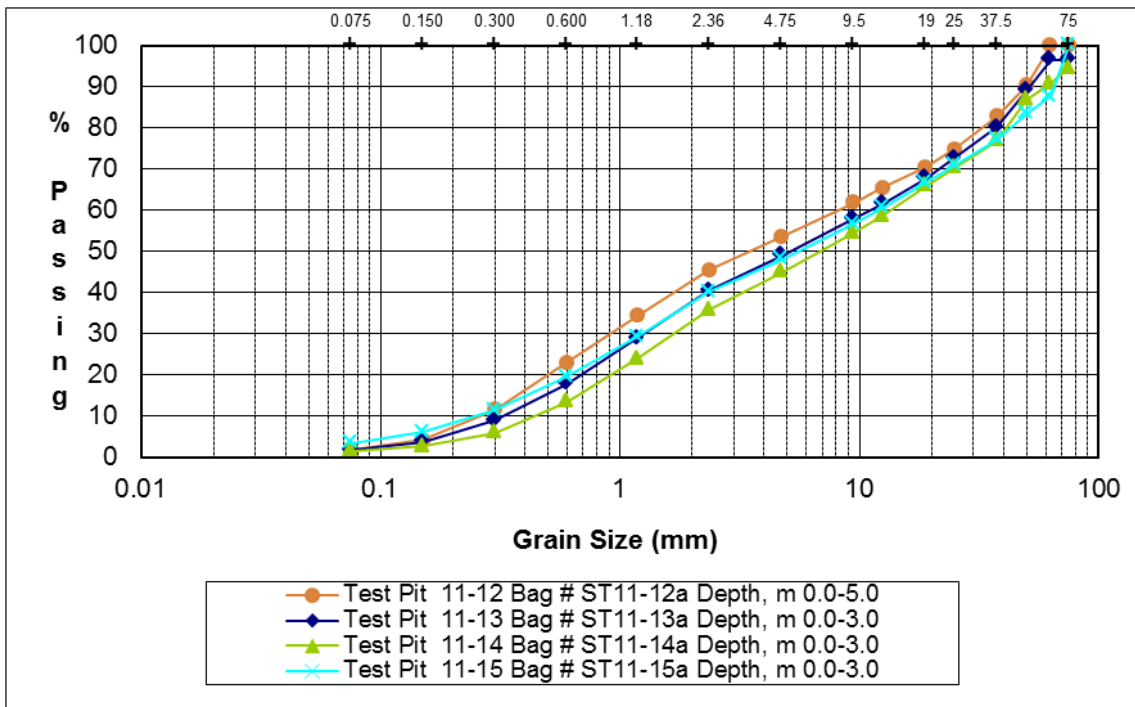
Oversize Field Estimates

Classification:	Average (%)	Range (%)
Boulders (>375mm)	1	0 – 3
Cobbles (150-375mm)	4	0 – 10
Cobbles (75-150mm)	12	1 – 15

The maximum size rock observed was 500 mm.

Aggregate Gradation Charts:





Summary of Test Pit Logs (including Laboratory Results – bolded in red) are located below:

1 OF 1													
AGGREGATE LOG													
PROJECT:		Stoney Ck Pit					SAMPLED BY:		Rory McLeod				
PIT #:							METHOD:		Excavator				
DISTRICT:		West Kootenay					DATE:		19-Jul-11				
TH / TP	DEPTH		SAMPLE BAG No.	SOILS CLASS	ESTIMATED GRADATION			ESTIMATED ROCK 75mm				SAND TYPE F M C	REMARKS
	FROM	TO			G	S	F	MAX SIZE	75mm-150mm	150mm-375mm	>375mm		
ST11-08	0	6.5	ST11-08A	GP/SP	55	44	1	125	3	1	0	C	Thick, coarse sands - no bedding Photos: 3585, 3586 SP 39.0/58.1/2.9
ST11-09	0	0.2	-	OB	-	-	-	-	-	-	-	-	In Timber; DEEP, clean sand Photos: 3587, 3588 SP 26.9/71.4/1.7
	0.2	6.5	ST1109A	SW	8	90	1	50	-	-	-	C	
ST11-10	0	6.5	ST11-10A	GP	70	28	2	400	15	4	2	C	NE corner of clearing on rdige adj. To "GPS98" Photos: 3589, 3590 GP 49.4/47.5/3.2
ST11-11	0	6.5	ST11-11A	GP	80	17	3	325	20	5	3	C	Pit Face sample Photos: 3591, 3592 SP 47.5/49.8/2.8
ST11-12	0	5	ST11-12A	GP	80	15	5	300	30	3	-	C	Pit face sample Photos: 3594 SP 46.4/51.6/2.0

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TH / TP	DEPTH		SAMPLE BAG No.	SOILS CLASS	ESTIMATED GRADATION			ESTIMATED ROCK 75mm				SAND TYPE F M C	REMARKS
	FROM	TO			G	S	F	MAX SIZE	75mm 150mm	150mm- 375mm	>375mm		
ST 11-13	0	3	ST11-13A	GP	75.0	20.0	5.0	300	10	2	-	C	Grab sample from pit face on exposure above trail. Not possible for the excavator to test here. GP 50.8/47.4/1.8
ST 11-14	0	3	ST11-14A	GP	80	17	3	500	15	10	2	C	Grab sample from pit face on exposure above trail. Not possible for the excavator to test here. GP 55.0/43.3/1.7
ST 11-15	0	3	ST11-15A	GP	80	17	3	450	15	5	1	C	Grab sample from pit face on exposure above trail. Not possible for the excavator to test here. GP 51.9/44.7/3.5

Aggregate Quality: A summary of recent and historic (samples from within developed area) aggregate quality tests performed on pit run samples from the pit are as follows:

TP	Micro-Deval C/F (%)	SE (%)	Bulk Relative Density C/F	Absorption (%) C/F
11-03	9.79	78.21		
11-08	12.51	84.52		
11-11	11.22	86.97		
11-14	16.69	88.57		
Combined sample TP's 11-8 to 15			2.575 2.585	1.37 1.06
Average	11.17	84.57	N/A	N/A

Granular Volume:

Estimated Volume

50,000 m³

The estimated volume has been calculated by mining the developed Suggested Mining Area to an average depth of 5 metres.

Pit Development and Recommendations:

- The mining area has been previously developed by the Ministry of Transportation and Infrastructure (MoTI). Any additional development will be the responsibility of the contractor and shall be completed as per the pit development plan or as directed by the Ministry Representative.
- The crusher is recommended to be located at the base of slope as identified on the Pit Development Plan, with mining proceeding in a southeasterly direction.
- Processed aggregate may be stockpiled to the north of the crusher location, where space permits.
- In order to avoid an excessively high pit face, a bulldozer may be required to push material to the production area.
- At the completion of mining, active pit faces shall be sloped to a minimum of 1 ½:1 with granular material. **Reject material from aggregate production is not to be used to slope or infill pit faces without the prior approval of the Ministry Gravel Resource Manager.**

Photographs:

Pit face, crusher set-up location in foreground.



TP 11-10 spoil



TP 11-11 spoil

Al Mitchell
Regional Gravel Resource Manager

February 3, 2015