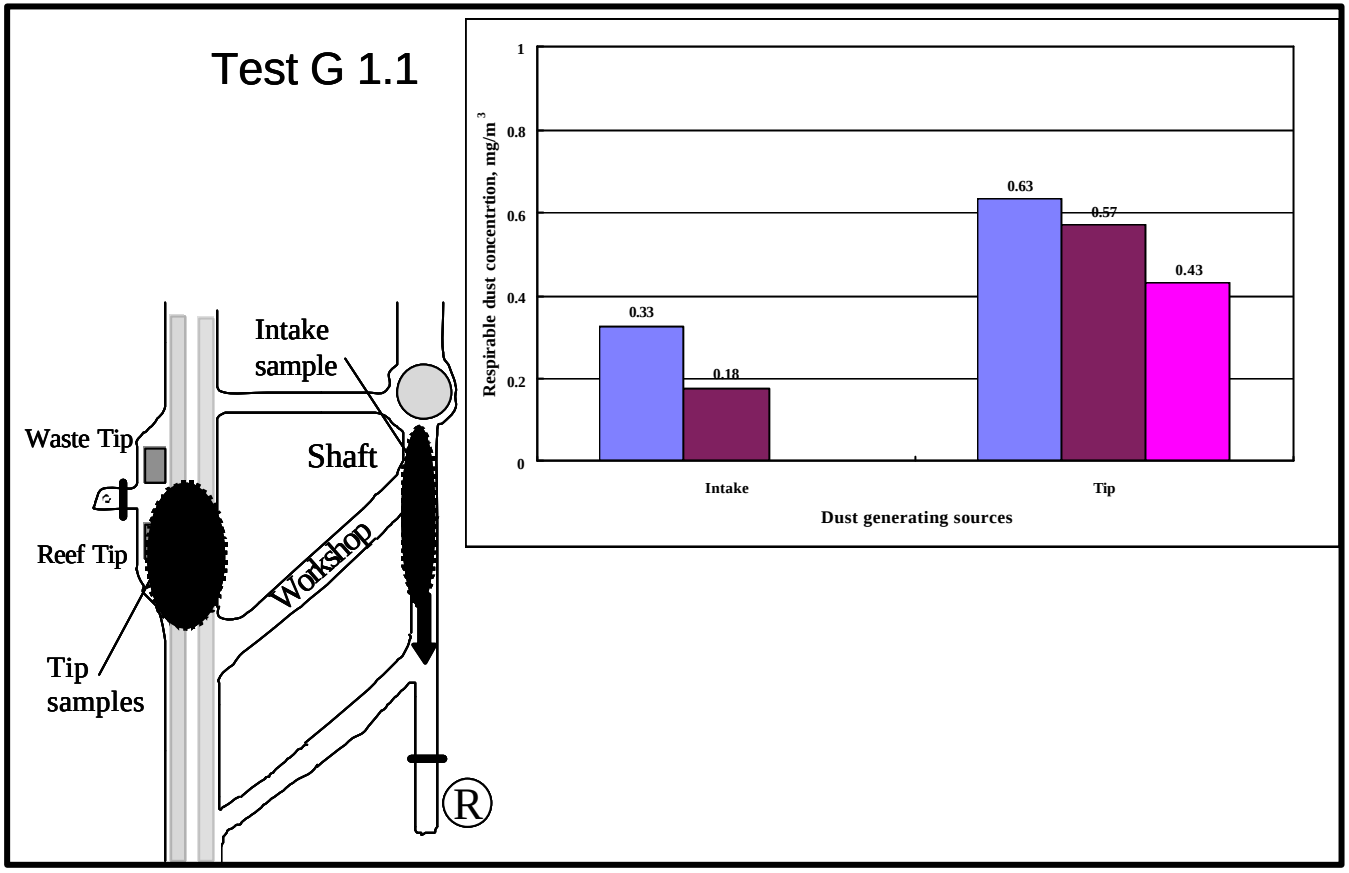
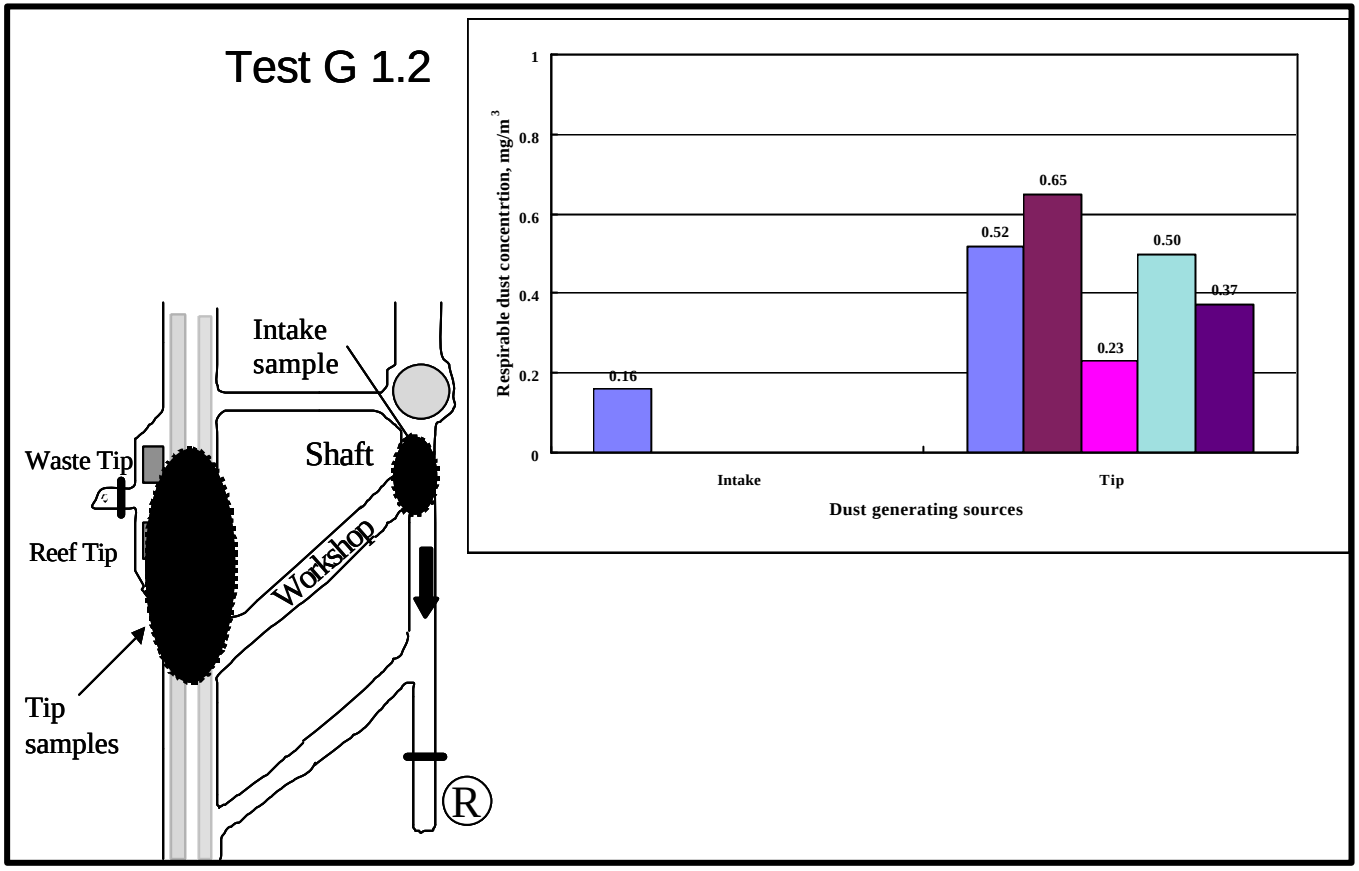
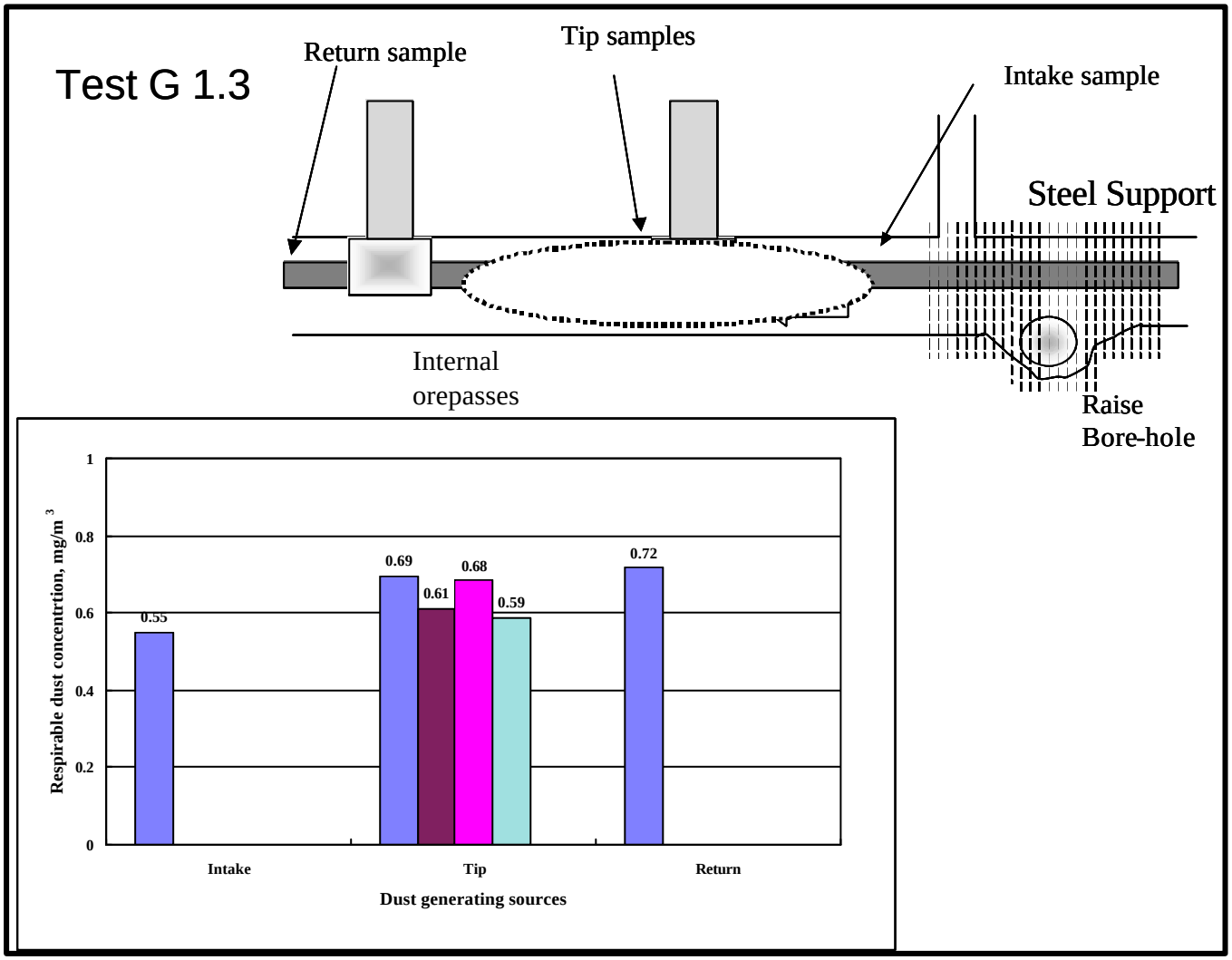
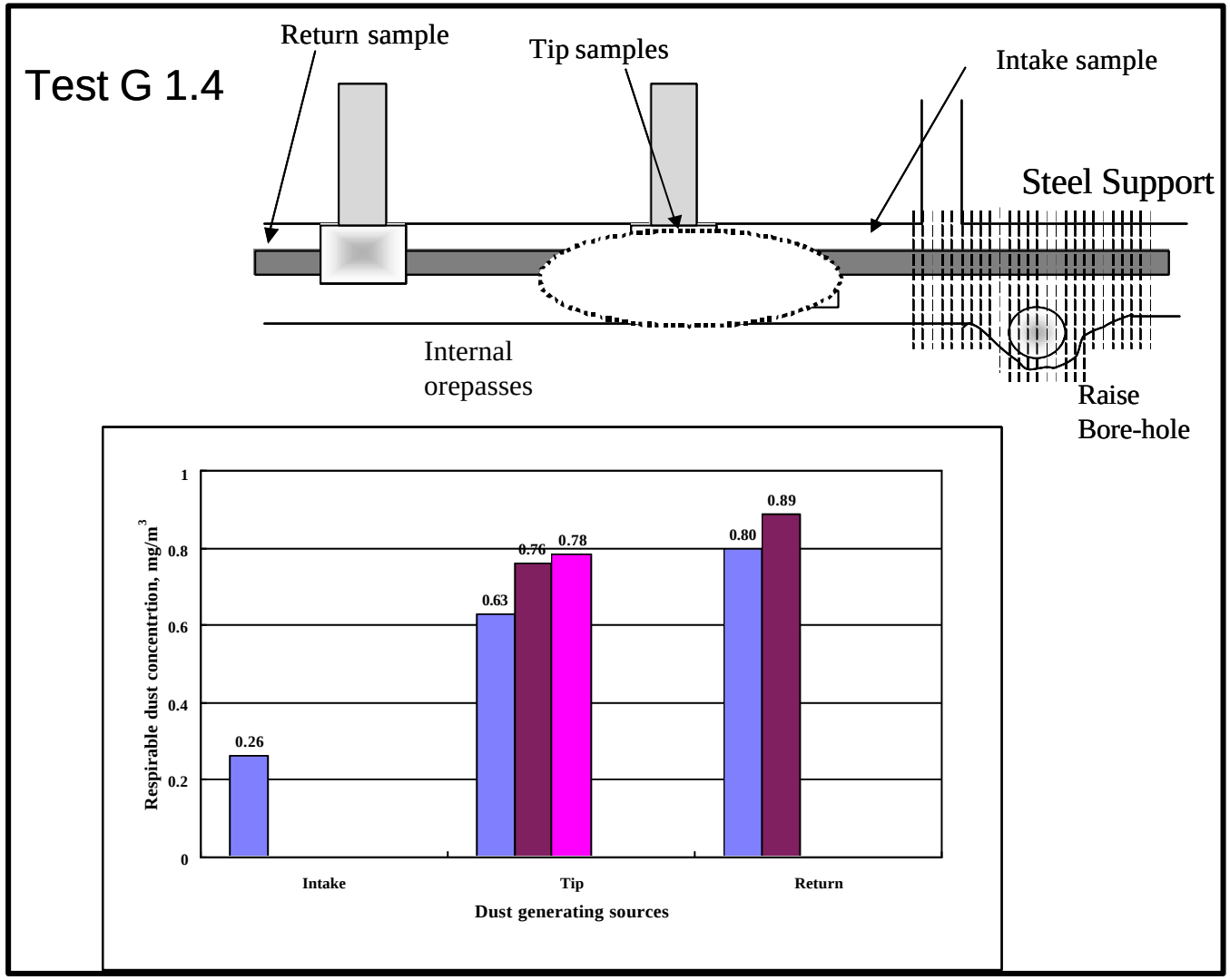
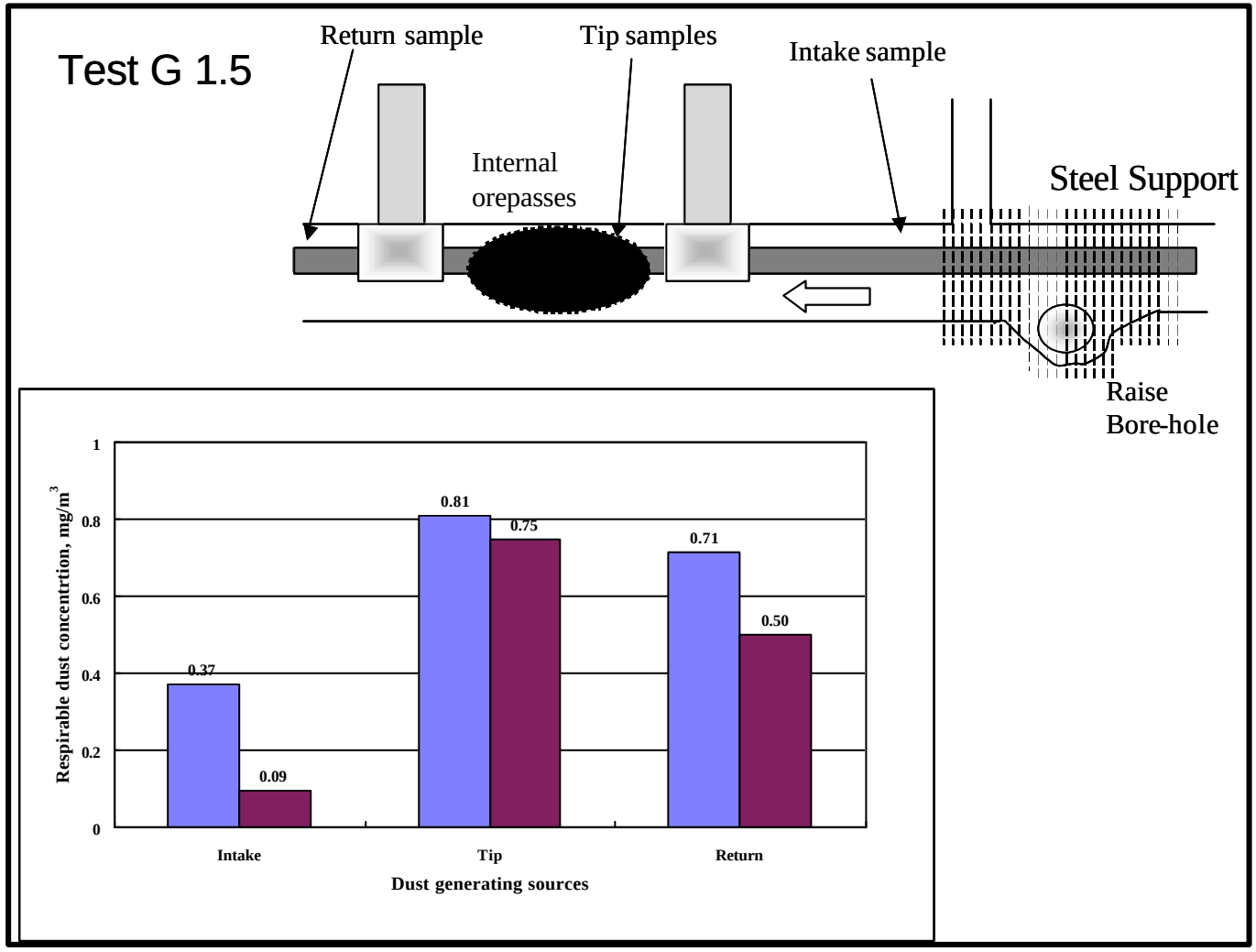
APPENDIX A: Results

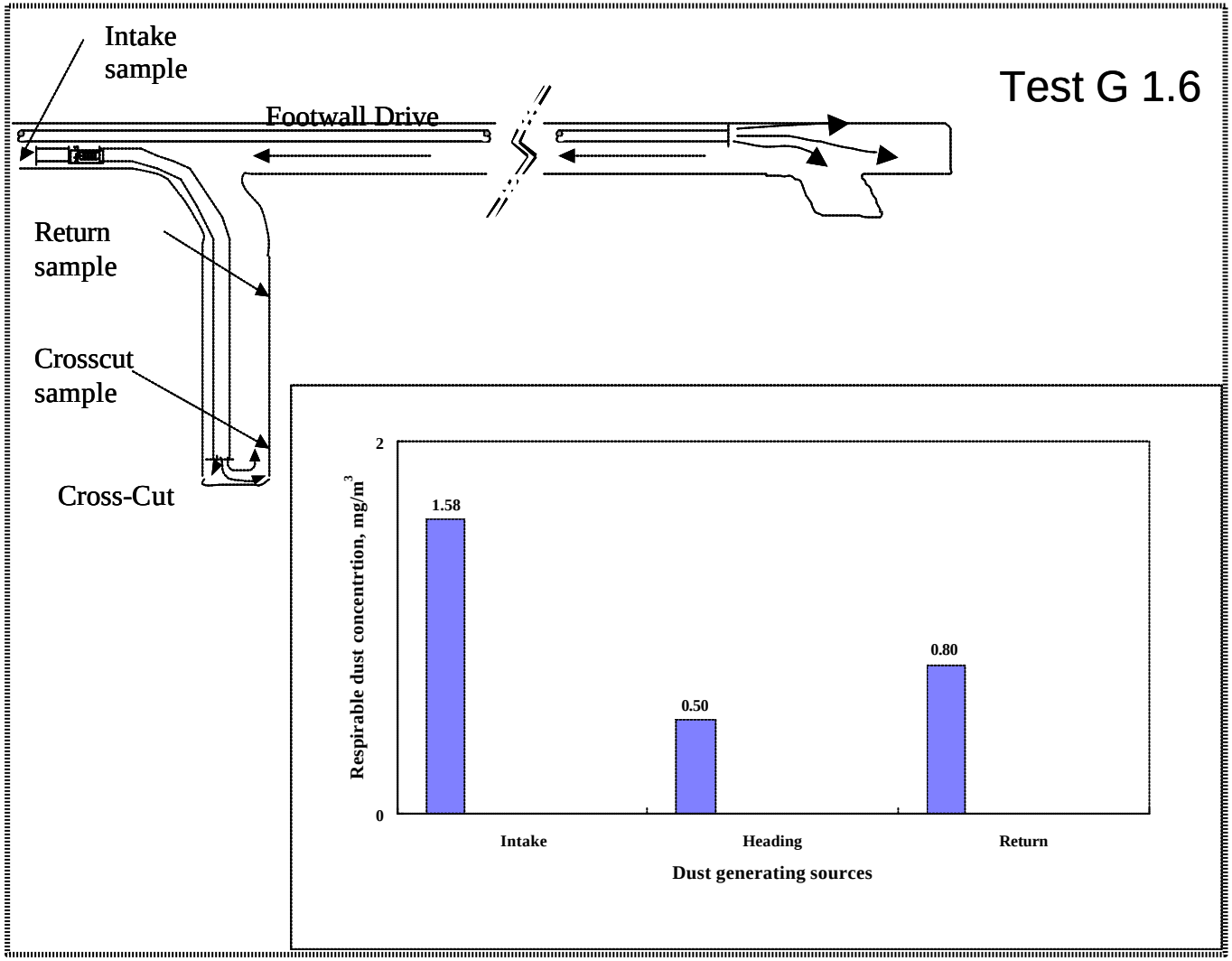

Test G 1.1
Intake sample
Waste Tip
Shaft
Reef Tip
Workshop
Tip samples
R
Respirable dust concentrtion, mg/m 3
1
0.8
0.6
0.4
0.2
0
0.33
0.18
0.63
0.57
0.43
Intake
Tip
Dust generating sources

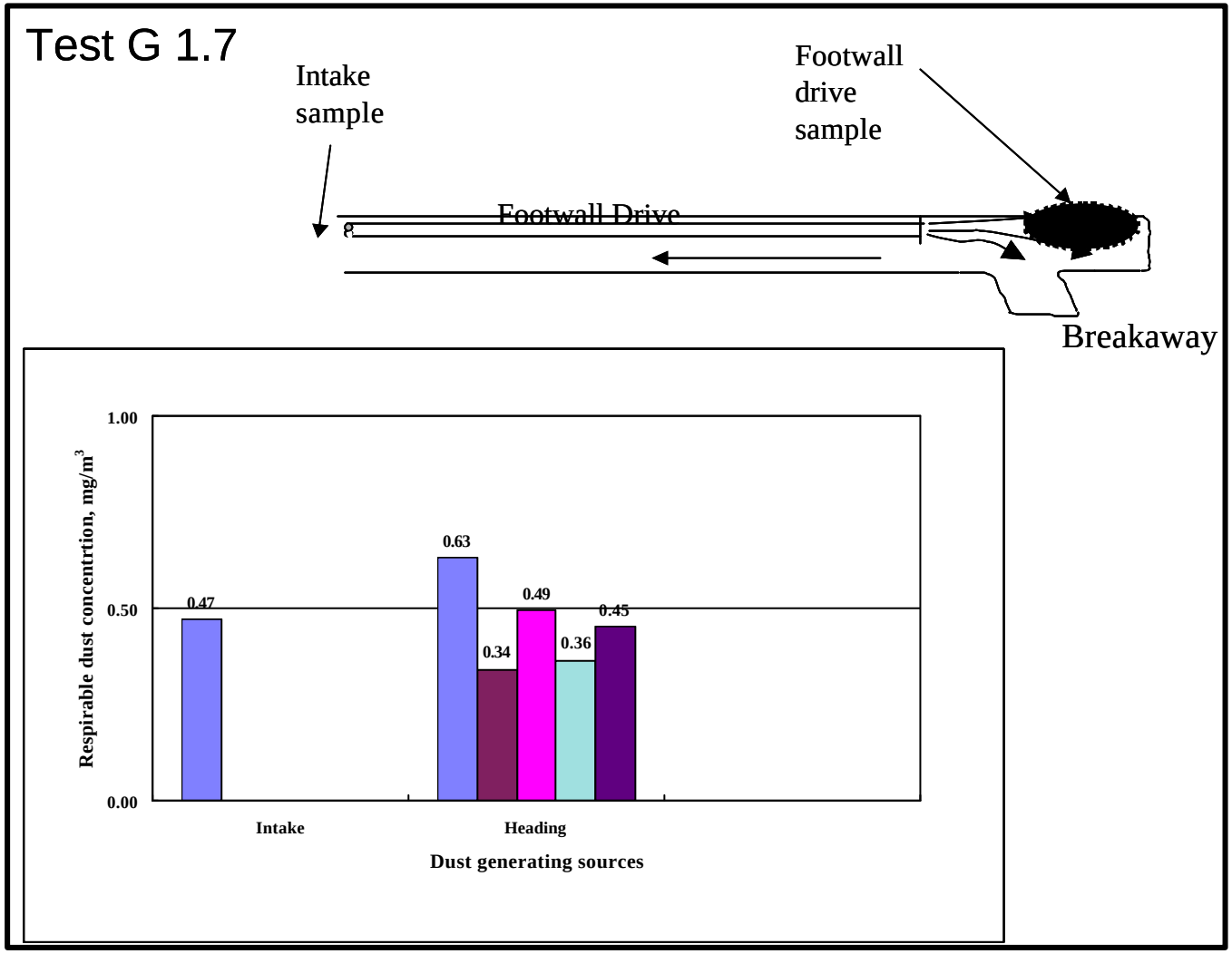

Test G 1.2
Intake sample
Shaft
Waste Tip
Reef Tip
Workshop
Tip samples
R
Respirable dust concentrtion, mg/m3
1
0.8
0.6
0.4
0.2
0
0.16
0.52
0.65
0.23
0.50
0.37
Intake
Tip
Dust generating sources

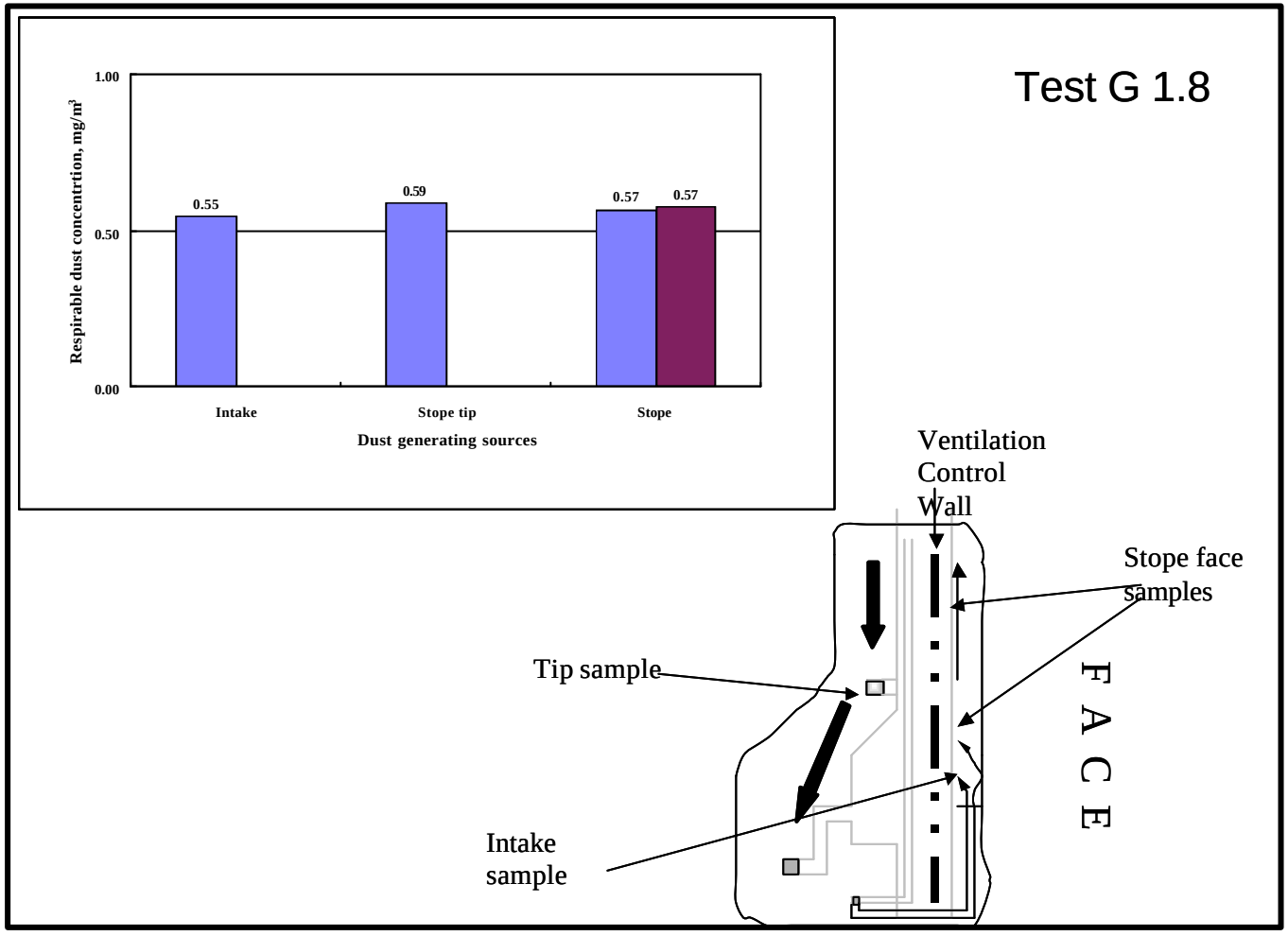

Test G 1.3
Return sample
Tip samples
Intake sample
Steel Support
Internal
orepasses
Raise
Bore-hole
Respirable dust concentrtion, mg/m 3
1
0.8
0.6
0.4
0.2
0
0.55
0.69
0.61
0.68
0.59
0.72
Intake
Tip
Return
Dust generating sources

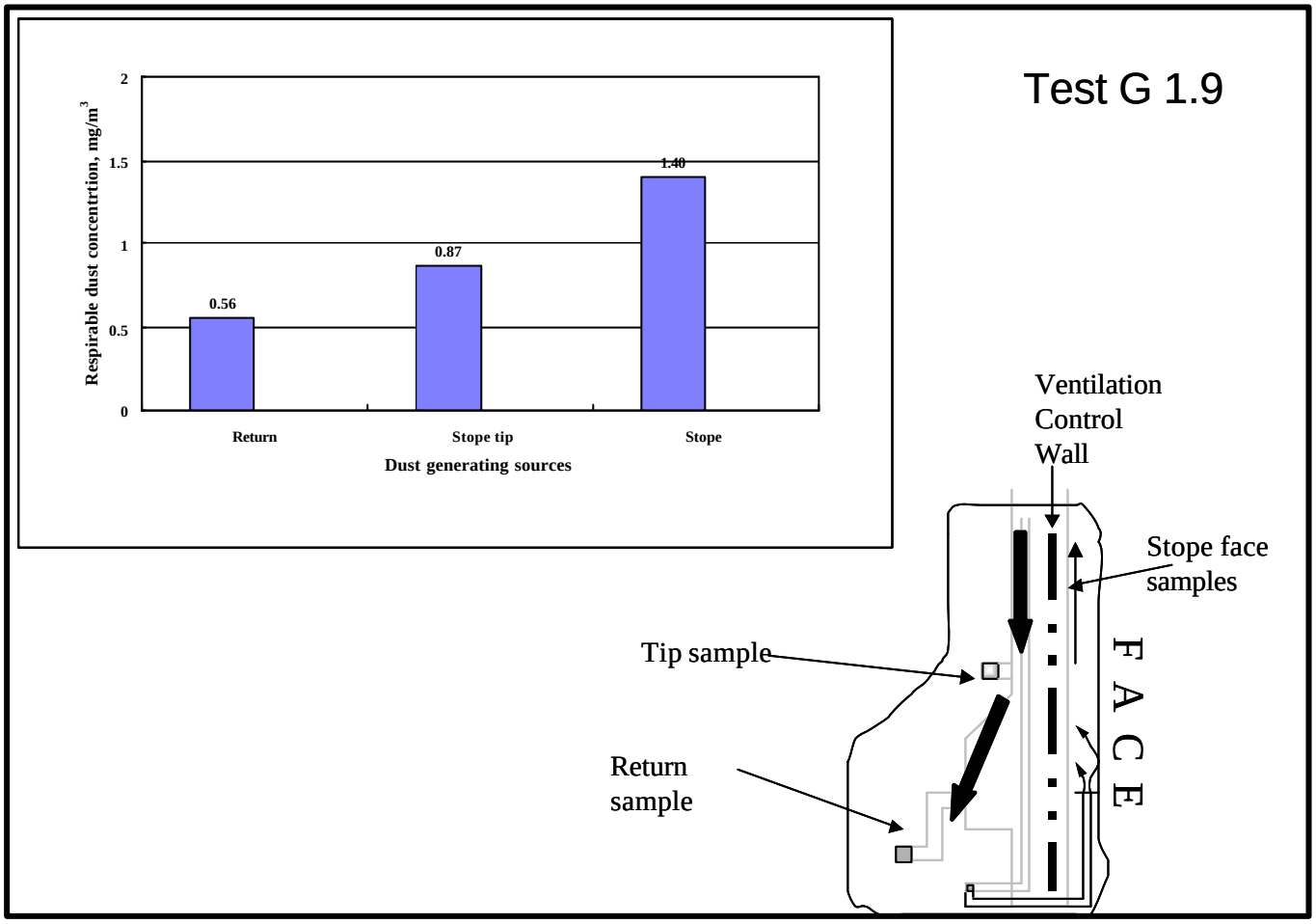

Test G 1.4
Return sample
Tip samples
Intake sample
Steel Support
Internal
orepasses
Raise
Bore-hole
Respirable dust concentrtion, mg/m3
1
0.8
0.6
0.4
0.2
0
0.26
0.63
0.76
0.78
0.80
0.89
Intake
Tip
Return
Dust generating sources


Test G 1.5
Return sample
Tip samples
Intake sample
Internal
orepasses
Steel Support
Raise
Bore-hole
Respirable dust concentrtion, mg/m3
1
0.8
0.6
0.4
0.2
0
0.37
0.09
0.81
0.75
0.71
0.50
Intake
Tip
Return
Dust generating sources

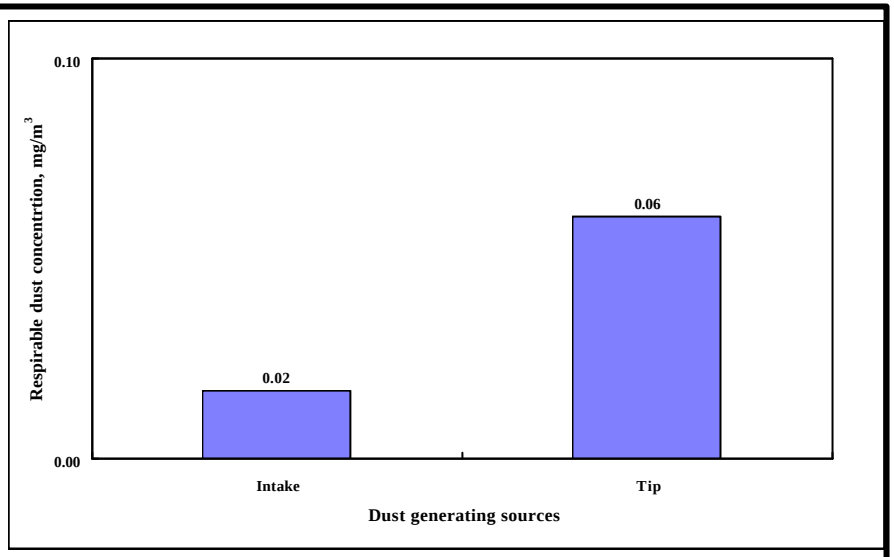

Test G 1.6
Intake sample
Footwall Drive
Return sample
Crosscut sample
Cross-Cut
Respirable dust concentrtion, mg/m3
2
0
1.58
0.50
0.80
Intake
Heading
Return
Dust generating sources

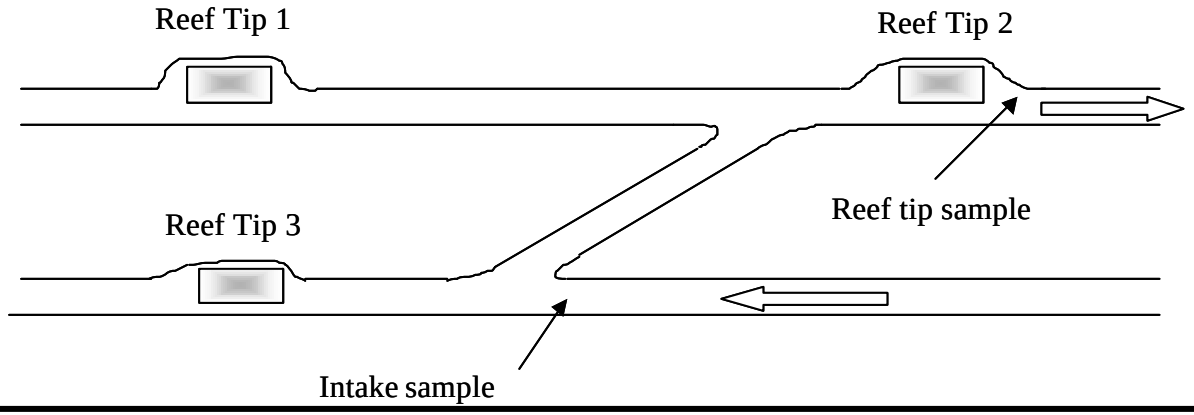

Test G 1.7
Intake sample
Footwall drive sample
Footwall Drive
Breakaway
1.00
0.50
0.00
Respirable dust concentrtion, mg/m3
0.47
0.63
0.34
0.49
0.36
0.45
Intake
Heading
Dust generating sources


Test G 1.8
Respirable dust concentrtion, mg/m³
1.00
0.50
0.00
0.55
0.59
0.57
0.57
Intake
Stope tip
Stope
Dust generating sources
Ventilation Control Wall
Stope face samples
Tip sample
Intake sample
F A C E

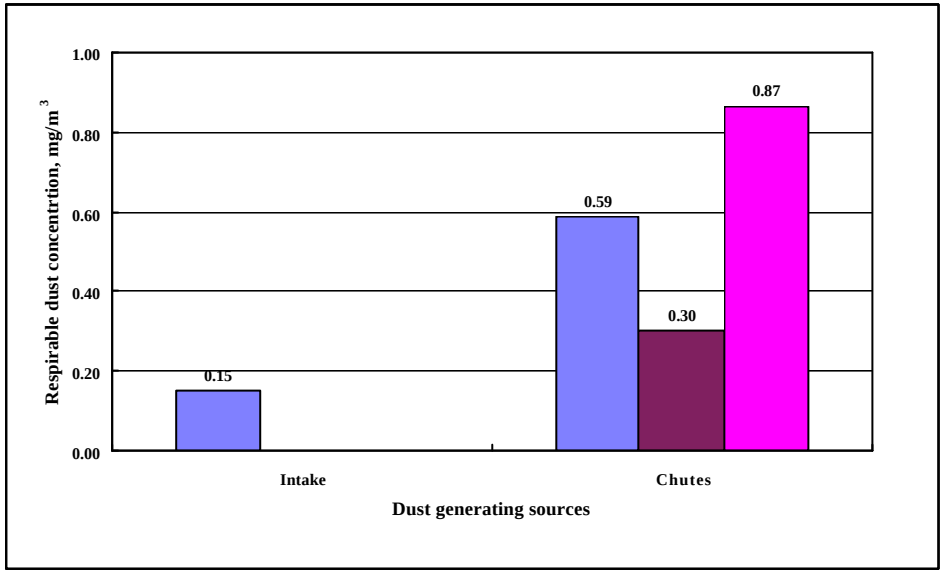

Test G 1.9
Respirable dust concentrtion, mg/m3
2
1.5
1
0.5
0
0.56
0.87
1.40
Return
Stope tip
Stope
Dust generating sources
Ventilation Control Wall
Stope face samples
Tip sample
Return sample
F A C E

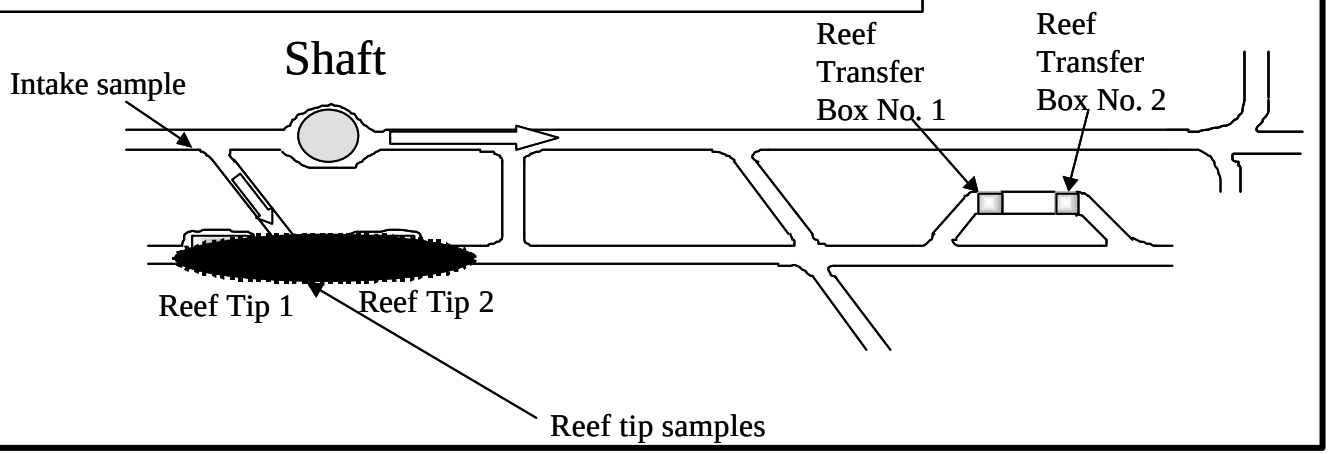
Test G 2.1


0.10
0.00
Respirable dust concentrtion, mg/m3
0.02
0.06
Intake
Tip
Dust generating sources

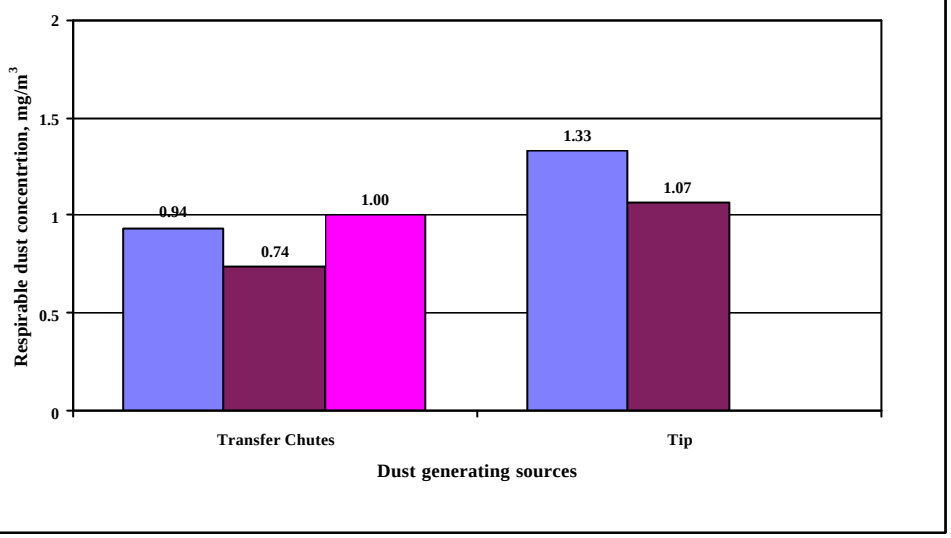

Reef Tip 1
Reef Tip 2
Reef tip sample
Reef Tip 3
Intake sample

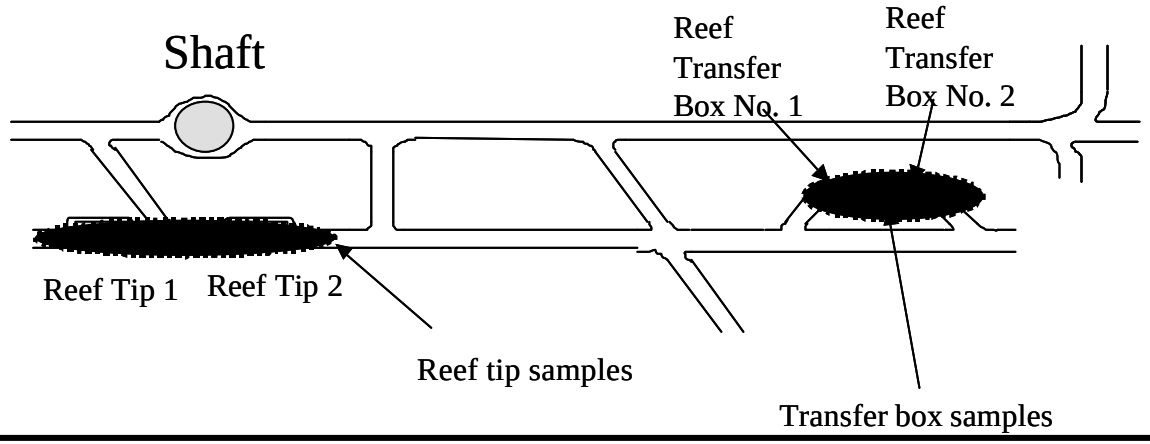
Test G 2.2


1.00
0.80
0.60
0.40
0.20
0.00
Respirable dust concentrtion, mg/m 3
0.15
0.59
0.30
0.87
Intake
Chutes
Dust generating sources

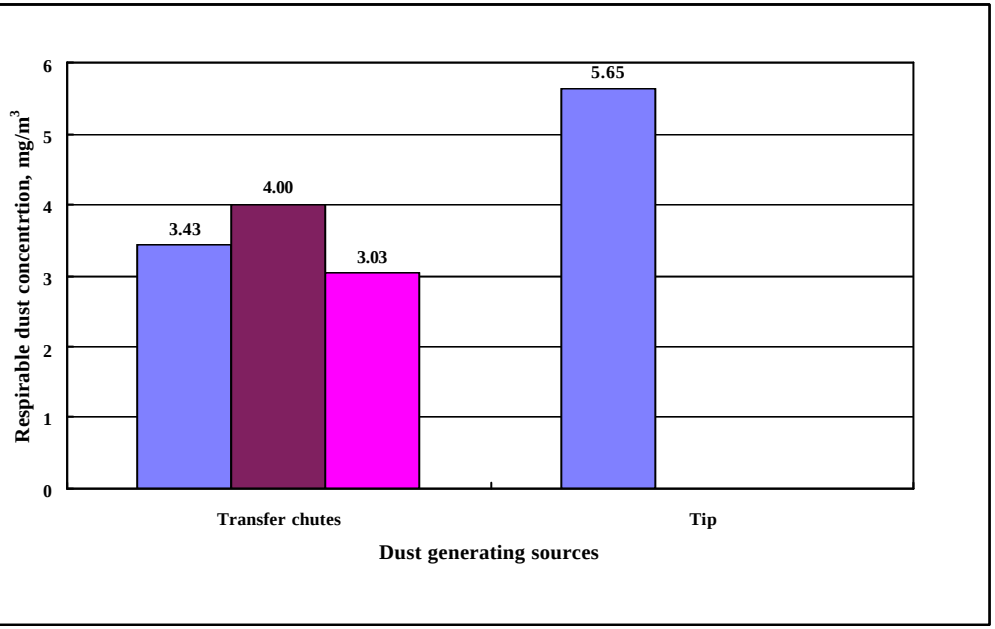

Shaft
Intake sample
Reef
Transfer
Box No. 1
Reef
Transfer
Box No. 2
Reef Tip 1
Reef Tip 2
Reef tip samples

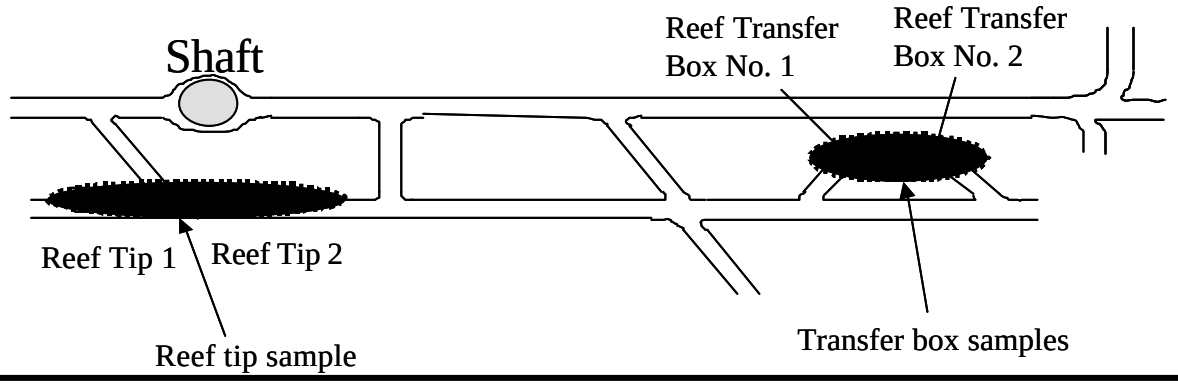
Test G 2.3


Respirable dust concentrtion, mg/m3
2
1.5
1
0.5
0
0.94
0.74
1.00
1.33
1.07
Transfer Chutes
Tip
Dust generating sources

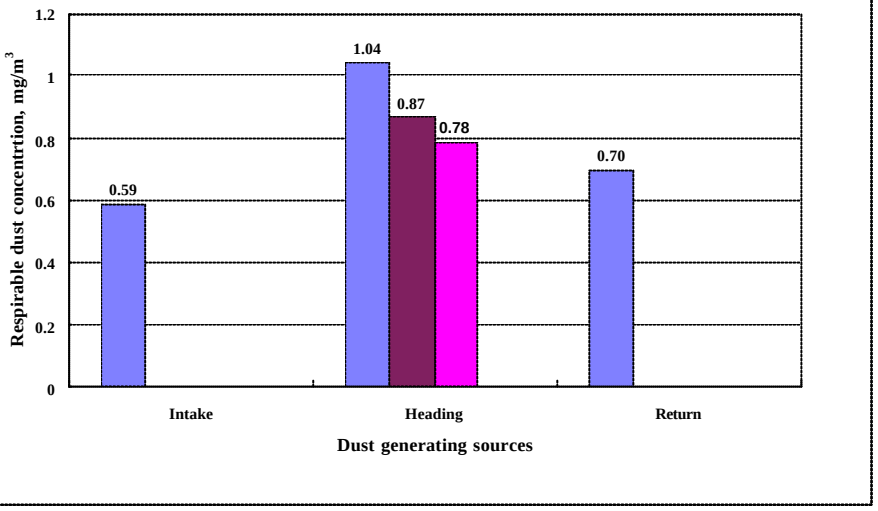

Shaft
Reef Transfer Box No. 1
Reef Transfer Box No. 2
Reef Tip 1
Reef Tip 2
Reef tip samples
Transfer box samples

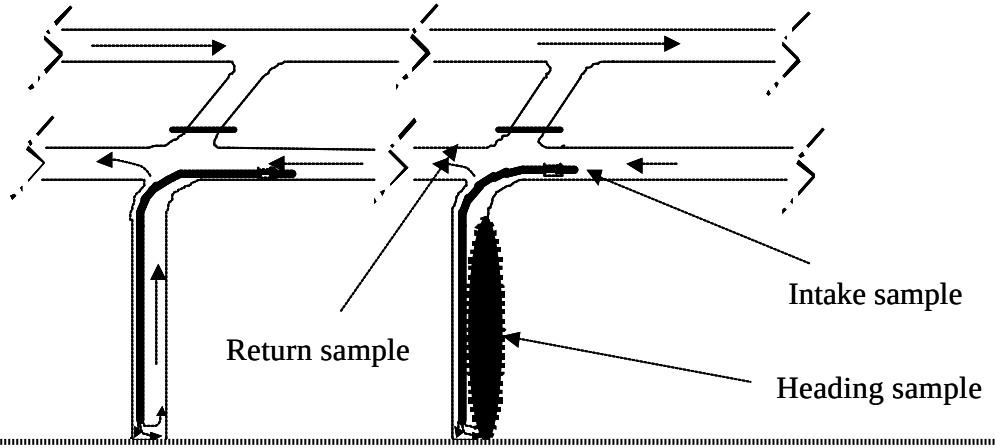
Test G 2.4


Respirable dust concentrtion, mg/m3
6
5
4
3
2
1
0
3.43
4.00
3.03
5.65
Transfer chutes
Tip
Dust generating sources

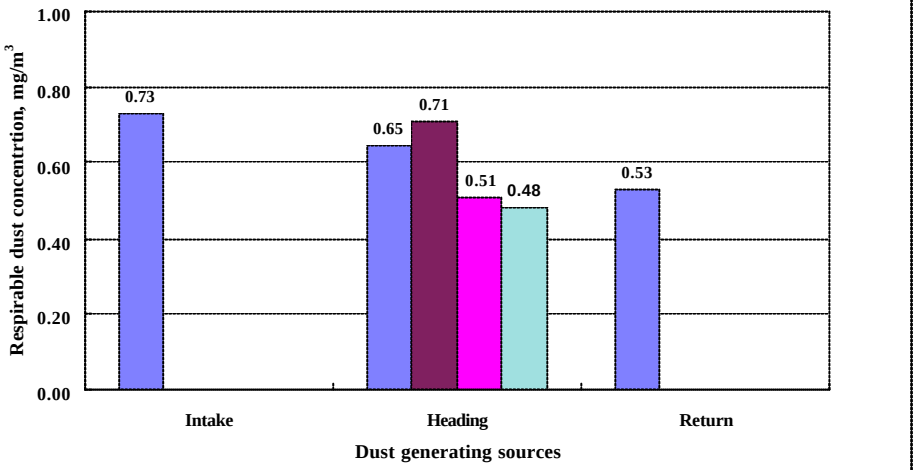

Shaft
Reef Transfer Box No. 1
Reef Transfer Box No. 2
Reef Tip 1
Reef Tip 2
Reef tip sample
Transfer box samples

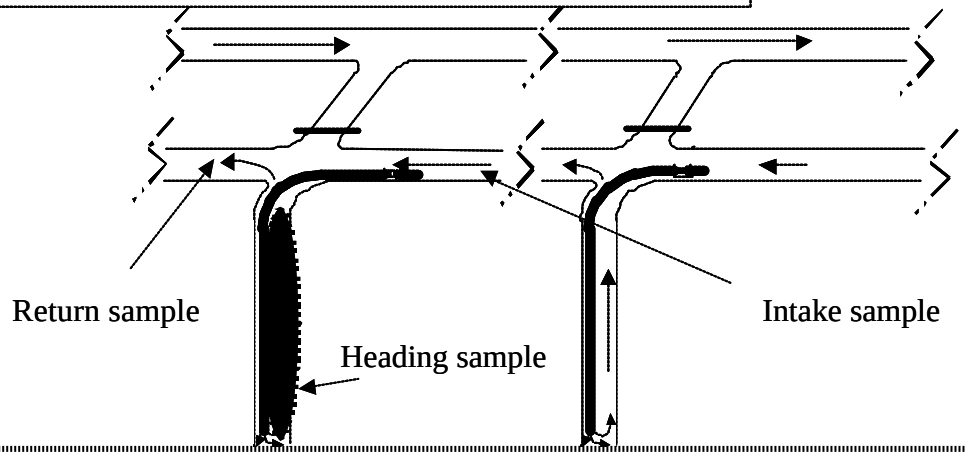
Test G 2.5

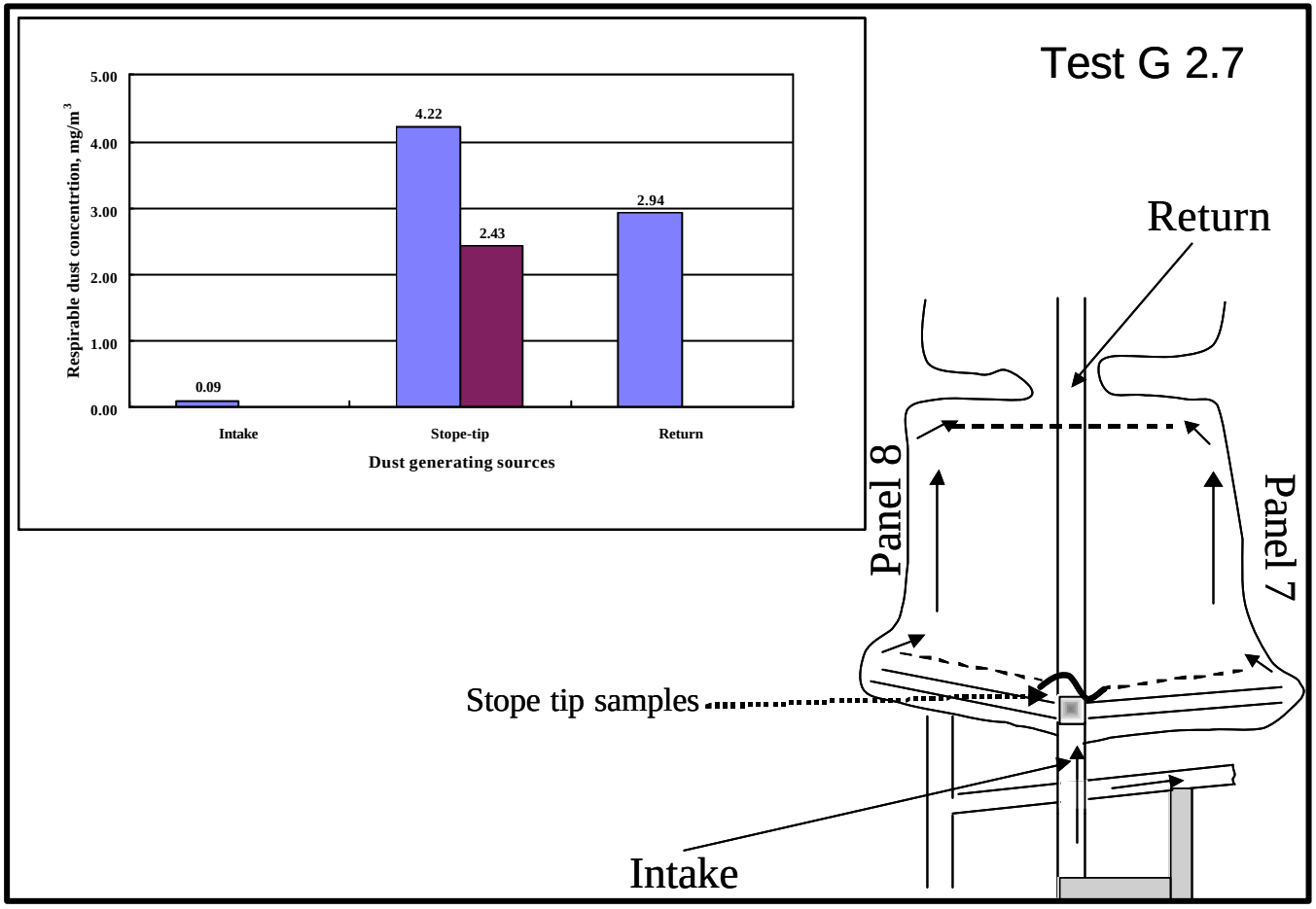

Respirable dust concentrtion, mg/m3
1.2
1
0.8
0.6
0.4
0.2
0
0.59
1.04
0.87
0.78
0.70
Intake
Heading
Return
Dust generating sources

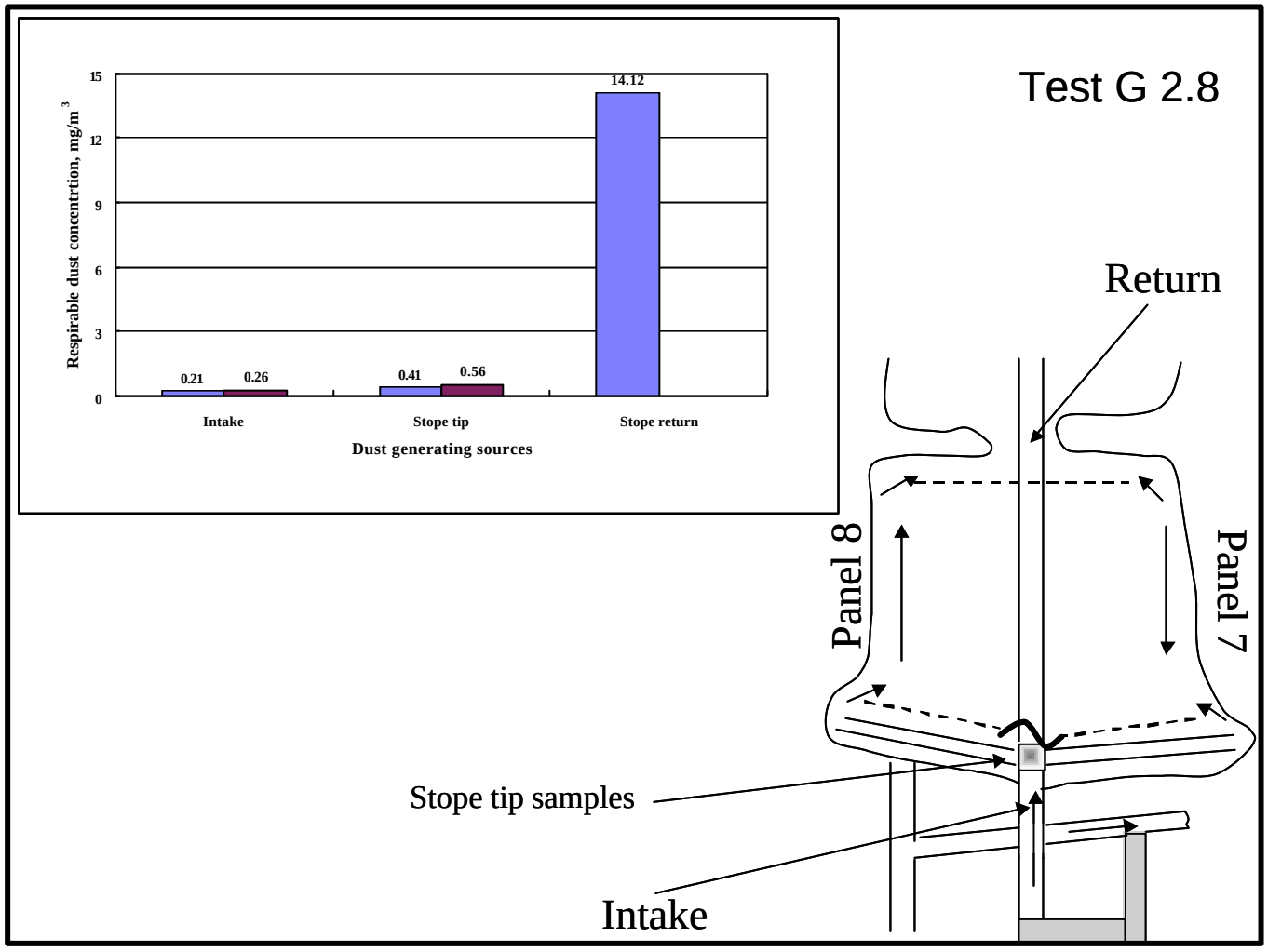

Return sample
Intake sample
Heading sample

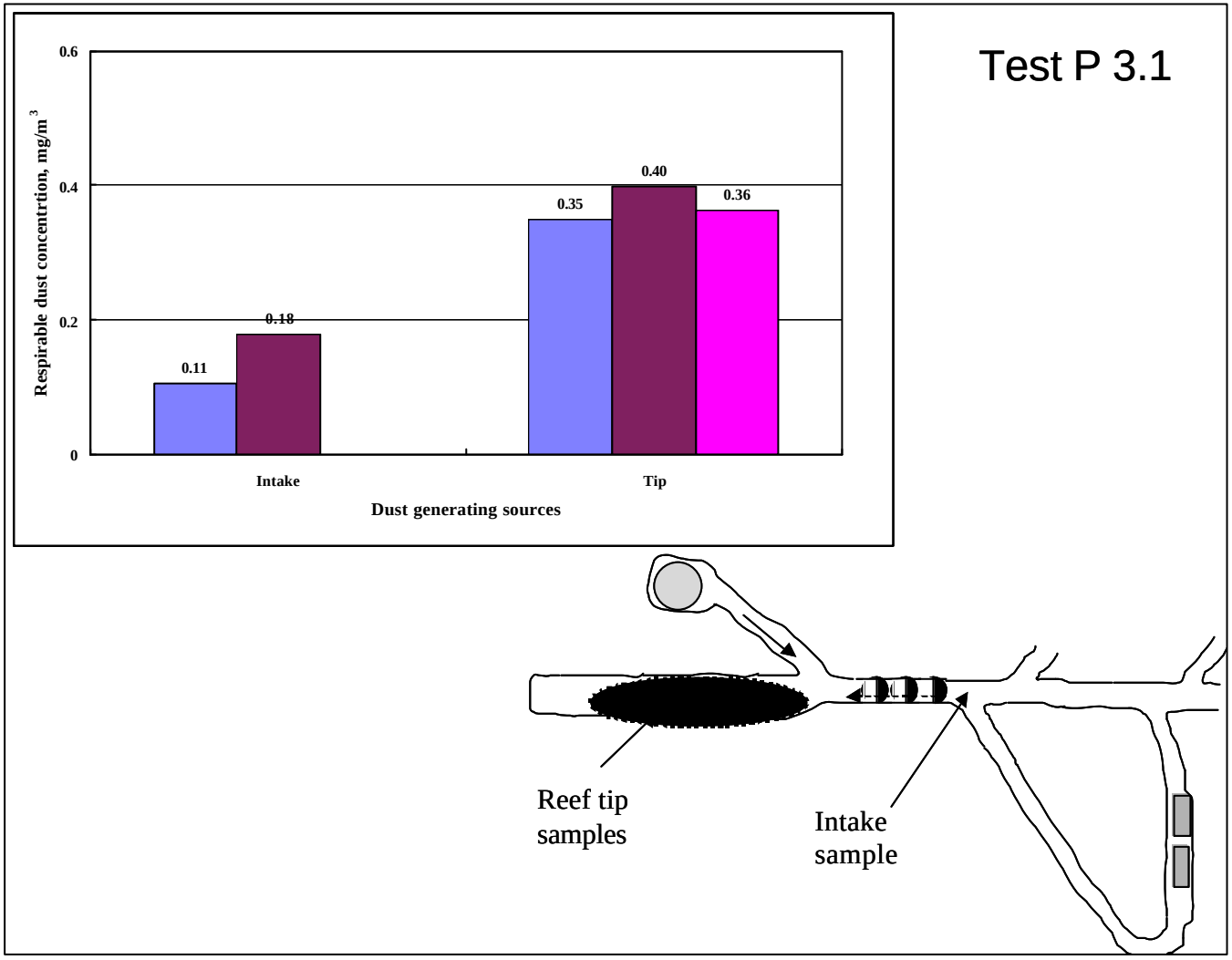
Test G 2.6

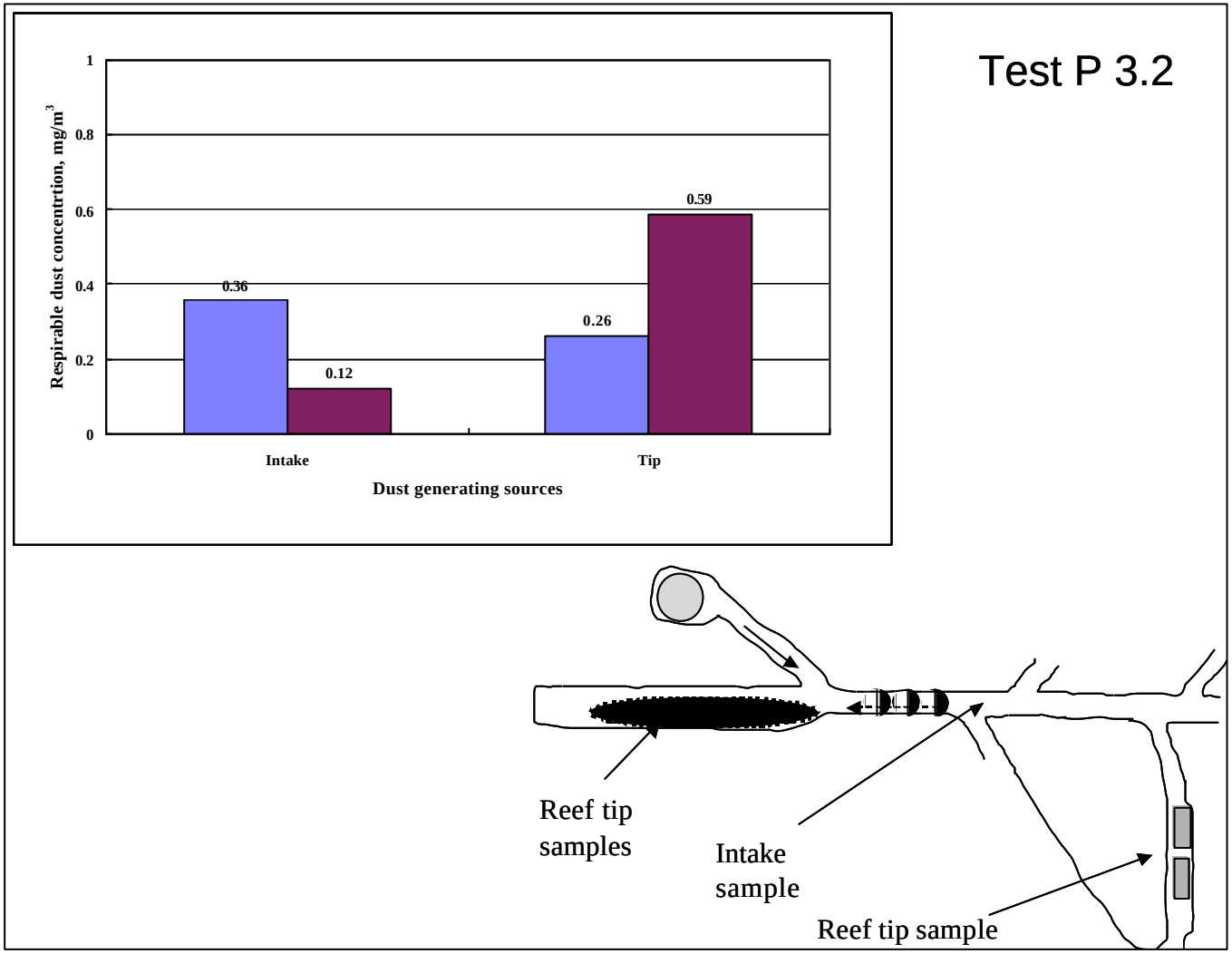

1.00
0.80
0.60
0.40
0.20
0.00
Respirable dust concentrtion, mg/m3
0.73
0.65
0.71
0.51
0.48
0.53
Intake
Heading
Return
Dust generating sources


Return sample
Heading sample
Intake sample

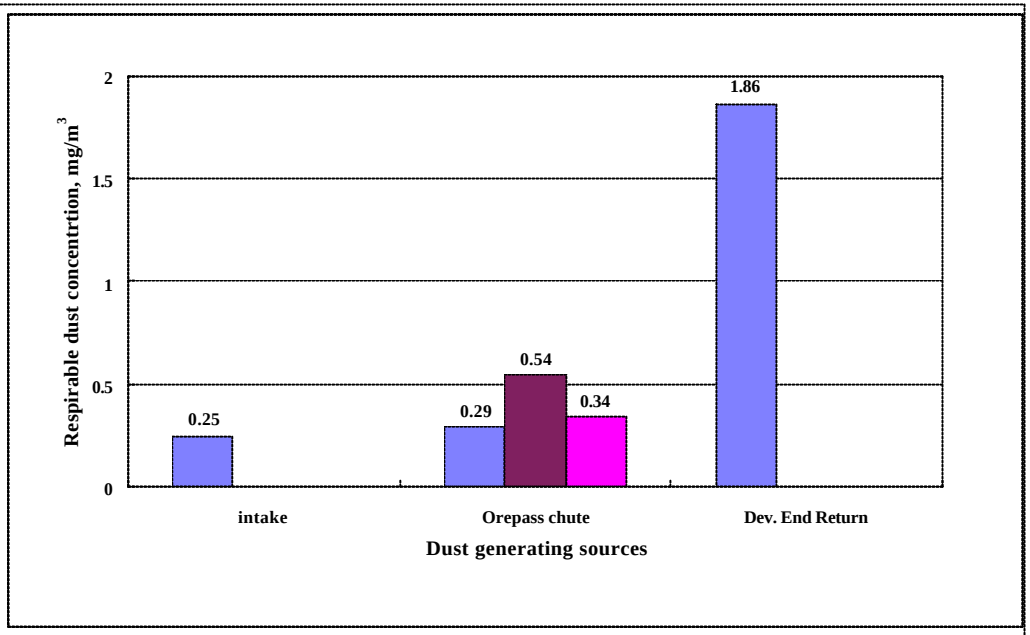

Test G 2.7
Respirable dust concentrtion, mg/m3
5.00
4.00
3.00
2.00
1.00
0.00
0.09
4.22
2.43
2.94
Intake
Stope-tip
Return
Dust generating sources
Return
Panel 8
Panel 7
Stope tip samples
Intake

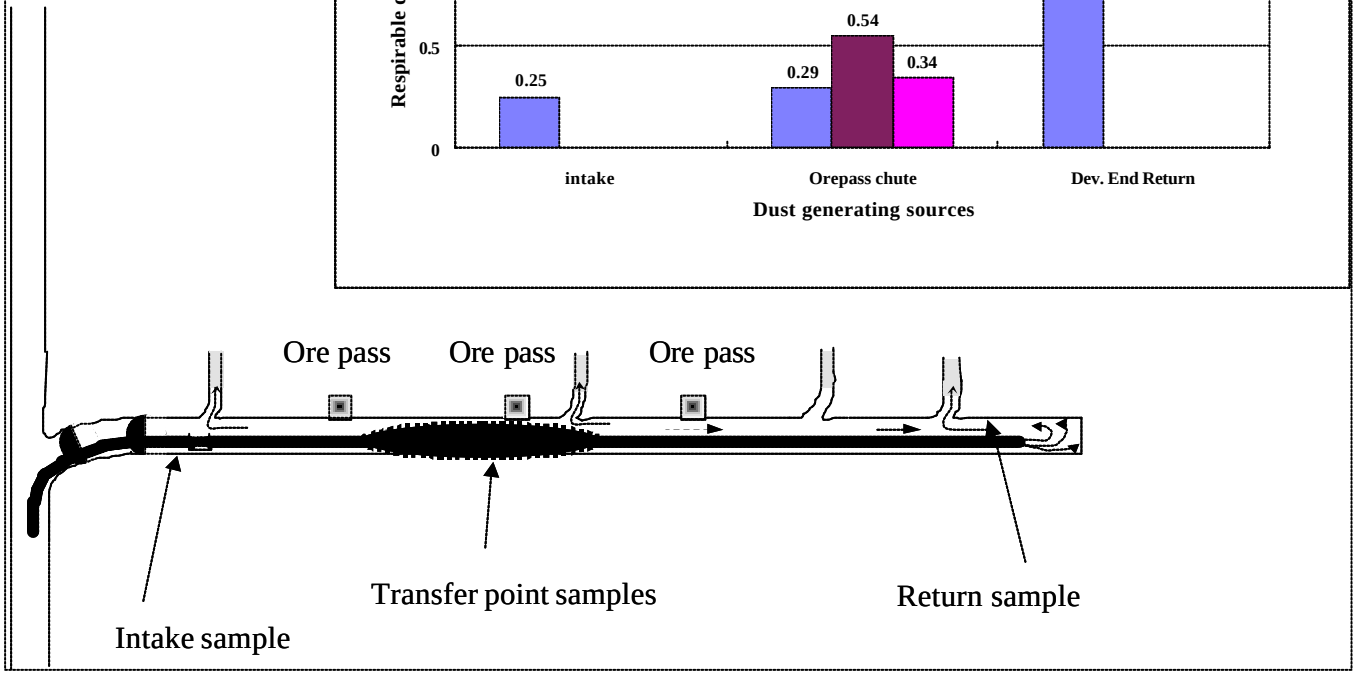

Test G 2.8
Respirable dust concentrtion, mg/m 3
15
12
9
6
3
0
0.21
0.26
0.41
0.56
14.12
Intake
Stope tip
Stope return
Dust generating sources
Return
Panel 8
Panel 7
Stope tip samples
Intake


Test P 3.1
Respirable dust concentrtion, mg/m3
0.6
0.4
0.2
0
0.11
0.18
0.35
0.40
0.36
Intake
Tip
Dust generating sources
Reef tip samples
Intake sample

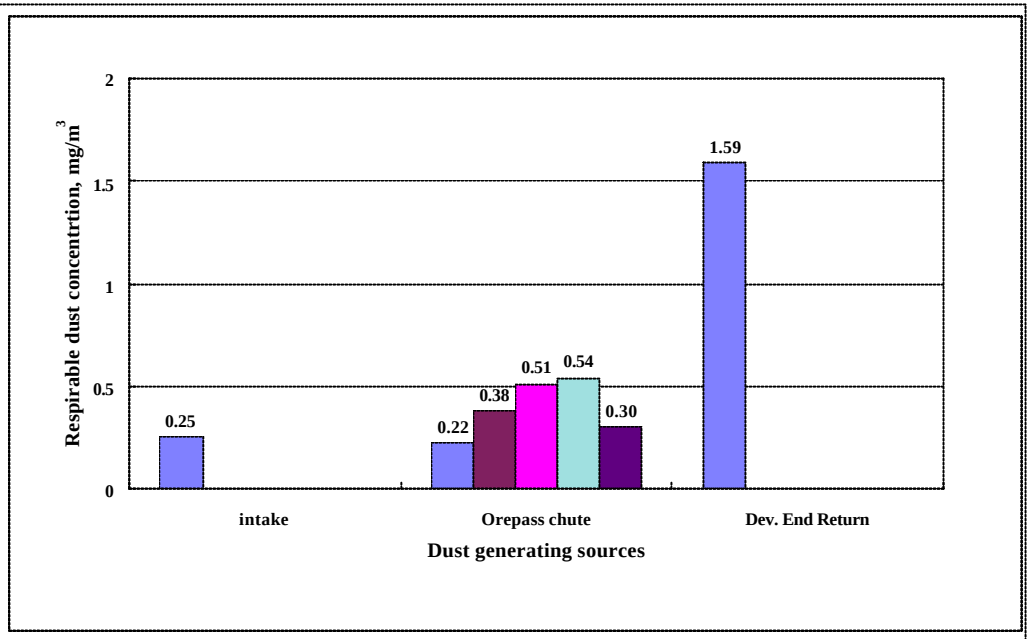

Test P 3.2
Respirable dust concentrtion, mg/m3
1
0.8
0.6
0.4
0.2
0
0.36
0.12
0.26
0.59
Intake
Tip
Dust generating sources
Reef tip samples
Intake sample
Reef tip sample

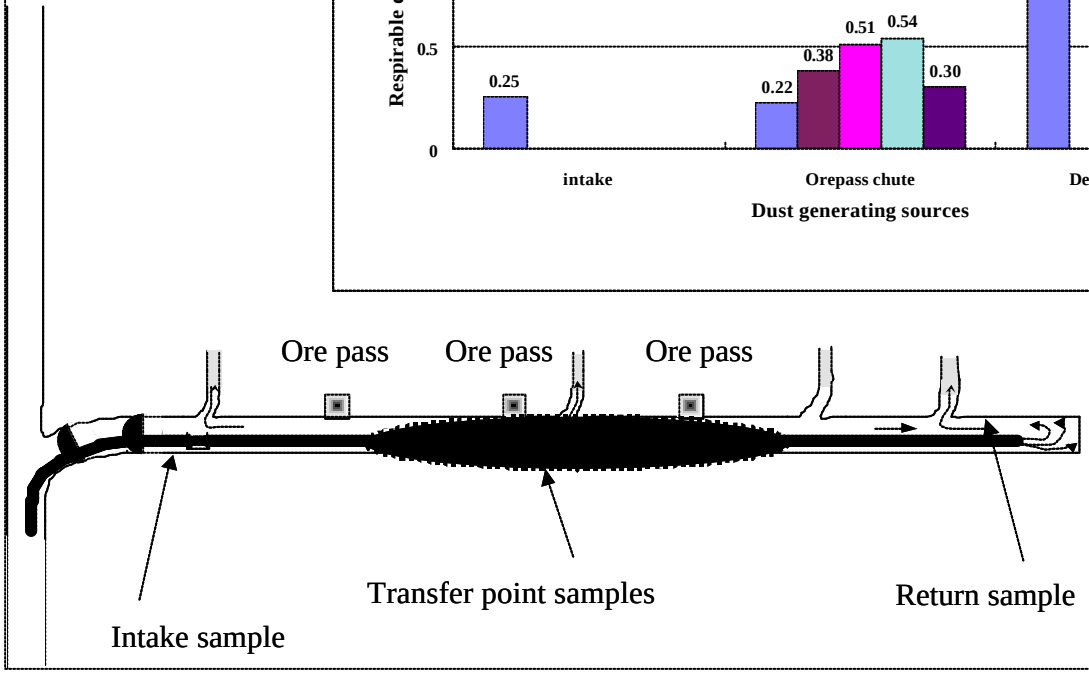
Test P 3.3


Respirable dust concentrtion, mg/m3
2
1.5
1
0.5
0
0.25
0.29
0.54
0.34
1.86
intake
Orepass chute
Dev. End Return
Dust generating sources

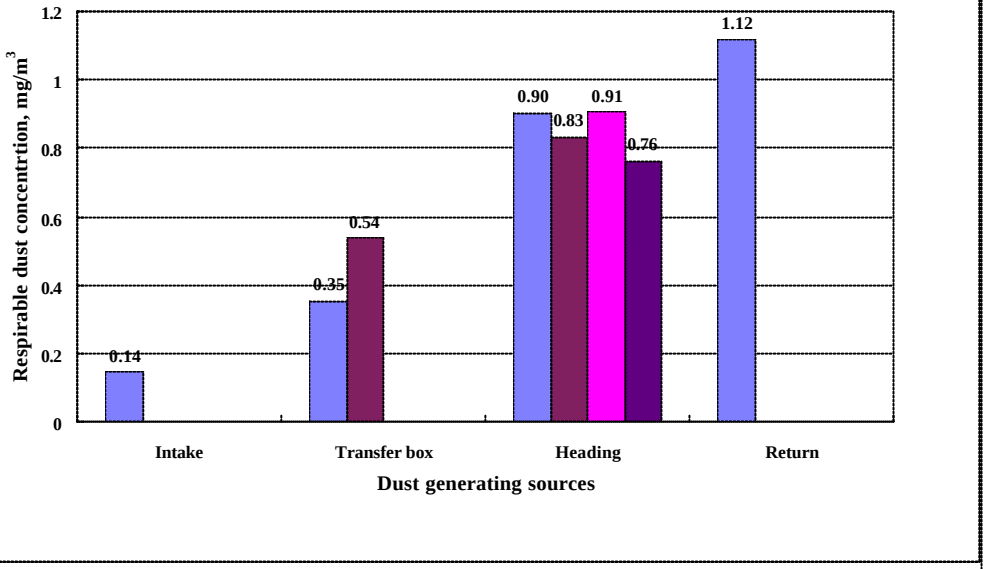

Ore pass
Ore pass
Ore pass
Intake sample
Transfer point samples
Return sample

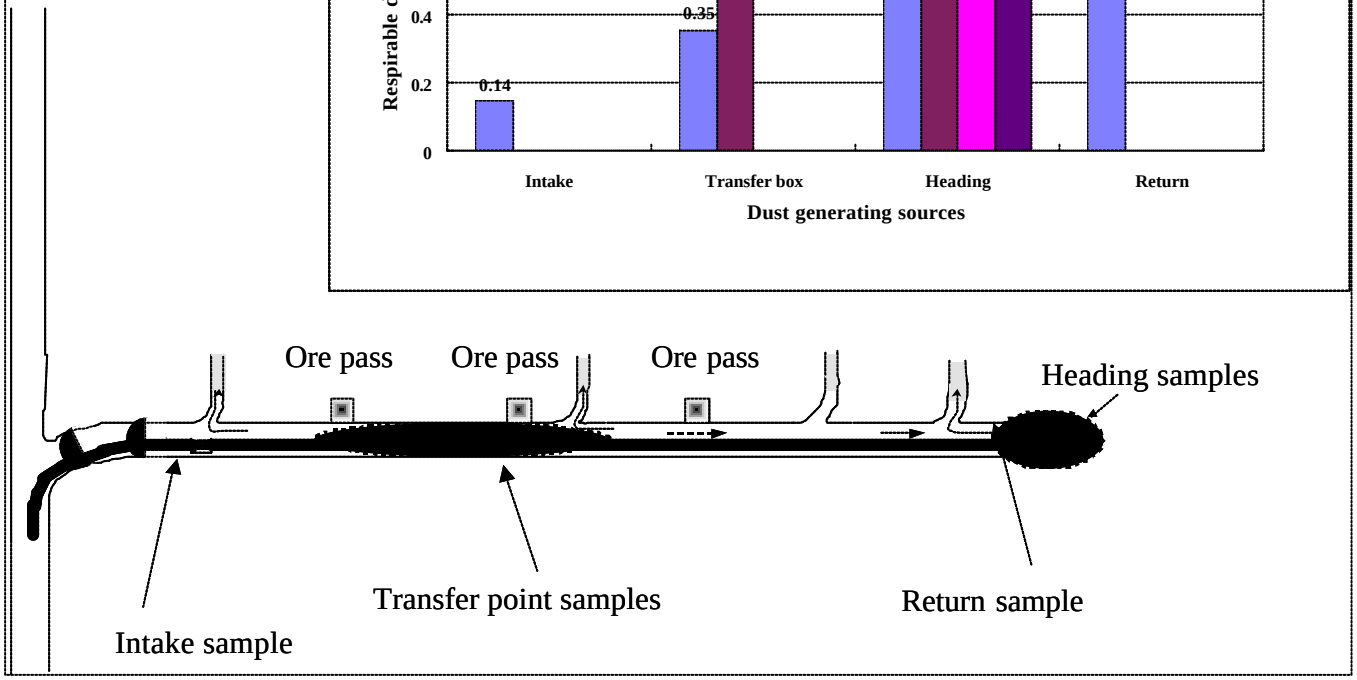
Test P 3.4


Respirable dust concentrtion, mg/m3
2
1.5
1
0.5
0
0.25
0.22
0.38
0.51
0.54
0.30
1.59
intake
Orepass chute
Dev. End Return
Dust generating sources

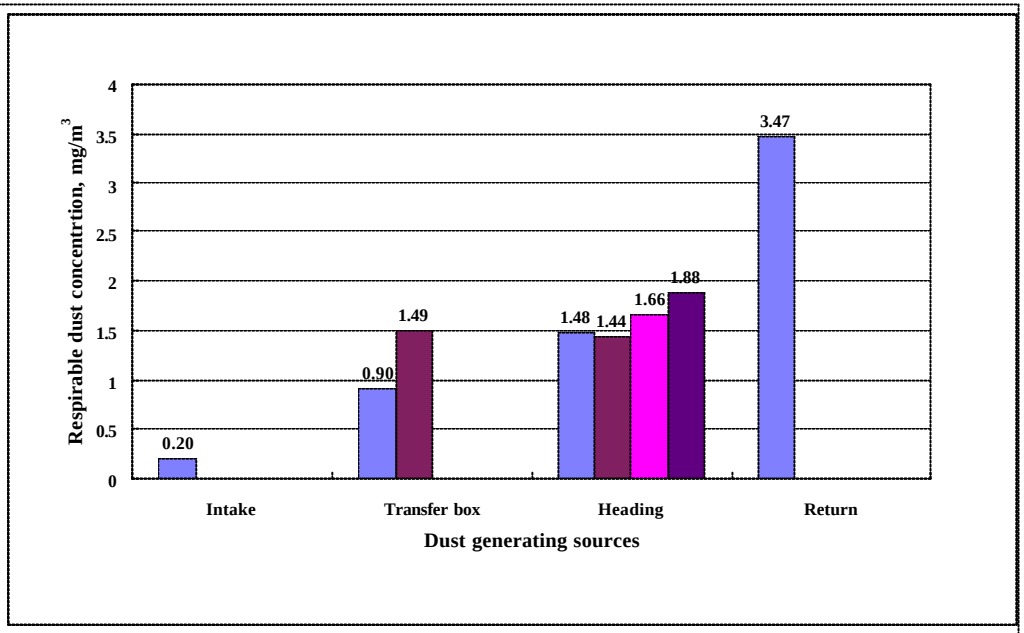

Ore pass
Ore pass
Ore pass
Intake sample
Transfer point samples
Return sample

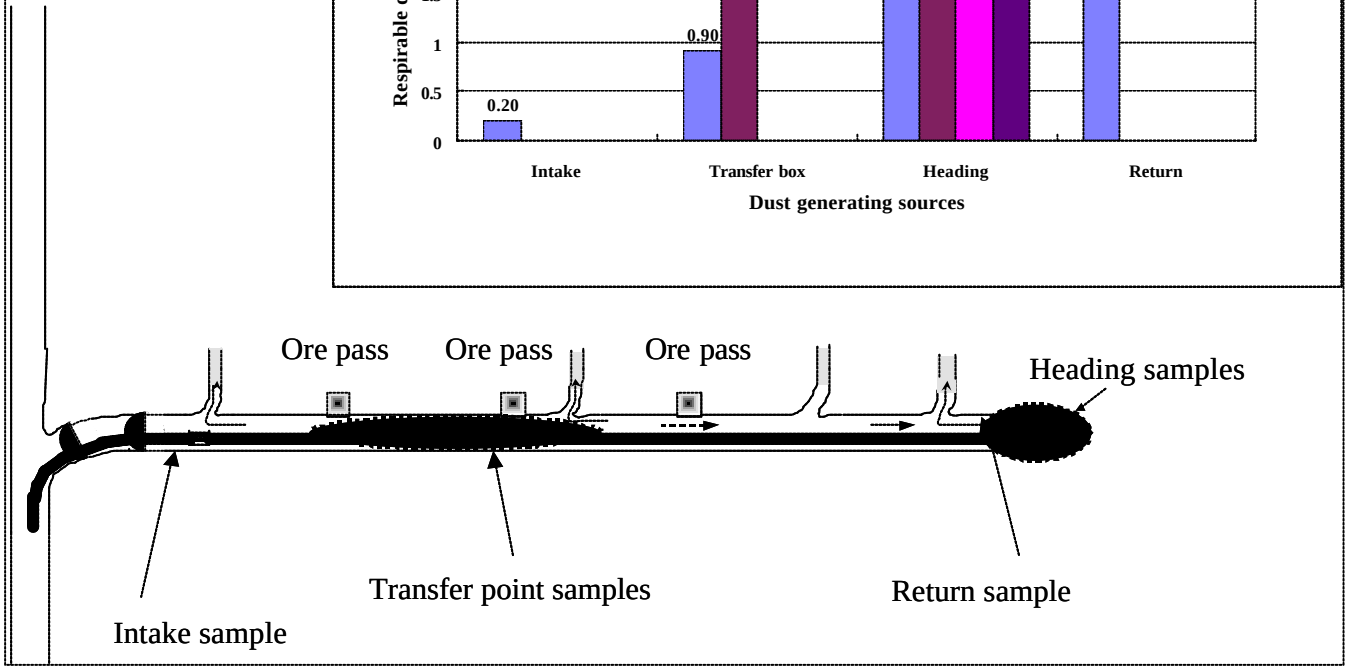
Test P 3.5

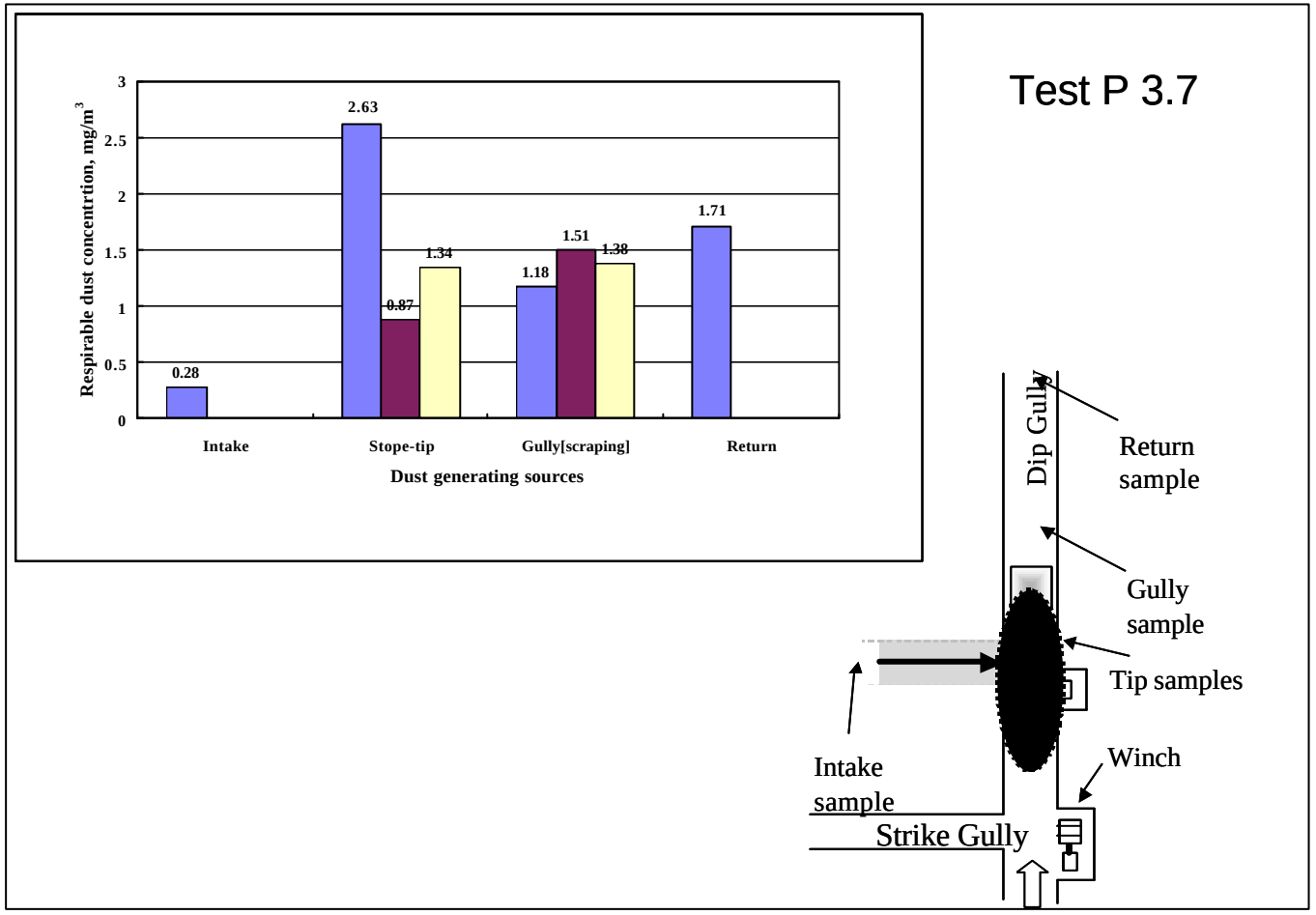

Respirable dust concentrtion, mg/m3
1.2
1
0.8
0.6
0.4
0.2
0
0.14
0.35
0.54
0.90
0.83
0.91
0.76
1.12
Intake
Transfer box
Heading
Return
Dust generating sources

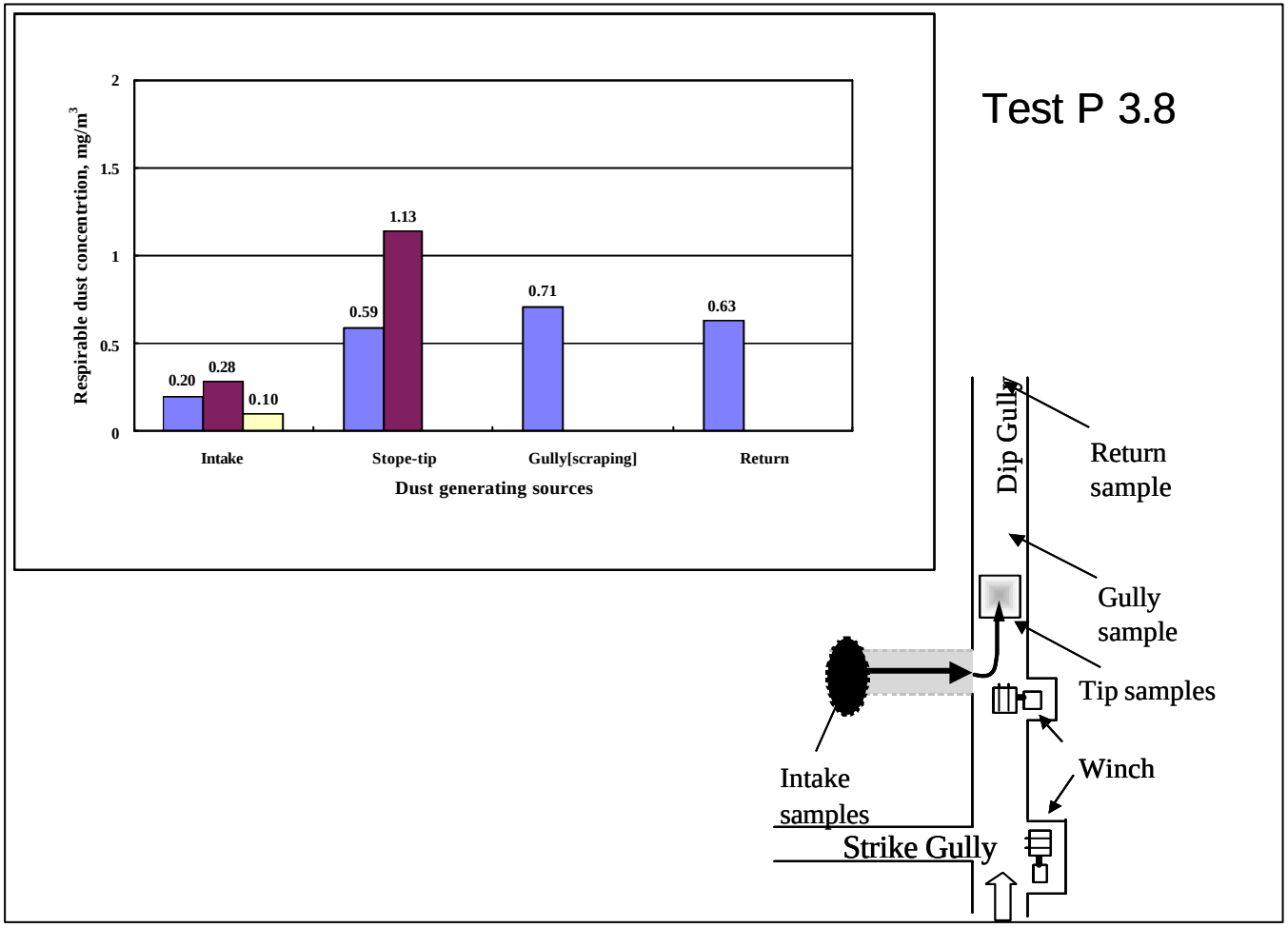

Ore pass
Ore pass
Ore pass
Heading samples
Intake sample
Transfer point samples
Return sample

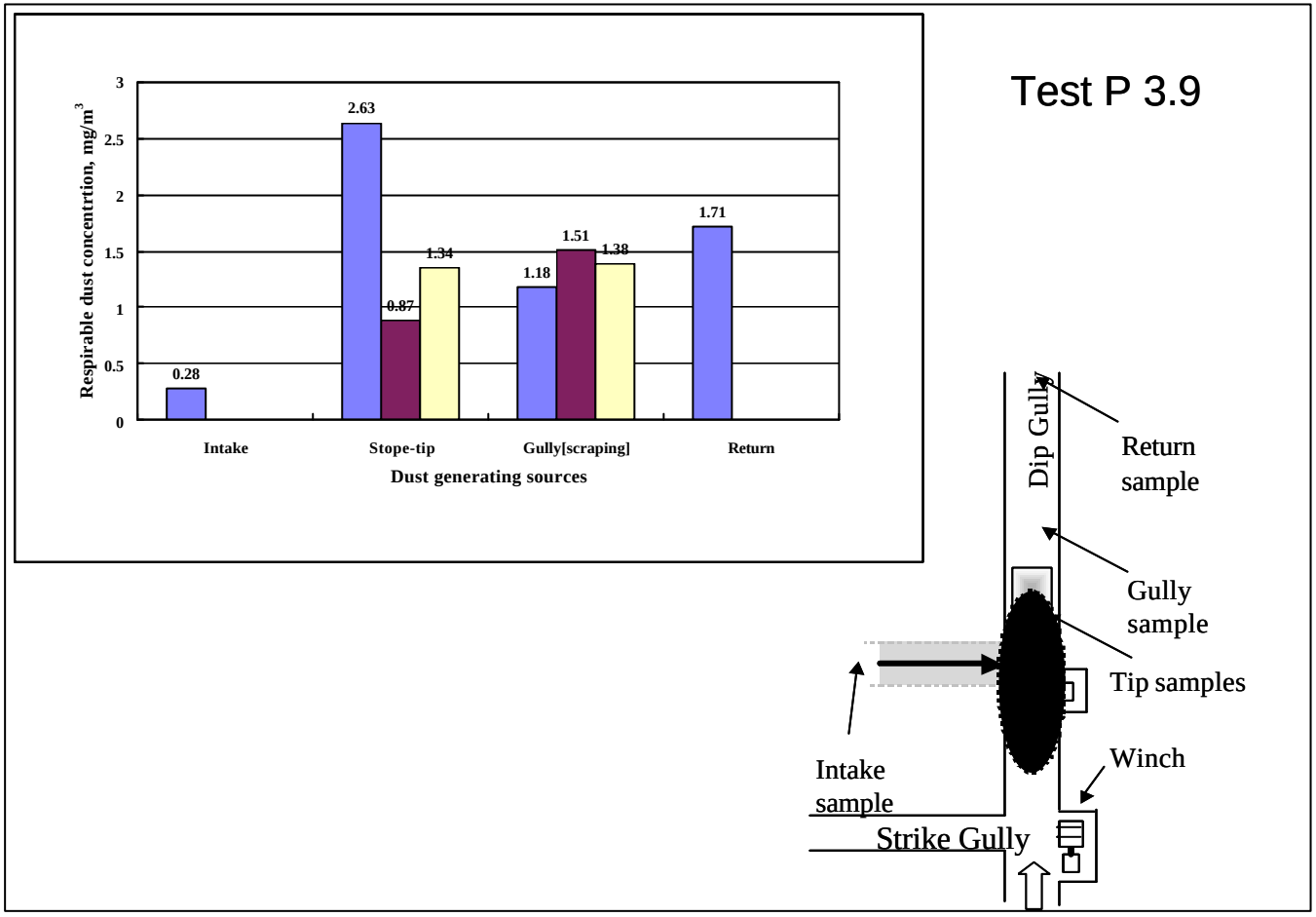
Test P 3.6

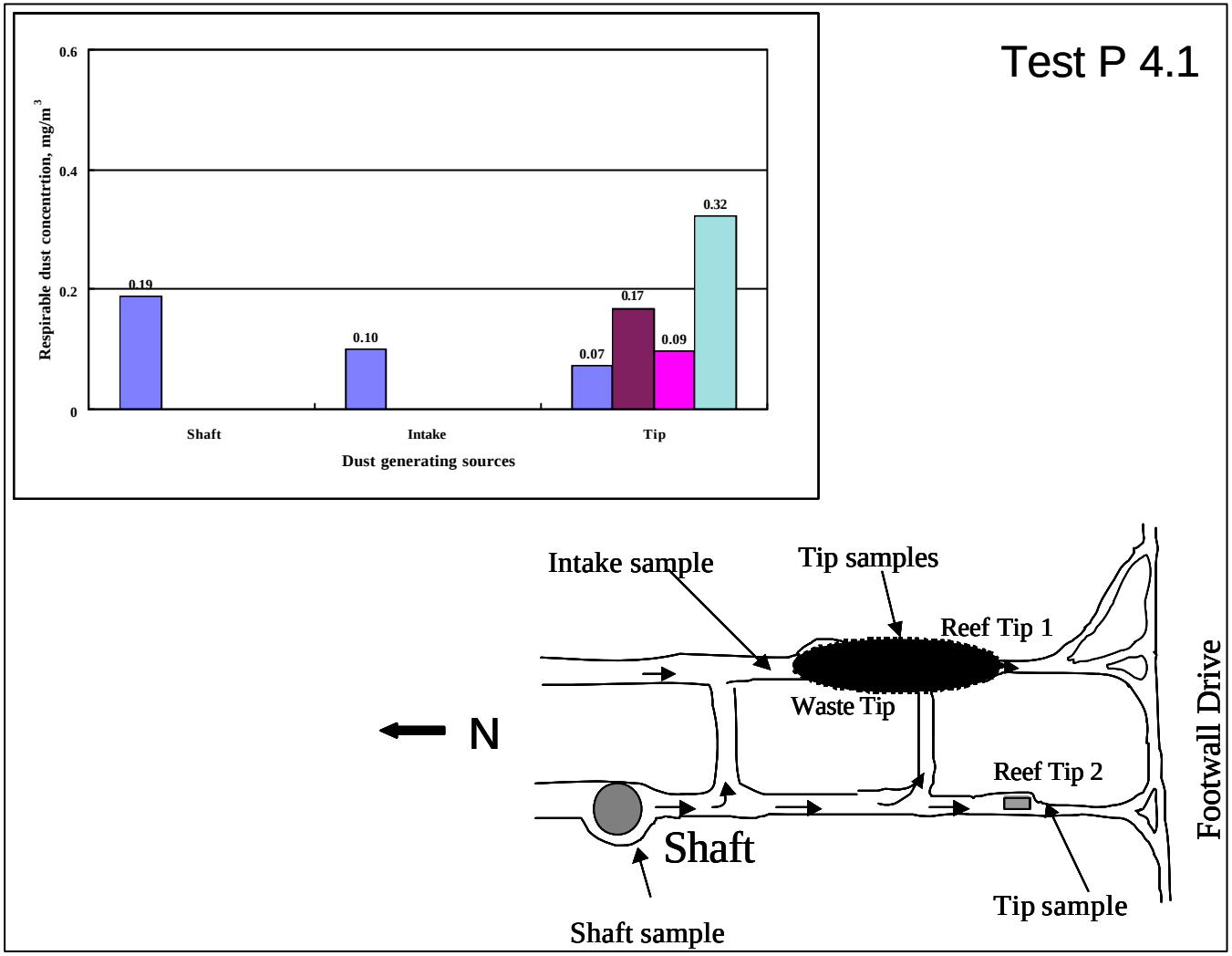

Respirable dust concentrtion, mg/m3
4
3.5
3
2.5
2
1.5
1
0.5
0
0.20
0.90
1.49
1.48
1.44
1.66
1.88
3.47
Intake
Transfer box
Heading
Return
Dust generating sources

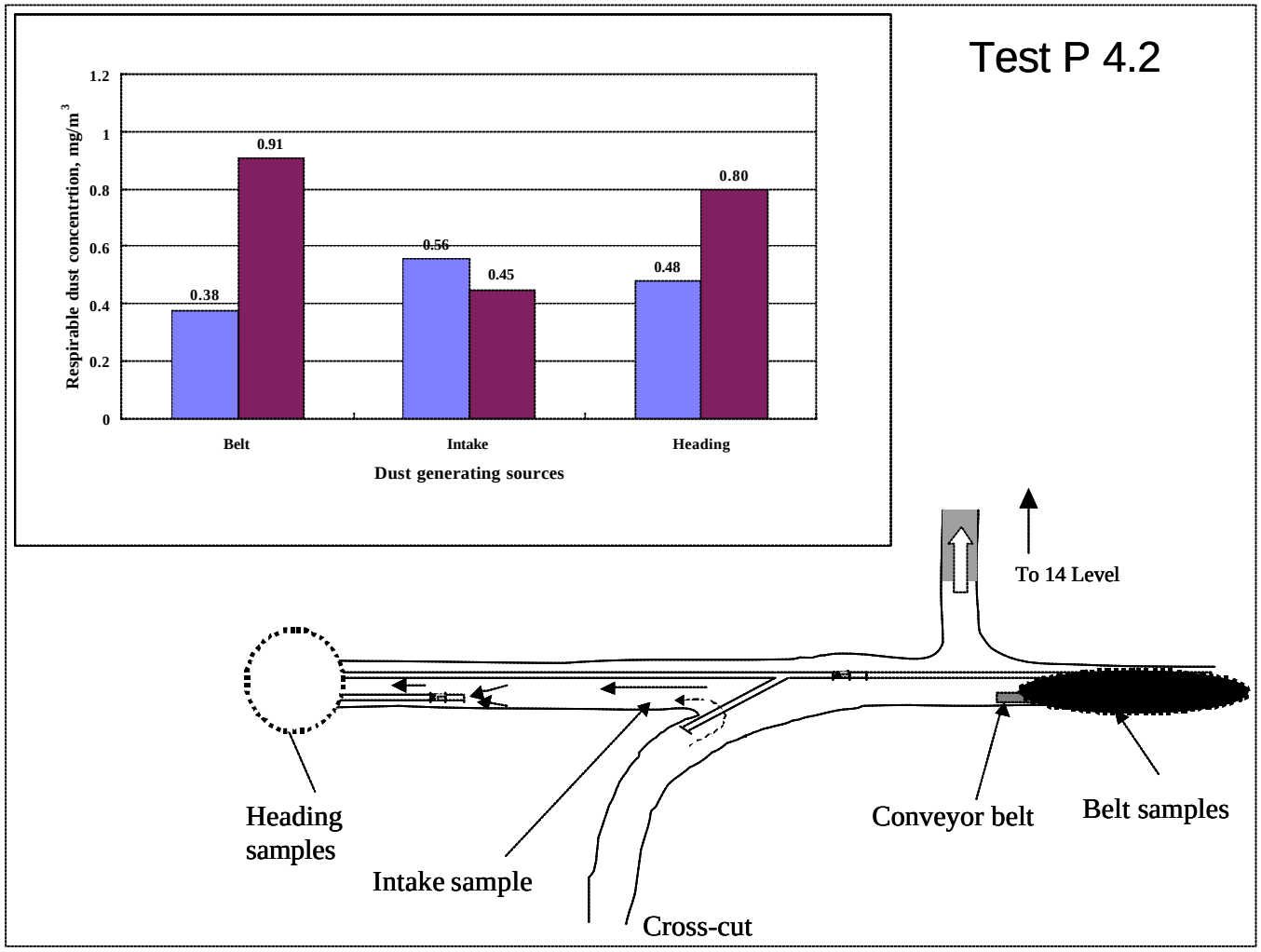

Ore pass
Ore pass
Ore pass
Heading samples
Intake sample
Transfer point samples
Return sample

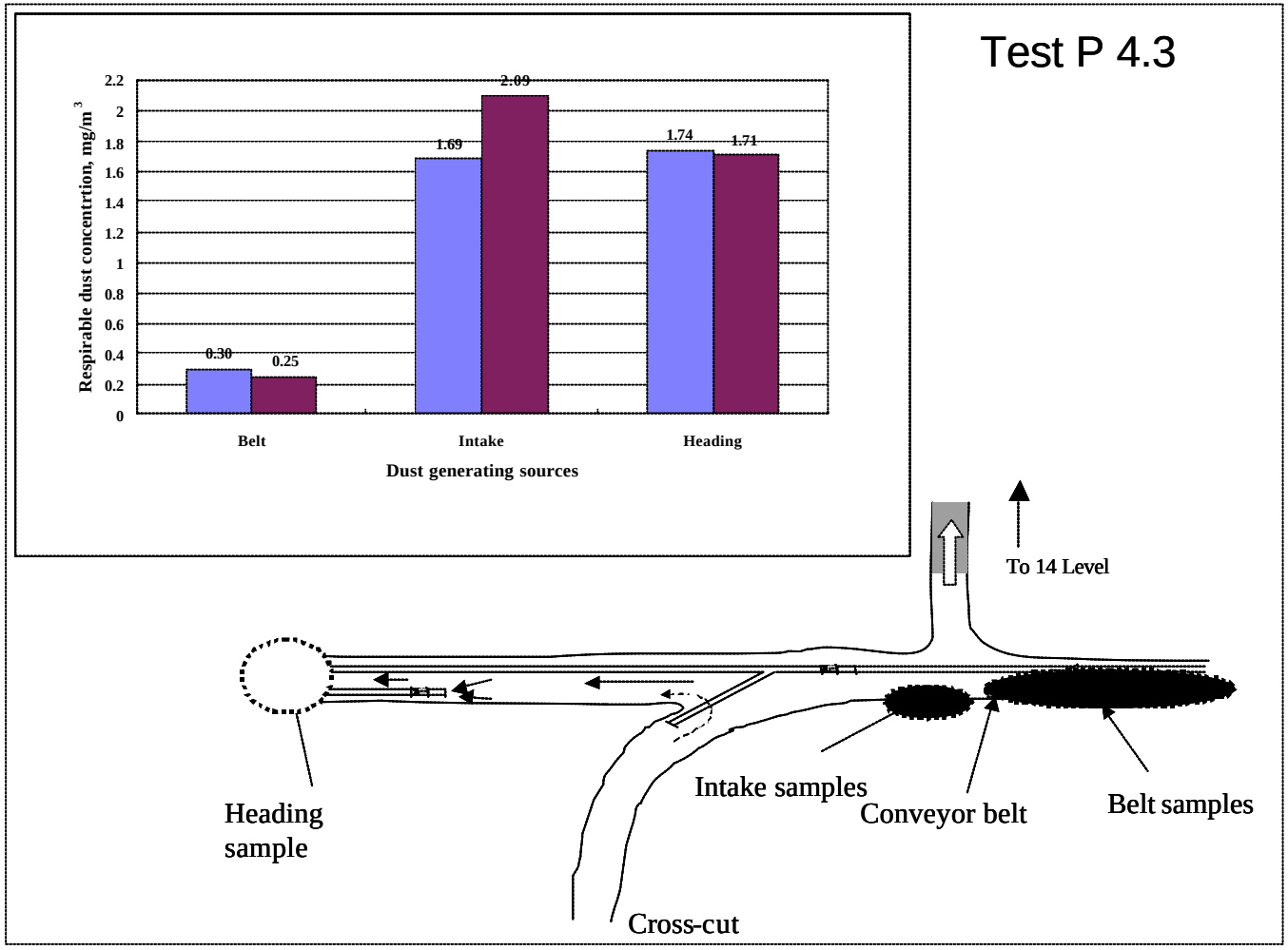

Test P 3.7
Respirable dust concentrtion, mg/m3
3
2.5
2
1.5
1
0.5
0
0.28
2.63
0.87
1.34
1.18
1.51
1.38
1.71
Intake
Stope-tip
Gully[scraping]
Return
Dust generating sources
Dip Gully
Return sample
Gully sample
Tip samples
Winch
Intake sample
Strike Gully

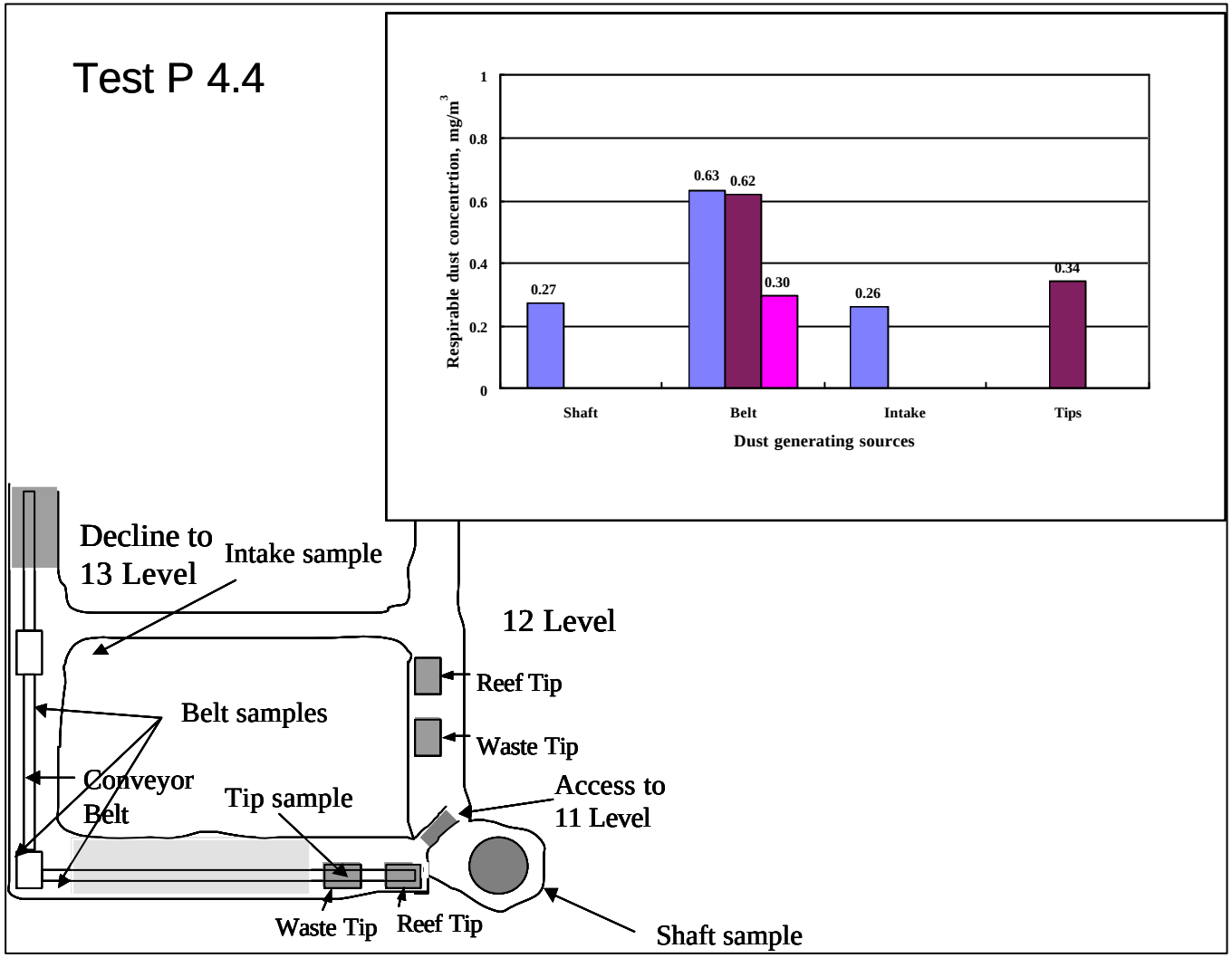

Test P 3.8
Respirable dust concentrtion, mg/m3
2
1.5
1
0.5
0
0.20
0.28
0.10
0.59
1.13
0.71
0.63
Intake
Stope-tip
Gully[scraping]
Return
Dust generating sources
Dip Gully
Return sample
Gully sample
Tip samples
Winch
Intake samples
Strike Gully


Test P 3.9
Respirable dust concentrtion, mg/m3
3
2.5
2
1.5
1
0.5
0
0.28
2.63
0.87
1.34
1.18
1.51
1.38
1.71
Intake
Stope-tip
Gully[scraping]
Return
Dust generating sources
Dip Gully
Return sample
Gully sample
Tip samples
Winch
Intake sample
Strike Gully

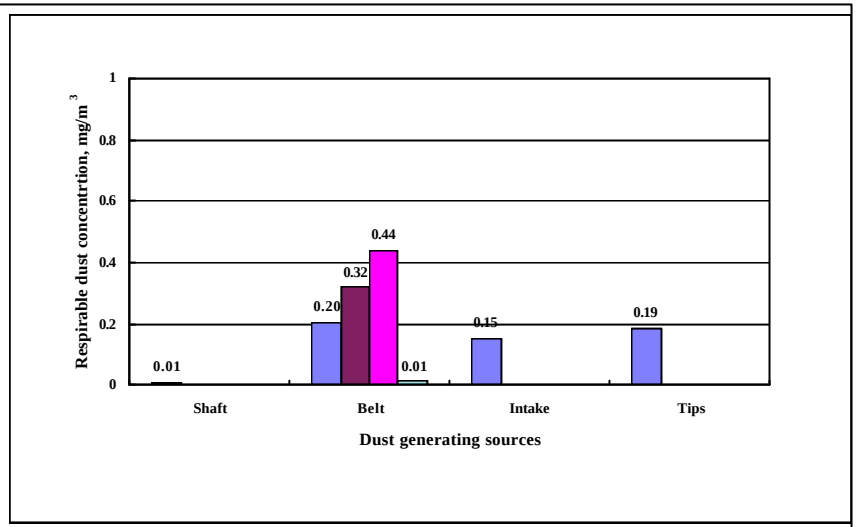

Test P 4.1
Respirable dust concentrtion, mg/m3
0.6
0.4
0.2
0
0.19
0.10
0.07
0.17
0.09
0.32
Shaft
Intake
Tip
Dust generating sources
Intake sample
Tip samples
Reef Tip 1
Waste Tip
N
Reef Tip 2
Shaft
Tip sample
Shaft sample
Footwall Drive

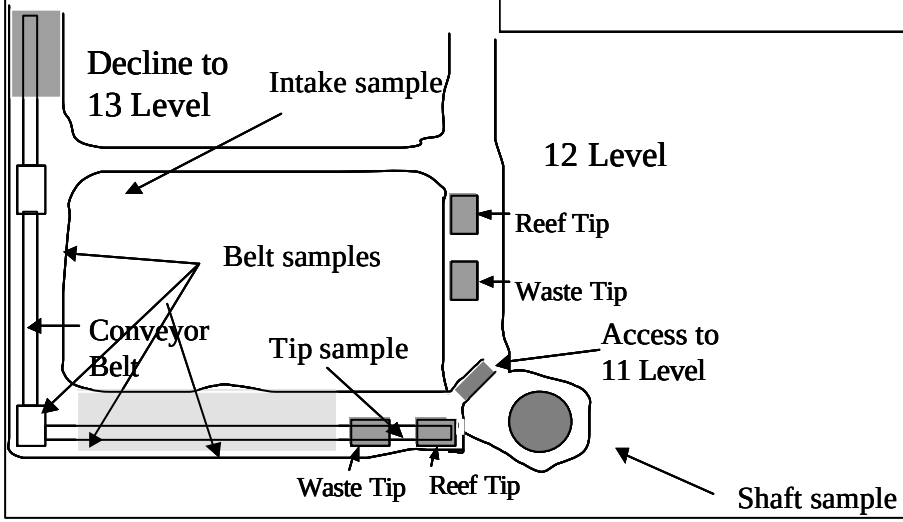

Test P 4.2
Respirable dust concentrtion, mg/m3
1.2
1
0.8
0.6
0.4
0.2
0
0.38
0.91
0.56
0.45
0.48
0.80
Belt
Intake
Heading
Dust generating sources
To 14 Level
Heading samples
Intake sample
Cross-cut
Conveyor belt
Belt samples

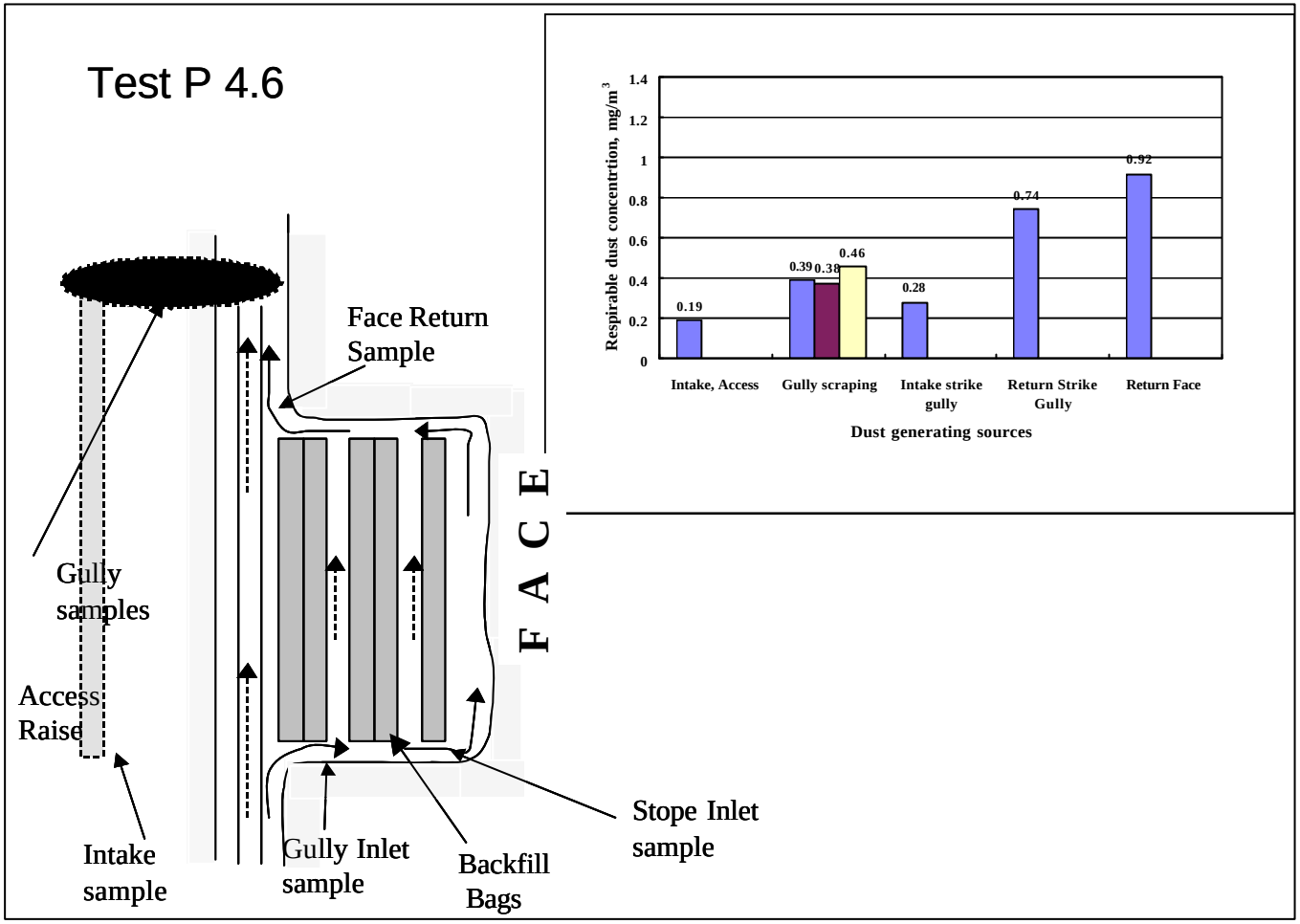

Test P 4.3
Respirable dust concentrtion, mg/m 3
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.30
0.25
1.69
2.09
1.74
1.71
Belt
Intake
Heading
Dust generating sources
To 14 Level
Heading sample
Intake samples
Conveyor belt
Belt samples
Cross-cut

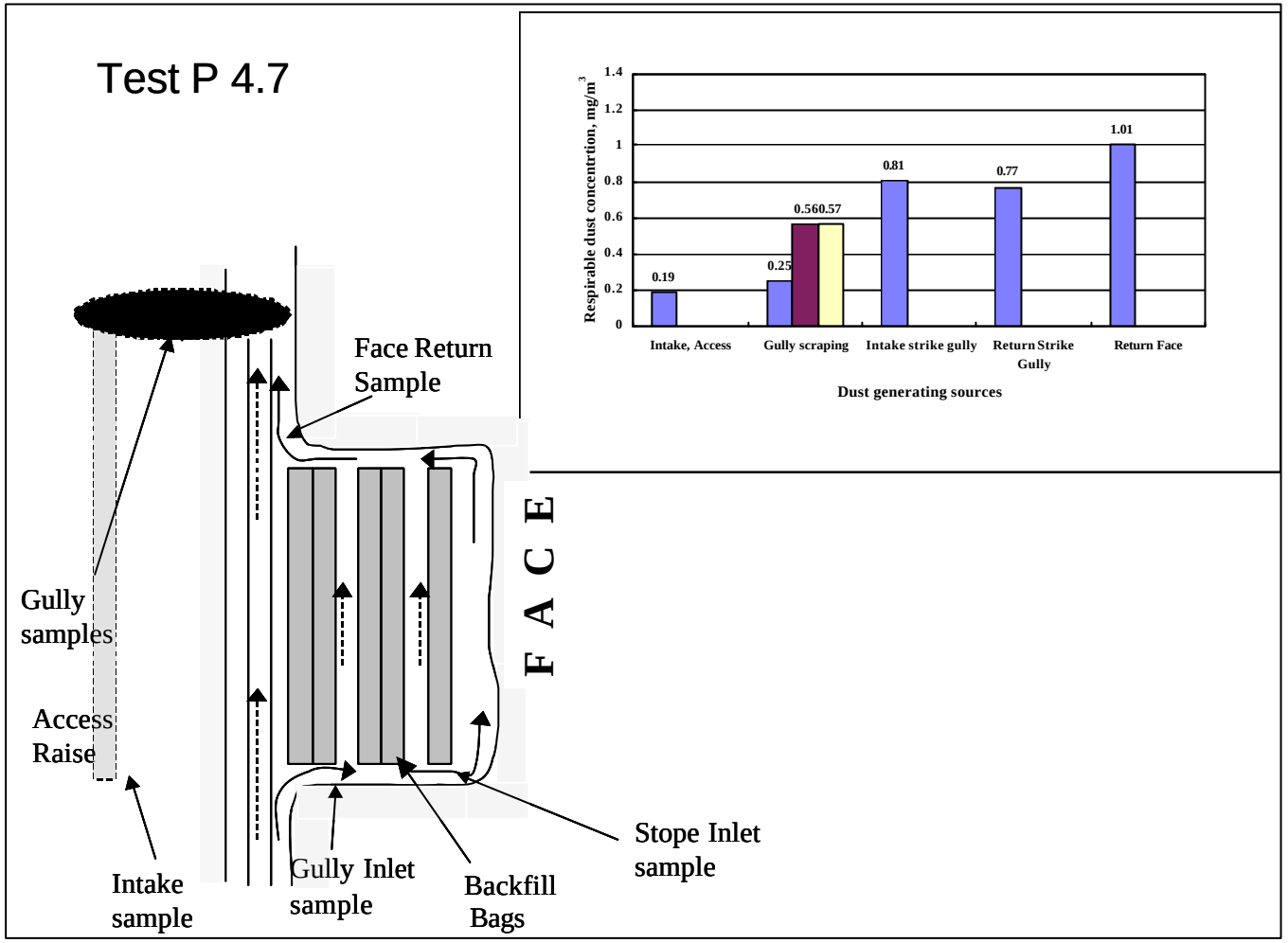

Test P 4.4
Respirable dust concentrtion, mg/m3
1
0.8
0.6
0.4
0.2
0
0.27
0.63
0.62
0.30
0.26
0.34
Shaft
Belt
Intake
Tips
Dust generating sources
Decline to
13 Level
Intake sample
12 Level
Reef Tip
Belt samples
Waste Tip
Conveyor
Belt
Tip sample
Access to
11 Level
Waste Tip
Reef Tip
Shaft sample

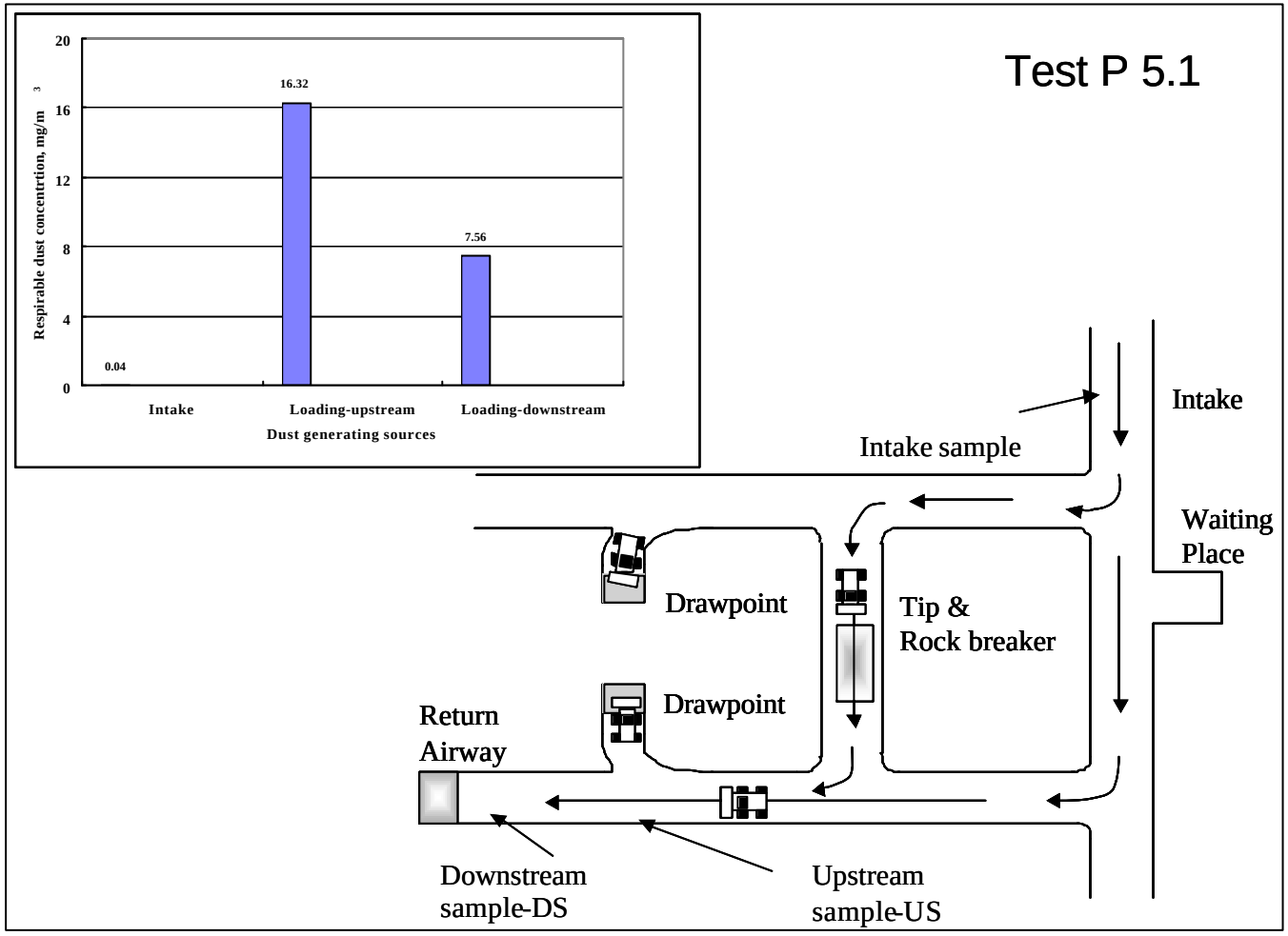
Test P 4.5

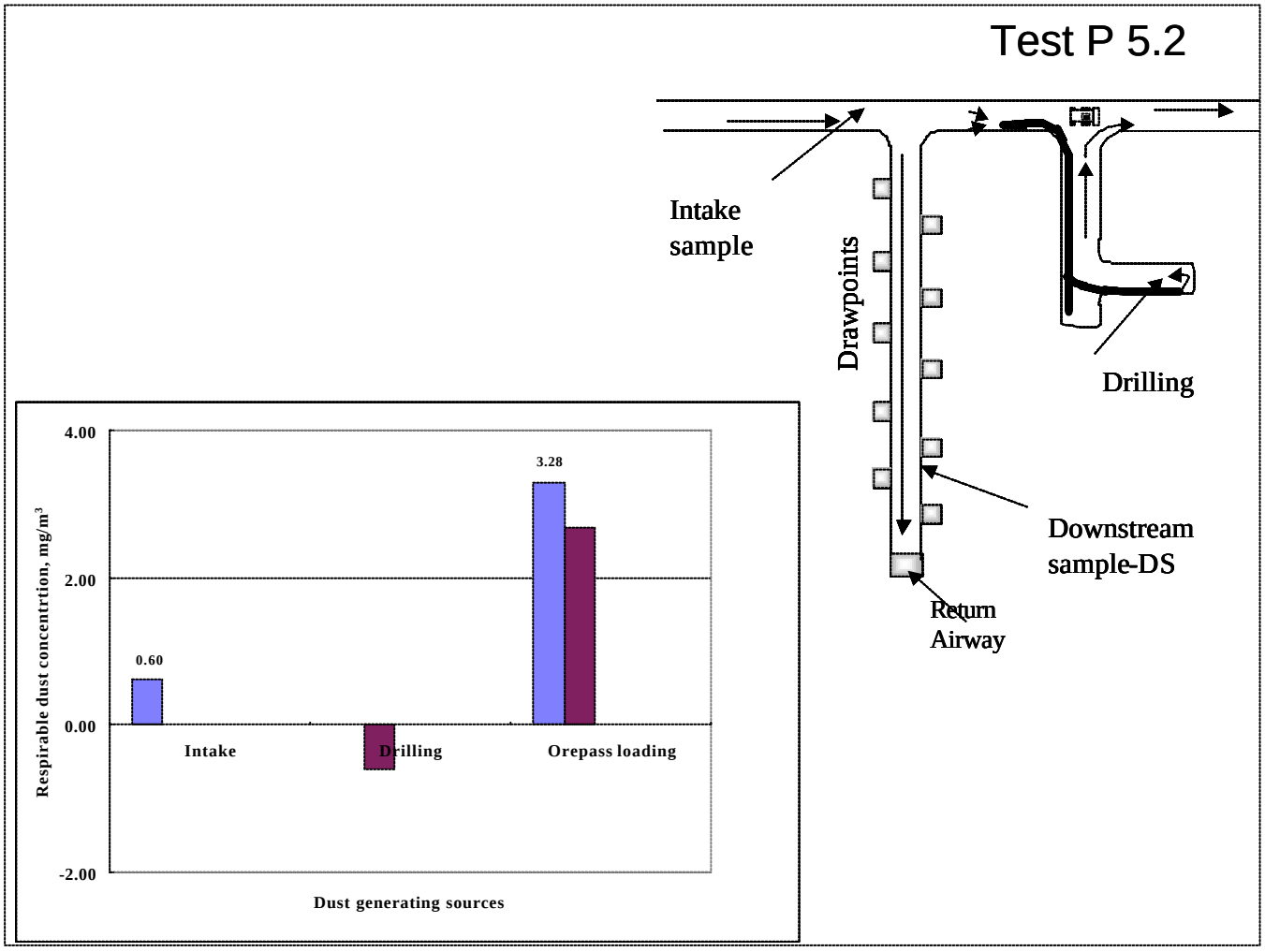

Respirable dust concentrtion, mg/m3
1
0.8
0.6
0.4
0.2
0
0.01
0.20
0.32
0.44
0.01
0.15
0.19
Shaft
Belt
Intake
Tips
Dust generating sources

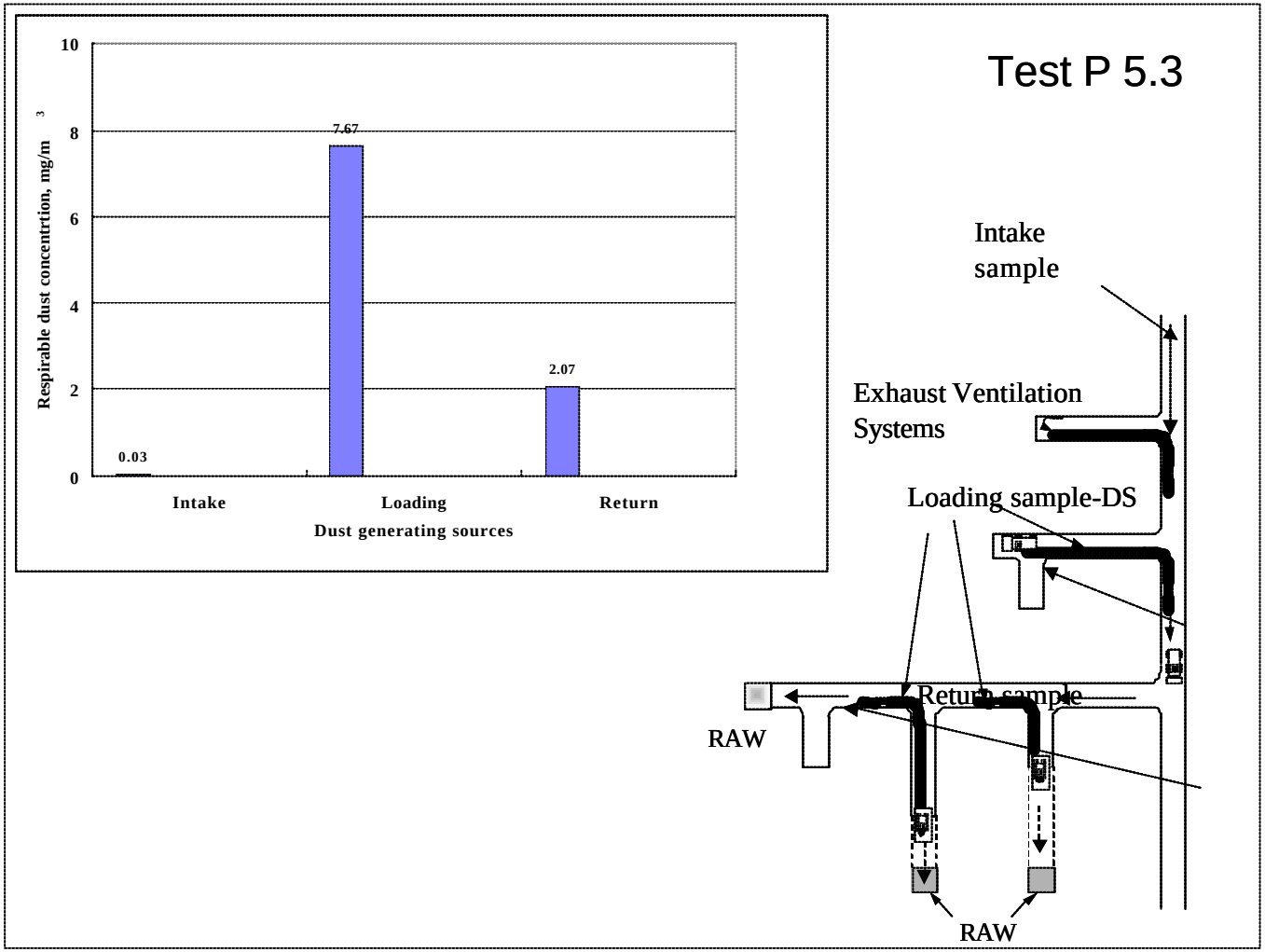

Decline to
13 Level
Intake sample
12 Level
Reef Tip
Belt samples
Waste Tip
Conveyor
Belt
Tip sample
Access to
11 Level
Waste Tip
Reef Tip
Shaft sample

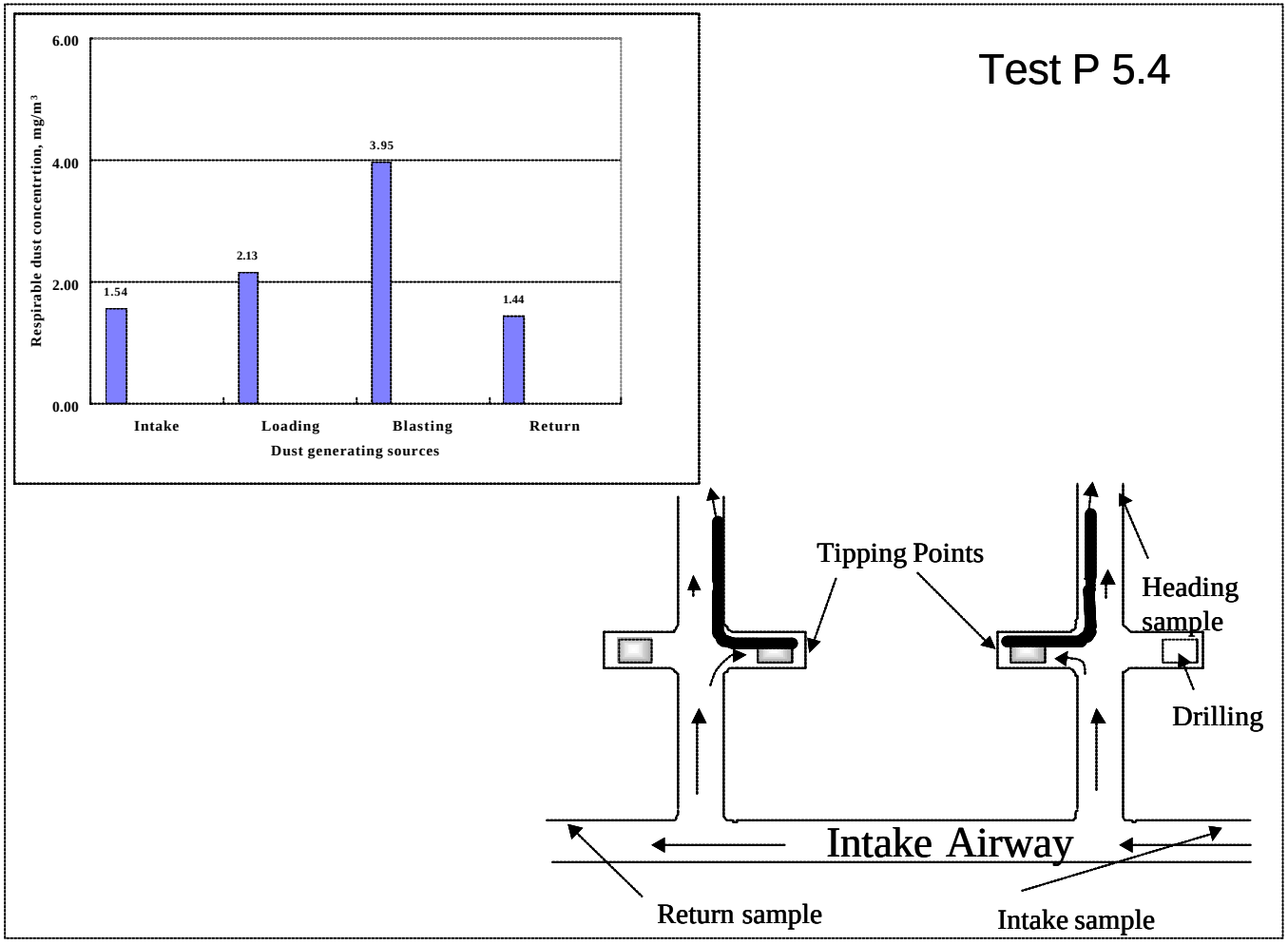

Test P 4.6
Face Return Sample
Gully samples
Access Raise
Intake sample
Gully Inlet sample
Backfill Bags
Stope Inlet sample
FACE
Respirable dust concentrtion, mg/m3
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.19
0.39
0.38
0.46
0.28
0.74
0.92
Intake, Access
Gully scraping
Intake strike gully
Return Strike Gully
Return Face
Dust generating sources

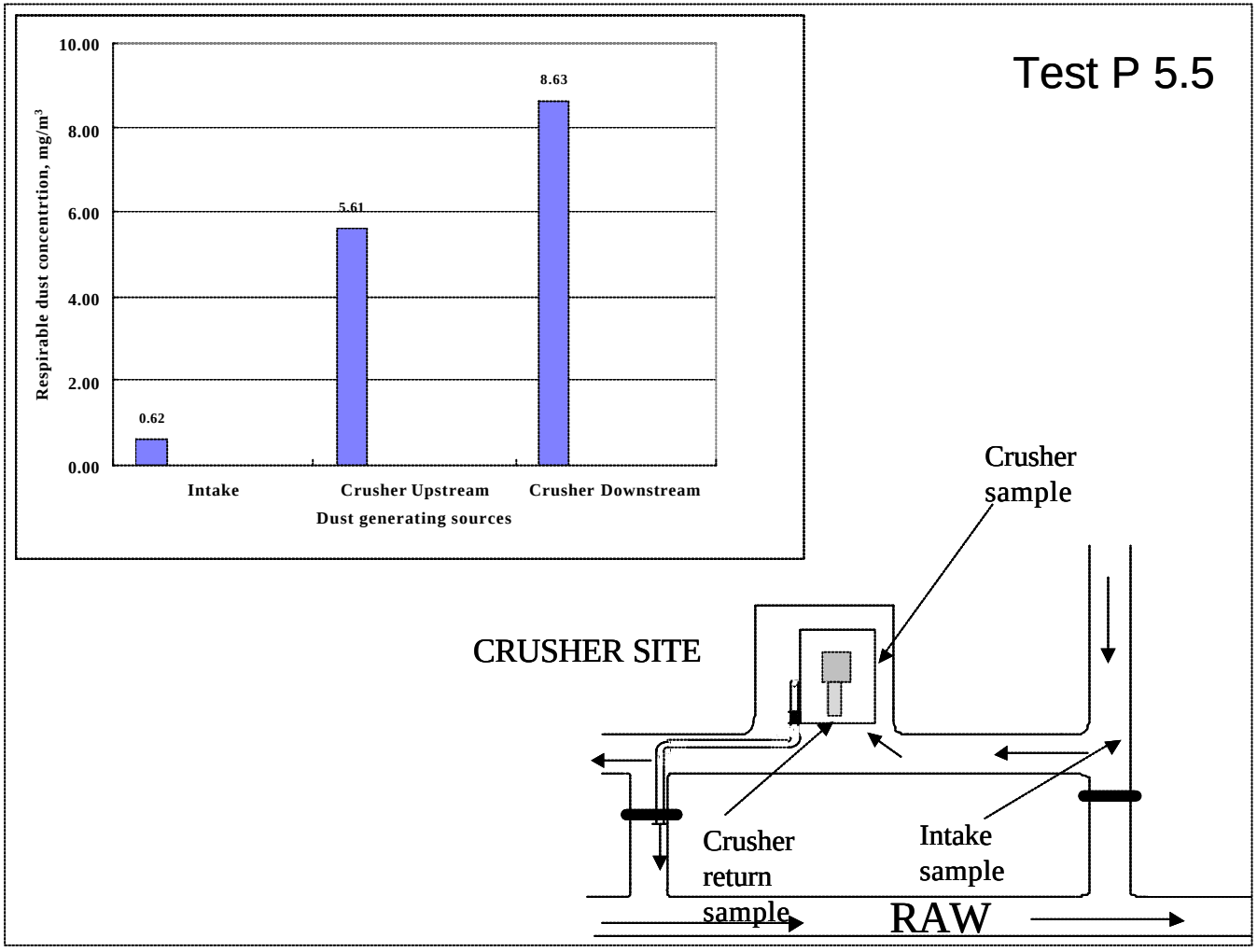

Test P 4.7
Face Return Sample
Gully samples
Access Raise
Intake sample
Gully Inlet sample
Backfill Bags
Stope Inlet sample
F A C E
Respirable dust concentrtion, mg/m3
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.19
0.25
0.56
0.57
0.81
0.77
1.01
Intake, Access
Gully scraping
Intake strike gully
Return Strike Gully
Return Face
Dust generating sources


Test P 5.1
Respirable dust concentrtion, mg/m3
20
16
12
8
4
0
16.32
7.56
0.04
Intake
Loading-upstream
Loading-downstream
Dust generating sources
Intake
Intake sample
Waiting
Place
Drawpoint
Drawpoint
Tip &
Rock breaker
Return
Airway
Downstream
sample-DS
Upstream
sample-US


Test P 5.2
Intake sample
Drawpoints
Drilling
Downstream sample-DS
Return Airway
4.00
2.00
0.00
-2.00
Respirable dust concentrtion, mg/m3
0.60
3.28
Intake
Drilling
Orepass loading
Dust generating sources


Test P 5.3
Respirable dust concentrtion, mg/m 3
10
8
6
4
2
0
7.67
2.07
0.03
Intake
Loading
Return
Dust generating sources
Intake sample
Exhaust Ventilation Systems
Loading sample-DS
Return sample
RAW
RAW


Test P 5.4
Respirable dust concentrtion, mg/m3
6.00
4.00
2.00
0.00
1.54
2.13
3.95
1.44
Intake
Loading
Blasting
Return
Dust generating sources
Tipping Points
Heading sample
Drilling
Intake Airway
Return sample
Intake sample


Test P 5.5
10.00
8.00
6.00
4.00
2.00
0.00
Respirable dust concentrtion, mg/m3
0.62
5.61
8.63
Intake
Crusher Upstream
Crusher Downstream
Dust generating sources
Crusher sample
CRUSHER SITE
Crusher return sample
Intake sample
RAW