BOREHOLE LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Development
LOCATION: 49 Lakeview Road, Morisset Park

SURFACE LEVEL: -5.35 AHD
EASTING: 364077.3
NORTHING: 633437.6
DIP/AZIMUTH: 90°/--

BORE No: 203
PROJECT No: 39823B
DATE: 05 Oct 07
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low / Very Low / Low / Medium / High / Very High / Ex High)	Water	Fracture Spacing (m) (0.01 / 0.05 / 0.10 / 0.50 / 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
-5.35	0.0	SANDY SILTY CLAY: Very soft dark grey-brown sandy silty clay, with some shell fragments, M>>Wp							S			0,0,0 N = 0 (weight of rods)
-6.35	1.0								S			0,0,0 N = 0 (weight of rods)
-7.35	2.0								S			0,0,0 N = 0 (weight of rods)
-8.35	3.0	CLAY: Stiff light brown and brown clay, with some sand, and silt, M>Wp							pp S pp			180 kPa 2,4,7 N = 11 190-200 kPa
-9.35	4.0								pp S pp			140 kPa 3,5,7 N = 12 160-180 kPa
-10.35	5.0											
-11.35	6.0											
-12.35	6.5	GRAVELLY CLAY: Very stiff light brown gravelly clay, with some sandy gravelly clay bands, M>Wp							pp S pp			200-220 kPa 7,9,11 N = 20 300-400 kPa
-13.35	7.0											
-13.85	7.9	CONGLOMERATE: Extremely low strength, extremely weathered light brown and red-brown conglomerate, with soil like properties							S			5,8,10 N = 18
-14.35	8.0											
-15.35	9.0	From 9.5m, extremely low to very low strength, extremely to highly weathered							S			13,27,25/90mm

RIG: Scout 2 on Modular Barge **DRILLER:** Ground Test (Driver) **LOGGED:** Reid **CASING:** HW to 4.0m

TYPE OF BORING: 100mm diameter rotary wash boring to 11.0m, then NMLC coring to 13.45m

WATER OBSERVATIONS: Depth of water 5.5m at start of bore

REMARKS: Coordinates are MGA

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:

Douglas Partners
Geotechnics · Environment · Groundwater

BOREHOLE LOG

CLIENT: Johnson Property Group
PROJECT: Trinity Point Marina & Tourist Development
LOCATION: 49 Lakeview Road, Morisset Park

SURFACE LEVEL: -5.35 AHD
EASTING: 364077.3
NORTHING: 633437.6
DIP/AZIMUTH: 90°/--

BORE No: 203
PROJECT No: 39823B
DATE: 05 Oct 07
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
-16	10.0	CONGLOMERATE: continued										
-17	11	From 11.0m, extremely low to very low strength, highly weathered red-brown and orange-brown										PL(A) = 0.03MPa PL(D) = 0.03MPa
-18	12							11.91m: J, 30°, sm, un 12.36m: P, 10°, sm, pl 12.53m: J, 15°, ro, pl 12.76m: J, 15°, sm ,un 12.93m: J, 15°, sm, un 13.24m: J, 10°, sm, pl	C	100	100	
-19	13											PL(A) = 0.01MPa PL(D) = 0.02MPa
-20	13.45	Bore discontinued at 13.45m, limit of investigation										
-21	14											
-22	15											
-23	16											
-24	17											
-25	18											
	19											

RIG: Scout 2 on Modular Barge **DRILLER:** Ground Test (Driver) **LOGGED:** Reid **CASING:** HW to 4.0m

TYPE OF BORING: 100mm diameter rotary wash boring to 11.0m, then NMLC coring to 13.45m

WATER OBSERVATIONS: Depth of water 5.5m at start of bore

REMARKS: Coordinates are MGA

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:

Douglas Partners
Geotechnics · Environment · Groundwater

TEST PIT LOG

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

SURFACE LEVEL: 0.96 m AHD
EASTING: 363790.057
NORTHING: 6334179.819
DIP/AZIMUTH: 90°/--

PIT No: 301
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	0.0	SILTY SAND: Brown fine to medium grained silty sand with rootlets and gravels, humid		D	0.1				
	0.3	SAND: Light brown medium grained sand, moist		D	0.5				
		- wet below 0.6m							
	0.9	- layer of shells at 0.85m							
-1	1.0	CLAYEY SAND: Yellow brown and grey medium to coarse grained clayey sand with trace shells, wet		D	1.0				
				D	1.5				
	2.0			D	2.0				
	2.1	GRAVELLY SAND: Light grey medium to coarse grained gravelly sand with trace silt, wet		D	2.5				
-2	2.6	Pit discontinued at 2.6m. Pit collapse							
-3	3.0								

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

RIG: 4 tonne Excavator with 450mm bucket

LOGGED: Kerry

WATER OBSERVATIONS: Groundwater Seepage at ~1.5m

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:

Douglas Partners
Geotechnics · Environment · Groundwater

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:

Douglas Partners
Geotechnics · Environment · Groundwater

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
Initials:
Date:

Douglas Partners
Geotechnics · Environment · Groundwater

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:

Douglas Partners
Geotechnics · Environment · Groundwater

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:

Douglas Partners
Geotechnics · Environment · Groundwater

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:

Douglas Partners
Geotechnics · Environment · Groundwater

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:

Douglas Partners
Geotechnics · Environment · Groundwater

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:

Douglas Partners
Geotechnics · Environment · Groundwater

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:

Douglas Partners
Geotechnics · Environment · Groundwater

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
Initials:
Date:

Douglas Partners
Geotechnics · Environment · Groundwater

23 October 2007 **TEST REPORT**

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

Your Reference: 39823B, Trinity Point (pHF & pHFoxSoils)
Report Number: 55469C

Attention: Julie Wharton

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

Samples: Qty.	15 Soils
Date of Receipt of Samples:	27/09/07 & 28/09/07
Date of Receipt of Instructions:	18/10/07@9.00am
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

Edward Ibrahim
Lab 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 ---------- ----------	55469C-1 SS1 Soil 25/09/2007	55469C-2 SS2 Soil 25/09/2007	55469C-3 SS3 Soil 25/09/2007	55469C-4 SS4 Soil 25/09/2007	55469C-5 SS5 Soil 25/09/2007
pHF (1:2 soil:water)	pH Units	7.2	7.5	7.6	7.6	7.9
pHFOX (1:2 soil:30%peroxide)	pH Units	4.9	5.0	5.1	6.3	6.3

Inorganics Our Reference: Your Reference Sample Type Date Sampled	UNITS ---------- ----------	55469C-6 SS6 Soil 25/09/2007	55469C-7 SS7 Soil 25/09/2007	55469C-8 SS8 Soil 25/09/2007	55469C-9 SS9 Soil 25/09/2007	55469C-10 SS10 Soil 25/09/2007
pHF (1:2 soil:water)	pH Units	8.0	7.8	7.7	7.7	7.7
pHFOX (1:2 soil:30%peroxide)	pH Units	6.0	6.5	6.5	6.4	6.5

Inorganics Our Reference: Your Reference Sample Type Date Sampled	UNITS ---------- ----------	55469C-11 SS11 Soil 25/09/2007	55469C-12 SS12 Soil 25/09/2007	55469C-13 SS13 Soil 25/09/2007	55469C-14 SS14 Soil 25/09/2007	55469C-15 SS15 Soil 25/09/2007
pHF (1:2 soil:water)	pH Units	7.8	8.0	7.8	7.9	7.8
pHFOX (1:2 soil:30%peroxide)	pH Units	6.3	6.5	6.8	6.9	6.5

Method ID	Methodology Summary
ASSMAC 21BF	pH - Measured using pH meter and electrode. Soil is oxidised with Hydrogen Peroxide. Based on ASSMAC August 1998 Method PH21BF.

QUALITY CONTROL Inorganics	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD
pH_F (1:2 soil:water)	pH Units		ASSMAC 21BF	[NT]	55469C-1	7.2 || 7.1 || RPD: 1
pH_{FOX} (1:2 soil:30%peroxide)	pH Units		ASSMAC 21BF	[NT]	55469C-1	4.9 || 4.9 || 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

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.

Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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.

23 October 2007 **TEST REPORT**

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

Your Reference: 39823B, Trinity Point (pHF & pHFoxSoils)
Report Number: 55936

Attention: Julie Wharton

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

Samples: Qty.	7 Soils
Date of Receipt of Samples:	18/10/07
Date of Receipt of Instructions:	18/10/07
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

Edward Ibrahim
Lab 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	UNITS ---------- ----------	55936-1 201/1.0 Soil	55936-2 201/3.9 Soil	55936-3 201/5.5 Soil	55936-4 201/2.4 Soil	55936-5 202/2.5 Soil
pH_F (1:2 soil:water)	pH Units	7.7	5.0	5.2	7.0	7.4
pH_{FOX} (1:2 soil:30%peroxide)	pH Units	6.1	4.5	4.6	6.9	7.1

Inorganics Our Reference: Your Reference Sample Type	UNITS ---------- ----------	55936-6 203/4.0 Soil	55936-7 203/6.5 Soil
pH_F (1:2 soil:water)	pH Units	6.9	5.1
pH_{FOX} (1:2 soil:30%peroxide)	pH Units	7.3	4.5

Moisture Our Reference: Your Reference Sample Type	UNITS ---------- ----------	55936-1 201/1.0 Soil	55936-2 201/3.9 Soil	55936-3 201/5.5 Soil	55936-4 201/2.4 Soil	55936-5 202/2.5 Soil
Moisture	%	37	16	16	17	19

Moisture Our Reference: Your Reference Sample Type	UNITS ---------- ----------	55936-6 203/4.0 Soil	55936-7 203/6.5 Soil
Moisture	%	19	12

Method ID	Methodology Summary
ASSMAC 21BF	pH - Measured using pH meter and electrode. Soil is oxidised with Hydrogen Peroxide. Based on ASSMAC August 1998 Method PH21BF.
AN002	Preparation of soils, sediments and sludges undergo analysis by either air drying, compositing, subsampling and 1:5 soil water extraction where required. Moisture content is determined by drying the sample at 105 ± 5°C.

QUALITY CONTROL Inorganics	UNITS	PQL	METHOD	Blank
pH_F (1:2 soil:water)	pH Units		ASSMAC 21BF	[NT]
pH_{FOX} (1:2 soil:30%peroxide)	pH Units		ASSMAC 21BF	[NT]
QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Moisture	%	1	AN002	[NT]

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

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.

Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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: 39823A,Trinity Point-Acid Sulphate Soil
Report Number: 55754

Attention: Brent Kerry

Dear Brent
The following samples were analysed as received.

Samples:	Qty.	8 Soils
Date of Receipt of Samples:		11/10/07
Date of Receipt of Instructions:		11/10/07
Date Preliminary Report Faxed:		Not Issued

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

For and behalf of
SGS Environmental Services
Terms and conditions are available from www.au.sgs.com

LABORATORY REPORT COVERSHEET

Date: 19 October 2007

To: Douglas Partners Pty Ltd
Unit D, 7 Donaldson St
WYONG NORTH NSW 2259

Attention: Brent Kerry

Your Reference:	55754 - 39823A Trinity Point
Laboratory Report No:	57325
Samples Received:	15/10/2007
Samples / Quantity:	8 Soils

The above samples were received intact and analysed according to your written instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.

Shey Goddard
Administration Manager
CAIRNS

Jon Dicker
Manager
CAIRNS

SGS Australia Pty Ltd
ABN 44 000 964 278
Environmental Services Unit 2, 58 Comport Street, Portsmith 4870 QLD Australia www.au.sgs.com
t +61 (0)7 4035 5111 f +61 (0)7 4035 5122

CLIENT: Douglas Partners Pty Ltd **Laboratory Report No:** 57325
PROJECT: 55754 - 39823A Trinity Point

LABORATORY REPORT

SPOCAS Our Reference Your Reference	Units	57325-1 55754-1	57325-2 55754-2	57325-3 55754-3
Moisture *	% w/w	16	25	20
pH KCl	pH Units	5.9	5.6	5.8
TAA pH 6.5	moles H^+/tonne	<5	6	<5
s-TAA pH 6.5	% w/w S	<0.01	0.01	<0.01
pH Ox	pH Units	5.6	2.0	2.5
TPA pH 6.5	moles H^+/tonne	<5	410	160
s-TPA pH 6.5	% w/w S	<0.01	0.65	0.26
TSA pH 6.5	moles H^+/tonne	<5	400	160
s-TSA pH 6.5	% w/w S	<0.01	0.64	0.26
ANCE	% $CaCO_3$	<0.01	<0.01	<0.01
a-ANCE	moles H^+/tonne	<5	<5	<5
s-ANCE	% w/w S	<0.01	<0.01	<0.01
S KCl ^	% w/w	<0.005	<0.005	<0.005
S P ^	% w/w	<0.005	0.71	0.19
S POS ^	% w/w	<0.005	0.71	0.19
a-S POS ^	moles H^+/tonne	<5	440	120
Ca KCl ^	% w/w	<0.005	0.072	0.021
Ca P ^	% w/w	<0.005	0.077	0.020
Ca A ^	% w/w	<0.005	<0.005	<0.005
Mg KCl ^	% w/w	<0.005	0.019	<0.005
Mg P ^	% w/w	<0.005	0.027	<0.005
Mg A ^	% w/w	<0.005	0.008	<0.005
SHCl ^	% w/w	NA	NA	NA
S NAS ^	% w/w	NA	NA	NA
a-S NAS ^	moles H^+/tonne	NA	NA	NA
s-S NAS ^	% w/w S	NA	NA	NA
s-Net Acidity	% w/w S	<0.01	0.72	0.20
a-Net Acidity	moles H^+/tonne	<5	450	120
Liming Rate	kg $CaCO_3$/tonne	NA	34	9.3
Verification s-Net Acidity	% w/w S	NA	0.24	0.07
a-Net Acidity without ANCE	moles H^+/tonne	<5	450	120
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	34	9.3

CLIENT: Douglas Partners Pty Ltd **Laboratory Report No:** 57325

PROJECT: 55754 - 39823A Trinity Point

LABORATORY REPORT

SPOCAS Our Reference Your Reference	Units	57325-4 55754-4	57325-5 55754-5	57325-6 55754-6
Moisture *	% w/w	77	14	18
pH KCl	pH Units	8.2	4.9	4.5
TAA pH 6.5	moles H^+/tonne	<5	30	47
s-TAA pH 6.5	% w/w S	<0.01	0.05	0.08
pH Ox	pH Units	2.7	2.0	4.7
TPA pH 6.5	moles H^+/tonne	91	460	59
s-TPA pH 6.5	% w/w S	0.15	0.74	0.09
TSA pH 6.5	moles H^+/tonne	91	430	11
s-TSA pH 6.5	% w/w S	0.15	0.69	0.02
ANCE	% $CaCO_3$	<0.01	<0.01	<0.01
a-ANCE	moles H^+/tonne	<5	<5	<5
s-ANCE	% w/w S	<0.01	<0.01	<0.01
S KCl ^	% w/w	<0.005	<0.005	<0.005
S P ^	% w/w	0.45	0.68	<0.005
S POS ^	% w/w	0.45	0.68	<0.005
a-S POS ^	moles H^+/tonne	280	420	<5
Ca KCl ^	% w/w	0.18	<0.005	<0.005
Ca P ^	% w/w	0.39	<0.005	<0.005
Ca A ^	% w/w	0.20	<0.005	<0.005
Mg KCl ^	% w/w	<0.005	<0.005	0.019
Mg P ^	% w/w	0.008	<0.005	0.018
Mg A ^	% w/w	<0.005	<0.005	<0.005
SHCl ^	% w/w	NA	NA	NA
S NAS ^	% w/w	NA	NA	NA
a-S NAS ^	moles H^+/tonne	NA	NA	NA
s-S NAS ^	% w/w S	NA	NA	NA
s-Net Acidity	% w/w S	0.45	0.72	0.08
a-Net Acidity	moles H^+/tonne	280	450	47
Liming Rate	kg $CaCO_3$/tonne	21	34	3.6
Verification s-Net Acidity	% w/w S	0.15	0.23	NA
a-Net Acidity without ANCE	moles H^+/tonne	280	450	47
Liming Rate without ANCE	kg $CaCO_3$/tonne	21	34	3.6

CLIENT: Douglas Partners Pty Ltd **Laboratory Report No:** 57325
PROJECT: 55754 - 39823A Trinity Point

LABORATORY REPORT

SPOCAS Our Reference Your Reference	Units	57325-7 55754-7	57325-8 55754-8
Moisture *	% w/w	10	14
pH KCl	pH Units	5.3	4.6
TAA pH 6.5	moles H^+/tonne	14	45
s-TAA pH 6.5	% w/w S	0.02	0.07
pH Ox	pH Units	5.3	5.1
TPA pH 6.5	moles H^+/tonne	<5	44
s-TPA pH 6.5	% w/w S	<0.01	0.07
TSA pH 6.5	moles H^+/tonne	<5	<5
s-TSA pH 6.5	% w/w S	<0.01	<0.01
ANCE	% $CaCO_3$	<0.01	<0.01
a-ANCE	moles H^+/tonne	<5	<5
s-ANCE	% w/w S	<0.01	<0.01
S KCl ^	% w/w	<0.005	<0.005
S P ^	% w/w	<0.005	<0.005
S POS ^	% w/w	<0.005	<0.005
a-S POS ^	moles H^+/tonne	<5	<5
Ca KCl ^	% w/w	<0.005	<0.005
Ca P ^	% w/w	<0.005	<0.005
Ca A ^	% w/w	<0.005	<0.005
Mg KCl ^	% w/w	<0.005	<0.005
Mg P ^	% w/w	<0.005	<0.005
Mg A ^	% w/w	<0.005	<0.005
SHCl ^	% w/w	NA	NA
S NAS ^	% w/w	NA	NA
a-S NAS ^	moles H^+/tonne	NA	NA
s-S NAS ^	% w/w S	NA	NA
s-Net Acidity	% w/w S	0.02	0.07
a-Net Acidity	moles H^+/tonne	14	45
Liming Rate	kg $CaCO_3$/tonne	NA	3.4
Verification s-Net Acidity	% w/w S	NA	NA
a-Net Acidity without ANCE	moles H^+/tonne	14	45
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	3.4

CLIENT: Douglas Partners Pty Ltd **Laboratory Report No:** 57325

PROJECT: 55754 - 39823A Trinity Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
SPOCAS			
Moisture *	% w/w	0.1	AN002
pH KCl	pH Units	0.1	ASSMAC_23A / CEI-401
TAA pH 6.5	moles H^+/tonne	5	ASSMAC_23F / CEI-401
s-TAA pH 6.5	% w/w S	0.01	ASSMAC_S_23F/CEI-401
pH Ox	pH Units	0.1	ASSMAC_23B / CEI-406
TPA pH 6.5	moles H^+/tonne	5	ASSMAC_23G / CEI-406
s-TPA pH 6.5	% w/w S	0.01	ASSMAC_S_23G/CEI-406
TSA pH 6.5	moles H^+/tonne	5	ASSMAC_23H
s-TSA pH 6.5	% w/w S	0.01	ASSMAC_S_23H
ANCE	% $CaCO_3$	0.01	ASSMAC_23Q
a-ANCE	moles H^+/tonne	5	ASSMAC_A_23Q
s-ANCE	% w/w S	0.01	ASSMAC_S_23Q
S KCl ^	% w/w	0.005	ASSMAC_23Ce
S P ^	% w/w	0.005	ASSMAC_23De
S POS ^	% w/w	0.005	ASSMAC_23Ee
a-S POS ^	moles H^+/tonne	5	ASSMAC_A_23Ee
Ca KCl ^	% w/w	0.005	ASSMAC_23Vh
Ca P ^	% w/w	0.005	ASSMAC_23Wh
Ca A ^	% w/w	0.005	ASSMAC_23Xh
Mg KCl ^	% w/w	0.005	ASSMAC_23Sm
Mg P ^	% w/w	0.005	ASSMAC_23Tm
Mg A ^	% w/w	0.005	ASSMAC_23Um
SHCl ^	% w/w	0.005	ASSMAC_20B
S NAS ^	% w/w	0.005	ASSMAC_20J
a-S NAS ^	moles H^+/tonne	5	ASSMAC_A_20J
s-S NAS ^	% w/w S	0.01	ASSMAC_S_20J
s-Net Acidity	% w/w S	0.01	Calculation
a-Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC_23H
Verification s-Net Acidity	% w/w S		Calculation
a-Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC_23H

CLIENT: Douglas Partners Pty Ltd **Laboratory Report No:** 57325

PROJECT: 55754 - 39823A Trinity Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate
Moisture *	% w/w	[NT]	57325-1	16 || [N/T]
pH KCl	pH Units	[NT]	57325-1	5.9 || 6.0 || RPD: 2
TAA pH 6.5	moles H^+/tonne	[NT]	57325-1	<5 || <5
s-TAA pH 6.5	% w/w S	[NT]	57325-1	<0.01 || <0.01
pH Ox	pH Units	[NT]	57325-1	5.6 || 5.7 || RPD: 2
TPA pH 6.5	moles H^+/tonne	[NT]	57325-1	<5 || <5
s-TPA pH 6.5	% w/w S	[NT]	57325-1	<0.01 || <0.01
TSA pH 6.5	moles H^+/tonne	[NT]	57325-1	<5 || <5
s-TSA pH 6.5	% w/w S	[NT]	57325-1	<0.01 || <0.01
ANCE	% $CaCO_3$	[NT]	57325-1	<0.01 || <0.01
a-ANCE	moles H^+/tonne	[NT]	57325-1	<5 || <5
s-ANCE	% w/w S	[NT]	57325-1	<0.01 || <0.01
S KCl ^	% w/w	[NT]	57325-1	<0.005 || <0.005
S P ^	% w/w	[NT]	57325-1	<0.005 || <0.005
S POS ^	% w/w	[NT]	57325-1	<0.005 || <0.005
a-S POS ^	moles H^+/tonne	[NT]	57325-1	<5 || <5
Ca KCl ^	% w/w	[NT]	57325-1	<0.005 || <0.005
Ca P ^	% w/w	[NT]	57325-1	<0.005 || <0.005
Ca A ^	% w/w	[NT]	57325-1	<0.005 || <0.005
Mg KCl ^	% w/w	[NT]	57325-1	<0.005 || <0.005
Mg P ^	% w/w	[NT]	57325-1	<0.005 || <0.005
Mg A ^	% w/w	[NT]	57325-1	<0.005 || <0.005
SHCl ^	% w/w	[NT]	57325-1	NA || NA
S NAS ^	% w/w	[NT]	57325-1	NA || NA
a-S NAS ^	moles H^+/tonne	[NT]	57325-1	NA || NA
s-S NAS ^	% w/w S	[NT]	57325-1	NA || NA
s-Net Acidity	% w/w S	[NT]	57325-1	<0.01 || <0.01
a-Net Acidity	moles H^+/tonne	[NT]	57325-1	<5 || <5
Liming Rate	kg $CaCO_3$/tonne	[NT]	57325-1	NA || NA
Verification s-Net Acidity	% w/w S	[NT]	57325-1	NA || NA
a-Net Acidity without ANCE	moles H^+/tonne	[NT]	57325-1	<5 || <5
Liming Rate without ANCE	kg $CaCO_3$/tonne	[NT]	57325-1	NA || NA

CLIENT: Douglas Partners Pty Ltd **Laboratory Report No:** 57325
PROJECT: 55754 - 39823A Trinity Point

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.
* This test is not covered by our current NATA accreditation.
^ Sulphur, Calcium and Magnesium results are determined at our Toowoomba Laboratory,
(214 McDougal St, Toowoomba, QLD) who have NATA accreditation for these parameters.

Liming rate calculated using a Fineness factor of 1.5 (which is equivalent to finely divided Ag Lime <0.5mm) and Neutralising Value (NV) of 100%
If using Liming Material <100% NV, then Liming Rate can be adusted as follows:
Actual Liming Rate equals Calculated Liming Rate times 100 divided by NV of actual Liming Material

Bulk Density of Material of 1g/cm3 assumed.
If Bulk Density differs from 1g/cm3 then Liming rate can be adjusted as follows:
Actual Liming Rate equals Calculated Liming Rate times Actual Bulk Density

Analysis Date: **Between** 15/10/07 **and** 19/10/07

30 October 2007 **TEST REPORT**

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

Your Reference: 39823B, Trinity Point
Report Number: 55936A

Attention: Julie Wharton

Dear Julie
The following samples were analysed as received.

Samples:	Qty.	2 Soils
Date of Receipt of Samples:		18/10/07
Date of Receipt of Instructions:		24/10/07
Date Preliminary Report Faxed:		Not Issued

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

Analysis carried out by SGS Cairns, report No. 57446 (Results attached)

For and behalf of
SGS Environmental Services
Terms and conditions are available from www.au.sgs.com

LABORATORY REPORT COVERSHEET

Date: 30 October 2007

To: Douglas Parnters Pty Ltd
Box 324
Hunter Region NSW 2310

Attention: Julie Wharton

Your Reference:	39823B Trinity Point (Syd 55936)
Laboratory Report No:	57446
Samples Received:	25/10/2007
Samples / Quantity:	2 Soil

The above samples were received intact and analysed according to your written instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.

Shey Goddard
Administration Manager
CAIRNS

Jon Dicker
Manager
CAIRNS

SGS Australia Pty Ltd
ABN 44 000 964 278
Environmental Services Unit 2, 58 Comport Street, Portsmith 4870 QLD Australia www.au.sgs.com
t +61 (0)7 4035 5111 f +61 (0)7 4035 5122

CLIENT: Douglas Parnters Pty Ltd **Laboratory Report No:** 57446

PROJECT: 39823B Trinity Point (Syd 55936)

LABORATORY REPORT

SPOCAS Our Reference Your Reference	Units	57446-1 55936A-2 201/3.9	57446-2 55936A-7 203/6.5
Moisture *	% w/w	16	12
pH KCl	pH Units	4.7	5.7
TAA pH 6.5	moles H^+/tonne	20	10
s-TAA pH 6.5	% w/w S	0.03	0.02
pH Ox	pH Units	6.0	6.4
TPA pH 6.5	moles H^+/tonne	12	<5
s-TPA pH 6.5	% w/w S	0.02	<0.01
TSA pH 6.5	moles H^+/tonne	<5	<5
s-TSA pH 6.5	% w/w S	<0.01	<0.01
ANCE	% $CaCO_3$	<0.01	<0.01
a-ANCE	moles H^+/tonne	<5	<5
s-ANCE	% w/w S	<0.01	<0.01
S KCl ^	% w/w	0.033	0.014
S P ^	% w/w	0.032	0.020
S POS ^	% w/w	<0.005	0.006
a-S POS ^	moles H^+/tonne	<5	<5
Ca KCl ^	% w/w	0.011	<0.005
Ca P ^	% w/w	0.010	<0.005
Ca A ^	% w/w	<0.005	<0.005
Mg KCl ^	% w/w	0.052	0.027
Mg P ^	% w/w	0.052	0.029
Mg A ^	% w/w	<0.005	<0.005
SHCl ^	% w/w	NA	NA
S NAS ^	% w/w	NA	NA
a-S NAS ^	moles H^+/tonne	NA	NA
s-S NAS ^	% w/w S	NA	NA
s-Net Acidity	% w/w S	0.03	0.02
a-Net Acidity	moles H^+/tonne	20	13
Liming Rate	kg $CaCO_3$/tonne	1.5	NA
Verification s-Net Acidity	% w/w S	NA	NA
a-Net Acidity without ANCE	moles H^+/tonne	20	13
Liming Rate without ANCE	kg $CaCO_3$/tonne	1.5	NA

CLIENT: Douglas Parnters Pty Ltd **Laboratory Report No:** 57446

PROJECT: 39823B Trinity Point (Syd 55936)

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
SPOCAS			
Moisture *	% w/w	0.1	AN002
pH KCl	pH Units	0.1	ASSMAC_23A / CEI-401
TAA pH 6.5	moles H^+/tonne	5	ASSMAC_23F / CEI-401
s-TAA pH 6.5	% w/w S	0.01	ASSMAC_S_23F/CEI-401
pH Ox	pH Units	0.1	ASSMAC_23B / CEI-406
TPA pH 6.5	moles H^+/tonne	5	ASSMAC_23G / CEI-406
s-TPA pH 6.5	% w/w S	0.01	ASSMAC_S_23G/CEI-406
TSA pH 6.5	moles H^+/tonne	5	ASSMAC_23H
s-TSA pH 6.5	% w/w S	0.01	ASSMAC_S_23H
ANCE	% $CaCO_3$	0.01	ASSMAC_23Q
a-ANCE	moles H^+/tonne	5	ASSMAC_A_23Q
s-ANCE	% w/w S	0.01	ASSMAC_S_23Q
S KCl ^	% w/w	0.005	ASSMAC_23Ce
S P ^	% w/w	0.005	ASSMAC_23De
S POS ^	% w/w	0.005	ASSMAC_23Ee
a-S POS ^	moles H^+/tonne	5	ASSMAC_A_23Ee
Ca KCl ^	% w/w	0.005	ASSMAC_23Vh
Ca P ^	% w/w	0.005	ASSMAC_23Wh
Ca A ^	% w/w	0.005	ASSMAC_23Xh
Mg KCl ^	% w/w	0.005	ASSMAC_23Sm
Mg P ^	% w/w	0.005	ASSMAC_23Tm
Mg A ^	% w/w	0.005	ASSMAC_23Um
SHCl ^	% w/w	0.005	ASSMAC_20B
S NAS ^	% w/w	0.005	ASSMAC_20J
a-S NAS ^	moles H^+/tonne	5	ASSMAC_A_20J
s-S NAS ^	% w/w S	0.01	ASSMAC_S_20J
s-Net Acidity	% w/w S	0.01	Calculation
a-Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC_23H
Verification s-Net Acidity	% w/w S		Calculation
a-Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC_23H

CLIENT: Douglas Parnters Pty Ltd **Laboratory Report No:** 57446
PROJECT: 39823B Trinity Point (Syd 55936)

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.
* This test is not covered by our current NATA accreditation.
^ Sulphur, Calcium and Magnesium results are determined at our Toowoomba Laboratory,
(214 McDougal St, Toowoomba, QLD) who have NATA accreditation for these parameters.

Liming rate calculated using a Fineness factor of 1.5 (which is equivalent to finely divided Ag Lime <0.5mm) and Neutralising Value (NV) of 100%
If using Liming Material <100% NV, then Liming Rate can be adusted as follows:
Actual Liming Rate equals Calculated Liming Rate times 100 divided by NV of actual Liming Material

Bulk Density of Material of 1g/cm3 assumed.
If Bulk Density differs from 1g/cm3 then Liming rate can be adjusted as follows:
Actual Liming Rate equals Calculated Liming Rate times Actual Bulk Density

Analysis Date: **Between** 25/10/07 **and** 30/10/07

29 October 2007 **TEST REPORT**

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

Your Reference: 39823B, Trinity Point
Report Number: 55469D

Attention: Julie Wharton

Dear Julie
The following samples were analysed as received.

Samples:	Qty.	2 Soils
Date of Receipt of Samples:		27-28/09/07
Date of Receipt of Instructions:		24/10/07
Date Preliminary Report Faxed:		Not Issued

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

Analysis carried out by SGS Cairns, report No. 57448 (Report attached).

For and behalf of
SGS Environmental Services
Terms and conditions are available from www.au.sgs.com

LABORATORY REPORT COVERSHEET

Date: 29 October 2007

To: Douglas Partners Pty Ltd
PO Box 324
Hunter Region MC NSW 2310

Attention: Julie Wharton

Your Reference:	Douglas Partners 39823B Trinity Point 55469D
Laboratory Report No:	57448
Samples Received:	25/10/2007
Samples / Quantity:	2 Soil

The above samples were received intact and analysed according to your written instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.

Shey Goddard
Administration Manager
CAIRNS

Jon Dicker
Manager
CAIRNS

SGS Australia Pty Ltd
ABN 44 000 964 278
Environmental Services Unit 2, 58 Comport Street, Portsmith 4870 QLD Australia www.au.sgs.com
t +61 (0)7 4035 5111 f +61 (0)7 4035 5122

CLIENT: Douglas Partners Pty Ltd **Laboratory Report No:** 57448

PROJECT: Douglas Partners 39823B Trinity Point 55469D

LABORATORY REPORT

Chromium Suite - Acid Base Accounting Our Reference Your Reference	Units	57448-1 SS2 55469D-2	57448-2 SS8 55469D-8
Moisture *	% w/w	33	65
pH KCl	pH Units	7.4	8.1
s-TAA pH 6.5	% w/w S	<0.01	<0.01
TAA pH 6.5	moles H^+/tonne	<5	<5
Chromium Reducible Sulfur (SCR)	% w/w	0.23	0.64
a-Chromium Reducible Sulfur	moles H^+ / tonne	140	400
SHCl ^	% w/w	NA	NA
S KCl ^	% w/w	NA	NA
S NAS ^	% w/w	NA	NA
Acid Neutralisation Capacity	% $CaCO_3$	1.0	6.0
s-ANC	% w/w S	0.32	1.9
a-ANC	moles H^+ / tonne	200	1,200
s-Net Acidity	% w/w S	0.01	<0.01
a-Net Acidity	moles H^+/tonne	7.1	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA
Verification s-Net Acidity	% w/w S	0.01	-0.65
a-Net Acidity without ANC	moles H^+/tonne	140	400
Liming Rate without ANC	kg $CaCO_3$/tonne	10	30

CLIENT: Douglas Partners Pty Ltd **Laboratory Report No:** 57448

PROJECT: Douglas Partners 39823B Trinity Point 55469D

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Chromium Suite - Acid Base Accounting			
Moisture *	% w/w	0.1	AN002
pH KCl	pH Units	0.1	ASSMAC_23A / CEI-401
s-TAA pH 6.5	% w/w S	0.01	ASSMAC_S_23F/CEI-401
TAA pH 6.5	moles H^+/tonne	5	ASSMAC_23F / CEI-401
Chromium Reducible Sulfur (SCR)	% w/w	0.005	ASSMAC_22B / CEI-405
a-Chromium Reducible Sulfur	moles H^+ / tonne	5	ASSMAC_22B / CEI-405
SHCl ^	% w/w	0.005	ASSMAC_20B
S KCl ^	% w/w	0.005	ASSMAC_23Ce
S NAS ^	% w/w	0.005	ASSMAC_20J
Acid Neutralisation Capacity	% $CaCO_3$	0.01	AN214 CEI-402
s-ANC	% w/w S	0.01	AN214 CEI-402
a-ANC	moles H^+ / tonne	5	AN214 CEI-402
s-Net Acidity	% w/w S	0.01	Calculation
a-Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC_23H
Verification s-Net Acidity	% w/w S		Calculation
a-Net Acidity without ANC	moles H^+/tonne	5	Calculation
Liming Rate without ANC	kg $CaCO_3$/tonne	0.1	ASSMAC_23H