

Province of British Columbia, Ministry of Transportation, GEOTECHNICAL AND MATERIALS ENGINEERING

AGGREGATE TEST HOLE SUMMARY SHEET

PIT: OTHELLO

DISTRICT: FRASER VALLEY

FILE No: 1722 / 0235

| Testpit Number | Overburden Depth | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | | Soundness Indicator | | | | Material at Bottom of Hole | Waterable (m) | Remarks |
|----------------|------------------|------------------|---------------------|------------------------|--------------|------------|-------------------|--------|------|-------|--------------|---------------------|-----------------|-------|------|----------------------------|---------------|----------------|
| | | | | 75/150 (mm) | 150/225 (mm) | + 225 (mm) | Maximum Size (mm) | Gravel | Sand | Fines | Fracture (%) | Degrad. | Sand Equivalent | MgSO4 | | | | |
| | | | | | | | | | | | | | | CA | FA | | | |
| 90-1 | 1.6 | 0.0/1.6 | SM2 | | | | | 10 | 65 | 25 | | | | | | | | FVI |
| | 5.3 | 1.6/5.3 | SM1 | | | | | | 85 | 15 | | | | | | | | FVI |
| | | 5.3/5.5 | GP | | | | | 52 | 45 | 3 | | | | | | GP | | FVI |
| 90-2 | 1.5 | 0.0/1.5 | O/B | | | | | | | | | | | | | | | pit overburden |
| | | 1.5/5.5 | SPSM | | | | | 4 | 90 | 6 | | | | | | SPSM | | FVI |
| 90-3 | | 0.0/5.2 | GP | 8 | 4 | 3 | 500 | 62 | 36 | 2 | | 56 | 86 | | | GP | | WSA |
| 90-4 | | 0.0/5.5 | GP | 8 | 4 | 3 | 625 | 67 | 30 | 3 | | | | | | GP | | WSA |
| 90-5 | | 0.0/4.7 | GM1 | 15 | 7 | 4 | 750 | 66 | 22 | 12 | | | | | | GM1 | | FVI |
| 90-6 | | 0.0/5.0 | GPGM | 13 | 6 | 3 | 750 | 70 | 22 | 8 | | | | | | GPGM | | FVI |
| 90-7 | | 0.0/5.5 | GPGM | 10 | 50 | 3 | 500 | 57 | 28 | 15 | | | | | | GPGM | | WSA |
| 90-8 | | 0.0/5.5 | GPGM | 10 | 5 | 3 | 375 | 58 | 33 | 9 | | 26 | 67 | | | GP? | | WSA |
| 90-9 | | 0.0/5.5 | GP | 6 | 3 | 2 | 375 | 59 | 37 | 4 | | 58 | 67 | | | GP | | WSA |
| 90-10 | | 0.0/5.5 | GP | 5 | 3 | 2 | 450 | 66 | 33 | 1 | | | | 5.39 | 12.7 | GP | | WSA |

FVI= Field Visual Identification

WSA= Washed Sieve Analysis

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| Testpit Number | Overburden Depth | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | | Soundness Indicator | | | | Material at Bottom of Hole | Waterable (m) | Remarks |
|----------------|------------------|------------------|---------------------|------------------------|--------------|------------|-------------------|--------|------|-------|--------------|---------------------|-----------------|-------|----|----------------------------|---------------|---------|
| | | | | 75/150 (mm) | 150/225 (mm) | + 225 (mm) | Maximum Size (mm) | Gravel | Sand | Fines | Fracture (%) | Degrad. | Sand Equivalent | MgSO4 | | | | |
| | | | | | | | | | | | | | | CA | FA | | | |
| 90-11 | | 0.0/1.0 | GP | | | | | 65 | 33 | 2 | | | | | | | | FVI |
| | | 1.0/5.5 | SP | 3 | 1 | 1 | 375 | 46 | 53 | 1 | | 77 | 96 | | | SP | | WSA |
| 90-12 | | 0.0/5.5 | SP | 5 | 3 | 2 | 500 | 46 | 56 | 1 | | | | | | SP | | WSA |
| 90-13 | | 0.0/5.5 | GP | 5 | 3 | 2 | 750 | 53 | 45 | 2 | | | | | | GP | | WSA |
| 90-14 | 0.5 | 0.0/0.5 | SM2 | | | | | 10 | 70 | 20 | | | | | | | | FVI |
| | | 0.5/5.5 | SP | 6 | 3 | 2 | 500 | 44 | 54 | 2 | | | | | | SP | | WSA |
| 90-15 | | 0.0/5.0 | SP | 1 | 1 | 1 | 450 | 35 | 63 | 2 | | | | | | SP | | FVI |
| 90-16 | | 0.0/1.0 | SP | | | | | 12 | 85 | 3 | | | | | | | | FVI |
| | | 1.0/5.5 | GP | 5 | 3 | 1 | 375 | 57 | 39 | 4 | | | | | | GP | | WSA |
| 90-17 | | 0.0/1.2 | SPSM | | | | | 5 | 90 | 5 | | | | | | | | FVI |
| | | 1.2/1.7 | SM1 | | | | | | 85 | 15 | | | | | | | | FVI |
| | | 1.7/5.5 | SP | | | | | 7 | 90 | 3 | | | | | | SP | | FVI |
| 90-18 | | 0.0/5.5 | SP | | | | | 1 | 98 | 1 | | | | | | SP | | WSA |
| 90-19 | | 0.0/5.5 | GP | 7 | 5 | 3 | 750 | 61 | 38 | 1 | | 76 | 94 | | | GP | | WSA |

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AGGREGATE TEST HOLE SUMMARY SHEET

PIT: OTHELLO

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FILE No: 1722 / 0235

| Testpit Number | Overburden Depth | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | | Soundness Indicator | | | Material at Bottom of Hole | Waterable (m) | Remarks | |
|----------------|------------------|------------------|---------------------|------------------------|--------------|------------|-------------------|--------|------|-------|--------------|---------------------|-----------------|-------|----------------------------|---------------|----------------|----|
| | | | | 75/150 (mm) | 150/225 (mm) | + 225 (mm) | Maximum Size (mm) | Gravel | Sand | Fines | Fracture (%) | Degrad. | Sand Equivalent | MgSO4 | | | | |
| | | | | | | | | | | | | | | CA | | | | FA |
| 90-20 | | 0.0/5.5 | GPGM | 8 | 5 | 1 | 375 | 72 | 22 | 6 | | | | | | GPGM | WSA | |
| 90-21 | | 0.0/1.5 | GP | 6 | 3 | 1 | 300 | 63 | 35 | 2 | | | | | | | FVI | |
| | | 1.5/5.5 | SP | | | | | 13 | 85 | 2 | | | | | | SP | FVI | |
| 90-22 | | 0.0/1.2 | SP | | | | | 13 | 85 | 2 | | | | | | | FVI | |
| | | 1.2/5.5 | SP | 6 | 3 | 1 | 300 | 45 | 53 | 2 | | 69 | 96 | | | SP | WSA | |
| 90-23 | | 0.0/5.5 | GPGM | 5 | 3 | 1 | 375 | 48 | 42 | 10 | | | | | | GPGM | FVI | |
| 90-24 | | 0.0/5.5 | GPGM | 5 | 3 | 2 | 375 | 48 | 42 | 10 | | | | | | GPGM | FVI | |
| 90-25 | | 0.0/5.5 | GP | 5 | 3 | 1 | 300 | 60 | 39 | 1 | | 69 | 95 | | | GP | WSA | |
| 90-26 | | 0.0/5.5 | SP | 4 | 2 | 1 | 375 | 49 | 50 | 1 | | 61 | 97 | | | SP | WSA | |
| 90-27 | | 0.0/5.0 | GP | 10 | 8 | 4 | 625 | 71 | 28 | 1 | | | | | | GP | WSA | |
| 90-28 | 3.0 | 0.0/3.0 | O/B | | | | | | | | | | | | | | pit overburden | |

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AGGREGATE TEST HOLE SUMMARY SHEET

PIT: OTHELLO

DISTRICT: FRASER VALLEY

FILE No: 1722/0235

| Testpit Number | Overburden Depth | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | | Soundness Indicator | | | | Material at Bottom of Hole | Waterable (m) | Remarks |
|----------------|------------------|------------------|---------------------|------------------------|--------------|------------|-------------------|--------|------|-------|--------------|---------------------|-----------------|-------|----|----------------------------|---------------|---------|
| | | | | 75/150 (mm) | 150/225 (mm) | + 225 (mm) | Maximum Size (mm) | Gravel | Sand | Fines | Fracture (%) | Degrad. | Sand Equivalent | MgSO4 | | | | |
| | | | | | | | | | | | | | | CA | FA | | | |
| 97-1 | 1.0 | 0.0/1.0 | GM2 | | | | | 50 | 25 | 25 | | | | | | | | FVI |
| | | 1.0/4.5 | GM1 | 5 | 4 | 1 | 500 | 56 | 27 | 17 | 88 | 15 | 18 | | | GM1 | | WSA |
| 97-2 | 0.5 | 0.0/0.5 | ML | | | | | 10 | 40 | 50 | | | | | | | | FVI |
| | | 0.5/2.8 | GPGM | 5 | 4 | 1 | 600 | 68 | 27 | 5 | | | | | | | 2.8 | WSA |
| | | 2.8/3.5 | GM3 | | | | | 45 | 25 | 30 | | | | | | GM3 | | FVI |
| 97-3 | 0.5 | 0.0/0.5 | GM3 | | | | | 45 | 25 | 30 | | | | | | | | FVI |
| | | 0.5/? | BRX | | | | | | | | | | | | | BRX | | Bedrock |
| 97-4 | 0.5 | 0.0/0.5 | GM3 | | | | | 45 | 25 | 30 | | | | | | | | FVI |
| | | 0.5/? | BRX | | | | | | | | | | | | | BRX | | Bedrock |
| 97-5 | | 0.0/4.0 | GP | 10 | 4 | 1 | 500 | 70 | 26 | 4 | | | | | | GP | | FVI |
| 97-6 | 0.5 | 0.0/0.5 | TS | | | | | 10 | 30 | 60 | | | | | | | | FVI |
| | | 0.5/6.0 | GP | 5 | 4 | 1 | 600 | 64 | 33 | 3 | 81 | 22 | 69 | | | GP | | WSA |
| 97-7 | 0.5 | 0.0/0.5 | TS | | | | | 10 | 30 | 60 | | | | | | | | FVI |
| | | 0.5/1.5 | GP | 5 | 4 | 1 | 375 | 64 | 33 | 3 | | | | | | | | FVI |
| | | 1.5/5.5 | SP | 3 | | | 150 | 42 | 56 | 2 | | | | | | SP | | WSA |

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| Testpit Number | Overburden Depth | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | | Soundness Indicator | | | | Material at Bottom of Hole | Waterable (m) | Remarks | |
|----------------|------------------|------------------|---------------------|------------------------|--------------|------------|-------------------|--------|------|-------|--------------|---------------------|-----------------|-------|-----|----------------------------|---------------|---------|------------|
| | | | | 75/150 (mm) | 150/225 (mm) | + 225 (mm) | Maximum Size (mm) | Gravel | Sand | Fines | Fracture (%) | Degrad. | Sand Equivalent | MgSO4 | | | | | |
| | | | | | | | | | | | | | | CA | FA | | | | |
| 97-8 | 0.5 | 0.0/0.5 | TS | | | | | 10 | 30 | 60 | | | | | | | | | FVI |
| | | 0.5/5.0 | GP | 10 | 5 | 2 | 500 | 71 | 28 | 1 | | | 53 | 78 | 3.7 | 13.0 | GP | | WSA |
| 97-9 | 0.5 | 0.0/0.5 | TS | | | | | 10 | 30 | 60 | | | | | | | | | FVI |
| | | 0.5/2.5 | GP | 5 | 4 | 1 | 375 | 63 | 35 | 2 | | | | | | | | | FVI |
| | | 2.5/5.5 | SP | 3 | 2 | 1 | 250 | 34 | 64 | 2 | 82 | | | | | | | | WSA |
| 97-10 | 0.5 | 0.0/0.5 | TS | | | | | 10 | 30 | 60 | | | | | | | | | FVI |
| | | 0.5/4.0 | GP | 5 | 4 | 1 | 375 | 59 | 40 | 1 | | | 75 | 79 | | | | 4.0 | WSA |
| | | 4.0/? | BRX | | | | | | | | | | | | | | BRX | | Bedrock |
| 97-11 | | 0.0/0.3 | CR | | | | | | | | | | | | | | | | Crush |
| | | 0.3/5.5 | OB | | | | | | | | | | | | | | | | Overburden |
| | | 5.5/? | GP? | | | | | | | | | | | | | | GP? | | Suspect GP |
| 97-12 | | 0.0/0.5 | GP | | | | | 62 | 35 | 3 | | | | | | | | | FVI |
| | | 0.5/3.7 | OB | | | | | | | | | | | | | | | | Overburden |
| | | 3.7/5.5 | GP | 6 | 3 | 1 | 375 | 48 | 48 | 4 | 70 | | | | | | GP | | WSA |
| 97-13 | | 0.0/5.0 | GP | 5 | 3 | 1 | 450 | 63 | 35 | 2 | | | | | | | GP | | FVI |

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BRX = Bedrock



Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello Contract Area: 7 Equipment Type: Excavator

| Testpit Number | Overburden | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | | | Density | Absorption | | Watertable (m) | Remarks | | |
|----------------|------------|------------------|---------------------|------------------------|---------|---------|-------------------|--------|------|-------|---------------------|-------|-------------|----------|-------|-------|---------|------------|-------|----------------|---------|-------|-------------|
| | | | | 75/150mm | 150/225 | + 225mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | MgSO4 | | | C (%) | F (%) | | | | |
| | | | | | | | | | | | A (%) | B (%) | | | C (%) | F (%) | | | | | | C (%) | F (%) |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 09-1 | | 0.0/1.0 | CR | | | | | 64 | 35 | 1 | | | | | | | | | | | | | FVI, CRUSH |
| | | 1.0/5.7 | GP | 3 | 1 | 1 | 350 | 51 | 46 | 3 | | | | | | | | | | | | | WSA |
| 09-2 | | 0.0/1.2 | CR | | | | | 64 | 35 | 1 | | | | | | | | | | | | | FVI, CRUSH |
| | | 1.2/5.7 | GP | 5 | 2 | 1 | 375 | 68 | 30 | 2 | | | | | | | | | | | | | WSA |
| 09-3 | | 0.0/0.3 | CR | | | | | 64 | 35 | 1 | | | | | | | | | | | | | FVI, CRUSH |
| | | 0.3/5.7 | GP | 6 | 2 | 1 | 500 | 68 | 30 | 2 | | | | | | | | | | | | | WSA |
| 09-4 | | 0.0/3.5 | GP | 2 | 1 | 1 | 300 | 54 | 45 | 1 | | | | | | | | | | | | | FVI |
| | | 3.5/5.8 | SP | | | | | 1 | 98 | 1 | | | | | | | | | | | | | WSA, M-C SP |
| 09-5 | | 0.0/3.0 | GP | 2 | 1 | 1 | 300 | 54 | 45 | 1 | | | | | | | | | | | | | FVI |
| | | 3.0/3.3 | SP | | | | | 4 | 95 | 1 | | | | | | | | | | | | | FVI |
| | | 3.3/5.8 | SP | 2 | 1 | | 225 | 42 | 57 | 1 | | | | | | | | | | | | | WSA |

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LVI= Lab Visual Identification



Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello Contract Area: 7 Equipment Type: Excavator

| Testpit Number | Overburden | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | | | Density | Absorption | | Watertable (m) | Remarks |
|----------------|------------|------------------|---------------------|------------------------|---------|---------|-------------------|--------|------|-------|---------------------|-------|-------------|----------|-------|-------|---------|------------|-------|----------------|-------------|
| | | | | 75/150mm | 150/225 | + 225mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | MgSO4 | | | C (%) | F (%) | | |
| | | | | | | | | | | | A (%) | B (%) | | | C (%) | F (%) | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| 09-6 | | 0.0/1.8 | GPGM | 15 | 10 | 5 | 300 | 73 | 20 | 7 | | | | | | | | | | | FVI |
| | | 1.8/5.7 | SP | 5 | 1 | 1 | 375 | 48 | 52 | 1 | | | | | | | | | | | WSA |
| 09-7 | | 0.0/4.0 | GP | 2 | 1 | 1 | 300 | 59 | 40 | 1 | | | | | | | | | | | FVI |
| | | 4.0/5.7 | SP | | 1 | 1 | 350 | 26 | 70 | 4 | | | | | | | | | | | WSA |
| 09-8 | | 0.0/1.5 | GPGM | 5 | 2 | 1 | 350 | 63 | 30 | 5 | | | | | | | | | | | FVI |
| | | 1.5/5.7 | GP | 5 | 2 | 1 | 275 | 64 | 34 | 2 | | | | | | | | | | | WSA |
| 09-9 | | 0.0/0.7 | GP | | | | | 64 | 35 | 1 | | | | | | | | | | | FVI |
| | | 0.7/5.5 | SP | | | | | 18 | 81 | 2 | | | | | | | | | | | WSA |
| | | 5.5/? | GP? | | | | | | | | CONSIDERED TO BE GP | | | | | | | | | | FVI |
| 09-10 | | 0.0/1.3 | SPSM | | | | | 5 | 85 | 10 | | | | | | | | | | | FVI |
| | | 1.3/5.0 | GP | 7 | 3 | 2 | 500 | 66 | 33 | 1 | 61 | 52 | | | | | | | | | WSA, F-M SP |
| 09-11 | | 0.0/5.0 | SP | 1 | 1 | 1 | 375 | 18 | 81 | 2 | | | | | | | | | | | WSA |
| 09-12 | | 0.0/5.0 | SP | 1 | 1 | | 225 | 32 | 67 | 2 | | | | | | | | | | | WSA, M-C SP |

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Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello Contract Area: 7 Equipment Type: Excavator

| Testpit Number | Overburden | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | | Density | Absorption | | Watertable (m) | Remarks | |
|----------------|------------|------------------|---------------------|------------------------|---------|---------|-------------------|--------|------|-------|---------------------|-------|-------------|----------|-------|---------|------------|-------|----------------|--------------------------|-------|
| | | | | 75/150mm | 150/225 | + 225mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | MgSO4 | | C (%) | F (%) | | | |
| | | | | | | | | | | | A (%) | B (%) | | | C (%) | | | | | | F (%) |
| | | | | | | | | | | | | | | | | | | | | | |
| 09-13 | 0.2 | 0.0/0.2 | TS | | | | | | | | | | | | | | | | | FVI, ORGANICS | |
| | 1.5 | 0.2/1.5 | ML | | | | | 5 | 20 | 75 | | | | | | | | | | FVI | |
| | | 1.5/5.0 | SM3 | | | | | 15 | 50 | 35 | | | | | | | | | | FVI | |
| 09-14 | 0.3 | 0.0/0.3 | TS | | | | | | | | | | | | | | | | | FVI, ORGANICS | |
| | 0.8 | 0.3/0.8 | ML | | | | | | 25 | 75 | | | | | | | | | | FVI | |
| | | 0.8/2.0 | SP | | | | | 24 | 75 | 1 | | | | | | | | | | FVI | |
| | | 2.0/5.7 | GP | 4 | 1 | | 225 | 59 | 39 | 2 | 56 | 44 | | | 77 | | | | | WSA | |
| 09-15 | 0.3 | 0.0/0.3 | TS | | | | | | | | | | | | | | | | | FVI, ORGANICS | |
| | | 0.3/5.7 | GP | 6 | 2 | 1 | 375 | 66 | 32 | 2 | | | 8.5 | 15.0 | | | | | | WSA | |
| 09-16 | 0.2 | 0.0/0.2 | TS | | | | | | | | | | | | | | | | | FVI, ORGANICS | |
| | 0.5 | 0.2/0.5 | ML | | | | | | 25 | 75 | | | | | | | | | | FVI | |
| | | 0.5/2.0 | GP | 4 | 1 | 1 | 300 | 64 | 35 | 1 | | | | | | | | | | FVI | |
| | | 2.0/5.7 | SP | 1 | 1 | | 125 | 31 | 67 | 2 | 52 | 31 | | | | | | | | WSA | |
| 09-17 | | 0.0/0.5 | GP | | | | | | | | | | | | | | | | | FVI, ROAD | |
| | | 0.5/1.0 | ML | | | | | | 25 | 75 | | | | | | | | | | FVI | |
| | | 1.0/5.7 | GP | 1 | 1 | | 200 | 49 | 49 | 2 | 67 | 50 | | | 3.6 | 8.0 | | 1.1 | 1.4 | WSA, SG: C-2.583,F-2.577 | |

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Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello Contract Area: 7 Equipment Type: Excavator

| Testpit Number | Overburden | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | | | Density | Absorption | | Watertable (m) | Remarks |
|----------------|------------|------------------|---------------------|------------------------|---------|---------|-------------------|--------|------|-------|---------------------|-------|-------------|----------|-------|-------|---------|------------|-------|---------------------------|---------|
| | | | | 75/150mm | 150/225 | + 225mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | MgSO4 | | | C (%) | F (%) | | |
| | | | | | | | | | | | A (%) | B (%) | | | C (%) | F (%) | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| 09-18 | 0.2 | 0.0/0.2 | TS | | | | | | | | | | | | | | | | | FVI, ORGANICS | |
| | 0.4 | 0.2/0.4 | ML | | | | | | 25 | 75 | | | | | | | | | | FVI | |
| | | 0.4/1.4 | SP | | | | | 9 | 90 | 1 | | | | | | | | | | FVI | |
| | | 1.4/4.5 | GP | 3 | 2 | 1 | 375 | 57 | 42 | 1 | | | | | | | | | | WSA, KEPT CAVING IN | |
| 09-19 | | 0.0/1.8 | SP | | | | | 31 | 65 | 4 | | | | | | | | | | FVI | |
| | | 1.8/4.0 | GP | 3 | | | 150 | 59 | 40 | 1 | | | | | | | | | | FVI, NOT TP, SCRAPED BANK | |
| 09-20 | 0.1 | 0.0/0.1 | TS | | | | | | | | | | | | | | | | | FVI, ORGANICS | |
| | | 0.1/5.8 | SP | 2 | 1 | | 200 | 44 | 55 | 1 | 50 | 34 | | | | | | | | WSA | |
| 09-21 | 0.3 | 0.0/0.3 | TS | | | | | | | | | | | | | | | | | FVI, ORGANICS | |
| | | 0.3/5.8 | GP | 3 | 2 | 1 | 375 | 53 | 46 | 1 | | | | | | | | | | WSA | |
| 09-22 | | 0.0/1.4 | GP | 7 | 3 | 3 | 500 | 71 | 30 | 4 | | | | | | | | | | FVI | |
| | | 1.4/5.8 | GP | 3 | 1 | 1 | 250 | 57 | 42 | 1 | 61 | 39 | | | 6.3 | 13 | 2.6 | 1 | 1.1 | WSA | |
| 09-23 | | 0.0/1.0 | GP | 10 | 5 | 2 | 500 | 71 | 30 | 4 | | | | | | | | | | FVI | |
| | | 1.0/5.0 | GP | 3 | 2 | 1 | 250 | 57 | 42 | 1 | | | | | | | | | | WSA | |

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Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello Contract Area: 7 Equipment Type: Excavator

| Testpit Number | Overburden | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | Density | Absorption | | Watertable (m) | Remarks | | |
|----------------|------------|------------------|---------------------|------------------------|---------|---------|-------------------|--------|------|-------|---------------------|-------|-------------|----------|---------|------------|-------|----------------|-------------------------|-------|-------|
| | | | | 75/150mm | 150/225 | + 225mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | | MgSO4 | | | | C (%) | F (%) |
| | | | | | | | | | | | A (%) | B (%) | | | | C (%) | F (%) | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| 09-24 | 0.3 | 0.0/0.3 | TS | | | | | | | | | | | | | | | | FVI, ORGANICS | | |
| | 0.8 | 0.3/0.8 | ML | | | | | | 25 | 75 | | | | | | | | | FVI | | |
| | | 0.8/5.7 | GP | 5 | 3 | 2 | 450 | 58 | 39 | 3 | 83 | 63 | | 79 | | | | | WSA | | |
| 09-25 | 0.3 | 0.0/0.3 | TS | | | | | | | | | | | | | | | | FVI, ORGANICS | | |
| | | 0.3/0.9 | ML | | | | | | 25 | 75 | | | | | | | | | FVI | | |
| | | 0.9/5.5 | GP | 5 | 3 | 2 | 500 | 64 | 35 | 1 | | | | | | | | | FVI | | |
| 09-26 | 3.2 | 0.0/3.2 | OB | | | | | | | | | | | | | | | | FVI, OLD PIT OVERBURDEN | | |
| | | 3.2/5.7 | GPGM | 3 | 2 | 1 | 250 | 51 | 39 | 10 | 70 | 61 | | 36 | | | | | WSA | | |
| 09-27 | 0.3 | 0.0/0.3 | TS | | | | | | | | | | | | | | | | FVI, ORGANICS | | |
| | | 0.3/5.3 | GP | 2 | 1 | | 200 | 68 | 30 | 2 | | | | | | | | | WSA | | |
| 09-28 | | 0.0/1.0 | GPGM | 5 | 5 | 5 | 750 | 60 | 30 | 10 | | | | | | | | | FVI | | |
| | | 1.0/5.7 | GP | 4 | 2 | 1 | 300 | 48 | 48 | 4 | 85 | 62 | | | | | | | WSA | | |
| 09-29 | 1.3 | 0.0/1.3 | ML | | | | | 20 | 30 | 50 | | | | | | | | | FVI, DITCH WASTE | | |
| | | 1.3/2.5 | GPGM | 3 | 2 | 1 | 375 | 60 | 35 | 5 | | | | | | | | | FVI | | |
| | | 2.5/5.8 | GP | 4 | 2 | 1 | 375 | 49 | 47 | 4 | | | | | | | | | WSA | | |

FVI= Field Visual Identification
BRX= Bedrock

WSA= Washed Sieve Analysis

LVI= Lab Visual Identification



Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello Contract Area: 7 Equipment Type: Excavator

| Testpit Number | Overburden | Soil Bound. (mm) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | | | Density | Absorption | | Watertable (m) | Remarks |
|----------------|------------|------------------|---------------------|------------------------|---------|---------|-------------------|--------|------|-------|---------------------|-------|-------------|----------|-------|-------|---------|------------|-------|----------------|--------------------------|
| | | | | 75/150mm | 150/225 | + 225mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | MgSO4 | | | C (%) | F (%) | | |
| | | | | | | | | | | | A (%) | B (%) | | | C (%) | F (%) | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| 09-30 | | 0.0/1.5 | GPGM | | | | | 53 | 40 | 7 | | | | | | | | | | | FVI |
| | | 1.5/4.0 | OVR5 | | | | | | | | | | | | | | | | | | FVI, BURIED OVERS |
| | | 4.0/5.5 | GP | 3 | 2 | 1 | 300 | 64 | 35 | 1 | | | | | | | | | | | FVI |
| 09-31 | | 0.0/1.0 | SHRX | | | | | | | | | | | | | | | | | | FVI, 10" MINUS SHOT ROCK |
| | | 1.0/1.6 | GPGM | | | | | 60 | 35 | 5 | | | | | | | | | | | FVI |
| | | 1.6/5.0 | SP | 2 | 1 | 1 | 250 | 49 | 50 | 1 | | | 9.7 | 8.8 | | | | | | | WSA |
| | | 5.0/5.8 | SP | 1 | | | | 34 | 65 | 1 | | | | | | | | | | | FVI |
| 09-32 | | 0.0/0.9 | CR | | | | | | | | | | | | | | | | | | FVI, 3/4 CRUSH |
| | | 0.9/1.1 | ML | | | | | 10 | 25 | 65 | | | | | | | | | | | FVI |
| | | 1.1/1.4 | CL | | | | | 25 | 25 | 50 | | | | | | | | | | | FVI |
| | | 1.4/5.7 | GP | 5 | 3 | 1 | 625 | 57 | 40 | 3 | | | | | | | | | | | WSA |
| 09-33 | 0.2 | 0.0/0.2 | TS | | | | | | | | | | | | | | | | | | FVI, ORGANICS |
| | 0.9 | 0.2/0.9 | ML | | | | | | 25 | 75 | | | | | | | | | | | FVI |
| | | 0.9/4.5 | SPSM | 5 | 3 | 1 | 375 | 43 | 45 | 12 | 88 | 66 | | | | 13 | 14 | | | | WSA |
| | | 4.5/5.8 | GP | 5 | 3 | 1 | 375 | 64 | 35 | 1 | | | | | | | | | | | FVI |

FVI= Field Visual Identification
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WSA= Washed Sieve Analysis

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Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello #0235 Contract Area: Fraser Valley - 7 Equipment Type: Excavator

| Test Pit/Hole Number | Layer Thickness (m) | Layer Top Elevation (m) | Layer Bottom Elevation (m) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | Density | Absorption | | Water Table Elevation (m) | Remarks | Bag # | | | | |
|----------------------|---------------------|-------------------------|----------------------------|---------------------|------------------------|------------|----------|-------------------|--------|------|-------|---------------------|-------|-------------|----------|---------|------------|-------|---------------------------|---------------|-----------------------|-------|-------|-------|-------|
| | | | | | 75/150 mm | 150/225 mm | > 225 mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | | MgSO4 | | | | | C (%) | F (%) | C (%) | F (%) |
| | | | | | | | | | | | | A (%) | B (%) | | | | C (%) | F (%) | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13-1 | 0.2 | 249.5 | 249.3 | TS | | | | | | | | | | | | | | | | FVI; ORGANICS | | | | | |
| | 4.3 | 249.3 | 245.0 | SM2 | 1 | 1 | | 250 | 15 | 65 | 20 | | | | | | | | | | FVI; BURIED O/B; LOGS | | | | |
| | 0.2 | 245.0 | 244.8 | GP? | | | | | | | | | | | | | | | | | FVI | | | | |
| 13-2 | 0.2 | 249.2 | 249.0 | TS | | | | | | | | | | | | | | | | | FVI; ORGANICS | | | | |
| | 1.0 | 249.0 | 248.0 | SM2 | 1 | 1 | | 250 | 15 | 65 | 20 | | | | | | | | | | FVI | | | | |
| | 1.5 | 248.0 | 246.5 | SM1 | 4 | 2 | | 250 | 41 | 43 | 16 | | | | | | | | | | WSA; VERY COMPACTED | 750 | | | |
| | 0.5 | 246.5 | 246.0 | SP | | | | | | 97 | 3 | | | | | | | | | | FVI | | | | |
| | 2.8 | 246.0 | 243.2 | GP | 6 | 4 | 1 | 450 | 73 | 23 | 4 | 79 | 64 | 9.2 | 15 | | | | | | WSA | 760 | | | |
| | | 243.2 | - | SP? | | | | | | | | | | | | | | | | | FVI | | | | |
| 13-3 | 0.2 | 244.6 | 244.4 | SM2 | 1 | | | 75 | 15 | 65 | 20 | | | | | | | | | | FVI | | | | |
| | 3.8 | 244.4 | 240.6 | GP | 6 | 4 | 2 | 700 | 71 | 27 | 2 | | | | | | | | | | WSA; FINES DOWNWARD | 765 | | | |
| | 2.0 | 240.6 | 238.6 | GP | 4 | 2 | 1 | 350 | 67 | 32 | 1 | | | | | | | | | | WSA | 762 | | | |

BRX= Bedrock
 Layer Elevation = Possible Error

FVI= Field Visual Identification
 WSA= Washed Sieve Analysis
 LVI= Lab Visual Identification



Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello #0235

Contract Area: Fraser Valley - 7

Equipment Type: Excavator

| Test Pit/Hole Number | Layer Thickness (m) | Layer Top Elevation (m) | Layer Bottom Elevation (m) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | Density | Absorption | | Water Table Elevation (m) | Remarks | Bag # | | | | |
|----------------------|---------------------|-------------------------|----------------------------|---------------------|------------------------|------------|----------|-------------------|--------|------|-------|---------------------|-----|-------------|----------|---------|------------|-----|---------------------------|---------|---------------|---------------------|-----|-----|-----|
| | | | | | 75/150 mm | 150/225 mm | > 225 mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | | MgSO4 | | | | | C | F | C | F |
| | | | | | | | | | | | | A | B | | | | C | F | | | | | | | |
| | | | | | | | | | | | | (%) | (%) | (%) | (%) | | (%) | (%) | | | | (%) | (%) | (%) | (%) |
| 13-4 | 0.2 | 243.3 | 243.1 | TS | | | | | | | | | | | | | | | | | FVI; ORGANICS | | | | |
| | 2.8 | 243.1 | 240.3 | SM2 | 2 | 4 | 2 | 500 | 20 | 60 | 20 | | | | | | | | | | | FVI; OVERBURDEN | | | |
| | 2.5 | 240.3 | 237.8 | GP | 3 | 1 | | 200 | 64 | 34 | 2 | | | | | | | | | | | WSA | 764 | | |
| 13-5 | 4.5 | 243.4 | 238.9 | SPSM | 1 | 1 | | 200 | 10 | 80 | 10 | | | | | | | | | | | FVI | | | |
| 13-6 | 0.2 | 244.4 | 244.2 | CR | | | | | | | | | | | | | | | | | | FVI | | | |
| | 3.3 | 244.2 | 240.9 | GP | 3 | 2 | 1 | 400 | 59 | 40 | 1 | | | | | | | | | | | WSA | 766 | | |
| | 2.5 | 240.9 | 238.4 | SP | 1 | | | 150 | 10 | 89 | 1 | | | | | | | | | | | FVI | | | |
| 13-7 | 5.0 | 233.2 | 228.2 | GP | 5 | 3 | 1 | 400 | 61 | 38 | 1 | | | | | | | | | | | WSA | 767 | | |
| | 1.0 | 228.2 | 227.2 | SP | 1 | | | 150 | 14 | 84 | 2 | | | | | | | | | | | FVI | | | |
| 13-8 | 0.2 | 229.5 | 229.3 | TS | | | | | | | | | | | | | | | | | | FVI; ORGANICS | | | |
| | 5.3 | 229.3 | 224.0 | GPGM | 6 | 4 | 1 | 800 | 56 | 35 | 9 | | | | | | | | | | | WSA | 768 | | |
| 13-9 | 0.2 | 226.0 | 225.8 | TS | | | | | | | | | | | | | | | | | | FVI; ORGANICS | | | |
| | 0.5 | 225.8 | 225.3 | SM1 | | | | | 14 | 70 | 16 | | | | | | | | | | | FVI; OVERBURDEN | | | |
| | 4.8 | 225.3 | 220.5 | GP | 6 | 4 | 1 | 400 | 65 | 34 | 1 | 77 | 75 | 7.4 | 11 | | | | | | | WSA; LOOSE MATERIAL | 720 | | |

BRX= Bedrock
 Layer Elevation = Possible Error

FVI= Field Visual Identification
 WSA= Washed Sieve Analysis
 LVI= Lab Visual Identification



Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello #0235 Contract Area: Fraser Valley - 7 Equipment Type: Sonic

| Test Pit/Hole Number | Layer Thickness (m) | Layer Top Elevation (m) | Layer Bottom Elevation (m) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | | Density | Absorption | | Water Table Elevation (m) | Remarks | Bag # | | | |
|----------------------|---------------------|-------------------------|----------------------------|---------------------|------------------------|------------|----------|-------------------|--------|------|-------|---------------------|-------|-------------|----------|-------|---------|------------|-------|---------------------------|--|-------|-------|----------|-------|
| | | | | | 75/150 mm | 150/225 mm | > 225 mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | MgSO4 | | C (%) | F (%) | | | | C (%) | F (%) | |
| | | | | | | | | | | | | A (%) | B (%) | | | C (%) | | | | | | | | | F (%) |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14-1 | 0.2 | 253.7 | 253.5 | TS | | | | | | | | | | | | | | | | | UTM: 618109E 5471091N FVI; ORGANICS | | | | |
| | 2.9 | 253.5 | 250.6 | GPGM | | | | | 54 | 40 | 6 | | | | | | | | | | | WSA | 728 | | |
| | 0.6 | 250.6 | 250.0 | SP | | | | | 15 | 83 | 2 | | | | | | | | | | | FVI | | | |
| | 2.4 | 250.5 | 248.1 | GP | | | | | 52 | 46 | 2 | | | | | | | | | | | FVI | | | |
| | 0.9 | 248.1 | 247.1 | SM3 | | | | | 15 | 50 | 35 | | | | | | | | | | | FVI | | | |
| | 2.1 | 247.1 | 245.0 | GPGM | | | | | 48 | 43 | 9 | | | | | | | | | | | WSA | 719 | | |
| | 0.9 | 251.5 | 250.6 | SM3 | | | | | 15 | 50 | 35 | | | | | | | | | | | FVI | | | |
| | 10.1 | 250.6 | 240.5 | GP | | | | | 58 | 39 | 3 | 77 | 75 | 6.4 | 8 | 65 | 2.5 | 5.7 | 2.7 | 2.6 | 0.8 | 2.0 | WSA | 769, 205 | |
| | 3.0 | 240.5 | 237.5 | GP | | | | | 51 | 45 | 4 | | | | | | | | | | | WSA | 206 | | |
| | 1.5 | 252.5 | 251.0 | SM1 | | | | | 30 | 58 | 12 | | | | | | | | | | | FVI | | | |
| | 0.6 | 251.0 | 250.4 | SP | | | | | 35 | 64 | 1 | | | | | | | | | | | FVI | | | |
| | 0.9 | 250.4 | 249.5 | SM2 | | | | | 20 | 60 | 20 | | | | | | | | | | | FVI | | | |

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FVI= Field Visual Identification
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 LVI= Lab Visual Identification



Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello #0235 Contract Area: Fraser Valley - 7 Equipment Type: Sonic

| Test Pit/Hole Number | Layer Thickness (m) | Layer Top Elevation (m) | Layer Bottom Elevation (m) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | | Density | Absorption | | Water Table Elevation (m) | Remarks | Bag # | | | |
|----------------------|---------------------|-------------------------|----------------------------|---------------------|------------------------|------------|----------|-------------------|--------|------|-------|---------------------|-----|-------------|----------|-------|---------|------------|-----|---------------------------|---------|------------------------------|-----|-----|-----|
| | | | | | 75/150 mm | 150/225 mm | > 225 mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | MgSO4 | | C | F | | | | C | F | |
| | | | | | | | | | | | | A | B | | | C | | | | | | | | | F |
| | | | | | | | | | | | | (%) | (%) | (%) | (%) | (%) | | (%) | (%) | | | | (%) | (%) | (%) |
| 14-2 | 4.0 | 242.1 | 238.1 | GPGM | | | | | 50 | 42 | 8 | | | | | | | | | | | UTM: 618078E 5470908N FVI | | | |
| | 0.6 | 238.1 | 237.5 | SM3 | | | | | 10 | 60 | 30 | | | | | | | | | | | FVI | | | |
| | 6.4 | 254.5 | 248.1 | GPGM | | | | | 57 | 39 | 4 | | | | | | | | | | | WSA | 207 | | |
| | 2.7 | 248.1 | 245.4 | GP? | | | | | | | | | | | | | | | | | | FVI; LOST SAMPLE | | | |
| | 0.6 | 245.4 | 244.7 | GP | | | | | 50 | 48 | 2 | | | | | | | | | | | FVI | | | |
| | 11.9 | 244.7 | 232.9 | SP | | | | | 45 | 52 | 3 | | | | | | | | | | | WSA | 208 | | |
| | 8.8 | 232.9 | 224.0 | SP | | | | | 41 | 55 | 4 | | | | | | | | | | | WSA | 209 | | |
| | 0.3 | 224.0 | 223.7 | SP | | | | | 0 | 98 | 2 | | | | | | | | | | | FVI | | | |
| 14-3 | 1.8 | 223.1 | 221.3 | SPSM | | | | | 36 | 53 | 11 | | | | | | | | | | | UTM: 617732E 5470993N WSA | 210 | | |
| | 0.3 | 221.3 | 221.0 | SM3 | | | | | 15 | 50 | 35 | | | | | | | | | | | FVI | | | |
| | 5.8 | 221.0 | 215.2 | SPSM | | | | | 30 | 60 | 10 | | | | | | | | | | | WSA | 680 | | |
| | 9.1 | 215.2 | 206.1 | GP | | | | | 54 | 40 | 6 | 77 | 71 | 6.6 | 7.2 | | | | | | | WSA | 682 | | |
| | 3.0 | 206.1 | 203.0 | GM1 | | | | | 62 | 26 | 12 | | | | | | | | | | | WSA | 683 | | |

BRX= Bedrock
 Layer Elevation = Possible Error

FVI= Field Visual Identification
 WSA= Washed Sieve Analysis
 LVI= Lab Visual Identification



Ministry of Transportation

TEST PIT / HOLE SUMMARY SHEET

Pit: Othello #0235

Contract Area: Fraser Valley - 7

Equipment Type: Sonic

| Test Pit/Hole Number | Layer Thickness (m) | Layer Top Elevation (m) | Layer Bottom Elevation (m) | Soil Classification | Gradation of Materials | | | | | | | Soundness Indicator | | | | | | Density | Absorption | | Water Table Elevation (m) | Remarks | Bag # | | |
|---|---------------------|-------------------------|----------------------------|---------------------|------------------------|------------|----------|-------------------|--------|------|-------|---------------------|-----|-------------|----------|-------|-----|---------|------------|-----|---------------------------|---------|------------------------------|-----|-----|
| | | | | | 75/150 mm | 150/225 mm | > 225 mm | Maximum Size (mm) | Gravel | Sand | Fines | Fracture | | Micro Duval | Sand Eq. | MgSO4 | | | C | F | | | | C | F |
| | | | | | | | | | | | | A | B | | | C | F | | | | | | | | |
| | | | | | | | | | | | | (%) | (%) | (%) | (%) | (%) | (%) | | (%) | (%) | | | | (%) | (%) |
| 14-4 | 3.7 | 240.4 | 236.8 | GPGM | | | | | 61 | 29 | 10 | | | | | | | | | | | | UTM: 617842E 5470873N WSA | 684 | |
| | 1.2 | 236.8 | 235.5 | SP | | | | | 15 | 84 | 1 | | | | | | | | | | | | FVI | | |
| | 3.0 | 235.5 | 232.5 | GPGM | | | | | 59 | 35 | 6 | | | | | | | | | | | | WSA | 685 | |
| | 11.6 | 232.5 | 220.9 | GPGM | | | | | 58 | 36 | 6 | 71 | 63 | 6.6 | 8.3 | | | | | | | | WSA | 689 | |
| | 0.6 | 220.9 | 220.3 | GPGM | | | | | 54 | 38 | 8 | | | | | | | | | | | | FVI | | |
| Note: 40 feet of steel casing broke off and could not be retrieved. The casing is lodged roughly between depths of 20' and 60' (roughly elevations of 222 m and 234 m). | | | | | | | | | | | | | | | | | | | | | | | | | |

BRX= Bedrock
 Layer Elevation = Possible Error

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