

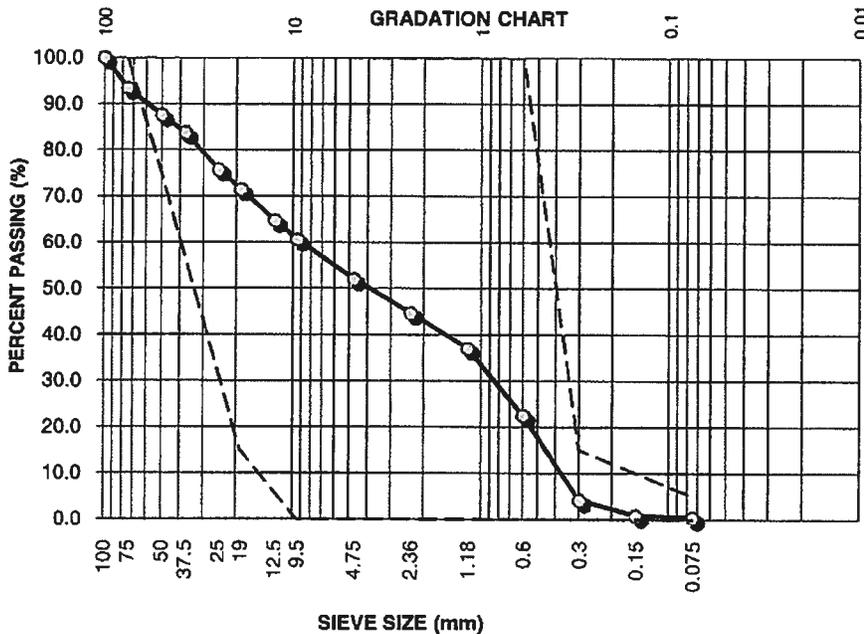


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 13-Aug-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4318

Date Sampled: Sampled by MoTI
Date Received: 8-Aug-12
Date Tested: 12-Aug-12
Sampled By: MOTI
Tested By: William Mendez, ASCT

TP/TH No.: TP12-1 SA-1
Bag No.: 71

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	93	100	100
50	88	-	-
37.5	84	-	-
25	76	-	-
19	71	15	100
12.5	65	-	-
9.5	61	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	52	-	-
2.36	45	-	-
1.18	37	-	-
0.6	23	0	100
0.3	4	0	15
0.15	1	-	-
0.075	0.5	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: _____

Riyad Islam, M.A.Sc, P.Eng
 Materials Engineer

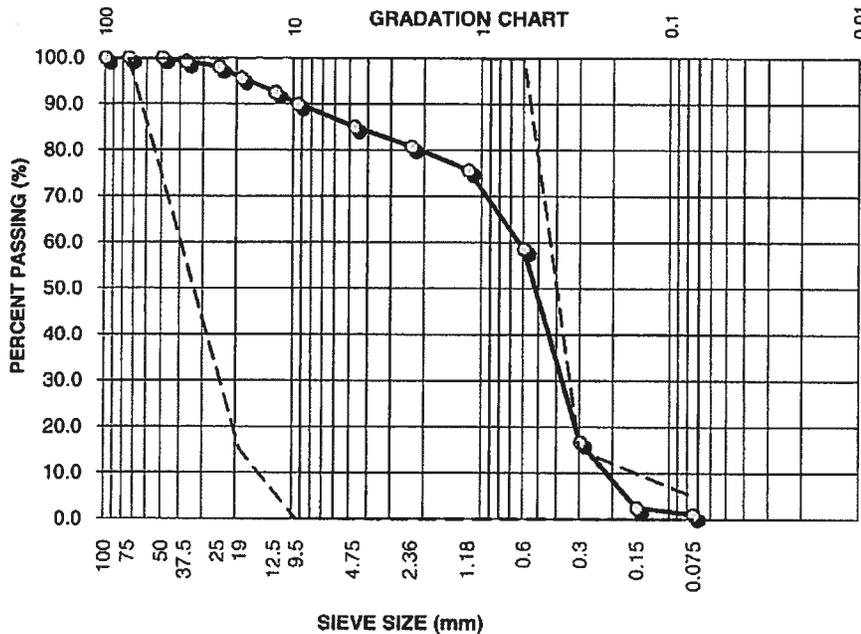


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 13-Aug-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4318

Date Sampled: Sampled by MoTI
Date Received: 8-Aug-12
Date Tested: 12-Aug-12
Sampled By: MOTI
Tested By: William Mendez, ASCT

TP/TH No.: TP12-1 SA-2
Bag No.: 72

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	100	100
50	100	-	-
37.5	99	-	-
25	98	-	-
19	96	15	100
12.5	93	-	-
9.5	90	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	85	-	-
2.36	81	-	-
1.18	76	-	-
0.6	59	0	100
0.3	17	0	15
0.15	3	-	-
0.075	1.0	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: _____

Riyad Islam, M.A.Sc, P.Eng
 Materials Engineer

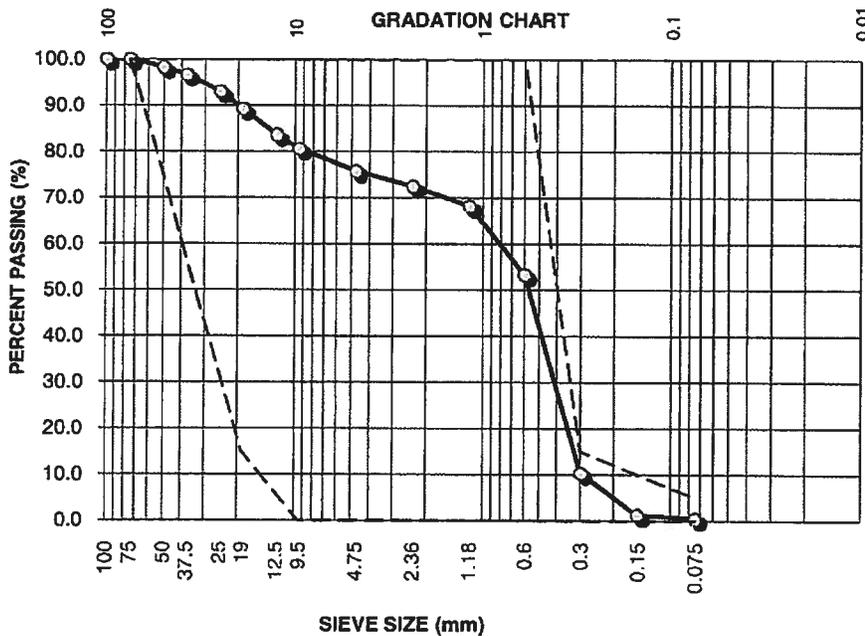


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 13-Aug-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4318

Date Sampled: Sampled by MoTI
Date Received: 8-Aug-12
Date Tested: 12-Aug-12
Sampled By: MOTI
Tested By: William Mendez, ASCT

TP/TH No.: TP12-2 SA-1
Bag No.: 73

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	100	100
50	98	-	-
37.5	97	-	-
25	93	-	-
19	89	15	100
12.5	84	-	-
9.5	81	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	76	-	-
2.36	72	-	-
1.18	68	-	-
0.6	53	0	100
0.3	10	0	15
0.15	1	-	-
0.075	0.6	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: _____

Riyad Islam, M.A.Sc, P.Eng
 Materials Engineer

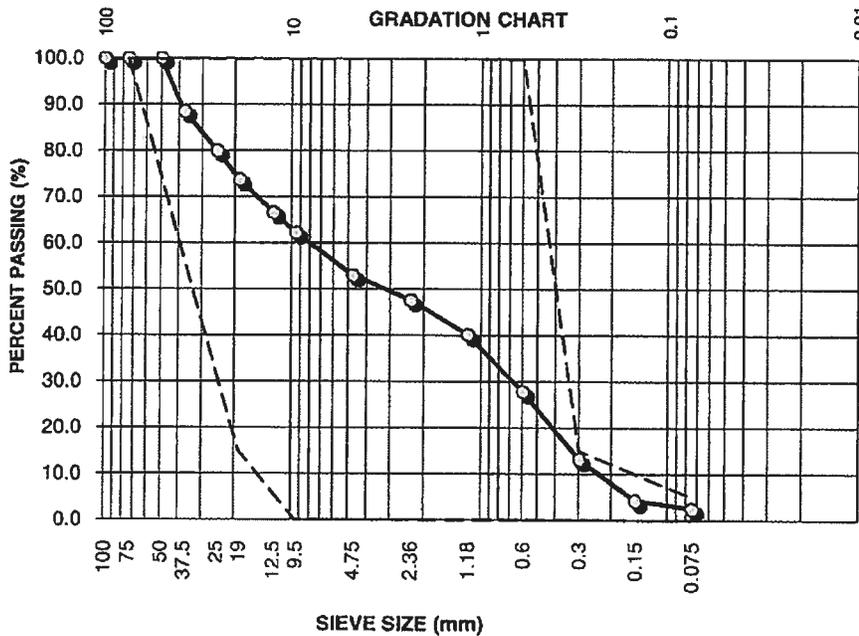


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 13-Aug-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4318

Date Sampled: Sampled by MoTI
Date Received: 8-Aug-12
Date Tested: 12-Aug-12
Sampled By: MOTI
Tested By: William Mendez, ASCT

TP/TH No.: TP12-3 SA-1
Bag No.: 74

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	100	100
50	100	-	-
37.5	89	-	-
25	80	-	-
19	74	15	100
12.5	67	-	-
9.5	62	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	53	-	-
2.36	48	-	-
1.18	40	-	-
0.6	28	0	100
0.3	13	0	15
0.15	4	-	-
0.075	2.5	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: _____

Riyad Islam, M.A.Sc, P.Eng
 Materials Engineer



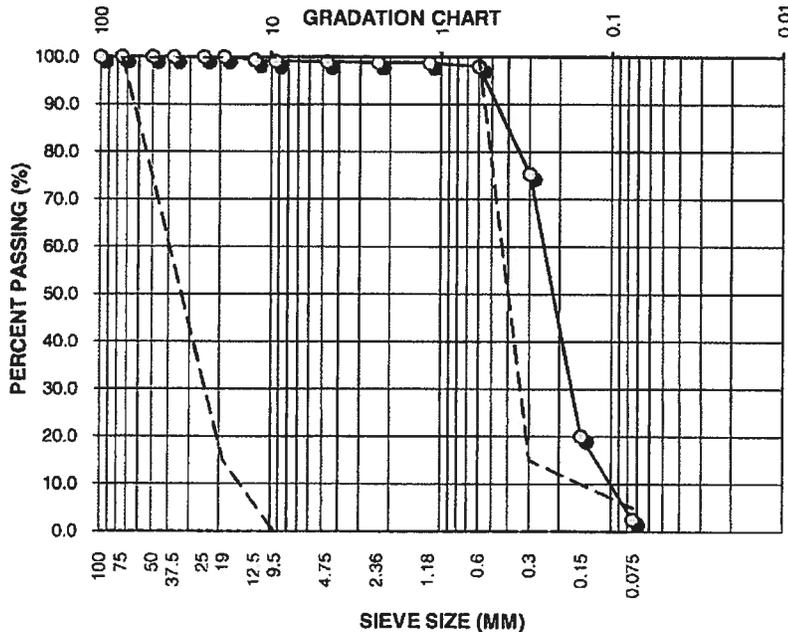
SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8

PROJECT NUMBER: VA06707-107
DATE: August 12, 2012
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit

ATTENTION: Steve Likness



Lab Number: L4318

Date sampled: Sampled by MoTI

Date Received: 8-Aug-12

Date Tested: 12-Aug-12

Sampled By: MOTI

Tested By: William Mendez, ASCT

TP/TH No.: TP12-4 SA-1

Bag No. 75

Gravel Sizes (mm)	Percent Passing	Gradation Limits		Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper			Lower	Upper
100	100	-	-	4.75	99	-	-
75	100	100	100	2.36	99	-	-
50	100	-	-	1.18	99	-	-
37.5	100	-	-	0.6	98	0	100
25	100	-	-	0.3	75	0	15
19	100	15	100	0.15	20	-	-
12.5	99	-	-	0.075	2.6	0	5
9.5	99	0	100				

Comments: Sieve analysis test was conducted in accordance with ASTM C 136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: 

Riyad Islam, M.A.Sc, P.Eng
 Materials Engineer

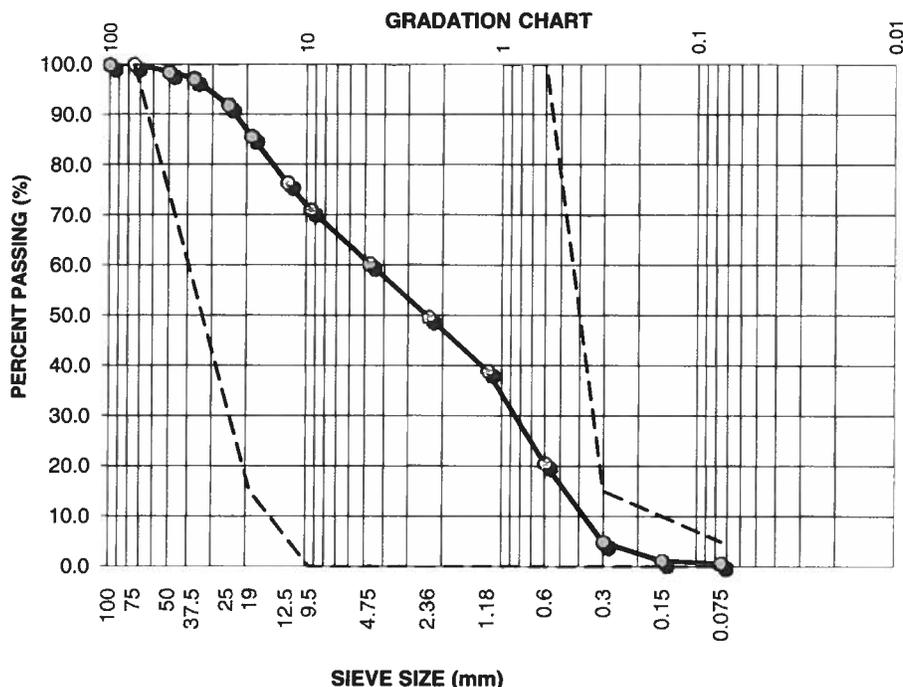


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 3-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No. TP12-5
Bag No. 371
Sample ID: SA-1
Material Type: Pit Run

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	98	-	-
37.5	97	-	-
25	92	-	-
19	86	15	100
12.5	76	-	-
9.5	71	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	60	-	-
2.36	50	-	-
1.18	39	-	-
0.6	21	0	100
0.3	5	0	15
0.15	1	-	-
0.075	0.7	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer

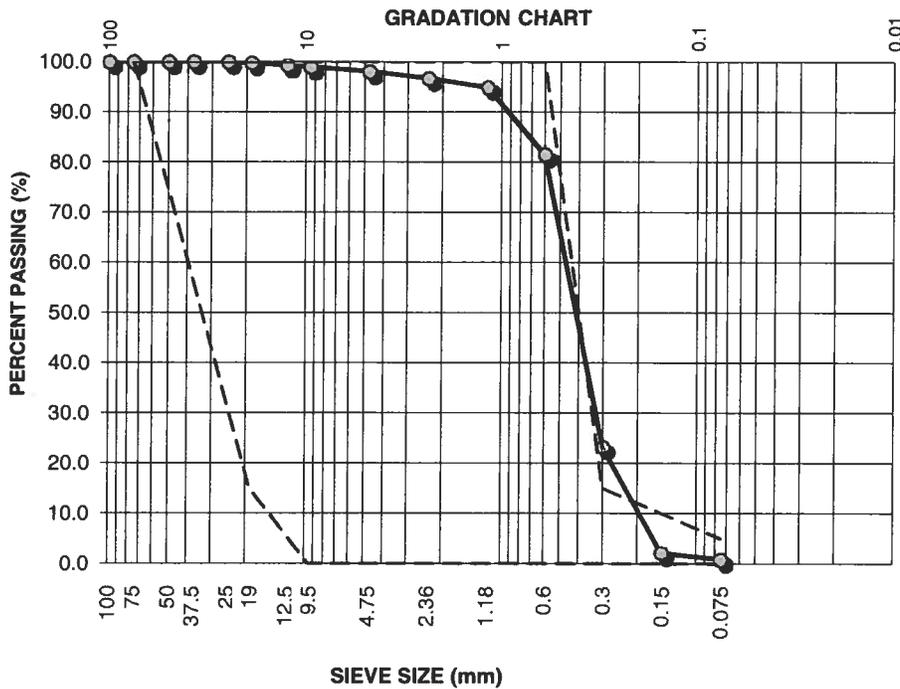


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 3-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No.: TP12-5
Bag No.: 372
Sample ID: SA-2
Material Type: Pit Run

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	100	-	-
37.5	100	-	-
25	100	-	-
19	100	15	100
12.5	99	-	-
9.5	99	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	98	-	-
2.36	97	-	-
1.18	95	-	-
0.6	82	0	100
0.3	23	0	15
0.15	2	-	-
0.075	0.9	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer

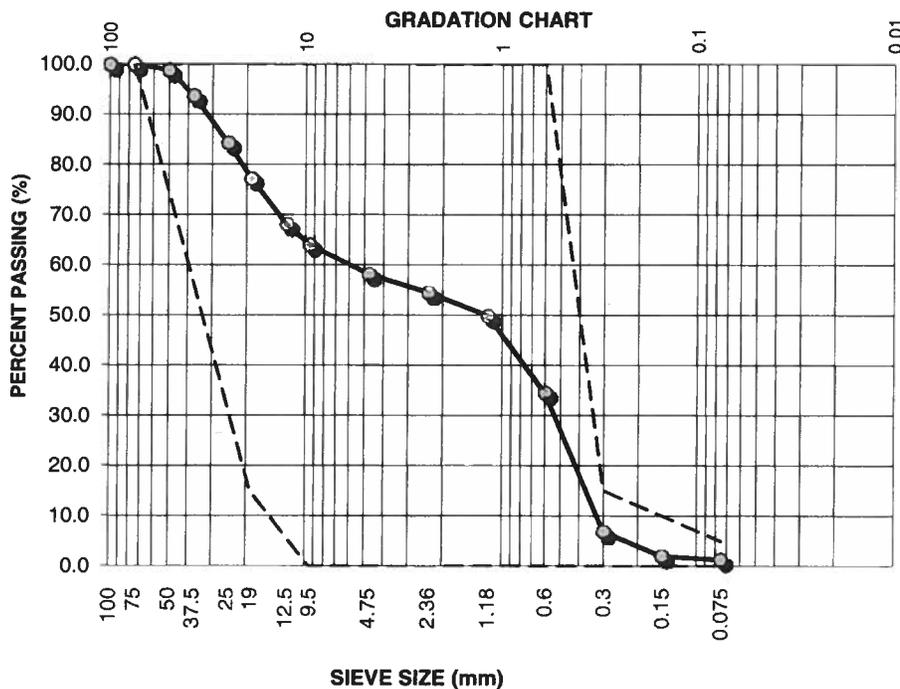


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 3-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No. TP12-6
Bag No. 374
Sample ID: SA-1
Material Type: Pit Run

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	99	-	-
37.5	94	-	-
25	84	-	-
19	77	15	100
12.5	68	-	-
9.5	64	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	58	-	-
2.36	54	-	-
1.18	50	-	-
0.6	35	0	100
0.3	7	0	15
0.15	2	-	-
0.075	1.3	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer

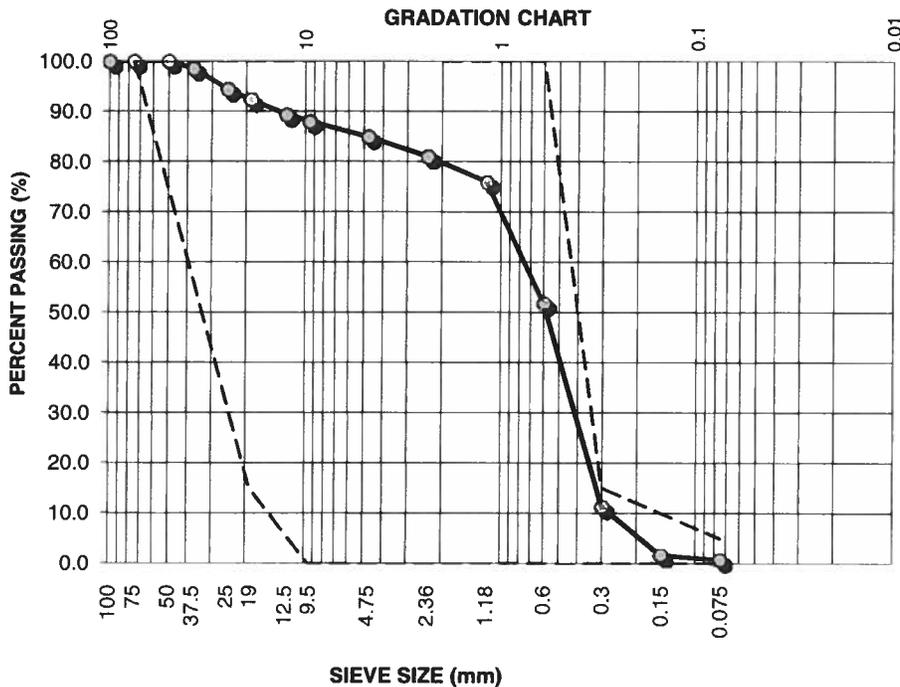


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferrd Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 3-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No.: TP12-6
Bag No.: 373
Sample ID: SA-2
Material Type: Pit Run

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	100	-	-
37.5	99	-	-
25	94	-	-
19	92	15	100
12.5	89	-	-
9.5	88	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	85	-	-
2.36	81	-	-
1.18	76	-	-
0.6	52	0	100
0.3	11	0	15
0.15	2	-	-
0.075	0.7	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer

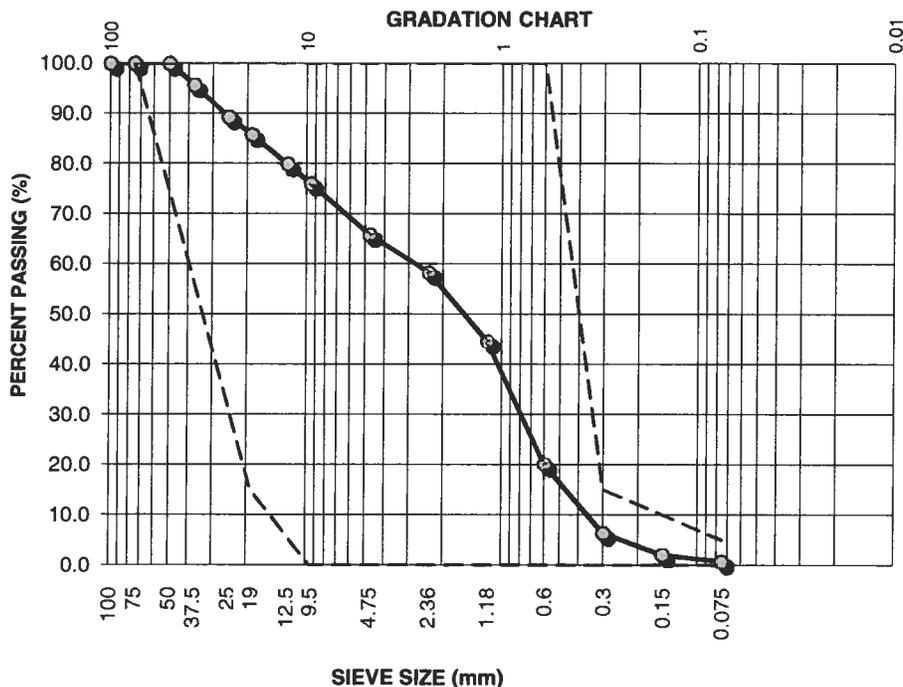


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieford Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 3-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No. TP12-7
Bag No. 375
Sample ID: SA-1
Material Type: Pit Run

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	100	-	-
37.5	96	-	-
25	89	-	-
19	86	15	100
12.5	80	-	-
9.5	76	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	66	-	-
2.36	58	-	-
1.18	45	-	-
0.6	20	0	100
0.3	6	0	15
0.15	2	-	-
0.075	0.7	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Riyad Islam
Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer

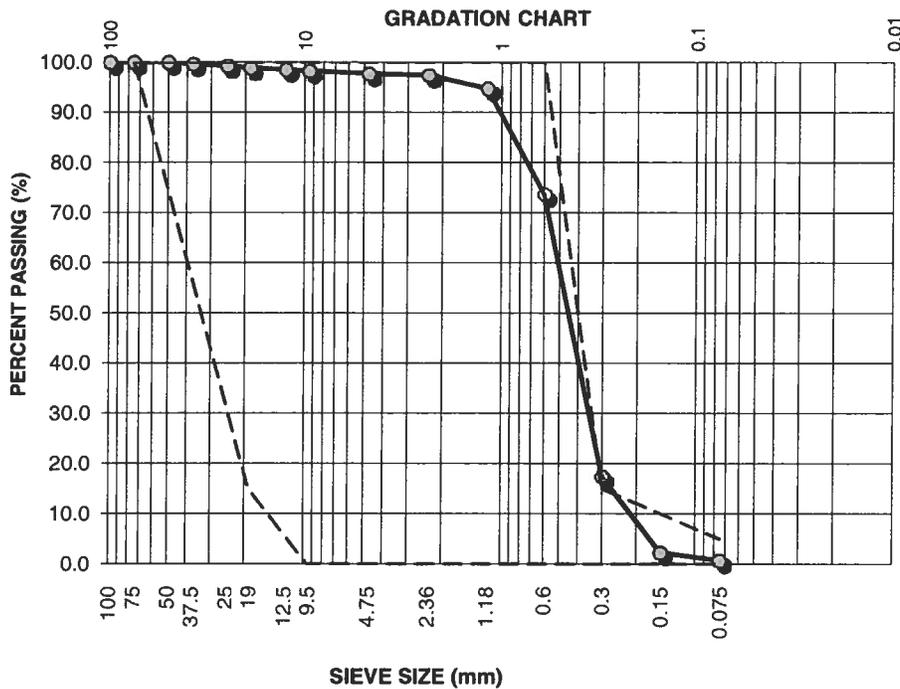


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-101
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Siefderd Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 3-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No.: TP12-8
Bag No.: 376
Sample ID: SA-1
Material Type: Pit Run

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	100	-	-
37.5	100	-	-
25	99	-	-
19	99	15	100
12.5	99	-	-
9.5	98	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	98	-	-
2.36	97	-	-
1.18	95	-	-
0.6	74	0	100
0.3	17	0	15
0.15	2	-	-
0.075	0.7	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer

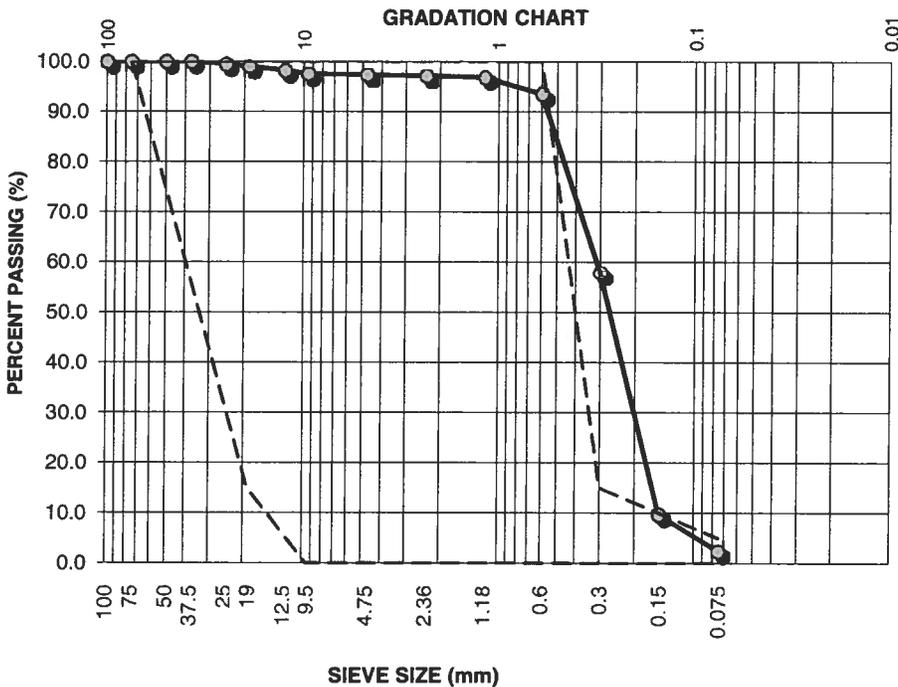


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Siefird Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 3-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No. TP12-9
Bag No. 377
Sample ID: SA-1
Material Type: Pit Run

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	100	-	-
37.5	100	-	-
25	100	-	-
19	99	15	100
12.5	98	-	-
9.5	98	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	97	-	-
2.36	97	-	-
1.18	97	-	-
0.6	94	0	100
0.3	58	0	15
0.15	10	-	-
0.075	2.4	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

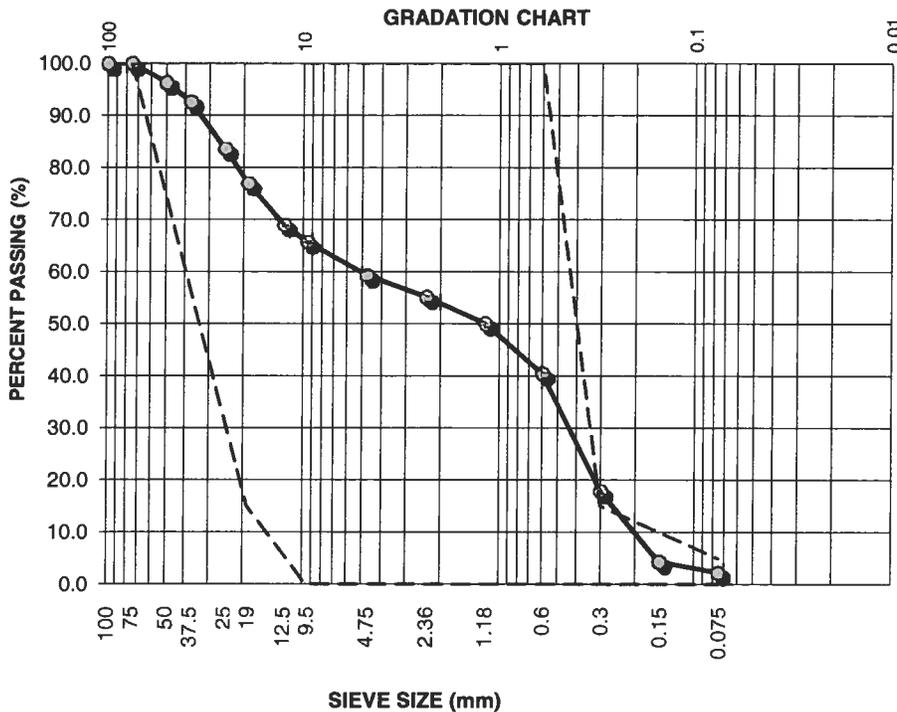
Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer

SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 3-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No.: TP12-10
Bag No.: 378
Sample ID: SA-1
Material Type: Pit Run

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	96	-	-
37.5	93	-	-
25	84	-	-
19	77	15	100
12.5	69	-	-
9.5	66	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	59	-	-
2.36	55	-	-
1.18	50	-	-
0.6	40	0	100
0.3	18	0	15
0.15	4	-	-
0.075	2.3	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer



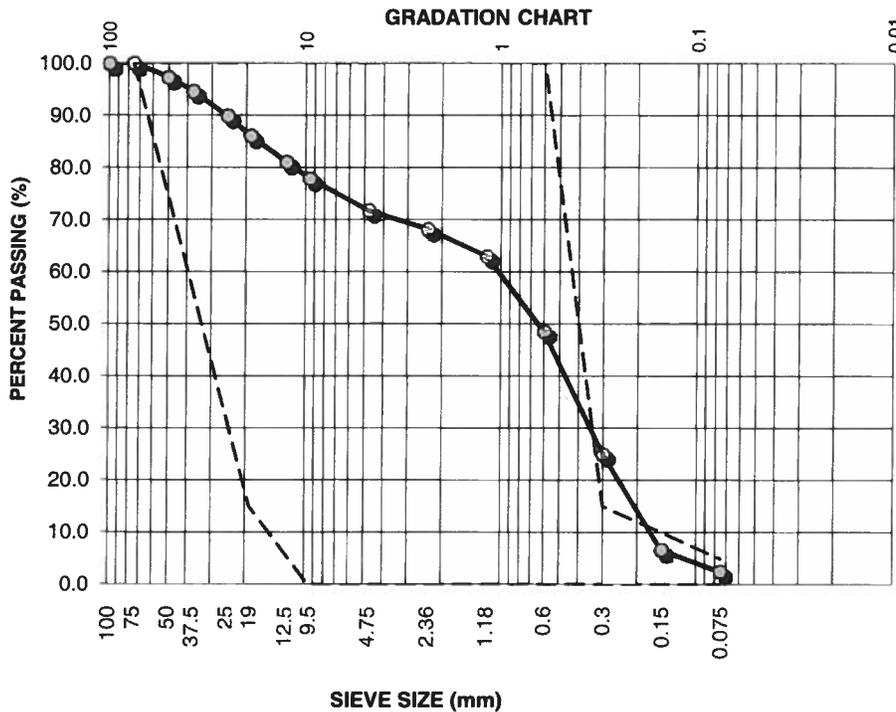


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 3-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No.: TP12-11
Bag No.: 379
Sample ID: SA-1
Material Type: Pit Run

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	97	-	-
37.5	95	-	-
25	90	-	-
19	86	15	100
12.5	81	-	-
9.5	78	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	72	-	-
2.36	68	-	-
1.18	63	-	-
0.6	49	0	100
0.3	25	0	15
0.15	7	-	-
0.075	2.5	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer

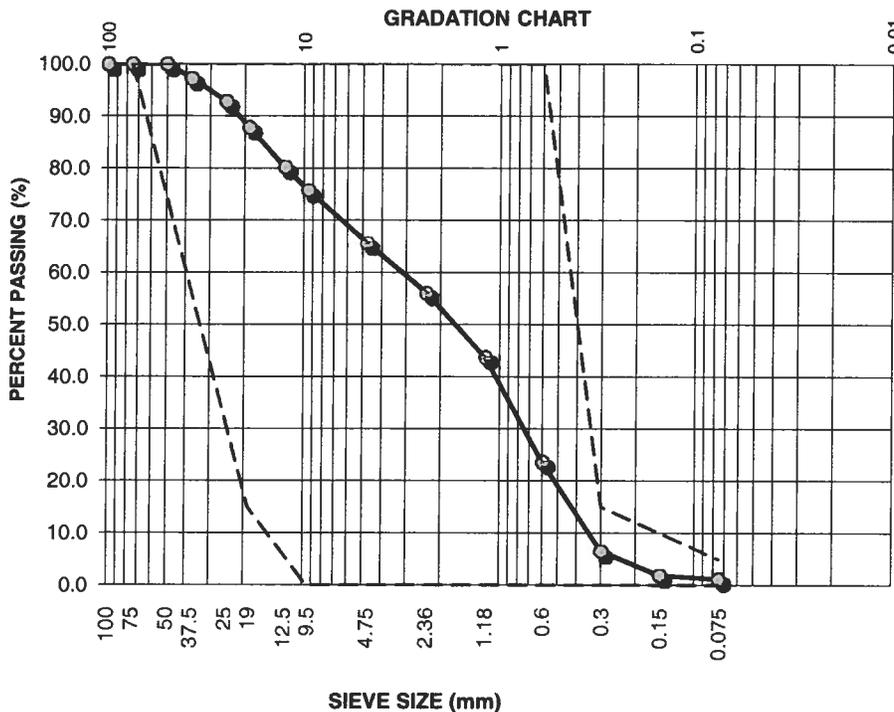


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 3-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No.: TP12-12
Bag No.: 380
Sample ID: SA-1
Material Type: Pit Run

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	100	-	-
37.5	97	-	-
25	93	-	-
19	88	15	100
12.5	80	-	-
9.5	76	0	100

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	66	-	-
2.36	56	-	-
1.18	44	-	-
0.6	24	0	100
0.3	7	0	15
0.15	2	-	-
0.075	1.2	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C SGSB gradation specification

Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer

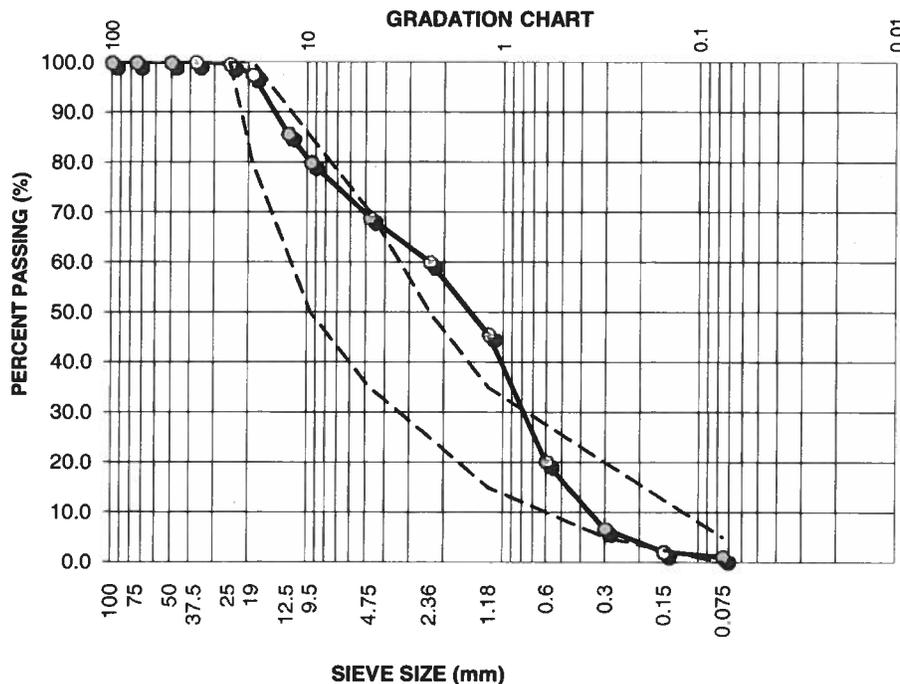


SIEVE ANALYSIS REPORT

CLIENT: Ministry of Transportation & Infrastructure
 7818 - 6th Street
 Burnaby, B.C., V3N 4N8
ATTN: Steve Likness

Project Number: VA06707-107
Date: 10-Oct-12
Client P.O.: 156CS0670
File No.: 156CS0670

PROJECT: Sieferd Pit



Lab Number: L4352

Date Sampled: NA
Date Received: 27-Sep-12
Date Tested: 25-Oct-12
Sampled By: MoTI
Tested By: Rodrigo L.

TP/TH No.: TP12-7
Bag No.: 375
Sample ID: SA-1
Material Type: Crushed

Gravel Sizes (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
100	100	-	-
75	100	-	-
50	100	-	-
37.5	100	-	-
25	100	100	100
19	97	80	100
12.5	86	-	-
9.5	80	0	85

Sand Sizes And Fines (mm)	Percent Passing	Gradation Limits	
		Lower	Upper
4.75	69	35	70
2.36	60	25	50
1.18	45	15	35
0.6	20	-	-
0.3	7	0	20
0.15	2	-	-
0.075	1.1	0	5

Comments: Sieve analysis test was conducted in accordance with ASTM C136 and C117
 Plotted to Table 202-C 25 mm WGB gradation specification

Reviewed By: Riyadh Islam, M.A.Sc, P.Eng
 Materials Engineer