Ministry of Transportation and Infrastructure

Geotechnical and Materials Engineering

Southern Interior Region
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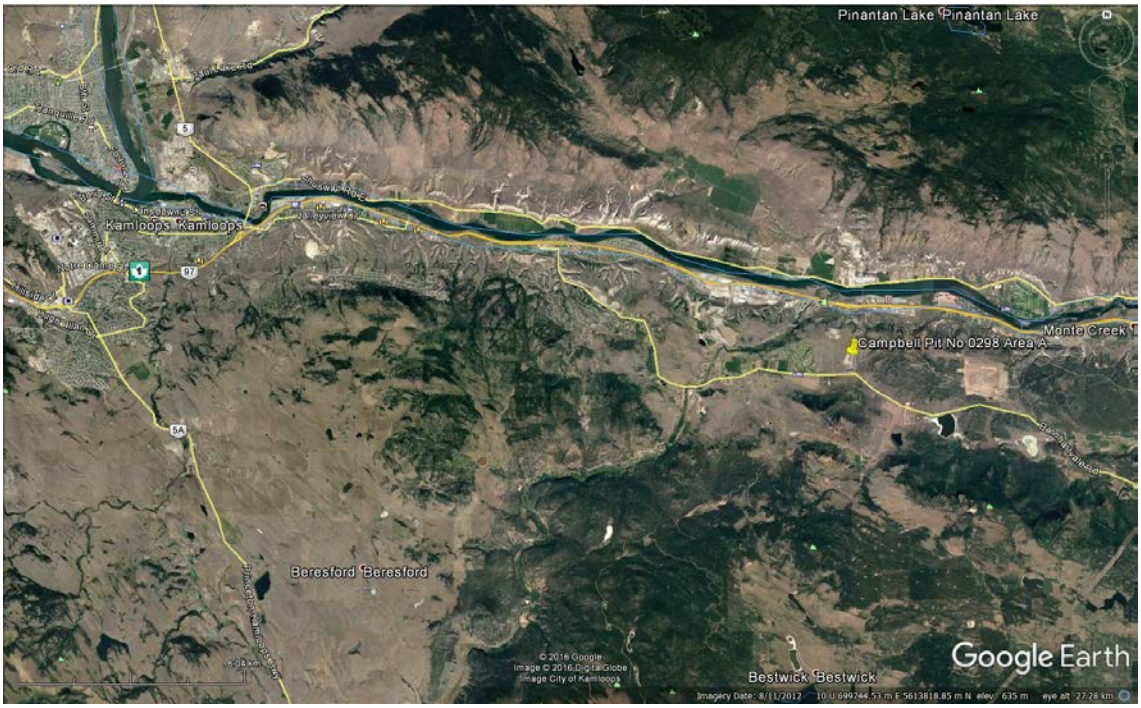
Campbell Pit No. 0298

Area A – 2016 Technical Information Report

Location: The pit is located approximately 19 km east of Kamloops via the Trans-Canada Highway then approximately 2.75 km south on Bregoliss Road.



Legal Description: Ministry of Transportation and Infrastructure Section 16 Map Reserve legally described as those portions of Sections 30 and 31, Township 19, Range 15, West of the Sixth Meridian, Kamloops Division of Yale District, containing 146.00 hectares, more or less. UTM coordinates are Grid Zone 10, 5,613,500 Northing, 707,500 Easting.

Gradation: The average and range of laboratory samples as well as oversize rock field estimates for material from the 1994 testing program are as follows:
(**NOTE:** fine material overlying sands and gravel have not been included.)

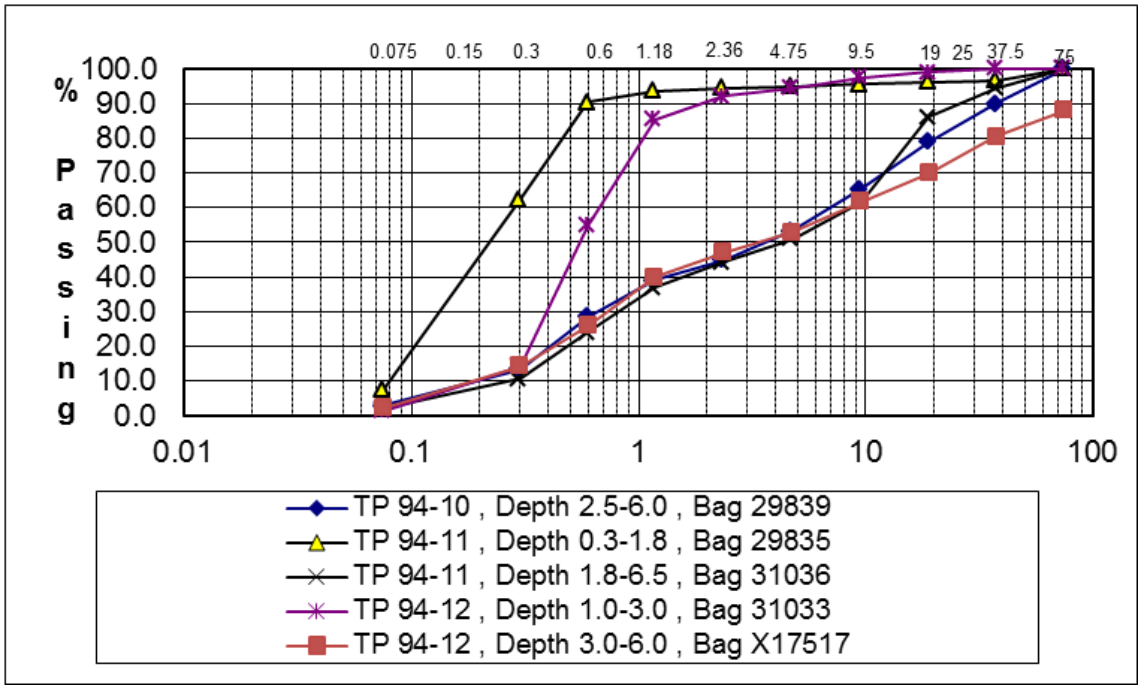
Laboratory Samples

Classification:	Average (%)	Range (%)
Gravel (4.75-75mm)	45	40 – 49
Sand (0.075-4.75mm)	52.3	49 – 57
Fines (<0.075mm)	2.7	2 – 3

Oversize Field Estimates:

The maximum size rock observed was 150 mm. There is approximately 5% material greater than 75 mm.

Aggregate Gradation Chart:



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

AGGREGATE LOG

PROJECT:	Campbell Pit Area A	SAMPLED BY:	Brad Hogg
PIT #:	0298	METHOD:	Excavator
DISTRICT:	Thompson Nicola	DATE:	Dec 19/1994

TH / TP	DEPTH (m)		SAMPLE	SOILS CLASS	ESTIMATED GRADUATION			ESTIMATED ROCK 75mm				SAND TYPE	REMARKS
	FROM	TO	BAG No.		G	S	F	MAX SIZE	75mm - 150mm	150mm - 375mm	+375mm	F M C	
TP 94-10	0	0.1		TS									
	0.4	2.3		GP	65	34	1	150	3			m	
	2.3	2.5		SP	0	98	2					m	
	2.5	6	29839	SP	46	51	3	150	3			m	
TP 94-11	0	0.3		TS									
	0.3	1.8	29835	SP-SM	5	87	8					f-m	
	1.8	6.5	31036	GP	49	49	2	150	5			m	
TP 94-12	0	0.3		TS									
	0.3	1.0		ML									
	1	3	31033	SP	5	93	2					m-c	
	3	6	X17517	SP	40	57	3	150	3			m	

Note: Red text indicates laboratory gradations

Aggregate Quality: A summary of historical aggregate quality tests performed on pit run samples from the tested area are as follows:

TEST	AVERAGE	RANGE
Degradation	70.8	59.4-86.6
Sand Equivalent	59.9	59.7-65.9
Magnesium Sulfate (Coarse)	4.95	3.94-5.97
Magnesium Sulfate (Fine)	11.65	11.42-11.87
Specific Gravity (Coarse)	2.737	2.718-2.744
Specific Gravity (Fine)	2.668	2.585-2.699
Absorption (Coarse)	0.71	0.55-0.86
Absorption (Fine)	1.10	0.91-1.21

Petrographic Analysis:

Material contained within Campbell Pit is comprised of approximately 35% well rounded, slightly to moderately weathered granitics and 65% sub-rounded to sub angular volcanics.

Granular Volume:

Estimated Volume 105,000 m^3

The Estimated Volume has been determined by mining the suitability area (17,750 m^2) to an average depth of 6 meters.

Pit Development and Recommendations:

- The crusher is to set up on the pit floor south of test Pit 94-8 with mining proceeding in a northerly direction.

- The pit has been developed previously by the Ministry. If additional development is required it shall conform to the requirements of the Pit Development Plan or be completed as directed by the Ministry Representative.

- At the completion of mining, all slopes shall be trimmed to a consistent, minimum slope of **3:1** with native granular material.

- **All reject materials resulting from aggregate production are to place in separate stockpiles free from deleterious material and in an easily accessible location. No stockpiling against the pit face is permitted without the permission from the Aggregate Resource Manager.**

Photographs:

Looking north at the mining area

Looking south at crusher and stockpile areas

Al Mitchell
Aggregate Resource Manager

December 1, 2016