TEST PIT LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Resort
LOCATION: Morisset Park

SURFACE LEVEL: 0.965 m AHD
EASTING: 363815.964
NORTHING: 6334153.651
DIP/AZIMUTH: 90°/--

PIT No: 302
PROJECT No: 39823A
DATE: 03 Oct 07
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
0	0.3	SILTY SAND: Brown fine to medium grained silty sand with rootlets and gravels, humid		D	0.1				
		SAND: Light brown to dark brown medium grained sand with some gravel, moist		D	0.5				
	0.8	- layer of shells at 0.75m							
	1	CLAYEY SAND: Yellow brown and grey medium to coarse grained clayey sand with trace shells, wet		D	1.0				1
-1				D	1.5				
	2	- trace of gravel from 2.1m		D	2.0				2
	2.5	Pit discontinued at 2.5m. Pit collapse		D	2.5				
-2	3								3
-3									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: 4 tonne Excavator with 450mm bucket

LOGGED: Kerry

WATER OBSERVATIONS: Groundwater Seepage at ~1.3m

REMARKS: Coordinates are MGA

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ⧩ Water level

CHECKED
Initials:
Date:

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TEST PIT LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Resort
LOCATION: Morisset Park

SURFACE LEVEL: 1.205 m AHD
EASTING: 363841.3
NORTHING: 6334166.143
DIP/AZIMUTH: 90°/--

PIT No: 303
PROJECT No: 39823A
DATE: 03 Oct 07
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
1		SILTY SAND: Brown fine to medium grained silty sand with rootlets and gravels, humid		D	0.1				
	0.35	SAND: Light brown medium grained sand, moist		D	0.5				
	0.85	CLAYEY SAND: Yellow brown and grey medium to coarse grained clayey sand with trace shells, wet		D	1.0				1
0	1.2	- layer of shells at 1.15m							
	1.35	SANDY GRAVEL: Light brown grey medium sandy gravel, wet							
		CLAYEY SAND: Grey medium grained clayey sand, wet		D	1.5				
	1.7	GRAVELLY SAND: Light grey medium to coarse grained gravelly sand with trace silt, wet		D	2.0				2
-1				D	2.5				
	2.8	Pit discontinued at 2.8m. Pit collapse							3
-2									

RIG: 4 tonne Excavator with 450mm bucket

LOGGED: Kerry

WATER OBSERVATIONS: Groundwater Seepage at ~1.4m

REMARKS: Coordinates are MGA

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ⧭ Water level

CHECKED
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Date:

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TEST PIT LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Resort
LOCATION: Morisset Park

SURFACE LEVEL: 1.16 m AHD
EASTING: 363872.673
NORTHING: 6334140.639
DIP/AZIMUTH: 90°/--

PIT No: 304
PROJECT No: 39823A
DATE: 03 Oct 07
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
1	0.3	SILTY SAND: Brown fine to medium grained silty sand with rootlets and gravels, humid		D	0.1				
		SAND: Brown and grey medium grained sand, moist		D	0.5				
0	0.9	SANDY GRAVEL: Light orange brwon grey medium grained sandy gravel with trace silt, wet		D	1.0				1
	1.4	GRAVELLY CLAYEY SAND: Grey medium grained gravelly clayey sand, wet		D	1.5				
-1	1.6	SANDY GRAVEL: Light grey medium grained sandy gravel, wet							
	2.0	Pit discontinued at 2.0m. Pit collapse		D	2.0				2
-2									3

RIG: 4 tonne Excavator with 450mm bucket

LOGGED: Kerry

WATER OBSERVATIONS: Groundwater Seepage at ~1.0m

REMARKS: Coordinates are MGA

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ⧗ Water level

CHECKED
Initials:
Date:

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TEST PIT LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Resort
LOCATION: Morisset Park

SURFACE LEVEL: 1.145 m AHD
EASTING: 363892.75
NORTHING: 6334115.794
DIP/AZIMUTH: 90°/--

PIT No: 305
PROJECT No: 39823A
DATE: 03 Oct 07
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
1	0.2	SILTY SAND: Brown fine to medium grained silty sand with rootlets and gravels, humid		D	0.1				
		GRAVELLY SAND: Brown fine to medium grained gravelly sand, moist		D	0.5				
0	1			D	1.0				1
				D	1.5				
	1.6	SAND: Grey medium grained sand with some clay and gravel, wet							
-1	2 2.0	Pit discontinued at 2.0m. Pit collapse		D	2.0				2
	3								3
-2									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: 4 tonne Excavator with 450mm bucket

LOGGED: Kerry

WATER OBSERVATIONS: Groundwater Seepage at ~1.0m

REMARKS: Coordinates are MGA. Some H_2S "Egg gas" odours

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ⧭ Water level

CHECKED
Initials:
Date:

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TEST PIT LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Resort
LOCATION: Morisset Park

SURFACE LEVEL: 1.115 m AHD
EASTING: 363905.646
NORTHING: 6334088.408
DIP/AZIMUTH: 90°/--

PIT No: 306
PROJECT No: 39823A
DATE: 03 Oct 07
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
1		SILTY SAND: Brown fine to medium grained silty sand with rootlets and gravels, humid		D	0.1				
	0.3	GRAVELLY SAND: Light brown grey medium grained gravelly sand, moist		D	0.5				
	0.9	GRAVELLY SAND: Orange grey medium grained gravelly sand with some clay, moist to wet		D	1.0				1
0	1	- grey at 1.5m		D	1.5				
	2 2.0	Pit discontinued at 2.0m. Pit collapse		D	2.0				2
-1	3								3
-2									

RIG: 4 tonne Excavator with 450mm bucket

LOGGED: Kerry

WATER OBSERVATIONS: Groundwater Seepage at ~1.1m

REMARKS: Coordinates are MGA. Some H_2S "Egg gas" odours

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ⧗ Water level

CHECKED
Initials:
Date:

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TEST PIT LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Resort
LOCATION: Morisset Park

SURFACE LEVEL: 1.775 m AHD
EASTING: 363911.911
NORTHING: 4334061.065
DIP/AZIMUTH: 90°/--

PIT No: 307
PROJECT No: 39823A
DATE: 03 Oct 07
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILLING: Brown sandy silt with rootlets mixed red brown grey silty clay, M<Wp with gravels and inclusions of bricks coal chitter and clay pipe , M<Wp		D	0.1				
				D	0.5				
	0.7	CLAYEY GRAVELLY SAND: Light grey and brown medium to coarse grained sand, wet		D	1.0				1
		- grading to light grey mottled orange brown sandy gravelly clay, M<Wp		D	1.5				
	1.7	CLAYEY SAND: Grey mottled red brown medium grained clayey sand with trace of small gravel, moist		D	2.0				2
	2.2	SILTY CLAY: Very stiff light grey medium plasticity silty clay, M>Wp		D, pp	2.5		350-400kPa		
		- some sand at 3.0m							
	3.0	Pit discontinued at 3.0m. Limit of investigation		D	3.0				3

RIG: 4 tonne Excavator with 450mm bucket

LOGGED: Kerry

WATER OBSERVATIONS: Minor seepage at 1.5m

REMARKS: Coordinates are MGA

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials:
Date:

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TEST PIT LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Resort
LOCATION: Morisset Park

SURFACE LEVEL: 2.60 m AHD
EASTING: 363917.353
NORTHING: 6334032.813
DIP/AZIMUTH: 90°/--

PIT No: 308
PROJECT No: 39823A
DATE: 03 Oct 07
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
2	0.0	FILLING: Brown fine grained silty clayey sand with some gravels and trace of roots		D	0.1				
	0.4	SILTY SAND: Dark brown fine to medium grained silty sand with trace of rootlets, moist		D	0.5				
1	0.95	SAND: Light grey medium grained sand with trace of silt and clay, moist		D	1.0				1
	1.3	SANDY CLAY: Stiff to very stiff grey mottled orange brown low to medium plasticity sandy clay with some small gravel, M~Wp		D	1.5				
0	2			D	2.0				2
				D, pp	2.5		220-250kPa		
	2.7	SILTY CLAY: Very stiff light grey medium plasticity silty clay, M~Wp							
-1	3 3.0	Pit discontinued at 3.0m. Limit of investigation		D, pp	3.0		350-380kPa		3

RIG: 4 tonne Excavator with 450mm bucket

LOGGED: Kerry

WATER OBSERVATIONS: No Free Groundwater Observed

REMARKS: Coordinates are MGA

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ⧩ Water level

CHECKED
Initials:
Date:

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TEST PIT LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Resort
LOCATION: Morisset Park

SURFACE LEVEL: 3.00 m AHD
EASTING: 363930.136
NORTHING: 6333975.397
DIP/AZIMUTH: 90°/--

PIT No: 309
PROJECT No: 39823A
DATE: 03 Oct 07
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
3		SILTY SAND: Brown medium grained silty sand with rootlets and gravels, humid		D	0.1				
				D	0.5				
	0.65	SILTY SAND CLAY: Grey mottled red brown low to medium plasticity silty sandy clay, M<Wp							
2	1	- grading to clayey sand/extremely weathered sandstone at 1.0m		D	1.0				1
				D	1.5				
	1.8	Pit discontinued at 1.8m. Refusal							
1	2								2
0	3								3

RIG: 4 tonne Excavator with 450mm bucket

LOGGED: Kerry

WATER OBSERVATIONS: No Free Groundwater Observed

REMARKS: Coordinates are MGA

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ⧭ Water level

CHECKED
Initials:
Date:

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TEST PIT LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Resort
LOCATION: Morisset Park

SURFACE LEVEL: 4.00 m AHD
EASTING: 363741.902
NORTHING: 6333901.569
DIP/AZIMUTH: 90°/--

PIT No: 310
PROJECT No: 39823A
DATE: 03 Oct 07
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILLING: Light orange brown sandy clay filling mixed with bricks, tiles and concrete and trace of metal and plastic sheeting, humid		D	0.1				
				D	0.5				
	0.8	SANDY CLAY: Stiff, light grey mottled orange brown medium plasticity sandy clay with trace gravels, M~Wp							
3	1			D	1.0				1
				D, pp	1.5		170-220kPa		
2	2	- grading to clayey sand/sandy clay at 2.0m, moist		D	2.0				2
	2.5	Pit discontinued at 2.5m. Limit of investigation		D	2.5				
1	3								3

5 10 15 20

RIG: 4 tonne Excavator with 450mm bucket

LOGGED: Kerry

WATER OBSERVATIONS: No Free Groundwater Observed

REMARKS: Coordinates are MGA

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ⧩ Water level

CHECKED
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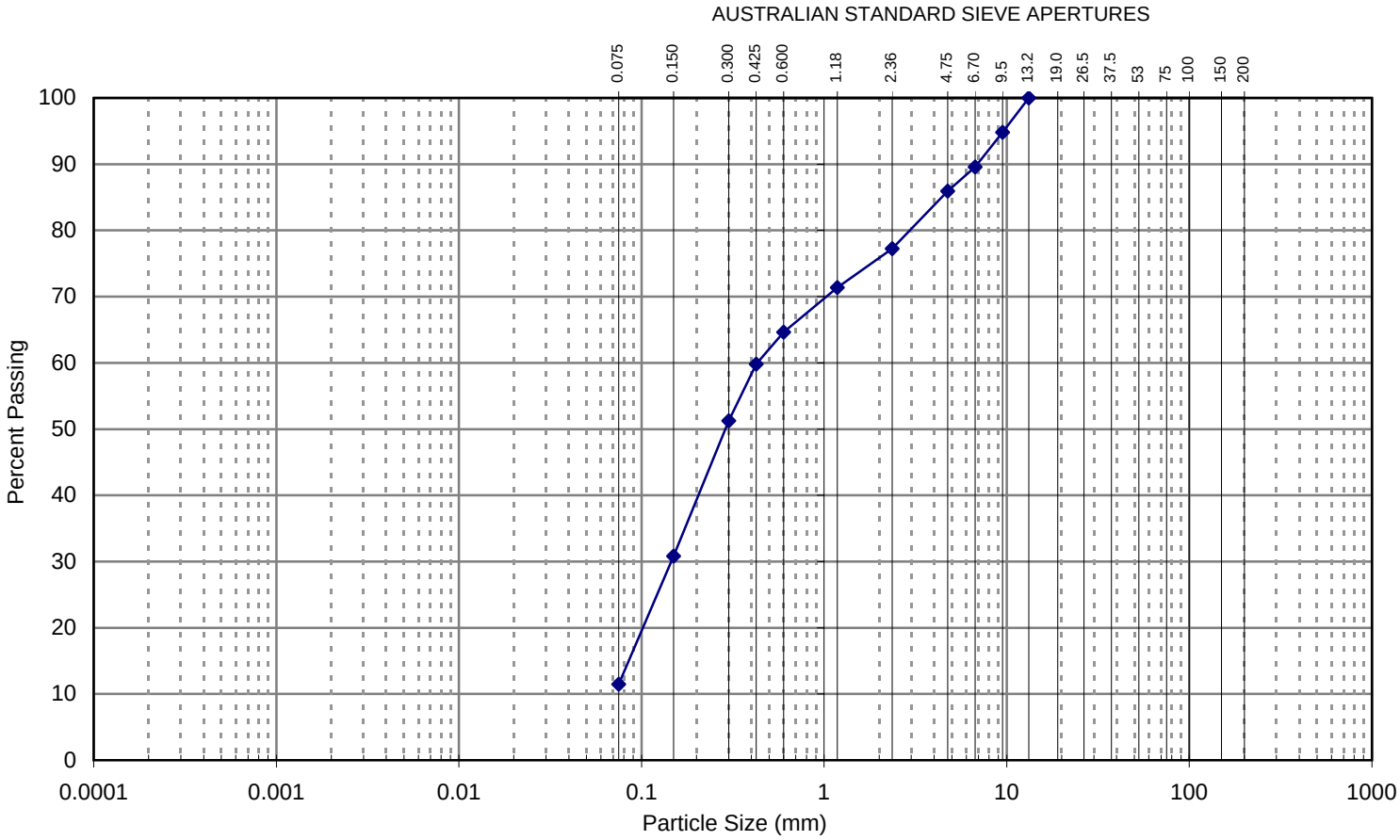
RESULTS OF PARTICLE SIZE DISTRIBUTION TEST

Client :	Johnson Property Group Pty Ltd	**Project No. :**	39823
		Report No. :	N07-204
Project :	Trinity Point Marina & Mixed Use Resort	**Report Date :**	29/10/2007
Location :	Morisset	**Date Sampled:**	-
Test Location :	101	**Date of Test:**	19/10/2007
Depth / Layer :	1.00-1.45m	**Page:**	1 of 1



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	

Description: Gravelly SAND - Grey brown

Test Method(s): AS 1289.3.6.1-1995

Sampling Method(s): AS 1289.1.2.1-1998, AS 1289.1.1-2001

Method of Dispersion:

Remarks:

NATA ACCREDITED FOR TECHNICAL

NATA Accredited Laboratory Number: 828

This Document is issued in accordance with NATA's accreditation requirements.
Accredited for compliance with ISO/IEC 17025

Approved Signatory:

Tested:	DR
Checked:	DM

Dave Millard
Laboratory Manager

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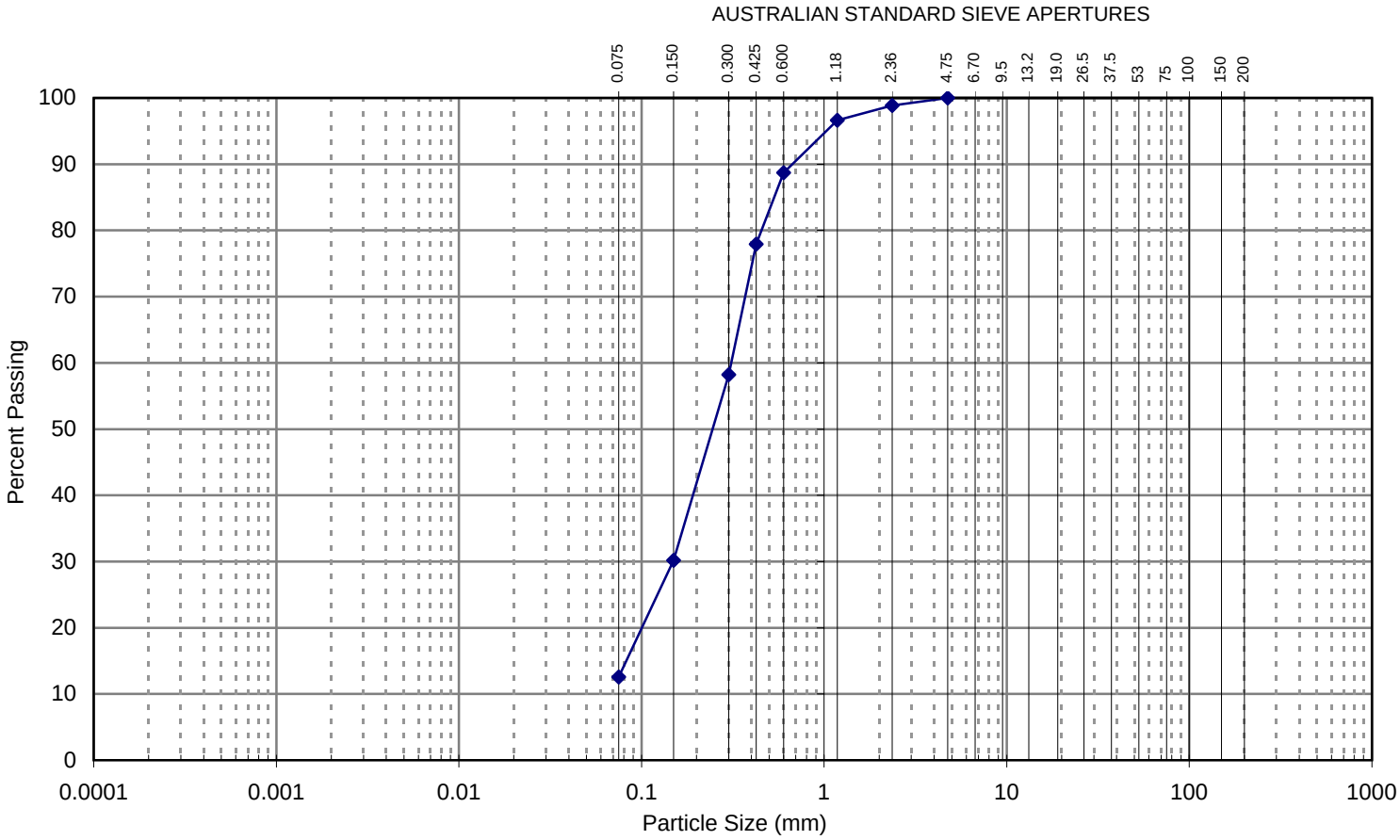
RESULTS OF PARTICLE SIZE DISTRIBUTION TEST

Client :	Johnson Property Group Pty Ltd	**Project No. :**	39823
		Report No. :	N07-204a
Project :	Trinity Point Marina & Mixed Use Resort	**Report Date :**	29/10/2007
Location :	Morisset	**Date Sampled:**	-
Test Location :	102	**Date of Test:**	19/10/2007
Depth / Layer :	1.00-1.45m	**Page:**	1 of 1



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	

Description: SAND - Dark grey/brown

Test Method(s): AS 1289.3.6.1-1995

Sampling Method(s): AS 1289.1.2.1-1998, AS 1289.1.1-2001

Method of Dispersion:

Remarks:

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NATA Accredited Laboratory Number: 828

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Approved Signatory:

Tested:	DR
Checked:	DM

Dave Millard
Laboratory Manager

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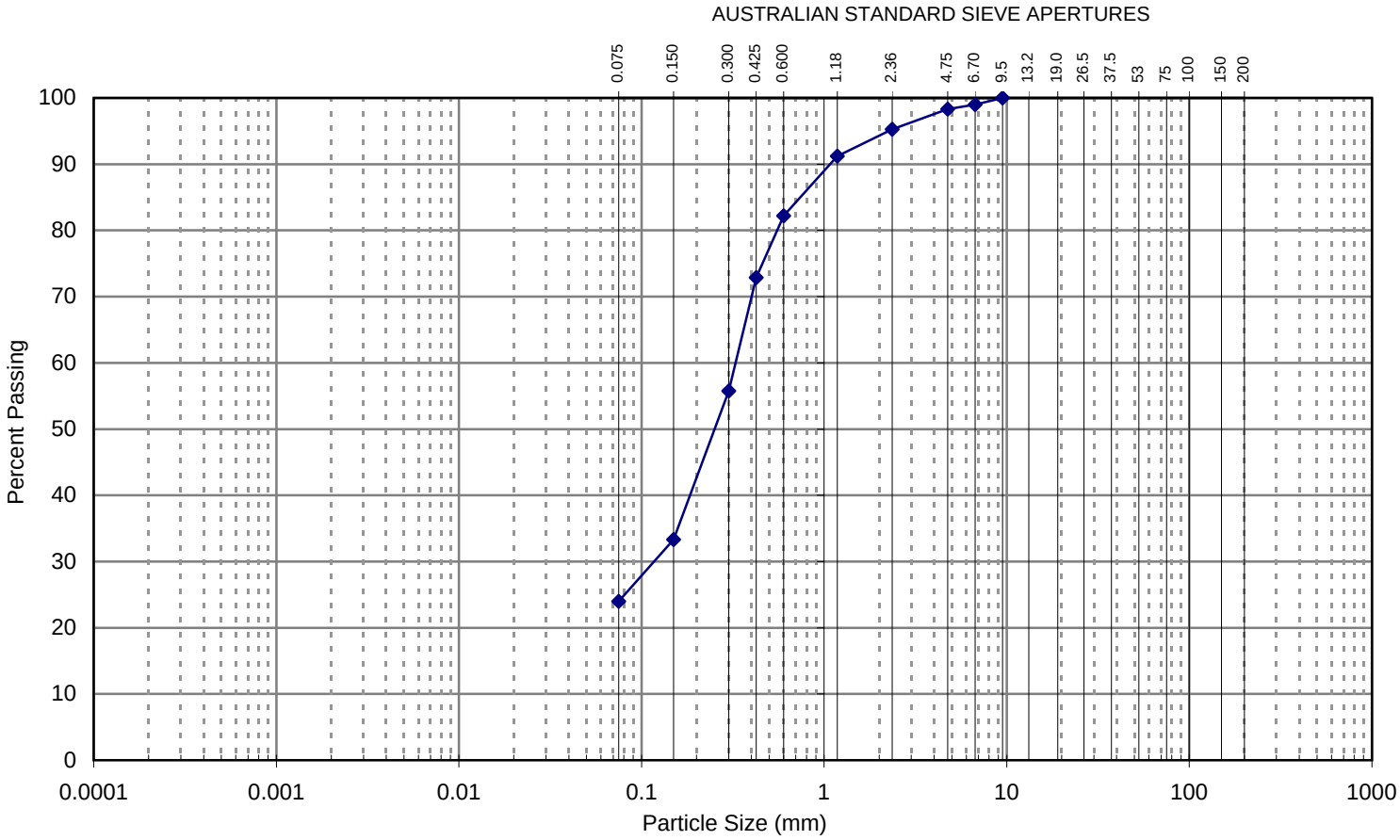
RESULTS OF PARTICLE SIZE DISTRIBUTION TEST

Client :	Johnson Property Group Pty Ltd	**Project No. :**	39823
		Report No. :	N07-204b
Project :	Trinity Point Marina & Mixed Use Resort	**Report Date :**	29/10/2007
Location :	Morisset	**Date Sampled:**	-
Test Location :	102	**Date of Test:**	19/10/2007
Depth / Layer :	4.00-4.45m	**Page:**	1 of 1



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	

Description: Silty SAND - Grey/brown

Test Method(s): AS 1289.3.6.1-1995

Sampling Method(s): AS 1289.1.2.1-1998, AS 1289.1.1-2001

Method of Dispersion:

Remarks:

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Approved Signatory:

Tested:	DR
Checked:	DM

Dave Millard
Laboratory Manager

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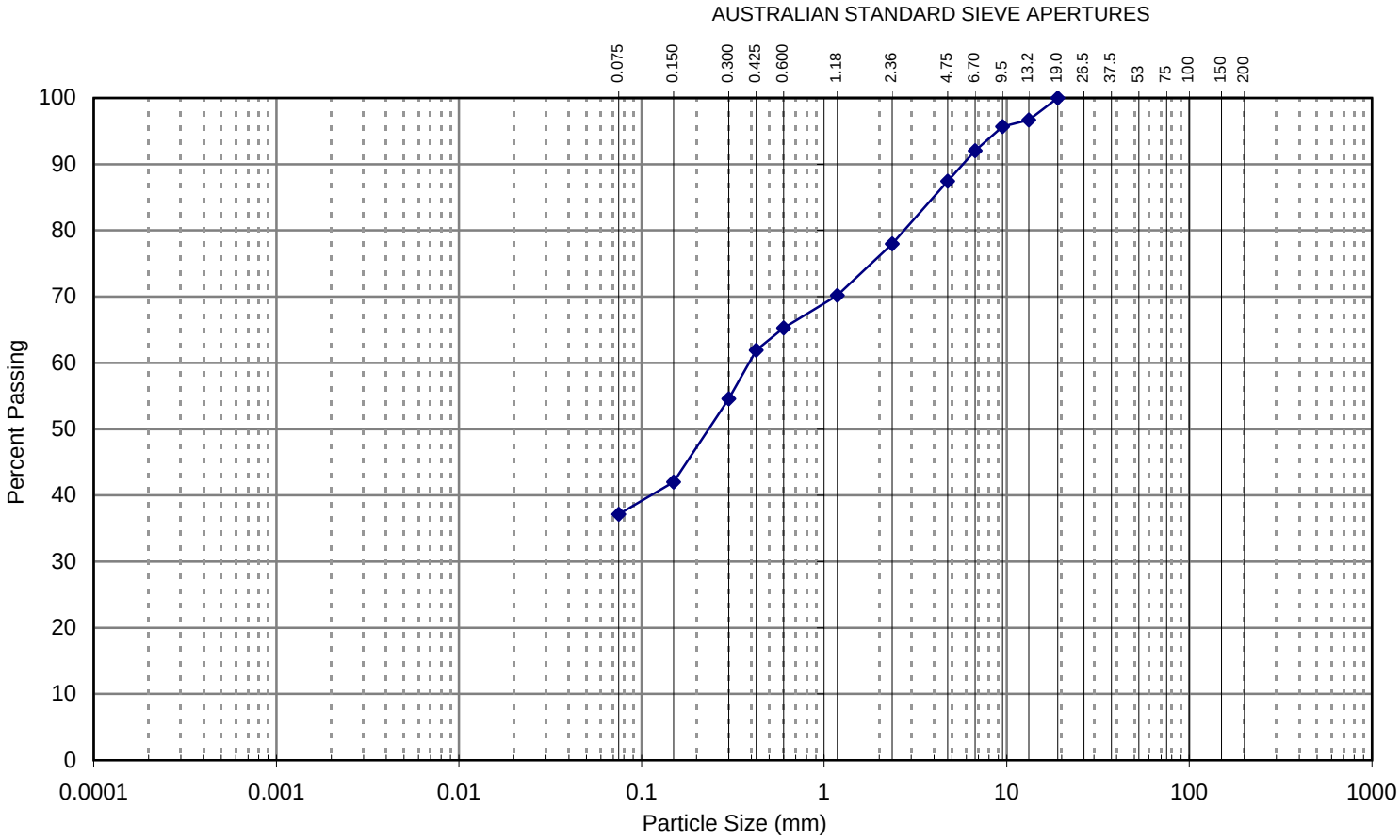
RESULTS OF PARTICLE SIZE DISTRIBUTION TEST

Client :	Johnson Property Group Pty Ltd	**Project No. :**	39823
		Report No. :	N07-204c
Project :	Trinity Point Marina & Mixed Use Resort	**Report Date :**	29/10/2007
Location :	Morisset	**Date Sampled:**	-
Test Location :	103	**Date of Test:**	19/10/2007
Depth / Layer :	1.00-1.45m	**Page:**	1 of 1



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	

Description: Silty Gravelly SAND

Test Method(s): AS 1289.3.6.1-1995

Sampling Method(s): AS 1289.1.2.1-1998, AS 1289.1.1-2001

Method of Dispersion:

Remarks:

NATA ACCREDITED FOR TECHNICAL

NATA Accredited Laboratory Number: 828

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Approved Signatory:

Tested:	DR
Checked:	DM

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RESULTS OF MOISTURE CONTENT, PLASTICITY AND LINEAR SHRINKAGE TESTS

Client: **Johnson Property Group Pty Ltd**

Project: Trinity Point Marina & Mixed Use Resort

Location: Morisset

Project No: 39823
Report No: N07-204d
Report Date: 29/10/2007

Date Sampled: -
Date of Test: 25/10/2007
Page: 1 of 1

TEST LOCATION	DEPTH (m)	DESCRIPTION	CODE	W_F %	W_L %	W_P %	PI %	*LS %
102	1.00-1.45	SAND - Dark grey/brown	2,5	34.5	-	-	N/P	-
102	4.00-4.45	Silty SAND - Grey/brown	2,5	19.4	-	-	N/P	-
103	1.00-1.45	Silty Gravelly SAND	2,5	11.8	17	15	2	-
104	2.50-2.95	Silty CLAY	2,5	18.3	46	25	21	11.0
105	1.00-1.45	Silty Sandy CLAY	2,5	15.7	35	18	17	10.5

Legend:
W_F Field Moisture Content
W_L Liquid limit
W_P Plastic limit
PI Plasticity index
LS Linear shrinkage from liquid limit condition (Mould length 250mm)

Test Methods:
Moisture Content: AS 1289 2.1.1 - 2005
Liquid Limit: AS 1289 3.1.2 - 1995
Plastic Limit: AS 1289 3.2.1 - 1995
Plasticity Index: AS 1289 3.3.1 – 1995
Linear Shrinkage AS 1289.3.4.1 - 1995

Code
Sample history for plasticity tests
1. Air dried
2. Low temperature (<50ºC) oven dried
3. Oven (105ºC) dried
4. Unknown

Method of preparation for plasticity tests
5. Dry sieved
6. Wet sieved
7. Natural

Sampling Method(s): AS 1289.1.2.1-1998, AS 1289.1.1-2001

Remarks:

Approved Signatory:

Tested: LB/DR
Checked: DM

D Millard
Laboratory Manager

NATA Accredited Laboratory Number: 828

This Document is issued in accordance with NATA's accreditation requirements.
Accredited for compliance with ISO/IEC 17025

ACCREDITED FOR TECHNICAL COMPETENCE

Douglas Partners
Geotechnics · Environment · Groundwater

Douglas Partners Pty Ltd
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Australia

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Warabrook NSW 2304
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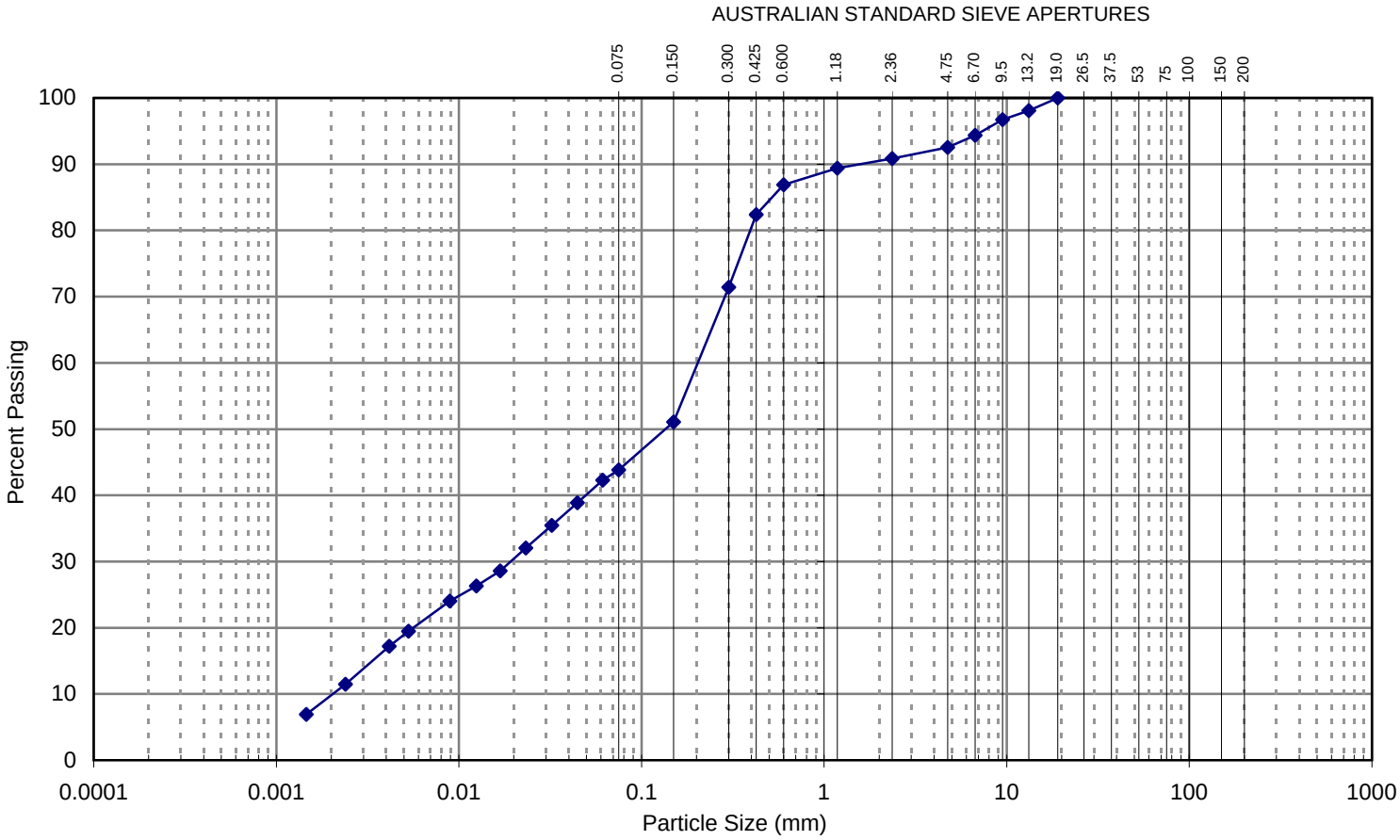
Fax: (02) 4960 9601
newcastle@douglaspartners.com.au

RESULTS OF PARTICLE SIZE DISTRIBUTION TEST

Client :	Johnson Property Group Pty Ltd	**Project No. :**	39823B
		Report No. :	N07-207
Project :	Trinity Point Marina & Mixed Use Resort	**Report Date :**	1/11/2007
Location :	off Henry Street, Morisset	**Date Sampled:**	-
Test Location :	201	**Date of Test:**	26/10/2007
Depth / Layer :	0.0-0.45m	**Page:**	1 of 1



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	

Description: Silty SAND/Sandy SILT

Test Method(s): AS 1289.3.6.3-1995 **Loss in pretreatment:** N/A

Sampling Method(s): AS 1289.1.2.1 (6.2) - 1998, AS 1289.1.1 - 2002 **Type of Hydrometer:** g/l

Method of Dispersion: Sodium Hexametaphosphate

Remarks:

NATA Accredited Laboratory Number: 828
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Accredited for compliance with ISO/IEC 17025

Approved Signatory:

Tested:	DR
Checked:	DM

Dave Millard
Laboratory Manager

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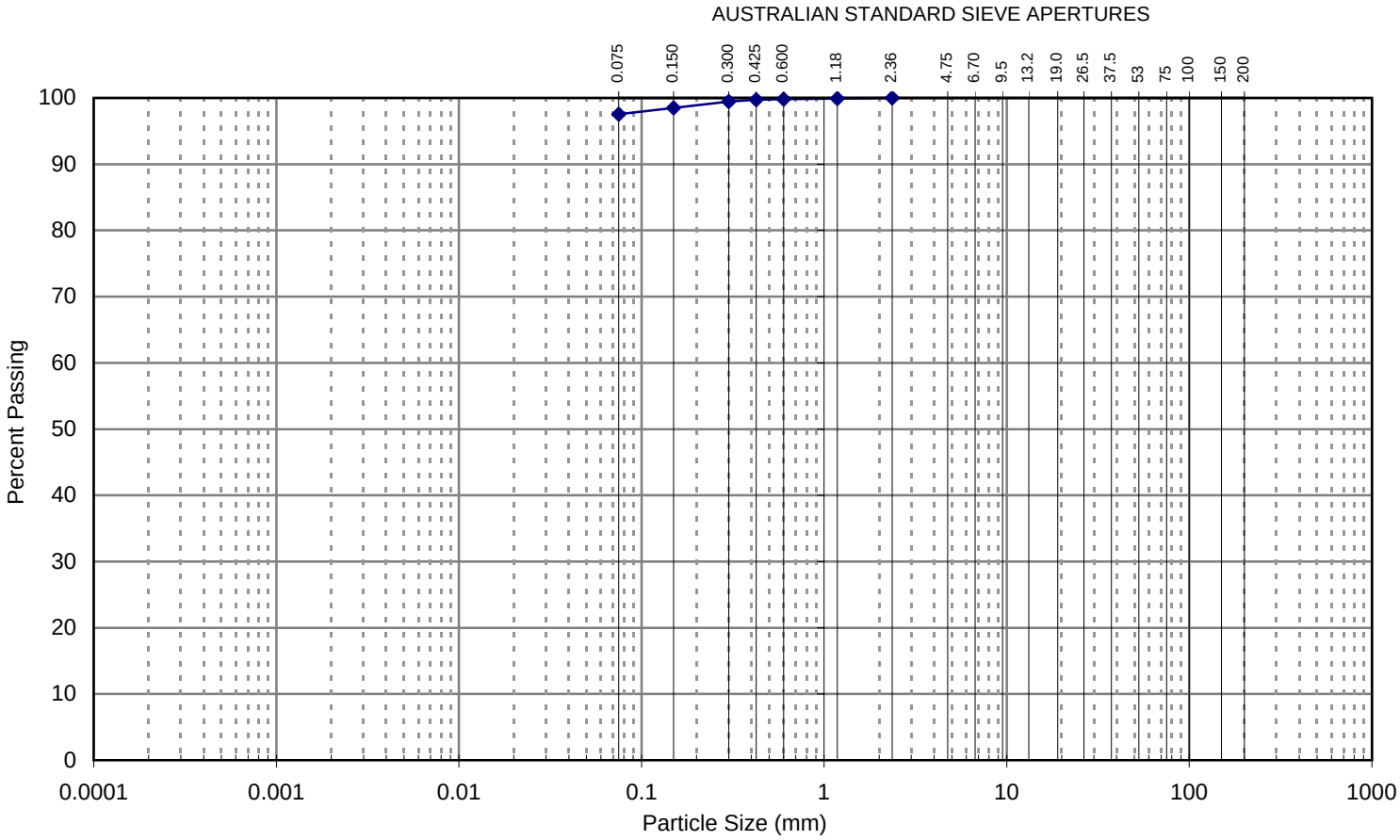
RESULTS OF PARTICLE SIZE DISTRIBUTION TEST

Client :	Johnson Property Group Pty Ltd	**Project No. :**	39823B
		Report No. :	N07-207a
Project :	Trinity Point Marina & Mixed Use Resort	**Report Date :**	1/11/2007
Location :	off Henry Street, Morisset	**Date Sampled:**	-
Test Location :	201	**Date of Test:**	25/10/2007
Depth / Layer :	2.4-2.75m	**Page:**	1 of 1



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	

Description: Silty CLAY

Test Method(s): AS 1289.3.6.1-1995

Sampling Method(s): AS 1289.1.2.1 (6.2) - 1998, AS 1289.1.1 - 2002

Method of Dispersion: Sodium Hexametaphosphate

Remarks:

NATA Accredited Laboratory Number: 828
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Approved Signatory:

Tested:	DR
Checked:	DM

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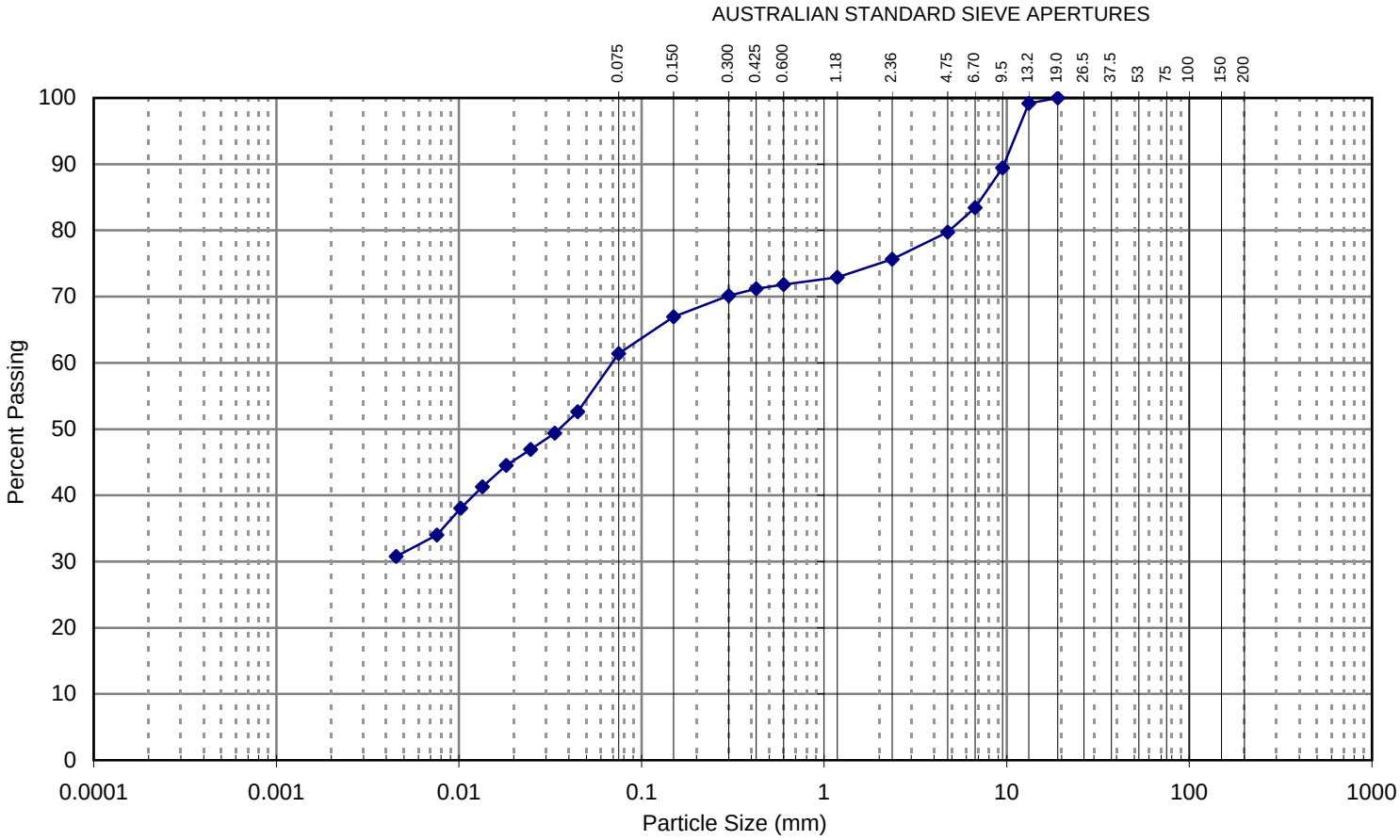
RESULTS OF PARTICLE SIZE DISTRIBUTION TEST

Client :	Johnson Property Group Pty Ltd	**Project No. :**	39823B
		Report No. :	N07-207b
Project :	Trinity Point Marina & Mixed Use Resort	**Report Date :**	1/11/2007
Location :	off Henry Street, Morisset	**Date Sampled:**	-
Test Location :	202	**Date of Test:**	25/10/2007
Depth / Layer :	0.0-0.45m	**Page:**	1 of 1



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	

Description: Sandy Silty CLAY

Test Method(s): AS 1289.3.6.3-1995 **Loss in pretreatment:** N/A

Sampling Method(s): AS 1289.1.2.1 (6.2) - 1998, AS 1289.1.1 - 2002 **Type of Hydrometer:** g/l

Method of Dispersion: Sodium Hexametaphosphate

Remarks:

NATA ACCREDITED FOR TECHNICAL

NATA Accredited Laboratory Number: 828

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Accredited for compliance with ISO/IEC 17025

Approved Signatory:

Tested:	DR
Checked:	DM

Dave Millard
Laboratory Manager

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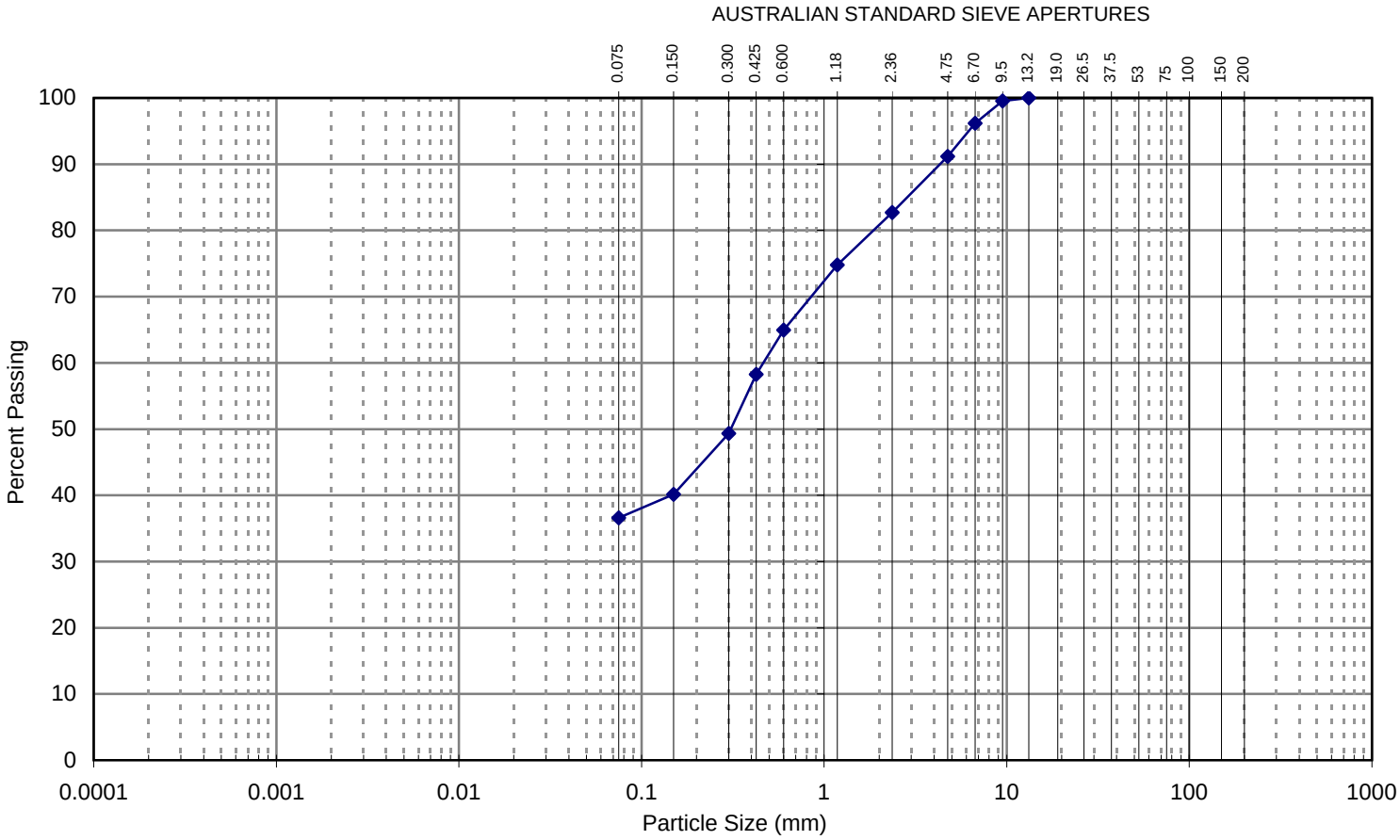
RESULTS OF PARTICLE SIZE DISTRIBUTION TEST

Client :	Johnson Property Group Pty Ltd	**Project No. :**	39823B
		Report No. :	N07-207c
Project :	Trinity Point Marina & Mixed Use Resort	**Report Date :**	1/11/2007
Location :	off Henry Street, Morisset	**Date Sampled:**	-
Test Location :	202	**Date of Test:**	25/10/2007
Depth / Layer :	4.0-4.45m	**Page:**	1 of 1



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	

Description: Clayey SAND

Test Method(s): AS 1289.3.6.1-1995

Sampling Method(s): AS 1289.1.2.1 (6.2) - 1998, AS 1289.1.1 - 2002

Method of Dispersion: Sodium Hexametaphosphate

Remarks:

NATA Accredited Laboratory Number: 828

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Approved Signatory:

Tested:	DR
Checked:	DM

Dave Millard
Laboratory Manager

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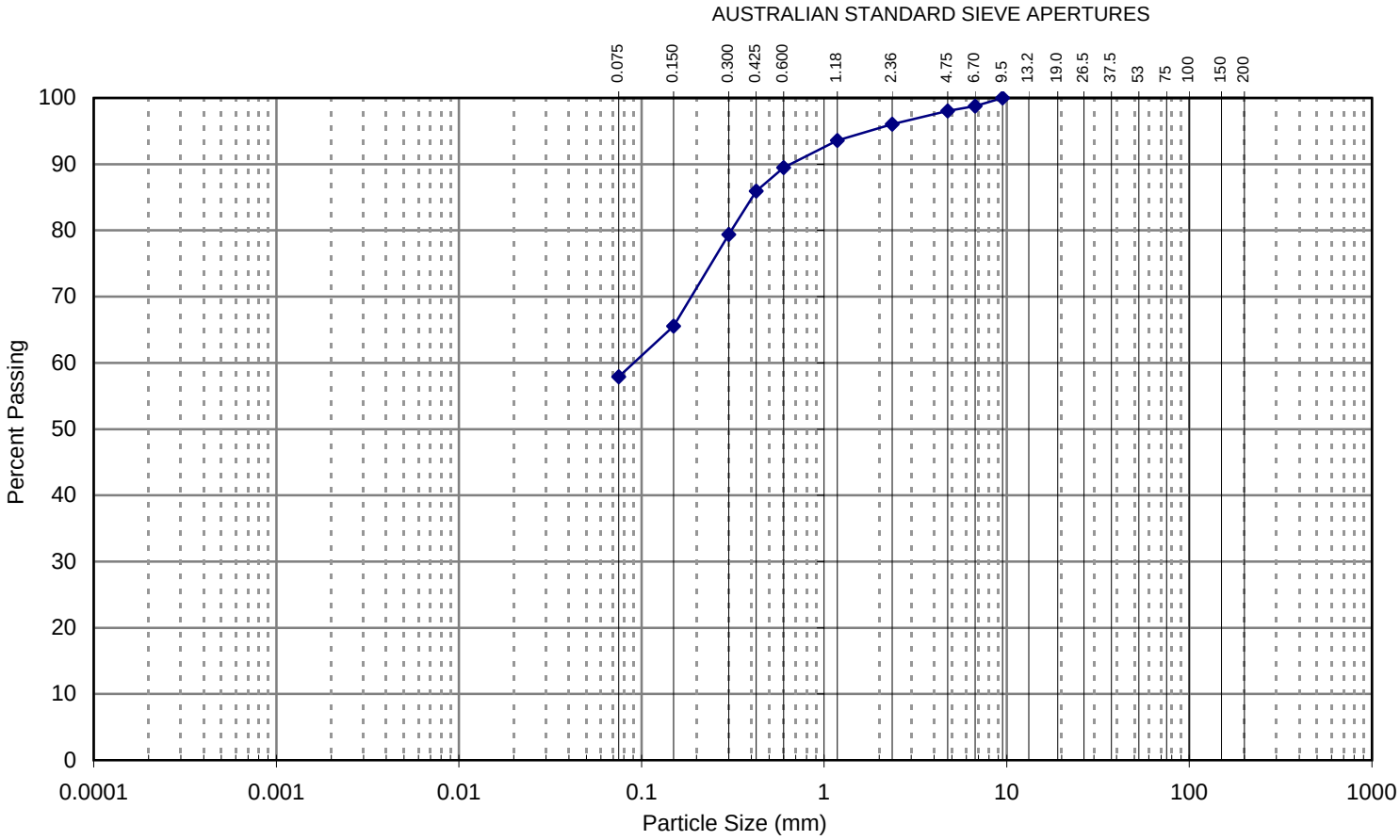
RESULTS OF PARTICLE SIZE DISTRIBUTION TEST

Client :	Johnson Property Group Pty Ltd	**Project No. :**	39823B
		Report No. :	N07-207d
Project :	Trinity Point Marina & Mixed Use Resort	**Report Date :**	1/11/2007
Location :	off Henry Street, Morisset	**Date Sampled:**	-
Test Location :	203	**Date of Test:**	25/10/2007
Depth / Layer :	2.5-2.95m	**Page:**	1 of 1



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	

Description: Sandy Silty CLAY

Test Method(s): AS 1289.3.6.1-1995

Sampling Method(s): AS 1289.1.2.1 (6.2) - 1998, AS 1289.1.1 - 2002

Method of Dispersion: Sodium Hexametaphosphate

Remarks:

NATA Accredited Laboratory Number: 828
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Approved Signatory:

Tested:	DR
Checked:	DM

Dave Millard
Laboratory Manager

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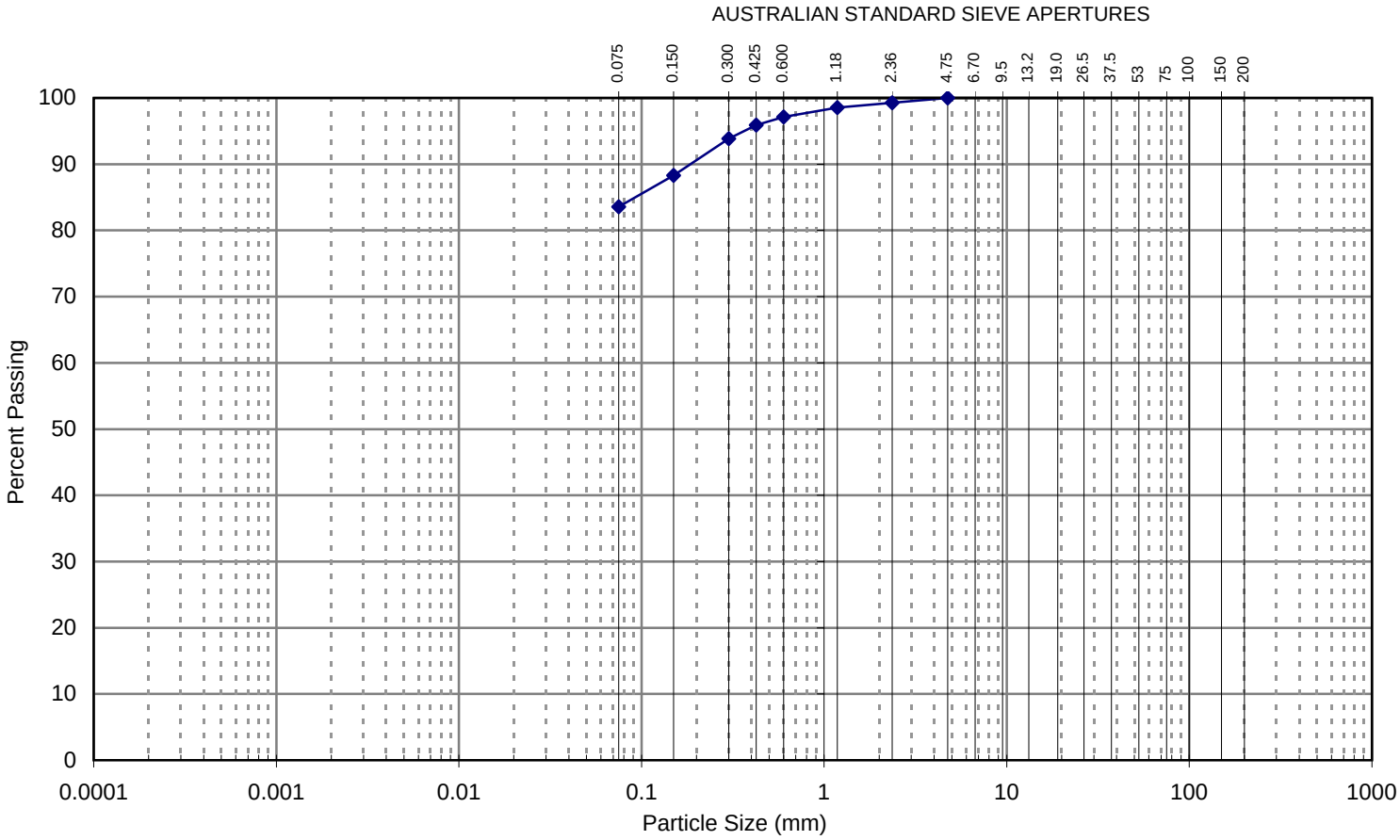
RESULTS OF PARTICLE SIZE DISTRIBUTION TEST

Client :	Johnson Property Group Pty Ltd	**Project No. :**	39823B
		Report No. :	N07-207e
Project :	Trinity Point Marina & Mixed Use Resort	**Report Date :**	1/11/2007
Location :	off Henry Street, Morisset	**Date Sampled:**	-
Test Location :	203	**Date of Test:**	25/10/2007
Depth / Layer :	5.0-5.45m	**Page:**	1 of 1



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	

Description: CLAY

Test Method(s): AS 1289.3.6.1-1995

Sampling Method(s): AS 1289.1.2.1 (6.2) - 1998, AS 1289.1.1 - 2002

Method of Dispersion: Sodium Hexametaphosphate

Remarks:

NATA Accredited Laboratory Number: 828
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Approved Signatory:

Tested:	DR
Checked:	DM

Dave Millard
Laboratory Manager

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RESULTS OF MOISTURE CONTENT, PLASTICITY AND LINEAR SHRINKAGE TESTS

Client: **Johnson Property Group Pty Ltd**

Project: Trinity Point Marina & Mixed Use Resort

Location: off Henry Street, Morisset

Project No: 39823B
Report No: N07-207f
Report Date: 5/11/2007

Date Sampled: -
Date of Test: 25/10/2007
Page: 1 of 1

TEST LOCATION	DEPTH (m)	DESCRIPTION	CODE	W_F %	W_L %	W_P %	PI %	*LS %
201	2.4-2.75	Silty CLAY	2,5	25.1	41	15	26	-
202	4.0-4.45	Clayey SAND	2,5	21.7	34	18	16	-
203	2.5-2.95	Sandy Silty CLAY	2,5	52.0	34	15	19	-
203	5.0-5.45	CLAY	2,5	23.8	58	15	43	-

Legend:
W_F Field Moisture Content
W_L Liquid limit
W_P Plastic limit
PI Plasticity index
LS Linear shrinkage from liquid limit condition (Mould length 250mm)

Test Methods:
Moisture Content: AS 1289 2.1.1 - 2005
Liquid Limit: AS 1289 3.1.2 - 1995
Plastic Limit: AS 1289 3.2.1 - 1995
Plasticity Index: AS 1289 3.3.1 - 1995

Code
Sample history for plasticity tests
1. Air dried
2. Low temperature (<50ºC) oven dried
3. Oven (105ºC) dried
4. Unknown

Method of preparation for plasticity tests
5. Dry sieved
6. Wet sieved
7. Natural

Sampling Method(s): AS 1289.1.2.1-1998, AS 1289.1.1-2001

Remarks:

Approved Signatory:

Tested: LB
Checked: DM

D Millard
Laboratory Manager

NATA Accredited Laboratory Number: 828

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POINT LOAD TEST REPORT

CLIENT : JOHNSON PROPERTY GROUP PTY LTD
PROJECT : PROPOSED TRINITY POINT MARINA AND TOURIST DEVELOPMENT
LOCATION : 49 LAKEVIEW ROAD, MORISSET PARK
TEST METHC AS 4133.4.1

DATE: Oct-07
PROJECT NO : 39823
TESTED BY : CMR
SHEET: 1

BORE	DEPTH (m)	ROCK DESCRIPTION	TEST TYPE Axial (A), Diametral (D)	DIMENSIONS Min. Width (W) (mm)	Depth (D) (mm)	FAILURE READING (KN)	POINT LOAD INDEX Is_{50} Axial (A)	POINT LOAD INDEX Is_{50} Diametral (D)	INTERPRETED ROCK STRENGTH
101	13.95	CONGLOMERATE	D	51	51	0.68	-	0.26	LOW
101	13.95	CONGLOMERATE	A	51	40	1.72	0.67	-	MEDIUM
101	15.95	CONGLOMERATE	D	51	51	0.9	-	0.35	MEDIUM
101	15.95	CONGLOMERATE	A	51	23	1.18	0.70	-	MEDIUM
101	17.5	CLAYSTONE	D	51	51	0.12	-	0.05	V LOW
101	17.5	CLAYSTONE	A	51	25	0.13	0.07	-	V LOW
101	19.6	PEBBLY SANDSTONE	D	51	51	2.73	-	1.06	HIGH
101	19.6	PEBBLY SANDSTONE	A	51	26	2.9	1.57	-	HIGH
102	11.75	PEBBLY SANDSTONE	D	51	51	0.13	-	0.05	V LOW
102	11.75	PEBBLY SANDSTONE	A	51	31	0.09	0.04	-	V LOW
102	13.75	SANDSTONE	D	51	51	0.01	-	0.00	EXT LOW
102	13.75	SANDSTONE	A	51	40	0.03	0.01	-	EXT LOW
102	15.7	CONGLOMERATE	D	51	51	0.56	-	0.22	LOW
102	15.7	CONGLOMERATE	A	51	40	0.8	0.31	-	MEDIUM
102	17	CONGLOMERATE	D	51	51	1.28	-	0.50	MEDIUM
102	17	CONGLOMERATE	A	51	22	0.92	0.57	-	MEDIUM

CHECKED
Initials
Date

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POINT LOAD TEST REPORT

CLIENT : JOHNSON PROPERTY GROUP PTY LTD
PROJECT : TRINITY POINT MARINA AND TOURIST DEVELOPMENT
LOCATION : 49 LAKEVIEW ROAD, MORISSET PARK
TEST METHC AS 4133.4.1

DATE: Oct-07
PROJECT NO : 39823
TESTED BY : CMR
SHEET: 2

BORE	DEPTH (m)	ROCK DESCRIPTION	TEST TYPE Axial (A), Diametral (D)	DIMENSIONS Min. Width (W) (mm)	Depth (D) (mm)	FAILURE READING (KN)	POINT LOAD INDEX Is_{50} Axial (A)	POINT LOAD INDEX Is_{50} Diametral (D)	INTERPRETED ROCK STRENGTH
201	7.65	CONGLOMERATE	D	51	51	0.14	-	0.05	V LOW
201	7.65	CONGLOMERATE	A	51	30	0.13	0.06	-	V LOW
201	8.4	CONGLOMERATE	D	51	51	0.1	-	0.04	V LOW
201	8.4	CONGLOMERATE	A	51	30	0.09	0.04	-	V LOW
202	8.9	CLAYSTONE	D	51	51	0.31	-	0.12	LOW
202	8.9	CLAYSTONE	A	51	37	0.25	0.10	-	LOW
202	11.1	CONGLOMERATE	D	51	51	0.1	-	0.04	V LOW
202	11.1	CONGLOMERATE	A	51	28	0.05	0.03	-	EXT LOW
202	12.85	CONGLOMERATE	D	51	51	0.06	-	0.02	EXT LOW
202	12.85	CONGLOMERATE	A	51	28	0.07	0.04	-	V LOW
202	14.15	CONGLOMERATE	D	51	51	0.15	-	0.06	V LOW
202	14.15	CONGLOMERATE	A	51	30	0.22	0.11	-	LOW
203	11.75	CONGLOMERATE	D	51	51	0.07	-	0.03	EXT LOW
203	11.75	CONGLOMERATE	A	51	35	0.06	0.03	-	EXT LOW
203	13.2	CONGLOMERATE	D	51	51	0.04	-	0.02	EXT LOW
203	13.2	CONGLOMERATE	A	51	34	0.03	0.01	-	EXT LOW

CHECKED
Initials
Date

Douglas Partners
Geotechnics · Environment · Groundwater

18 October 2007 **TEST REPORT**

Douglas Partners Pty Ltd
Box 324
Hunter Region Mail Centre
NSW 2310

Your Reference: 39823, Trinity Point Marina & Mixed use
Report Number: 55715-R

Attention: Julie Wharton

Dear Julie
The following samples were received from you on the date indicated.

Samples: Qty.	4 Waters
Date of Receipt of Samples:	10/10/07
Date of Receipt of Instructions:	10/10/07
Date Preliminary Report Emailed:	Not Issued

These samples were analysed in accordance with your written instructions.
A copy of the instructions is attached with the analytical report.

The results and associated quality control are contained in the following pages of this report.
Unless otherwise stated, solid samples are expressed on a dry weight basis (moisture has been supplied for your information only), air and liquid samples as received.

Should you have any queries regarding this report please contact the undersigned.

This report cancels and supersedes report No. 55715 issued on 18/10/2007 by SGS Environmental Services due t correction in sample ID.

Yours faithfully
SGS ENVIRONMENTAL SERVICES

Ly Kim Ha
Senior Organic Chemist

Edward Ibrahim
Laboratory Services Manager

SGS Australia Pty Ltd ABN 44 000 964 278 | Environmental Services Unit 16, 33 Maddox Street, Alexandria Australia t (02) 8594 0400 f (02) 8594 0499 www.au.sgs.com
Member of the SGS Group

Inorganics Our Reference: Your Reference Sample Type Date Sampled	UNITS ---------- ----------	55715-R-1 101 Water 09/10/07	55715-R-2 103 Water 09/10/07	55715-R-3 104 Water 09/10/07
Total Phosphorus as P	mg/L	0.40	0.13	<0.10
Total Nitrogen	mg/L	4.6	<1.0	1.0
Total Kjeldahl Nitrogen	mg/L	4.6	0.7	1.0

Anions in water Our Reference: Your Reference Sample Type Date Sampled	UNITS ---------- ----------	55715-R-1 101 Water 09/10/07	55715-R-2 103 Water 09/10/07	55715-R-3 104 Water 09/10/07
Nitrite as N	mg/L	<0.05	<0.05	<0.1
Nitrate as N	mg/L	<0.05	0.06	<0.1
Chloride, Cl	mg/L	850	190	2,600
Sulphate, SO4	mg/L	110	44	180

Trace HM (ICP-MS)-Dissolved Our Reference: Your Reference Sample Type Date Sampled	UNITS ---------- ----------	55715-R-1 101 Water 09/10/07	55715-R-2 103 Water 09/10/07	55715-R-3 104 Water 09/10/07	55715-R-4 D1 Water 09/10/07
Arsenic	µg/L	<1.0	<1.0	<1.0	<1.0
Cadmium	µg/L	<0.10	<0.10	0.64	<0.10
Chromium	µg/L	1.2	<1.0	15	<1.0
Copper	µg/L	<1.0	1.1	3.9	<1.0
Lead	µg/L	<1.0	5.4	40	<1.0
Zinc	µg/L	12	33	110	14
Nickel	µg/L	<1.0	3.4	13	<1.0
Cobalt	µg/L	<1.0	2.1	16	<1.0
Manganese	µg/L	260	77	300	250
Molybdenum	µg/L	2.5	<1.0	<1.0	2.5
Selenium	µg/L	<2.0	<2.0	<2.0	<2.0
Antimony	µg/L	<1.0	<1.0	<1.0	<1.0
Beryllium	µg/L	<1.0	<1.0	3.6	<1.0
Barium	µg/L	33	40	140	34
Boron	µg/L	470	53	120	480

Metals in water by ICP-OES				
Our Reference:	UNITS	55715-R-1	55715-R-2	55715-R-3
Your Reference	----------	101	103	104
Sample Type	----------	Water	Water	Water
Date Sampled		09/10/07	09/10/07	09/10/07
Iron (Total)	mg/L	2.4	0.25	15

Metals in water by ICP-OES					
Our Reference:	UNITS	55715-R-1	55715-R-2	55715-R-3	55715-R-4
Your Reference	----------	101	103	104	D1
Sample Type	----------	Water	Water	Water	Water
Date Sampled		09/10/07	09/10/07	09/10/07	09/10/07
Tin (Dissolved)	mg/L	<0.03	<0.03	<0.03	<0.03

Mercury Cold Vapor/Hg Analyser					
Our Reference:	UNITS	55715-R-1	55715-R-2	55715-R-3	55715-R-4
Your Reference	----------	101	103	104	D1
Sample Type	----------	Water	Water	Water	Water
Date Sampled		09/10/07	09/10/07	09/10/07	09/10/07
Mercury (Dissolved)	mg/L	<0.0005	<0.0005	<0.0005	<0.0005

Method ID	Methodology Summary
SEI-067	Total Phosphorus - Jirka modification, followed by colorimetric determination using an Ascorbic Acid method, in accordance with APHA 20th ED, 4500-P-F. Analysis is carried out by SGS Environmental Services Welshpool.
SEI-033	Total Kjeldahl Nitrogen - determined titrimetrically, in accordance with APHA 20th ED, 4500-Norg B.
SEI-038	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA 20th ED, 4110-B.
AN318	Determination of elements at trace levels in waters by ICP-MS. Method based on USEPA 6020A
SEM-010	Metals - Determination of various metals by ICP-AES following aqua regia digest.
SEM-005	Mercury - Determination of Mercury by Cold Vapour Generation Atomic Absorption Spectroscopy.

QUALITY CONTROL Inorganics	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Total Phosphorus as P	mg/L	0.1	SEI-067	<0.10	55715-1	0.40 || 0.42 || RPD: 5	55715-1	105 || [N/T]
Total Nitrogen	mg/L	1	SEI-033	<1.0	55715-1	4.6 || 4.5 || RPD: 2	[NR]	[NR]
Total Kjeldahl Nitrogen	mg/L	0.2	SEI-033	<0.5	55715-1	4.6 || 4.5 || RPD: 2	55715-1	104 || [N/T]
QUALITY CONTROL Anions in water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Nitrite as N	mg/L	0.05	SEI-038	<0.05	[NT]	[NT]	LCS	102 || [N/T]
Nitrate as N	mg/L	0.05	SEI-038	<0.05	[NT]	[NT]	LCS	104 || [N/T]
Chloride, Cl	mg/L	0.1	SEI-038	<0.1	[NT]	[NT]	LCS	101 || [N/T]
Sulphate, SO4	mg/L	0.4	SEI-038	<0.4	[NT]	[NT]	LCS	102 || [N/T]
QUALITY CONTROL Trace HM (ICP-MS)-Dissolved	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Arsenic	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	104 || [N/T]
Cadmium	µg/L	0.1	AN318	<0.10	[NT]	[NT]	LCS	103 || [N/T]
Chromium	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	104 || [N/T]
Copper	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	102 || [N/T]
Lead	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	107 || [N/T]
Zinc	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	101 || [N/T]
Nickel	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	98 || [N/T]
Cobalt	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	101 || [N/T]
Manganese	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	107 || [N/T]
Molybdenum	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	101 || [N/T]
Selenium	µg/L	2	AN318	<2.0	[NT]	[NT]	LCS	107 || [N/T]
Antimony	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	114 || [N/T]
Beryllium	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	99 || [N/T]
Barium	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	105 || [N/T]
Boron	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	102 || [N/T]

QUALITY CONTROL **Metals in water by ICP-OES**	**UNITS**	**PQL**	**METHOD**	**Blank**	**Duplicate Sm#**	**Duplicate** **Base + Duplicate + %RPD**	**Spike Sm#**	**Matrix Spike % Recovery** **Duplicate + %RPD**
Iron (Total)	mg/L	0.01	SEM-010	<0.01	[NT]	[NT]	LCS	98 || [N/T]
QUALITY CONTROL Metals in water by ICP-OES	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Tin (Dissolved)	mg/L	0.03	SEM-010	<0.03	[NT]	[NT]	LCS	97 || [N/T]
QUALITY CONTROL Mercury Cold Vapor/Hg Analyser	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Mercury (Dissolved)	mg/L	0.0005	SEM-005	<0.0005	[NT]	[NT]	LCS	97 || [N/T]

QUALITY CONTROL Trace HM (ICP-MS)-Dissolved	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Arsenic	µg/L	55715-1	<1.0 || <1.0
Cadmium	µg/L	55715-1	<0.10 || <0.10
Chromium	µg/L	55715-1	1.2 || 1.1 || RPD: 9
Copper	µg/L	55715-1	<1.0 || <1.0
Lead	µg/L	55715-1	<1.0 || <1.0
Zinc	µg/L	55715-1	12 || 12 || RPD: 0
Nickel	µg/L	55715-1	<1.0 || <1.0
Cobalt	µg/L	55715-1	<1.0 || <1.0
Manganese	µg/L	55715-1	260 || 260 || RPD: 0
Molybdenum	µg/L	55715-1	2.5 || 2.5 || RPD: 0
Selenium	µg/L	55715-1	<2.0 || <2.0
Antimony	µg/L	55715-1	<1.0 || <1.0
Beryllium	µg/L	55715-1	<1.0 || <1.0
Barium	µg/L	55715-1	33 || 34 || RPD: 3
Boron	µg/L	55715-1	470 || 470 || RPD: 0

Result Codes

[INS]	:	Insufficient Sample for this test	[HBG]	:	Results not Reported due to High Background Interference
[NR]	:	Not Requested	*	:	Not part of NATA Accreditation
[NT]	:	Not tested	[N/A]	:	Not Applicable

Result Comments

The LOR for sample number/s _3____ has been raised by a dilution factor of ___2__ respectively due to sample matrix interference.NO2,NO3
Date Organics extraction commenced: N/A
NATA Corporate Accreditation No. 2562, Site No 4354
Note: Test results are not corrected for recovery (excluding Dioxins/Furans* and PAH in XAD and PUF).
This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

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Quality Control Protocol

Reagent Blank: Sample free reagents carried through the preparation/extraction/digestion procedure and analysed at the beginning of every sample batch analysis. For larger projects, a reagent blank is prepared and analysed with every 20 samples.
Duplicate: A separate portion of a sample being analysed which is treated the same as the other samples in the batch. A duplicate is prepared at least every 10 samples.
Matrix Spike Duplicates: Sample replicates spiked with identical concentrations of target analyte(s). The spiking occurs during the sample preparation and prior to the extraction/digestion procedure. They are used to document the precision and bias of a method in a given sample matrix. Where there is not enough sample available to prepare a spiked sample, another known soil/sand or water (or Milli-Q water) may be used. A duplicate spiked sample is prepared at least every 20 samples.
Surrogate Spike: Added to all samples requiring analysis for organics (where relevant) prior to extraction. Used to determine the extraction efficiency. They are organic compounds which are similar to the target analyte(s) in chemical composition and behaviour in the analytical process, but which are not normally found in environmental samples.
Internal Standard: Added to all samples requiring analysis for organics (where relevant) after the extraction process; the compounds serve to give a standard of retention time and response, which is invariant from run-to-run with the instruments.
Control Standards: Prepared from a source independent of the calibration standards. At least one control standard is included in each run to confirm calibration validity.
Additional QC Samples: A calibration standard and blank are run after every 20 samples of an instrumental analysis run to assess analytical drift.

19 October 2007 **TEST REPORT**

Douglas Partners Pty Ltd
Box 324
Hunter Region Mail Centre
NSW 2310

Your Reference: 39823, Trinity Point Marina & Mixed use
Report Number: 55771

Attention: Julie Wharton

Dear Julie
The following samples were received from you on the date indicated.

Samples: Qty.	1 Water
Date of Receipt of Samples:	12/10/07
Date of Receipt of Instructions:	12/10/07
Date Preliminary Report Emailed:	Not Issued

These samples were analysed in accordance with your written instructions.
A copy of the instructions is attached with the analytical report.

The results and associated quality control are contained in the following pages of this report. Unless otherwise stated, solid samples are expressed on a dry weight basis (moisture has been supplied for your information only), air and liquid samples as received.

Should you have any queries regarding this report please contact the undersigned.

Yours faithfully
SGS ENVIRONMENTAL SERVICES

Ly Kim Ha
Senior Organic Chemist

Edward Ibrahim
Laboratory Services Manager

Alexandra Stenta
Key Account Representative

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