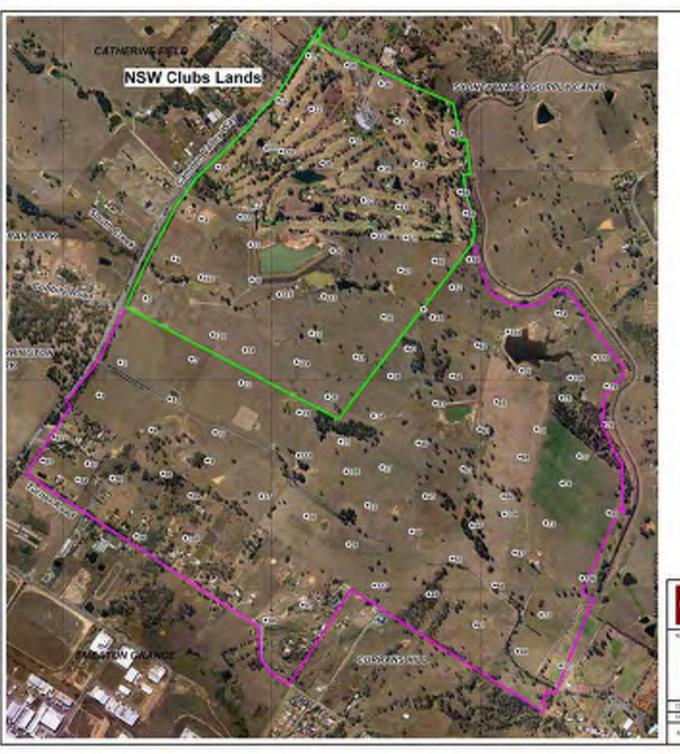
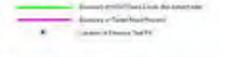


# Appendix B Extracts from Land Capability Assessment 40741



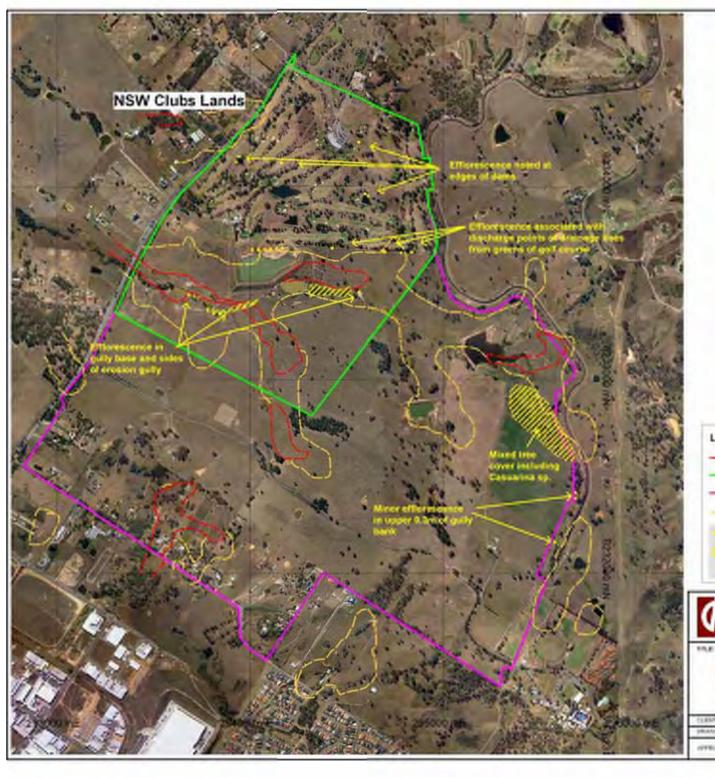




Brisbane, Cairris, Canberra, Darwin, Gold Coast, Mebourne, Minto, Newcastle, Perth Sunshine Coast, Sydner, Townsville, Wollongong Wyong

LOCATION OF PREVIOUS TEST PITS NSW CLUBS LANDS TURNER ROAD PRECINCT CATHERINE FIELD

OUT From the	THE PLAN.		
CARNOST NA	50Ad-	H10817-0/- 40116	OFFICE WOL
Amoreoim		\$45.0E00300	DRAWING No. 2





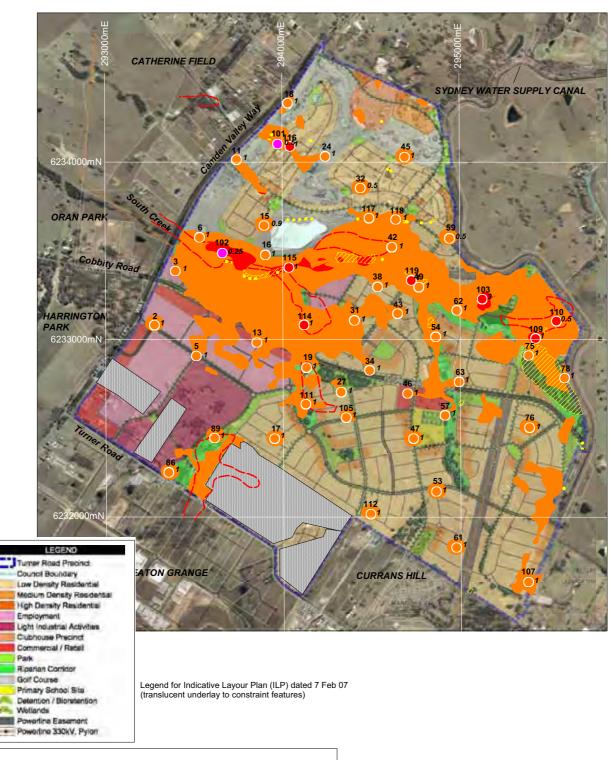


Brisbane, Cairne, Caberra, Darwin, Gold Coast Melbourne, Minto, Newcastle, Parth, Sursahipe Coast, Syriey, Townsville, Wollanging, Wyong

SALIMITY OBSERVATIONS NSW CLUBS LANDS TURNER ROAD PRECINCT CATHERINE FIELD

CLEAR AND CONCURRENCE OF

SEASON OF THE	MAT OR THE	PR-005	OFFICE WOL	
STROVERS		MR BALVER	DRAWING No. 3	





6232000mN GDA94/MGA94 Grid (Zone 5

 Approximate region of Known Salinity (observed or interpreted from air-photos, DIPNR 2003) where development may be constrained due to surface soil salinity

Observed salt efflorescence and area of salt-tolerant vegetation indicating regions where development may be constrained due to surface soil salinity

101

0.5 Test Pit and depth (m, italics) where maximum ECe of soil fell in the range: >16 dS/m (highly saline)

Test Pit and depth where maximum ECe of soil fell in the range: 8 -16 dS/m (very saline)

Test Pit and depth where maximum ECe of soil fell in the range: 4 - 8 dS/m (moderately saline)

Test Pit and depth where maximum ECe of soil fell in the range: 2 - 4 dS/m (slightly saline)

Test Pit and depth where maximum ECe of soil fell in the range: 2 - 4 do/m (signity sail

Approximate region where development may be constrained by very saline soil at depths of the order of 1m, or (around an isolated test pit) at the depth indicated

Approximate region where development may be constrained by moderately saline soil at depths of the order of 1m, or (around an isolated test pit) at the depth indicated

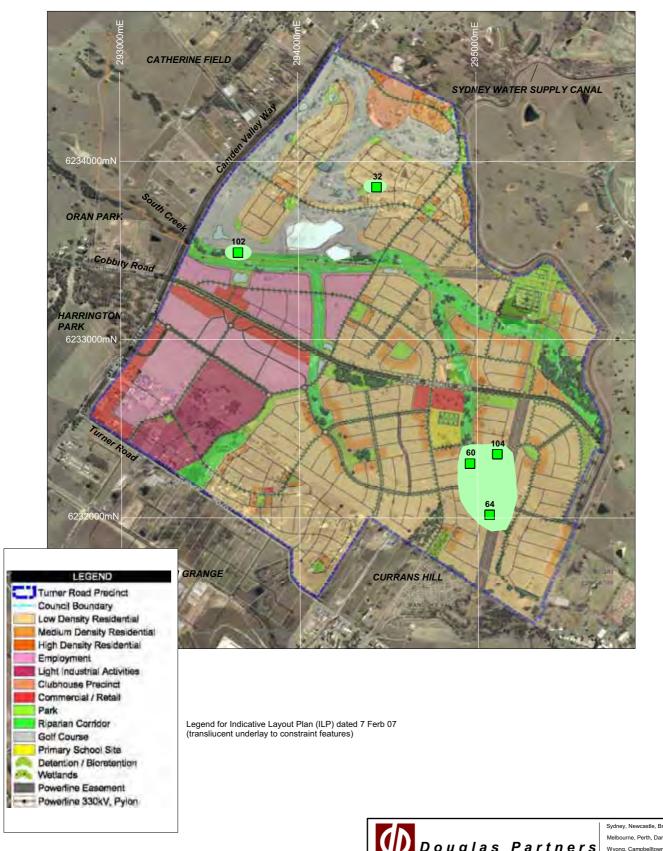
Area where access was not available and no data were obtained



Sydney, Newcastle, Brisbane, Melbourne, Perth, Darwin, Wyong, Campbelltown, Canberra Townsville, Cairns, Wollongong

SALINITY CONSTRAINTS
LAND CAPABILITY STUDY
TURNER ROAD PRECINCT
CATHERINE FIELD AND CURRANS HILL

CLIENT: APP CORPORA	ATION PTY LTD		
DRAWN BY: JL	SCALE: 1:15,000 @ A3	PROJECT No: 40741	OFFICE: SYDNEY
APPROVED BY:		DATE: FEBRUARY 2007	DRAWING No: 16





6232000mN GDA94/MGA94 Grid (Zone 56)

Test Pit where pH of soil at 0.5m depth was 4.5 - 5 (mildly aggressive to concrete)

Approximate region where development may be constrained by mild aggressivity of soil to concrete at depths of the order of 0.5m

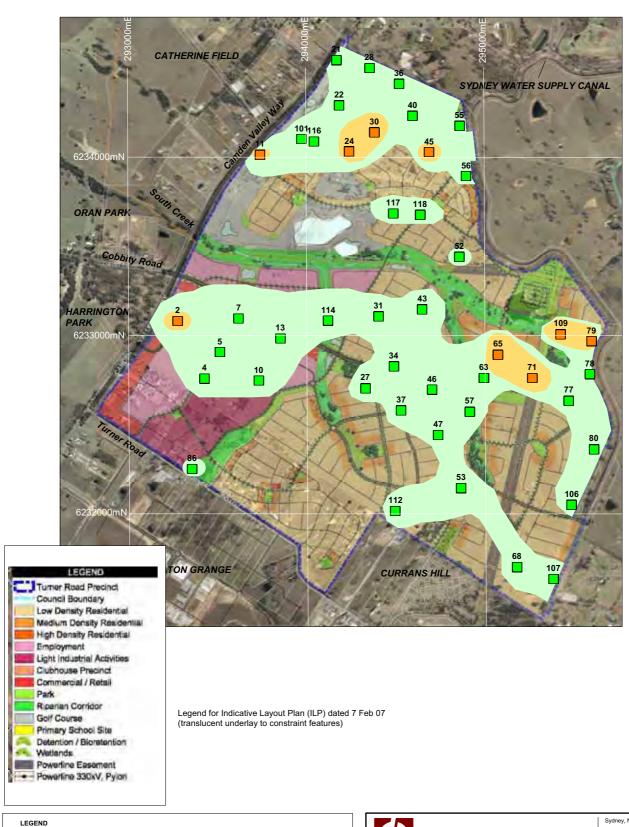


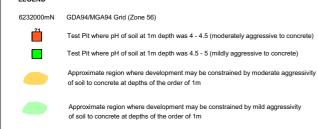
Sydney, Newcastle, Brisbane Melbourne, Perth, Darwin, Wyong, Campbelltown, Canberra Townsville, Cairns, Wollongong

AGGRESSIVITY CONSTRAINTS - DEPTH 0.5m **LAND CAPABILITY STUDY TURNER ROAD PRECINCT CATHERINE FIELD AND CURRANS HILL** 

CLIENT:	APP CORPORATION PTY LTD	

CLIENT: APP CORPORA	TION PIT LID		
DRAWN BY: JL	SCALE: 1:15,000 @ A3	PROJECT No: 40741	OFFICE: SYDNEY
APPROVED BY:		DATE: FEBRUARY 2007	DRAWING No: 17







Sydney, Newcastle, Brisbane, Melbourne, Perth, Darwin, Wyong, Campbelltown, Canberra Townsville, Cairns, Wollongong

AGGRESSIVITY CONSTRAINTS - DEPTH 1m LAND CAPABILITY STUDY TURNER ROAD PRECINCT CATHERINE FIELD AND CURRANS HILL

CLIENT: APP CORPORA	ATION PTY LTD		
DRAWN BY: JL	SCALE: 1:15,000 @ A3	PROJECT No: 40741	OFFICE: SYDNEY
APPROVED BY:		DATE: FEBRUARY 2007	DRAWING No: 18

## Appendix C

Test Pit Logs

**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 98.0 mAHD PIT No: 1

**EASTING:** 294458 **PROJECT No:** 76510.00

**NORTHING:** 6233381 **DATE:** 19/1/2012 **DIP/AZIMUTH:** 90°/-- **SHEET** 1 OF 1

<b>5</b> "	Description	.ic _		Sam		& In Situ Testing		Dunomi	a Dana	tramata	- Tool
Depth (m)	of	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynami (I	olows p	er mm)	riest
	Strata		É.	ă	Sal	Comments	$\perp$	5	10	15 :	20
-	TOPSOIL - brown silt with some clay and rootlets		E	0.1 0.2			-				
- 0.3 -	CLAY - dark orange mottled light orange-grey clay with some fine grained ironstone gravel		D	0.5			-				
-				0.6			-				
- -1 -			D/ E	1.0 1.1			-	1			
- - 1.3- -	SANDSTONE - very low to low strength, moderately weathered, black and grey shale with iron indurated						-				
-	bands		D	1.5							
- -2 -			D	2.0				2			
			D	2.5			-				
-							-	:	:	:	:
- 2.9 -3 -	Pit discontinued at 2.9m - limit of investigation	_[:::::::	D	3.0				3			
							-				
							-				
-4								4			
											:
-											

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 101.7 mAHD PIT No: 2

**EASTING:** 294380 **PROJECT No:** 76510.00

**NORTHING**: 6233276 **DATE**: 18/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

	-	41-	Description	jic <b>T</b>		Sam		& In Situ Testing		Dynamia Ba	notromote	or Toot
R	De (n	ptn n)	of Otanta	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamic Pe (blow	s per mm)	1621
Н			Strata  TOPSOIL - brown clayey silt with rootlets	1 VX			S	Commonio		5 10	15	20
			Tor doile - brown dayey and with rootiets		Е	0.1					:	
$\left  \cdot \right $										-	:	:
		0.4	CLAY - dark orange-red mottled light orange brown clay		E D	0.4						•
-	-	0.7	olay							-	:	
10-		0.7	SHALY CLAY - grey mottled orange slightly sandy shaly clay	-/-/-								
	-1		, ,	-/-/-	D	1.0				-1		
$ \cdot $		1.1	SANDSTONE - very low to low strength, highly	<u> </u>		1.0				- :	:	:
	-		SANDSTONE - very low to low strength, highly weathered, grey, orange and brown meduim to coarse grained sandstone									
					D	1.5					:	
100											:	•
			- becoming low to medium strength with iron indurated bands below 1.8m							-		
	-2		bands below 1.8m		D	2.0				-2	:	•
											:	:
-										-		
					D	2.5						
- 66		2.7								-	:	•
6		2.7	Pit discontinued at 2.7m - refusal on medium strength sandstone							-		
	- -3		S .							-3	:	•
-										-	:	:
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Ш												:

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

Gregory Hills

SURFACE LEVEL: 102.7 mAHD PIT No: 3

**EASTING:** 294325 **PROJECT No:** 76510.00

**NORTHING**: 6233188 **DATE**: 18/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

	Depth	Description	hic				& In Situ Testing	e e	Dynamic	Penetro	meter Test
R	(m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	(bl	ows per	mm) 5 20
-	-	TOPSOIL - brown clayey silt with rootlets		E*	0.1	<u>σ</u>					
	- 0.4 - -	SILTY CLAY - orange, red and grey slightly silty, slightly gravelly (fine grained ironstone gravel) clay		D E	0.5 0.6						
- 10.	- 0.7	CLAY - red mottled grey clay		D	1.0						
-	- 1.1 <sub>1</sub> - 1.1 <sub>1</sub>	SHALY CLAY - grey and red shaly clay	<u> </u>	E	1.1						
-	- 1.3 - -	SHALE - very low strength, highly weathered, grey, orange and brown shale with brown and orange fine grained siltstone bands		D	1.5						
101	- - - -2	- becoming very low to low strength, moderately weathered, red, brown and grey shale below 1.7m		D	2.0				-2		
	-	becoming low to medium strength, grey shale with bands of medium strength, fine grained siltstone below 2.1m						-			
100	-										
	-3 3.0 - - - -	Pit discontinued at 3.0m - limit of investigation						-			
- 66	- - -										
	-4 - -								-4		
	- -										
-86 -	- - -										

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: \* Sample BD1/180112 collected

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B B Bulk sample
B B Bulk sample
C C Core drilling
D D Disturbed sample
D D Starbed Supple
D W Water sample
W Water sample
V Water seep
S S S
E Environmental sample
▼ Water level
V S



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 101.6 mAHD PIT No: 4

**PROJECT No:** 76510.00 **EASTING**: 294219

**NORTHING:** 6233131 **DATE:** 19/1/2012 **DIP/AZIMUTH:** 90°/--SHEET 1 OF 1

!	Description	.je		Sam		& In Situ Testing	ايا	D	
Depth (m)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynamic P (blow	enetrometer Tes vs per mm)
	Strata	٥	<u> </u>	De	San	Comments		5 10	15 20
	TOPSOIL - brown clayey silt with rootlets		E	0.1				-	
0.2	CLAY - red mottled grey clay with trace fine grained ironstone gravel			0.2					
			D/ E	0.5				-	
	- becoming grey mottled red clay below 0.7m								
-1	- grey clay with red fine grained ironstone bands below 0.9m		D/ E	1.0				-1	
								-	
			D	1.5				-	
1.8	SHALY CLAY - grey and red shaly clay with very low strength, red brown iron indurated shale bands	<u> </u>						-	
2		-/-  -/-/-  -/-/-	D	2.0				-2	
2.3	SHALE - very low to low strength, highly weathered, brown and red shale with iron indurated bands	-/-/	D	2.5					
								-	
3 3.0	- becoming low to medium strength, purple black brown and grey shale below 2.9m		D_	-3.0-				3	
	Pit discontinued at 3.0m - limit of investigation							-	
4								-4	
								-	
								-	
								ļi	

LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Vater seep
Water level



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 99.5 mAHD PIT No: 5

**EASTING**: 294175 **PROJECT No:** 76510.00

**NORTHING:** 6232985 **DATE:** 20/1/2012 **DIP/AZIMUTH:** 90°/--SHEET 1 OF 1

_		Description	. <u>S</u>		Sam		& In Situ Testing	_	Б	D		
	epth (m)	of	Graphic Log	Type	Depth	Sample	Results &	Water	Dynamic (bl	Penet ows pe	romete er mm)	rles
	` /	Strata	ß	Ţ		San	Results & Comments		5	10	15	20
	0.01	STOCKPILE - brown gravelly shaly silty clay to 1.3m above ground surface		E E	0.0		sample taken in stockpile			:		:
-	0.25	TOPSOIL - brown silt with some rootlets, damp	D/ X		0.2							:
-		CLAY - red mottled brown clay with trace fine grained ironstone gravel		D	0.5 0.6							
	0.7	SHALY CLAY - grey orange shaly clay	  -/-  -/-									
- - 1	0.9	SHALE - extremely low to very low strength, extremely to highly weathered, grey, orange and brown shale	(-/-/ 	D	1.0				-1			
		- becoming very low to low strength below 1.1m										
				D	1.5			-				
-2		- becoming extremely low strength, extremely weathered, grey and orange shale below 1.8m		D	2.0			- - -	-2			
		<ul> <li>becoming low strength, grey brown shale with low strength siltstone bands below 2.8m</li> </ul>		D	2.5			- - - -				
-3	3.0	strength siltstone bands below 2.8m  Pit discontinued at 3.0m	===	—D—	-3.0-				3	:		:
		- limit of investigation						- - -				
- 4									-4			
										:	:	:

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Relocated, as test pit was located on stockpile. Stockpile is located on western end of test pit

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

LING & IN SITU TESTING LEGEND
G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
V Water seep
S Standard penetration test
V Shear vane (kPa)



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

LOCATION: Lot 701 in Deposited Plan 1154772

SURFACE LEVEL: 98.6 mAHD PIT No: 6

**PROJECT No:** 76510.00 **EASTING:** 294310

> **DATE:** 18/1/2012 SHEET 1 OF 1

**NORTHING**: 6233341 **Gregory Hills DIP/AZIMUTH:** 90°/--

	_		Description	.je		Sam		& In Situ Testing	_		·		
R	Dep (m	oth i)	of	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynam (	ic Penet blows pe	romete er mm)	riest
			Strata	9	Ту	De	San	Comments		5	10	15	20
-			TOPSOIL - brown clayey silt with rootlets			0.1				. :	:		
ŀ		0.2	CLAV dark arongo mottled light arongo elightly silty	KX.	Е	0.2					:		
ŀ			CLAY - dark orange mottled light orange slightly silty clay with some fine grained ironstone gravel							- :	:		
ŀ										i i			
86-					D E*	0.5					:		
"						0.0					:		
ŀ										- :	:	:	:
ł		0.9	SHALF - extremely low to very low strength, extremely							- :		:	:
t	· 1		SHALE - extremely low to very low strength, extremely to highly weathered, orange and grey shale		P/	1.0				-1	:		
ĺ						1.1							
ļ			<ul> <li>becoming very low to low strength, grey and brown shale with bands of extremely low strength, extremely weathered, grey shale with iron indurated bands</li> </ul>								:		:
ŀ			weathered, grey shale with iron indurated bands							- !		:	
ŀ			below 1.2m		D	1.5				<u> </u>	:		
5				===						1			:
											:		:
ļ												:	
ŀ	2				D	2.0				-2	:		
ŀ										<u> </u>			i
ŀ													
ŀ			<ul> <li>becoming very low strength with iron indurated and extremely low strength, extremely weathered bands</li> </ul>		D	2.5				. :	:		:
8			below 2.4m							- :	:	:	:
ŀ										<u> </u>			
t													
	. 3	3.0		===	—D—	_3.0 <u>_</u>				3			
ŀ			Pit discontinued at 3.0m - limit of investigation								:		:
ŀ			- IIIII of Investigation							- :		:	
ŀ											:		
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LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: \* Sample BD2/180112 collected

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Vater seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 100.6 mAHD PIT No: 7

**EASTING:** 294250 **PROJECT No:** 76510.00

**NORTHING**: 6233254 **DATE**: 18/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

	_		Description	.jc _		Sam		& In Situ Testing		Dynamic Penetrometer Test
R	De (r	pth n)	of Charles	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	(blows per mm)
			Strata  TOPSOIL - brown clayey silt	XX	-		- S	Commonic		5 10 15 20
					Е	0.1				-
	-	0.3	SILTY CLAY - orange silty clay							-
					D,	0.5				
100			<ul> <li>becoming red mottled orange silty clay with some ironstone gravel and coarse grained sand</li> </ul>		E_	0.6				
		0.8	CANDOTONIE autoroala lauritaria lauritaria del							
			SANDSTONE - extremely low to very low strength, extremely to moderately weathered, orange and grey			4.0				
	-1		medium to coarse grained sandstone with some orange and grey clayey sand bands		D/ E	1.0				-1 : : : : : : : : : : : : : : : : : : :
-	-									
			<ul> <li>becoming low to medium strength, moderately weathered, orange brown coarse grained sandstone</li> </ul>							
-66			below 1.3m		D	1.5				
- 6	-									
-	-2				D	2.0				-2
		2.2			D_	-2.2-				
-			Pit discontinued at 2.2m - refusal on medium strength sandstone							
			-							
-86										-
-										-
.	-3									-3
	-									-
97	-									
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96										
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RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

SAMPLING & IN SITU TESTING LEGEND
per sample G Gas sample PID Photo

A Auger sample G
B Bulk sample P
BLK Block sample U,
C Core drilling W
D Disturbed sample P
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Vater seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 96.9 mAHD PIT No: 8

**NORTHING**: 6233114

**DIP/AZIMUTH:** 90°/--

**EASTING:** 294109 **PROJECT No:** 76510.00

**DATE:** 19/1/2012 **SHEET** 1 OF 1

Depth	Description	hic				& In Situ Testing		Dynam	nic Penetron	neter Tes
(m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	5	(blows per n	nm)
-	TOPSOIL - brown clayey silt with rootlets		E	0.1						
- 0.3	CLAY - red mottled grey clay with trace fine grained ironstone gravel		D E	0.5						
- - - 1 -	becoming light orange mottled grey clay with some fine grained ironstone gravel below 0.7m		D	1.0				-1		
- - -	becoming grey mottled orange clay with fine grained ironstone gravel bands below 1.3m		D	1.5						
- - -2 2.0	- grey clay with some iron indurated and ironstone gravel bands below 1.7m  SHALE - extremely low strength, extremely weathered, grey orange shale with grey clay and iron indurated	====	D	2.0				-2		
- - 2.4	SHALE - extremely low strength, extremely weathered, grey and red shale with iron indurated bands		D	2.5						
2.7	SHALE - extremely low to very low strength, extremely weathered, grey orange red shale with grey clay and iron indurated bands		D	3.0				-3		
3.1 - - -	Pit discontinued at 3.1m - limit of investigation	<u> </u>						-		
-4 -								-4		
Į.								_		:

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample G
B Bulk sample P
BLK Block sample U,
C Core drilling W
D Disturbed sample
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Vater seep
Water level



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 97.2 mAHD PIT No: 10

**EASTING**: 294178 **PROJECT No:** 76510.00

**NORTHING:** 6233349 **DATE:** 18/1/2012 **DIP/AZIMUTH:** 90°/--SHEET 1 OF 1

		Description	.ic _		Sam		& In Situ Testing		Dimom	io Dono	tramata	- Tool
De (r	epth m)	of	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynam (	blows p	er mm)	riest
		Strata	0	F	صّ	Sar	Comments		5	10	15	20
-		TOPSOIL - brown clayey silt with rootlets	M		0.1				:	:	:	:
ŀ	0.25		$\langle X \rangle$	Е	0.2					:		:
-	0.23	CLAY - orange mottled grey-brown slightly silty clay						-	:	:	:	:
-												
				D	0.5 0.6					:		
					0.0				:	:	÷	:
-										:		
-	0.9	SHALY CAY - grey mottled orange brown shaly clay	<del>\-/-</del>						:	:	:	:
- 1		SHALT CAT - grey mottled drange brown shary clay	\\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\	D	1.0			-	-1	:		
-			<u> </u>		1.1			-	:	:	:	:
			V-/-									
			Y-/-/						:	:		
			Y-/-/	D	1.5							
			<u>-/-/-</u>							:		
			V-/-					-	:	:	:	:
	1.8	SHALE - low strength, moderately weathered, purple	-/-/							:		:
•		SHALE - low strength, moderately weathered, purple brown and grey shale							. :	:	:	:
-2				D	2.0				-2			
									:	:	:	÷
			<b>==</b>									
		- hand of extremely low strength, extremely weathered							:	:		
		<ul> <li>band of extremely low strength, extremely weathered, grey orange shale between 2.4 - 2.6m</li> </ul>		D	2.5			-				
			===						:	:		
									:	:	:	:
									:	:		
-3	3.0	Dit discourtings diet 0.0m		D_	-3.0-				3 :	- :		
		Pit discontinued at 3.0m - limit of investigation							:	:		
								-	:	:		
									:	:	:	:
										:		
									:	:	:	:
										:		
									:			:
- 4									-4			
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-									:	:		:
-									:	:	:	:

LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Vater seep
Water level



**CLIENT:** Gregory Hills Corporate Park

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

Gregory Hills

SURFACE LEVEL: 96.7 mAHD PIT No: 11

**EASTING:** 294110 **PROJECT No:** 76510.00

NORTHING: 6233211 DATE: 18/1/2012 DIP/AZIMUTH: 90°/-- SHEET 1 OF 1

			Description	.ي		Sam	npling &	& In Situ Testing				
귐	Dep (m	oth n)	of	Graphic Log	Туре	Depth	Sample	Results &	Water	Dynamic Per (blows	netrometer s per mm)	Test
	,		Strata	Ō	Ţ	Deg	Sarr	Results & Comments		5 10	15	20
			SILTY CLAY - brown orange and red silty clay with trace fine grained ironstone gravel and rootlets	1/	E	0.1				-		
		0.0	- becoming red mottled brown clay below 0.4m			0.5						
-96		0.6	SHALY CLAY - grey mottled red shaly clay	-/-/-		0.6						
	1	0.7	SHALE - very low to low strength, moderately weathered, brown, black and purple shale with low strength brown siltstone bands  - becoming low to medium strength below 1.1m		D	1.0				-1		
96			Second of the median strong in Below 1.1111		D	1.5						
	2				D	2.0				-2		
ţţ		2.2	Pit discontinued at 2.2m		—D—	-2.2-						
	3		- refusal in medium strength shale							-3		
35												

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
B Bulk Sample
C Core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU IESTI
G Gsa sample
P Fiston sample
V Tube sample (x mm dia
W Water sample
V Water seep
E Environmental sample
W Water level

LING & IN SITU TESTING LEGEND
G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
V Water seep
S Standard penetration test
V Shear vane (kPa)



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

**SURFACE LEVEL:** 96.6 mAHD **PIT No:** 12

**NORTHING:** 6233184

**DIP/AZIMUTH:** 90°/--

**EASTING**: 294024 **PROJECT No**: 76510.00

**DATE:** 19/1/2012 **SHEET** 1 OF 1

	Description	اجِ.		Sam		& In Situ Testing	_ ا	Domania Dovertor	T:
Depth (m)	:h	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamic Penetromet (blows per mm	er les ) <sub>20</sub>
-	TOPSOIL - brown silty clay with rootlets		E	0.1				-	
- 0. - - -	CLAY - dark grey mottled orange-brown slightly si clay, wet	ilty	D/ E	0.5 0.6			>		
-1 -1			D/ E	1.0				-1	
1.	1.7		D/ E	1.5 1.6					
·2	SILTY CLAY - light grey mottled orange silty clay trace ironstone gravel, damp to wet	with	D	2.0				-2	
			D	2.5					
· 3 3.	3.1 Pit discontinued at 3.1m		D	3.0				-3	
	- limit of investigation								
4								-4	
								-	

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: Infilling from 0.6 - 1.2m, possibly from adjacent creek

**REMARKS:** 

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B B Bulk sample
B B Bulk sample
C C Core drilling
D D Disturbed sample
E Environmental sample

SAMPLING & IN S110 TESTING LEGE
G Gas sample
P PID P
Piston sample
P L(D)P
V Water sample (x mm dia.)
PL(D)P
V Water seep
S S
E E Environmental sample
W Water level
V Si



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 97.7 mAHD PIT No: 13

**EASTING**: 293995 **PROJECT No:** 76510.00

**DATE:** 20/1/2012

**NORTHING:** 6233086 DIP/AZIMUTH: 90°/--SHEET 1 OF 1

D	Description	:c _		Sam		& In Situ Testing		Dime	nio Donot	romoto	r Toot
Depth (m)	OI	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynar	nic Penet (blows pe	rometer er mm)	rest
	Strata		Ļ.	ے ا	Sai	Comments	1	5	10	15	20
-	FILLING - brown silty clay/clayey silt		E	0.1				-			
-	SILTY CLAY - grey black clay with gravel (swam odour) and rootlets	py 11	_ D _ E*	0.5				-			
5 O.	CLAY - red mottled grey clay		D E	1.0				-1			
- - - - 1.	GRAVELLY CLAY - red mottled grey gravelly		D	1.5							
-	(ironstone) clay  SHALY CLAY - grey red shaly clay with iron indubands	rated	D	2.0				-2			
-		-/-/- -/-/- -/-/- -/-/- -/-/-	D	2.5							
-3 3	3.0 Bit discontinued at 0.00	\-\- -\- -\-\-	D	-3.0-				3	:		
-	Pit discontinued at 3.0m - limit of investigation										
-4								-4			
-											
_			I	1				1 :	:	:	:
-											

LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed REMARKS: Edge of stockpile; \* Sample BD1/200112 collected

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

LING & IN SITU TESTING LEGEND
G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
V Water seep
S Standard penetration test
V Shear vane (kPa)



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 95.6 mAHD PIT No: 14

**EASTING:** 294055 **PROJECT No:** 76510.00

**NORTHING:** 6233331 **DATE:** 19/1/2012 **DIP/AZIMUTH:** 90°/-- **SHEET** 1 OF 1

Donth	Description	hic		Sam		& In Situ Testing	_   _	Dv	namic [	Denetron	neter Tee
Depth (m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water			ws per n	neter Tes nm)
_	TOPSOIL - brown clayey silt with rootlets		E	0.1				-			
0.2	CLAY - yellow brown mottled orange slightly silty clay			0.2				-			:
			_ <sub>D_</sub>	0.5				-			
			E	0.6							
0.9											:
·1	SILTY CLAY - orange mottled grey silty clay		D E	1.0				-1			:
				1.1							:
	- becoming gravelly (ironstone gravel) sitly clay below										:
	1.4m		D	1.5							
1.8	SHALE - extremely low strength, extremely weathered	1//						-			:
2	SHALE - extremely low strength, extremely weathered, grey shale with some grey clay bands		D	2.0				- -2			
								-			:
	becoming very low to low strength, black, grey and red shale below 2.3m							-			
			D	2.5				-			
								-			:
-3 3.0			D	-3.0-				- - 3			
	Pit discontinued at 3.0m - limit of investigation										:
											:
								-			:
											:
4								-4 -	:		
								-			:
								-	:		
								<u> </u>			:
								-			:
									:	: :	

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

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

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 94.9 mAHD PIT No: 15

**EASTING**: 293981 **PROJECT No**: 76510.00

**NORTHING:** 6233280 **DATE:** 19/1/2012 **DIP/AZIMUTH:** 90°/-- **SHEET** 1 OF 1

	Description	.jc _		Sam		& In Situ Testing	_	D	:- D		T
Depth (m)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynami (I	blows p	er mm)	ı ies
	Strata		É.	ă	Sa	Comments		5	10	15	20
-	TOPSOIL - brown clayey silt with rootlets		E	0.1							
-		$\langle \rangle \rangle \rangle$		0.2							
0.35		188									
-	CLAY - yellow brown mottled orange clay		_								
-			_D_,	0.5 0.6							
				0.0				. :	:	:	:
-								. :			
- 0.9	CDAVELLY CLAY grange gray and brown grayally	<del>\</del>						. :	:	:	:
-1	GRAVELLY CLAY - orange, grey and brown gravelly (ironstone) clay	68%	D	1.0				-1			
		9/2						• :	:	:	:
-								•			
		16 X							:	:	:
-			D	1.5							
		8							:		
		68 Z									
		69°Q	_					•	:	:	:
-2		(S)	D	2.0				-2			
							-				
								. :			
-								. :			:
-			D	2.5							
•		6/6						·	:	:	:
-		KXX									
-									:	:	:
-3 3.0			—D—	_3.0 <u>_</u>				3 :			
	Pit discontinued at 3.0m - limit of investigation								:		-
	- Illilit of Investigation										
								•			
								· :	:	:	:
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RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: Water infilling at 2.1m

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 95.7 mAHD PIT No: 16

**EASTING:** 293930 **PROJECT No:** 76510.00

**NORTHING**: 6233210 **DATE**: 19/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

	Description	jic _		Sam		& In Situ Testing		Dymami	n Dana		Taat
Depth (m)	of	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamio (b	lows p	er mm)	riest
	Strata			۵	Sa	Comments		5	10	15	20
-	TOPSOIL - brown clayey silt with rootlets		E*	0.1			-				
0.4	CLAY - orange mottled grey clay with some fine grained ironstone gravel		D E	0.5			-				
- 1 - 1			D	1.0			-	1			
1.4	GRAVELLY CLAY - grey mottled orange gravelly (fine grained ironstone) clay, damp to wet		D	1.5			-				
-2 -			D	2.0			-	2			
-			D	2.5			-				
-3 - 3.1	SHALE - low strength, moderately weathered, black		D	3.0			-	3			
3.2	and grey shale Pit discontinued at 3.2m - limit of investigation	/ <del> </del>					-				
-											
-4 -							-	4			
-											
-							-				

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: \* Sample BD2/190112 collected

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

LING & IN STOTESTING
G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
Water seep
Water level



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 97.2 mAHD PIT No: 17

**EASTING**: 293875 **PROJECT No:** 76510.00

**NORTHING**: 6233127 **DATE:** 20/1/2012 **DIP/AZIMUTH:** 90°/--SHEET 1 OF 1

	Dont	th	Description	hic				& In Situ Testing	je je	Dv	namic	Penetr	omete	r Test
RL	Dept (m)	)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water		namic (blo			
	_		FILLING - dark brown silty clay (reworked natural)	XX			ΐ				5	10	15	20
_	-		, , , , , , , , , , , , , , , , , , ,		E*	0.1								
97						0.2					:	:	:	:
	- (	0.4		$\longrightarrow$						-		:		:
	-		CLAY - hard, yellow brown mottled orange clay			0.5				-			:	
	-				E	0.6				-	Ė			:
	-		<ul> <li>becoming grey mottled red with some fine grained ironstone gravel below 0.65m</li> </ul>									:		
	-		Worldtone graver below c.com							Ĺ				
	- 1				D	1.0				- 1				
				1//	_						:		:	:
96	-									-	:	:	:	:
	-									-	:			
	- ′	1.4	SHALE - extremely low to very low strength,		_	4.5				-				
	-		moderately weathered, red, brown and grey shale with grey shaly clay bands		D	1.5					:	:	:	:
	-									-				
	-		<ul> <li>becoming very low strength, grey brown shale below 1.7m</li> </ul>							-	:			
	-			===						-	:	:	:	:
	-2				D	2.0				-2				
95	-									į			-	
ກ		2.3		====							:	:	Ė	:
	-		SILTSTONE - low to medium strength, moderately weathered, purple, black and grey siltstone							-				
	-		3.7		D	2.5				-				
	-									-	:	:	:	:
	-									-		:		
	-													
	-3 :	3.0			—D—	_3.0 <u>_</u>			-	-3	<u>:</u>		-	
	-		Pit discontinued at 3.0m - limit of investigation							-		:		
94	-		min of invocagation							-	:			:
	-									-	:	:	:	:
	_													
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	-									ŀ	:	:	:	:

LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: On old track haul road; \* Sample BD2/200112 colleted

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

LING & IN SITU TESTING LEGEND
G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
V Water seep
S Standard penetration test
V Shear vane (kPa)



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

Gregory Hills

SURFACE LEVEL: 94.1 mAHD PIT No: 18

**EASTING**: 293854

**DIP/AZIMUTH:** 90°/--

**NORTHING:** 6233283

PROJECT No: 76510.00

**DATE:** 20/1/2012 **SHEET** 1 OF 1

Donth	Description	hic P		Sam		& In Situ Testing	_ i	Dyna	mic Pene	tromete	r Tes
Depth (m)	of Strate	Graphic Log	Type	Depth	Sample	Results & Comments	Water		mic Pene (blows p		
	Strata TORSOIL brown allows allowith rections	<del> </del>			Sa	Commonto	-	5	10	15	20
-	TOPSOIL - brown clayey silt with rootlets		Е	0.1				- :	:	:	:
0.25		<i>DXX</i>	_	0.2				t i			
-	CLAY - brown mottled orange slightly silty clay, damp							:		:	:
			D.	0.5							:
			E_	0.6				. :			-
-								- :	:	:	:
_								- :			
-			_					f :			
-1			D	1.0				-1			
	<ul> <li>becoming grey mottled orange silty clay with trace fine grained ironstone gravel below 1.1m</li> </ul>			1.1							
-	fine grained ironstone gravel below 1.1m							. :		:	:
-								- :			
-			D	1.5				- :		:	-
_				1.6				· :			
-								l i			:
	- some ironstone gravel below 1.8m							[ :	:	:	:
-2			D	2.0				-2			:
-								-		:	
- 2.2	GRAVELLY CLAY - orange mottled grey slighty silty	<del>VX</del>						-			
-	GRAVELLY CLAY - orange mottled grey slighty silty gravelly (black and red ironstone gravel) clay	\$8%					>	i :			
-		18%	D	2.5					:	:	:
- 2.6		(X)	D	2.5							:
-	SILTY CLAY - grey mottled orange silty clay with some fine grained ironstone gravel (possibly very fine grained sand)							- :			
-	grained sand)							-			
_								-			
-3 3.0	Pit discontinued at 3.0m	V 12 12	—D—	-3.0-				3	:	:	
-	- limit of investigation							. :			
-								-			
								- :	:	:	:
								t i			
-											:
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RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: Water seeping in at 2.3m on side walls

**REMARKS:** 

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample G G G B Bulk sample P F BLK Block sample U C C Core drilling W V C E E Environmental sample S SAMPLING

LING & IN STITUTES TING
G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
Water seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 95.1 mAHD PIT No: 19

**EASTING:** 293817 **PROJECT No:** 76510.00

**NORTHING:** 6233227 **DATE:** 20/1/2012 **SHEET** 1 OF 1

	Gregory Tillia					11. 30 /		OHLLI			
Donth	Description	hic		Sam		& In Situ Testing	<u>۳</u>	Dynam	nic Peneti	romete	r To
Depth (m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	5 Dyrian	(blows pe	r mm)	20
3-	TOPSOIL FILLING - brown clayey silt		E	0.1				-			
-			D E	0.5				-			
- 0.8 - -1 -	CLAY - dark orange mottled light orange-brown clay		D, E	1.0				- - 1			
-	- mottled orange grey slightly gravelly (ironstone) clay, damp to moist below 1.3m		D	1.5							
- - 1.9- -2 -	GRAVELLY CLAY - orange, brown and black gravelly (ironstone gravel) clay, damp to moist		D	2.0				-2			
- - -	- becoming orange mottled grey clayey gravel, moist to wet below 2.4m		D	2.5							
- 2.9 -3 - 3.1	SILTY CLAY - grey and orange silty clay		D	3.0				-3			
- 3.1	Pit discontinued at 3.1m - limit of investigation							-			
-  -  -								-			
-4 - -								-4			
-								-			
-								-			

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** On stockpile within site

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

ING & IN SITUTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
Water sample
Water seep
Water level



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 95.6 mAHD PIT No: 20

**NORTHING:** 6233164

**DIP/AZIMUTH:** 90°/--

**EASTING**: 293786 **PROJECT No:** 76510.00

**DATE:** 20/1/2012

SHEET 1 OF 1

Depth	Description	hic		_		& In Situ Testing	e.	Dynamic	: Penetr	ometer	· Test
(m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamic (b	lows pe	r mm)	20
-	TOPSOIL - brown silty clay		E	0.1	- 07			-			
- 0.3 -	CLAY - yellow brown mottled orange clay		D	0.5				-			
-	- becoming red mottled grey clay below 0.6m		E	0.6				-			
- -1 -			D	1.0				-1			
- 1.2- - - -	SILTY CLAY - grey mottled red silty clay with iron indurated bands and ironstone gravel bands		D	1.5				-			
- - -2 - 2.1 -	- becoming shaly clay below 1.9m  SHALE - very low to low strength, moderately		D	2.0				-2			
	SHALE - very low to low strength, moderately weathered, brown, purple and grey shale with low strength siltstone bands		D	2.5							
- -3 3.0-	Pit discontinued at 3.0m		—D—	-3.0-				3			:
·	- limit of investigation										
-4								-4			
.								-	:		:

LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Vater seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 94.8 mAHD PIT No: 21

**EASTING:** 293719 **PROJECT No:** 76510.00

**NORTHING**: 6233199 **DATE**: 20/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

_	Depth	Description	hic Pic				& In Situ Testing		Dvr	namic F	Penetron	neter Tes
	(m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water		(blo	ws per n	nm)
-		TOPSOIL - brown clayey silt with rootlets		E	0.1				-			
	0.3	CLAY - mottled orange red clay										:
				D/ E	0.5				-			
- 1	0.9	SILTY SANDY CLAY - orange mottled grey silty sandy clay with some fine grained ironstone gravel		D	1.0				-1			
									-			
		- slightly gravelly below 1.3m		D	1.5				-			
	1.7 1.9	SHALY CLAY - grey mottled orange shaly clay							-			
2		SHALE - very low to low strength, moderately weathered, grey, purple and brown shale with grey shaly clay and low strength iron indurated bands		D	2.0				-2			
				D	2.5				-			
									-			
-3	3.0	Pit discontinued at 3.0m - limit of investigation	•	—D—	-3.0-				-3			
									-			
4									-4			
									-			
									-			:
									} :			:

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 93.6 mAHD PIT No: 22

**NORTHING**: 6233298

**DIP/AZIMUTH:** 90°/--

**EASTING**: 293769 **PROJECT No:** 76510.00

> **DATE:** 20/1/2012 SHEET 1 OF 1

	Gregory milis		ווט	172		п: 90 /		SHEET	. 0.	•	
	Description	.9		Sam		& In Situ Testing	T_				_
Depth (m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynar 5	nic Pene (blows p	tromete er mm)	er Tes
	TOPSOIL - brown slightly clayey silt with rootlets	M		0.1	0,			-	:	:	
0.2	SILTY CLAY - brown mottled orange slightly silty clay		E*	0.2				-			
			D/	0.5				-			
				0.6				-			
	- grey mottled red brown silty clay with trace fine grained ironstone gravel, damp below 0.8m		_					-			
1			D	1.0				-1			
	<ul> <li>becoming orange mottled grey slightly sandy (very fine grained) silty clay, damp below 1.2m</li> </ul>									:	
1.6		1/1/	D	1.5							
1.0	GRAVELLY SILTY CLAY - orange mottled grey gravelly (fine grained ironstone) silty clay with grey silty clay bands, damp								:		
2			D	2.0				-2			
								-			:
								-	:		
			D	2.5							
								-			
.3			D	3.0				-3			
3.1	Pit discontinued at 3.1m - limit of investigation	121 /4/						-	:		
								-			
									:		
4								-4	:		
									:		:
									:		

LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: \* Sample BD3/20012 collected

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample G & IN STI O LESTING
Gas sample
Piston sample
Tube sample (x mm dia.)
Water sample
Water seep
Water level



**CLIENT:** Gregory Hills Corporate Park

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 93.4 mAHD PIT No: 23

**EASTING**: 293684 **PROJECT No:** 76510.00

**NORTHING**: 6233298 **DATE:** 20/1/2012 **DIP/AZIMUTH:** 90°/--SHEET 1 OF 1

	_		Description	.je		Sam		& In Situ Testing	_	D D.		T
뮙	Dep (m	oth n)	of	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamic Per (blows	per mm)	rest
Н		_	Strata		Ĺ.	۵	Sal	Comments		5 10	15	20
		0.0	TOPSOIL - brown silty clay with rootlets		E	0.1				-		
- 6	•	0.3	CLAY - yellow brown mottled orange clay with some silt		D E	0.5						
	- 1 	0.9	SILTY CLAY - brown mottled orange slightly silty, slightly gravelly (fine grained ironstone) clay		D	1.0				-1		
- 6		1.3	SILTY CLAY - grey mottled orange silty clay with bands of orange gravelly (ironstone) silty sandy clay, damp to wet		D	1.5			>			
	- 2 - 2 -				D	2.0				-2		
	- - -	2.4	SHALE - extremely low to very low strength, moderately weathered, orange, grey, purple and brown shale with band of grey orange sandy clay		D	2.5						
	-3				D	3.0				-3		
$\mathbf{H}$		3.1	Pit discontinued at 3.1m							: :	<u>:</u>	:
- 06	· · ·		- limit of investigation									
- 68	-4 -4 -									-4		
	- - -											

LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: Very slight infilling below 1.4m (possibly from adjacent dam)

**REMARKS:** 

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Vater seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 94.5 mAHD PIT No: 24

**EASTING:** 293592 **PROJECT No:** 76510.00

**NORTHING:** 6233274 **DATE:** 20/1/2012 **SHEET** 1 OF 1

_		Description	.je		Sam		In Situ Testing		Dunam	ia Dana	tramata	. T.
Dep (m	otn n)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynam (	blows p	er mm)	ı ies
		Strata		<u> </u>	ă	Sa	Comments		5	10	15	20
-		FILLING - red brown and grey gravelly silty clay			0.1				:	:	:	:
-			$\langle \rangle \rangle$	E	0.2							
-								-	:	:	:	:
-			$\bowtie$						i			
	0.5	FILLING - brown clayey silt		B/	0.5				:	:	:	:
	0.6	SILTY CLAY - dark orange/red mottled brown silty clay	1//		0.6							
									:	:	:	:
- 1					1.0			-	1	:	:	:
				_E_	1.1							
	1.3	SANDY SILTY CLAY - grey and orange sandy silty	1///							:	i	
		clay		D	1 5				:	:	:	:
				D	1.5				:	:	:	:
									:	:	:	:
								-		:	:	
-2				D	2.0				2	:	:	:
								-	:	:	:	:
									:	:	:	:
		<ul> <li>with pockets of extremely to highly weathered ironstone gravel below 2.4m</li> </ul>		D	2.5						:	
		ironstone gravei below 2.4m			2.0				:	:	:	:
									i		÷	
									:	:	:	:
-								-	i		i	
-3				D	3.0				3	:	:	i
	3.1	Pit discontinued at 3.1m	1///							:	÷	
		- limit of investigation									:	:
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RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 92.8 mAHD PIT No: 25

**EASTING:** 293645 **PROJECT No:** 76510.00

**NORTHING:** 6233375 **DATE:** 20/1/2012 **DIP/AZIMUTH:** 90°/-- **SHEET** 1 OF 1

		Description	ji -		Sam		& In Situ Testing		Dynamic Pene	tromotor To
Dej (m	ptn n)	of Strata	Graphic Log	Type	Depth	Sample	Results & Comments	Water	(blows p	er mm)
		TOPSOIL - brown silty clay		E*	0.1	- 0,				
	0.3	CLAY - yellow brown/orange mottled grey clay		D E	0.5					
"   -1  -	0.9	CLAY - grey mottled brown and orange clay with some fine grained ironstone gravel		D	1.0				-1	
-	1.4	GRAVELLY CLAY - black, brown, orange and grey gravelly (ironstone) clay		D	1.5					
-2	0.0			D	2.0				-2	
-	2.2-	SHALE - extremely low strength, extremely weathered, grey and orange shale with bands of very low to low strength, orange medium to coarse grained sandstone and iron indurated bands		D	2.5					
-3	3.0	Pit discontinued at 3.0m - limit of investigation		—D—	-3.0-				3	
-4									-4	
-										

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: \* Sample BD4/200112 collected

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Vater seep
Water level



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 93.7 mAHD PIT No: 26

**PROJECT No:** 76510.00

**EASTING**: 293571 **NORTHING**: 6233347 **DATE:** 20/1/2012 DIP/AZIMUTH: 90°/--SHEET 1 OF 1

	Depth	Description	hic		Sam		& In Situ Testing	-e-	Dynamic	Penetrome	eter Test
R	(m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water		Penetrome ows per mr	
-	-	FILLING (TOPSOIL stockpile) - light brown clayey silt, mc <pl< td=""><td></td><td>E</td><td>0.1</td><td>S</td><td></td><td></td><td>5 - : - : - :</td><td>10 15</td><td>20</td></pl<>		E	0.1	S			5 - : - : - :	10 15	20
93	- - -			D/ E	0.5						
	- -1 -			D/ E	1.0				-1 -		
76	- 1.3- - 1.45- -	TOPSOIL - dark brown silty clay with frequent rootlets, decomposing, strong compost odour, mc <pl -="" brown="" clay="" clay,="" firm="" grey="" light="" mc~pl<="" mottled="" orange="" sandy="" silty="" stiff,="" td="" to=""><td></td><td>D/ E</td><td>1.5</td><td></td><td></td><td></td><td></td><td></td><td></td></pl>		D/ E	1.5						
	- - -2 -			D/ E	2.0				- -2 -		
	- - -	- becoming soft to firm, with some extremely low to low strength, extremely to highly weathered, coarse grained ironstone gravel pockets, mc>pl		D	2.5				-		
	- - - 3 - 3.1-			D	3.0				-3		
	- - -	Pit discontinued at 3.1m - limit of investigation							-		
-06	- - - -4								-4		
	- - -								- :		
- 68	- - -										

LOGGED: DJM RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

LING & IN SITU 1ESTING LEERIN

G Gas sample PID Photo ionisation detector (ppm)
P Piston sample PL(A) Point load axial test Is(50) (MPa)
U, Tube sample (x mm dia.)
W Water sample
W Water sample POcket penetrometer (kPa)
P Water seep S Standard penetration test
W Water level V Shear vane (kPa)



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 93.3 mAHD PIT No: 27A

**EASTING:** 293500 **PROJECT No:** 76510.00

**NORTHING:** 6233383 **DATE:** 20/1/2012 **DIP/AZIMUTH:** 90°/-- **SHEET** 1 OF 1

		Description	. <u>ಲ</u>		Sam	pling 8	In Situ Testing		_			
씸	Depth (m)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynam (	ic Penet blows pe	romete er mm)	r lest
		Strata		F	De	Sar	Comments	$\perp$	5	10	15	20
$\mathbf{f}$	-	FILLING - low to medium strength, moderately weathered to fresh, shale, sandstone and silty clay stockpile, blue grey boulders, brown mottled light brown silty clay, mc>pl		E	0.1			1 +	:	:	:	:
- 68		stockpile, blue grey boulders, brown mottled light brown silty clay, mc>pl			0.2				:	:	:	:
- "	-								:	:	:	:
+	-			D/	0.5			1 +				
İ					0.6				:	:	:	:
-	-											
ł	-				4.0			1 +		:	:	:
ļ	1.1			D	1.0				·1	- :	- :	
-	-	Pit discontinued at 1.1m - refusal, relocated to base of stockpile						-				
-8	-							1 +				
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t												
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RIG: JCB-4CX - 450mm bucket LOGGED: DJM SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Vater seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 93.3 mAHD PIT No: 27B

**NORTHING**: 6233381

**DIP/AZIMUTH:** 90°/--

**EASTING**: 293506 **PROJECT No**: 76510.00

**DATE:** 20/1/2012 **SHEET** 1 OF 1

Donth	Description	hic				& In Situ Testing		Dynamia	Panetrom	eter Tost
Depth (m)	of Strata	Graphic Log	Type	Depth	Sample	Results & Comments	Water		ows per m	eter Test m)
-	TOPSOIL - dark brown clayey silt with frequent rootlets, mc>pl		E	0.1	- 0,			-		
0.2	CLAY - firm to stiff, brown clay, mc~pl			0.2				-		:
- 0.5	CDAVELLY SILTY CLAY stiff orange brown method		_ <u>p</u> _/	0.5				-		
-	GRAVELLY SILTY CLAY - stiff, orange brown mottled light grey gravelly silty clay with some coarse grained ironstone gravel throughout, mc>pl		E	0.6				-		:
								-		
-1			D	1.0				-1		
  -										:
-				4.5				-		
- 1.5	SHALY CLAY - stiff, orange brown mottled light grey shaly clay with extremely low strength, extremely weathered, ironstone and shale bands/pockets, mc>pl	-/-  -/-  -/-	D	1.5						
	weathered, ironstone and shale bands/pockets, inc>pi	-/-  -/-  -/-								
-2 2.0	Pit discontinued at 2.0m	<u> </u>	—D—	-2.0-				2		:
	- limit of investigation									:
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-								-		:
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RIG: JCB-4CX - 450mm bucket LOGGED: DJM SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

**SURFACE LEVEL:** 94.8 mAHD **PIT No:** 28

**EASTING:** 293476 **PROJECT No:** 76510.00

**NORTHING**: 6233318 **DATE**: 20/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

Donth	Description	hic				& In Situ Testing		Dynamic	Penet	omete	r Tec
Depth (m)	of	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamio (b	lows pe	r mm)	
	Strata  FILLING - well compacted, shaly clay and light brown shale with some fine to coarse grained (igneous) gravel and very low to medium strength, extremely to slightly weathered, shale fragments, mc <pl< td=""><td></td><td>E</td><td>0.1</td><td>Sa</td><td>Comments</td><td></td><td>5</td><td>10</td><td>15</td><td>20</td></pl<>		E	0.1	Sa	Comments		5	10	15	20
	slightly weathered, shale fragments, mc <pl< td=""><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td></pl<>						-				
0.5	FILLING - light grey mottled dark brown silty clay with some rootlets		B	0.5							
1			D/ E	1.0			-	1			
			D, E	1.5			-				
1.8	SILTY CLAY - stiff to very stiff, red brown silty clay with trace fine grained (ironstone) gravel and rootlet, mc <pl -="" becoming="" grey<="" light="" mottled="" td=""><td></td><td>D E</td><td>2.0</td><td></td><td></td><td>-</td><td>2</td><td></td><td></td><td></td></pl>		D E	2.0			-	2			
	- becoming light grey mottled red brown		D E	2.5			-				
3 3.0-			D_	-3.0-			-	3			:
	Pit discontinued at 3.0m - limit of investigation						-				
4							-	4			
							-				

RIG: JCB-4CX - 450mm bucket LOGGED: DJM SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 93.8 mAHD PIT No: 29 **EASTING**: 293410

**NORTHING:** 6233411

**DIP/AZIMUTH:** 90°/--

**PROJECT No:** 76510.00

**DATE:** 20/1/2012 SHEET 1 OF 1

Darth	Description	.ic −		Sam		& In Situ Testing		Dimomia	Donotromoto	r Too
Depth (m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamic (b	Penetromete lows per mm)	er i es 20
	TOPSOIL - light brown clayey silt with some fine to coarse grained (igneous and shale) gravel with frequent rootlets, mc>pl		E	0.1				-		
0.3	SILTY CLAY - stiff, red brown mottled light brown silty clay, mc <pl< td=""><td></td><td>D/ E</td><td>0.5</td><td></td><td></td><td></td><td></td><td></td><td></td></pl<>		D/ E	0.5						
1 1.0	GRAVELLY SANDY CLAY - soft to firm, light brown and yellow brown gravelly sandy clay with some extremely low strength, extremely weathered shale		D/ E	1.0				-1		
1.4	fragments, mc>pl  SILTY CLAY - soft, orange brown mottled light grey silty clay with some extremely low to very low strength, extremely weathered shale fragments, mc>pl		D	1.5				-		
2			D	2.0				-2		
	increasing extremely low to very low strength, extremely to moderately weathered, shale bands		D	2.5						
·3 3.0·			—D—	-3.0-				3		:
-4	Pit discontinued at 3.0m - limit of investigation							-4		

LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

Gas sample
Piston sample
Tube sample (x mm dia.)
Water sample
Water seep
Water level



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 97.5 mAHD PIT No: 30

**EASTING**: 294415 **PROJECT No:** 76510.00

**DATE:** 19/1/2012

**NORTHING**: 6233374 **DIP/AZIMUTH:** 90°/--SHEET 1 OF 1

	Denth	Description	hic				& In Situ Testing	e_	Dvnamic P	enetromete	er Test
RL	Depth (m)	of Strata	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynamic Po (blow		20
76	- - - 0.4	TOPSOIL - brown slightly clayey silt  SILTY CLAY - dark orange mottled orange slightly silty		D	0.5	0,			-		
-	- 0.6	clay  Pit discontinued at 0.6m	YYY		0.0						:
-	-	- limit of investigation									
	-1 -								-1		
-	-								-		
96	-								-		
	- - -2								- 2		
-	-								-		
	-										
-									-		
-	-3								- - -3		
	-								- : :		
94	-										
	-										
-	- -4								-4		
-	- -								-		
- 83	-								-		
-	-								- : : : : : : : : : : : : : : : : : : :		
Ŀ	-								-	:	:

RIG: JCB-4CX - 450mm bucket

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

SURVEY DATUM: MGA94 Zone 56

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Water seep
Water level

GLEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
pp Pocket penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)

LOGGED: BAH



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 99.6 mAHD PIT No: 31

**EASTING**: 294444 **PROJECT No**: 76510.00

**NORTHING:** 6233328 **DATE:** 18/1/2012 **DIP/AZIMUTH:** 90°/-- **SHEET** 1 OF 1

	_ Depth	Description	. <u>S</u> _		Sam		& In Situ Testing	_	D a sui a Dana	
R	Depth (m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water		etrometer Test per mm)
	-	TOPSOIL - brown clayey silt with rootlets		-	Q	S	33		5 10	15 20
	- 0.3	CLAY - dark orange-red mottled light orange brown clay with trace fine grained ironstone gravel		D	0.5					
66	- 0.6 - - -	Pit discontinued at 0.6m - limit of investigation								
	-1 -								-1	
	- - -								-	
- 86	-								-	
	-2 -								-2	
	- -									
26	-									
	-3 -								-3	
	- -									
96	- -									
	- -4 -								-4	
	-									
96	- - -									
	-								-	

RIG: JCB-4CX - 450mm bucket LOGGED: BAH

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

☐ Sand Penetrometer AS1289.6.3.3

SURVEY DATUM: MGA94 Zone 56

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C C core drilling
D Disturbed sample
E Environmental sample

LING & IN STOTESTING
G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
Water seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

**SURFACE LEVEL:** 98.8 mAHD **PIT No:** 32

**EASTING**: 294365 **PROJECT No**: 76510.00

**NORTHING**: 6233341 **DATE**: 18/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

	_		Description	ic _		Sam		& In Situ Testing		Dunamia F	) on otromo	tor Toot
R	De (r	epth m)	of	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamic F (blow	ws per mm	i)
			Strata		F	۵	Sar	Comments		5 1 :	0 15	20
-	-		TOPSOIL - brown clayey silt with rootlets							-		:
-	- - -	0.2	SILTY CLAY - orange mottled grey slightly silty clay with trace fine grained ironstone gravel		D	0.5						
-	-	0.6	Pit discontinued at 0.6m									
- 86	-		- limit of investigation							-		
-	-									-	:	
	- 1 -									-1		
-	_									-		
ŀ											: i	:
-	_									-		
-	_									-		:
97												
-	_									-		
	-2									-2	: i	:
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-	-									-		
- 96	-											
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95												
-	-4									-4		
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94	_									-		
											<u> </u>	

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



**CLIENT:** Gregory Hills Corporate Park

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

Gregory Hills

SURFACE LEVEL: 100.3 mAHD PIT No: 33

**EASTING:** 294337 **PROJECT No:** 76510.00

**NORTHING**: 6233296 **DATE**: 18/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

			Description	. <u>.</u>	Sampling & In Situ Testing		L		_		_		
R	De (n	pth n)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynami (b	c Penetro olows per	meter mm)	Test
	`		Strata	Q	Ţ	De	San	Comments		5		15	20
100	-	0.3-	TOPSOIL - brown slightly clayey silt with rootlets  CLAY - red clay with trace fine grained ironstone gravel and some rootlets		D	0.5							
-	-	0.6	Pit discontinued at 0.6m								<del>-</del>	:	:
	- - - 1 - - -		- limit of investigation							-1			
86	- 2									-2			
76	-3 - -									-3			
	- - - - - - -									-4			
-	-									_			

WATER ORDERWATIONS Als for a second of second second

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3

SURVEY DATUM: MGA94 Zone 56

☐ Cone Penetrometer AS1289.6.3.2

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level

RIG: JCB-4CX - 450mm bucket

GLEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
pp Pocket penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)

LOGGED: BAH



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 98.3 mAHD PIT No: 9

**NORTHING:** 6233031

**DIP/AZIMUTH:** 90°/--

**EASTING:** 294074 **PROJECT No:** 76510.00

**DATE:** 19/1/2012 **SHEET** 1 OF 1

Depth	Description	hic P		_		& In Situ Testing		Dynami	ic Pene	tromete	r Tes
(m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	(l	olows p	er mm)	
	TOPSOIL - brown clayey silt with rootlets and trace	XX	'		Ö			5	10	15	20
	bark and roots		Е	0.1							
0.25	CLAY - dark orange mottled light orange brown clay							:	:	:	:
				0.5							
			D E*	0.6				:	:	:	:
0.9								:	:	:	:
1	GRAVELLY SILTY CLAY - orange brown grey gravelly (fine grained ironstone) silty clay		D	1.0				1			
							-				
1.3	01 T/ 01 A/										:
	SILTY CLAY - orange mottled grey silty clay with some fine grained ironstone gravel						-				
			D	1.5							
							-	:	:	:	:
2	becoming down to maint helpy 2.0m		D	2.0				2			
	- becoming damp to moist below 2.0m						-				
								:	:	:	:
2.4	GRAVELLY CLAY - orange mottled grey gravelly	- V					-	:	:		
	(ironstone) clay, moist to wet		D	2.5							
2.9								:	:	:	:
3 3.1	SANDSTONE - very low to low strength, highly weathered, orange, grey, brown and black very fine grained sandstone		D	3.0				3			
	Pit discontinued at 3.1m						-				
	- limit of investigation							:	:	:	:
							-				
								:			:
4								4		:	
								:			:
								:			
								:			:
								:			
								:	:	:	:
			1					:	:	:	:

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: \* Sample BD1/190112 collected

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Water seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

Gregory Hills

SURFACE LEVEL: 102.3 mAHD PIT No: 34

**EASTING:** 294362 **PROJECT No:** 76510.00

**NORTHING**: 6233237 **DATE**: 18/1/2012 **SHEET** 1 OF 1

	Daretta	Description	jc <b>T</b>		Sam		& In Situ Testing		Dynamia F	Constramat	or Toot
묍	Depth (m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamic F (blowns	ws per mm	20
-		TOPSOIL - brown clayey silt with rootlets		D	0.2	S					
102	0.3	CLAY - dark orange mottled light orange clay		D	0.5				-		
-	0.55-	Pit discontinued at 0.55m - limit of investigation	- V - Z						-		
	1								-1 -1		
-											
-	·2								-2		
-									-		
	∙3								-3		
SS -									-		
									-		
-	· 4								-4		
2											
-									-		
-									-		

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 102.2 mAHD PIT No: 35

**EASTING:** 294283 **PROJECT No:** 76510.00

**NORTHING**: 6233140 **DATE**: 18/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

	Б :1	Description	ic _		Sam		& In Situ Testing		Dumamia Da	notromotor Tool	
R	Depth (m)	of Strata	Graphic Log	Туре	Depth	Sample	Results & Comments	Water		netrometer Test s per mm)	
102		TOPSOIL - brown clayey silt with rootlets				<u> </u>			5 10	15 20	
	0.3	SILTY CLAY - orange silty clay with trace rootlets - becoming red orange mottled grey brown silty clay below 0.4m		D	0.5				-		
	0.6	Pit discontinued at 0.6m - limit of investigation									
101	-1								-1		
									-		
100	-2								-2		
66	-3								-3		
									-		
86	-4								-4		
									-		

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

SAMPLING & IN SITU TESTING LEGEND

A Auger sample G
B Bulk sample P
BLK Block sample U
C Core drilling W
D Disturbed sample
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Water seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

Gregory Hills

SURFACE LEVEL: 100.7 mAHD PIT No: 36

**EASTING:** 294238 **PROJECT No:** 76510.00

**NORTHING**: 6233098 **DATE**: 18/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

			Description	.c.	Sampling & In Situ Testing	_							
R	Dep (m	oth n)	of	Graphic Log	Type	Depth	Sample	Results &	Water	Dynamid (b	Penetro lows per	meter mm)	Test
	l `		Strata	G	Ţ	Del	San	Results & Comments	_	5	10 1	5	20
-	-	0.0	TOPSOIL - brown clayey silt with rootlets							-			
ŀ	-	0.2	SILTY CLAY - orange mottled brown silty clay with ironstone gravel	1/1/									
ŀ	-	0.4	CLAY - red mottled grey clay with trace fine grained ironstone gravel		D	0.5				- -	:		
100		0.6	Pit discontinued at 0.6m - limit of investigation							-			
-	-		<b>3</b>							- :	:		
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96	-									-		:	
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L											<u>:</u>	<u>:</u>	

RIG: JCB-4CX - 450mm bucket LOGGED: BAH

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

☐ Sand Penetrometer AS1289.6.3.3

SURVEY DATUM: MGA94 Zone 56

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C C core drilling
D Disturbed sample
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Water seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 98.4 mAHD PIT No: 37

**EASTING:** 294169 **PROJECT No:** 76510.00

**NORTHING:** 6233031 **DATE:** 18/1/2012 **DIP/AZIMUTH:** 90°/-- **SHEET** 1 OF 1

		Description	ي		Sam	pling &	& In Situ Testing				
RL	Depth (m)	of	Graphic Log	Type	Depth	Sample		Water	Dynamic P (blov	enetromete vs per mm)	r Test
	(***)	Strata	้อ	Ту	Dep	Sarr	Results & Comments	>	5 10		20
	0.3-	TOPSOIL - brown clayey silt with some rootlets		D	0.2				-		
-86-	0.6	SILTY CLAY - dark orange mottled brown slightly gravelly (fine grained ironstone gravel) silty clay with some fine grained sandstone gravel and rootlets - becoming more gravelly with depth		D	0.5						
-  - -  -		Pit discontinued at 0.6m - limit of investigation							-		
.	1								-1		
. 46											
 									-		
.	·2								-2		
 -8- 											
	3								-3		
96											
.											
	4								-4		
									-		
-									}		

RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

Gregory Hills

SURFACE LEVEL: 100.1 mAHD PIT No: 38

**EASTING:** 294162 **PROJECT No:** 76510.00

**NORTHING**: 6232950 **DATE**: 18/1/2012 **DIP/AZIMUTH**: 90°/-- **SHEET** 1 OF 1

	_ Depth	Description	. <u>.</u>		Sam		& In Situ Testing	_		
R	Depth (m)	of Out to	Graphic Log	Туре	Depth	Sample	Results & Comments	Water		netrometer Test per mm)
- 100	-	Strata  FILLING - brown silty clayey gravel (shale, siltstone and sandstone) with sandstone and shale cobbles		Ε	٥	S S	Commone		5 10	15 20
-	- 0.5 - -	Pit discontinued at 0.5m - limit of investigation	_ <b>K</b> XX	—D—	0.5				-	
- 66	-1 - - - -								-1	
- 86	- 2 - 2 								-2	
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RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Water seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 99.0 mAHD PIT No: 39

**EASTING:** 294178 **PROJECT No:** 76510.00

**NORTHING:** 6233117 **DATE:** 18/1/2012 **DIP/AZIMUTH:** 90°/-- **SHEET** 1 OF 1

	_		Description	.je		Sam		& In Situ Testing	_	D a mai a D.		t
꿉	Dep (m	oth 1)	of	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamic Pe (blow	s per mm)	riest
8			Strata	0		۵	Sar	Comments		5 10	15	20
-	-		TOPSOIL - brown clayey silt with rootlets							- :		
	- -	0.2	CLAY - red mottled brown grey clay with some fine grained ironstone gravel		D	0.2						
	- -	0.7			D	0.5						
$\left  \cdot \right $	-		Pit discontinued at 0.7m - limit of investigation							- : :		
- 86	- -1 -		·							-1 -1		
	- - -									-		
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	- - -											
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96	- -3 -									-3		
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95	- - -									-4		
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RIG: JCB-4CX - 450mm bucket LOGGED: BAH SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
B Buk Sample
B Buk Sample
C Core drilling
C C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water sample
W Water level



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 99.3 mAHD PIT No: 40

**PROJECT No:** 76510.00 **EASTING**: 294185

**DATE:** 18/1/2012

**NORTHING:** 6233170 **DIP/AZIMUTH:** 90°/--SHEET 1 OF 1

	Depth	Description	Graphic Log				& In Situ Testing	ter	Dynam	nic Pene	etromete	er Test
R	(m)	of Strata	Grap C	Grap Log Type	Depth	Sample	Results & Comments	Water		ic Pene blows p		
Н		TOPSOIL - brown silty clay with rootlets	1XX			Š		+	5 :	10	15	20
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-66	0.25	CLAY - red mottled brown clay with trace fine grained ironstone gravel and rootlets	1//							:		:
} }		ironstone gravel and rootlets							- :	:	:	:
ŀŀ				D	0.5				- :	:	:	:
	0.6 0.7	CLAY - grey clay with some red ironstone gravel								- :		
} }		Pit discontinued at 0.7m - limit of investigation							-	:		:
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LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Water seep
Water level



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

LOCATION: Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 101.6 mAHD PIT No: 41

**EASTING**: 294263 **PROJECT No:** 76510.00

**NORTHING**: 6233191 **DATE:** 18/1/2012 **DIP/AZIMUTH:** 90°/--SHEET 1 OF 1

		Description	.je		Sam		& In Situ Testing	Ļ	Dynamic Penetrometer Test			
뮙	Depth (m)	of	Graphic Log	Туре	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)			
-		Strata  TOPSOIL - brown clayey silt with rootlets		-	Δ	Sa	Comments		5 10	15 20		
- - -	0.35	CLAY - orange mottled grey-brown slightly silty clay with trace fine grained ironstone gravel		D	0.5							
101	0.6	Pit discontinued at 0.6m - limit of investigation	_\/_/									
  -  -	-1								-1			
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  -  -  -	-2								-2			
- - - -												
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86												
	-4								-4			
97												

LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

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

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample EING & IN STOTESTING
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
Water seep
Water level



**CLIENT:** Gregory Hills Corporate Park

**PROJECT:** Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

Gregory Hills

SURFACE LEVEL: 101.5 mAHD PIT No: 42

**EASTING:** 294305 **PROJECT No:** 76510.00

**NORTHING**: 6233232 **DATE**: 18/1/2012 **SHEET** 1 OF 1

		Description of	Graphic Log	Sampling & In Situ Testing					D a ani a I	Donoton Tool		
R	Depth (m)			Туре	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)			
-	- - - 0.3-	Strata  TOPSOIL - brown clayey silt with rootlets  SILTY CLAY - red mottled brown grey slightly silty clay with trace fine grained ironstone gravel and rootlets		<u> </u>		Se			5	15	20	
101	- 0.6		1//	D	0.5				-		<u>:</u>	
-	- 1 	Pit discontinued at 0.6m - limit of investigation							- - -1 -			
100	- - - - -2								2			
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-	- -3 - -								-3			
	-								-			
	- 4 - - - -								-4			
-	-								-			

WATER ORGERVATIONS No feet and a transfer and

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

SURVEY DATUM: MGA94 Zone 56

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample G G Gas sam
B Bulk sample P Piston se
BLK Block sample U, Tube san
C Core drilling W Water se
D Disturbed sample P Water se
E Environmental sample \$\frac{\pmy}{2}\$ Water level

RIG: JCB-4CX - 450mm bucket

LING & IN SITUTESTING
G Gas sample
P Piston sample (x mm dia.)
W Tube sample (x mm dia.)
W Water sample
Water seep
Water level

G LEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
pp Pocket penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)

LOGGED: BAH



Gregory Hills Corporate Park **CLIENT:** 

PROJECT: Salinity Investigation and Management Plan

**LOCATION:** Lot 701 in Deposited Plan 1154772

**Gregory Hills** 

SURFACE LEVEL: 99.4 mAHD PIT No: 43

DIP/AZIMUTH: 90°/--

**PROJECT No:** 76510.00 **EASTING**: 294279

**NORTHING**: 6233303 **DATE:** 18/1/2012 SHEET 1 OF 1

		Description	.jc	Sampling & In Situ Testing					Dynamic Penetrometer Test (blows per mm)			
RL	Depth (m)	of	Graphic Log	Туре	Depth	Sample	Results & Comments	Water				
		Strata  TOPSOIL - brown clayey silt with rootlets	XX			Š		-	5	10	15	20
				D	0.2				<u> </u>			
	0.25	CLAY - yellow brown mottled orange slightly silty clay with trace fine grained ironstone gravel			0.2				[ :	:	:	:
-66		with trace fine grained ironstone gravel							-			
	0.6			D	0.5							
.		Pit discontinued at 0.6m - limit of investigation							- :	:	:	:
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LOGGED: BAH RIG: JCB-4CX - 450mm bucket SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** 

☐ Sand Penetrometer AS1289.6.3.3

☐ Cone Penetrometer AS1289.6.3.2

**SAMPLING & IN SITU TESTING LEGEND** 

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

LING & IN SITU TESTING LEGEND
G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
V Water seep
S Standard penetration test
V Shear vane (kPa)

