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CLIENT	DMR	LOGGED BY	ACS
PROJECT	IPSWICH MOTORWAY UPGRADE - WACOL TO DARRA	CHECKED BY	GWB
		DRILLED DATE	09-Aug-07
CONTRACTOR	Terratest	ANGLE	Vertical
DRILL MODEL	Edson 3000	BEARING	-
DRILLER	Brent Ormsby	HOLE DIAMETER	100mm ()
		GROUND LEVEL	RL 25.33m
		LOCATION	32732 E 150398 N
		ELEVATION DATUM	Australian Height Datum
		COORDINATE SYSTEM	Local Grid

DRILLING	STRATA		MATERIAL DESCRIPTION	CONDITION		OBSERVATION		
	SAMPLE, TEST, BIT, SUPPORT, ETC.	R.L.		DEPTH	WATER/MOISTURE		CONSISTENCY	
		m		m			COHESIVE	NON COHESIVE
				VS	VL			
				S	L			
				ST	ST			
				VST	H			
					VL			
					L			
					MD			
					D			
					VD			
						SOIL ORIGIN, STRUCTURE, ETC.		

		SM	Silty SAND (SM) loose to medium dense, fine to coarse grained, brown, with rootlets, with gravels fine to medium grained sub-angular and clay. 0.50 with gravels medium grained	D		FILL
	24.63	0.70				
		1				
	24.23	1.10	Sandy CLAY (CL) firm, grey mottled brown and dark brown, sand fine to coarse grained.			FILL
		2				
	23.58	1.75	Clayey SAND (SC) medium to coarse grained, brown, clay (CI), with gravels fine to medium grained, sub-angular to sub-rounded. 1.67m - 1.75m yellow sand, fine to coarse grained	D		FILL
SPT at 1.8m N 6;5,3						
		3				
	22.33	3.00	Sandy CLAY (CM) soft to firm, light brown, then red-brown, sand fine to medium grained, with ironstone gravel sub-angular.			FILL
		4				
	21.03	4.30	CLAY (CI-CH) very stiff to hard, grey mottled red-light brown (ironstained), with sands fine to medium grained sub-angular, with traces of gravels fine grained.			COHES
SPT at 3.3m N 6;13,17						
		5				
	20.78	4.55	Sandy CLAY (CI) stiff, grey mottled brown, sand fine to coarse grained.	D		COHES
SPT at 4.8m N 7;14,20						
		6				
	20.38	4.95	NO RECOVERY OF SAMPLE IN SPT: Inferred poorly cemented sand and gravel. Sandy CLAY (CL) stiff to very stiff, grey mottled red brown, sand fine to coarse grained, with ironstone gravels angular.			COHES
SPT at 6.3m N 10;20,17						
		7				
	19.00	6.33	Ironstone GRAVEL (GP) very dense, fine to medium grained.			NONCO
	18.93	6.40	CLAY (CI-CH) very stiff, grey light brown.			
		8				
	17.78	7.55	CLAY (CI-CH) soft to firm, grey light brown.			COHES
SPT at 7.8m N 5;11,13						
	17.71	7.62	CLAY (CI-CH) stiff then very stiff, brown, with sand coarse grained and gravels fine grained sub-angular, with a trace of root fibres.			COHES
		9				
	16.33	9.00	CLAY (CI-CH) firm to stiff, grey red brown (ironstained).			COHES
SPT at 9.3m N 7;10,13						
	16.28	9.05	CLAY (CH) stiff to very stiff, grey, ironstone lenses.			COHES
	16.13	9.20 9.15 with brown rootlets CLAY (CM-CH) very stiff, grey, with silt.			COHES

NOTES	Hole Diameter 100mm to 22.95m depth. (Solid Flight Augering to 9m. HW casing to 9.4m. Washboring with 100mm diameter tri-blade bit from 9m to 12m, 75mm diameter tri-blade bit from 21m to 22.5m. NMLC Coring from 12.3m to 21m. No free groundwater observed during drilling.)	JOB	86015
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 gINT output page 1 of 2. Made 22Jan08 10:50

CLIENT	DMR	LOGGED BY	ACS
PROJECT	IPSWICH MOTORWAY UPGRADE - WACOL TO DARRA	CHECKED BY	GWB
		DRILLED DATE	09-Aug-07
CONTRACTOR	Terratest	ANGLE	Vertical
DRILL MODEL	Edson 3000	BEARING	-
DRILLER	Brent Ormsby	HOLE DIAMETER	100mm ()
		GROUND LEVEL	RL 25.33m
		LOCATION	32732 E 150398 N
		ELEVATION DATUM	Australian Height Datum
		COORDINATE SYSTEM	Local Grid

DRILLING	STRATA			MATERIAL DESCRIPTION	CONDITION		OBSERVATION		
	SAMPLE, TEST, BIT, SUPPORT, ETC.	R.L. m	DEPTH m		GROUP SYMBOL	LEGEND		CONSISTENCY	
								SOIL TYPE Plasticity / Grain Size, Colour, Minor Components	WATER / MOISTURE
						VS S L ST VST H	VL J MD D VD	SOIL ORIGIN, STRUCTURE, ETC.	
← SPT at 10.56m N 30/115s	14.83	10.50	CM CH	CLAY (CM-CH) very stiff, grey, with silt. <i>(continued)</i>				COHES	
		11		CLAY (CH) very stiff to hard, grey brown mottled light brown, with a trace of silt. 10.60 very dense, ironstone band (high strength) up to 6mm thick				COHES	
← SPT at 12.23m N 7;30/150		12		Borehole continued as a Cored Drillhole					
		13							
		14							
		15							
		16							
		17							
		18							
		19							

NOTES	Hole Diameter 100mm to 22.95m depth. (Solid Flight Augering to 9m. HW casing to 9.4m. Washboring with 100mm diameter tri-blade bit from 9m to 12m, 75mm diameter tri-blade bit from 21m to 22.5m. NMLC Coring from 12.3m to 21m. No free groundwater observed during drilling.)	JOB	86015
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CLIENT DMR
PROJECT IPSWICH MOTORWAY UPGRADE - WACOL TO DARRA

LOGGED BY ACS
CHECKED BY GWB
DRILLED DATE 09-Aug-07

CONTRACTOR Terratest
DRILL MODEL Edson 3000
DRILLER Brent Ormsby
ANGLE Vertical
BEARING -
HOLE DIAMETER 100mm ()

GROUND LEVEL RL 25.33m
LOCATION 32732 E 150398 N
ELEVATION DATUM Australian Height Datum
COORDINATE SYSTEM Local Grid

DRILLING				STRATA		MATERIAL DESCRIPTION						DISCONTINUITIES								
TOR % (Drill rate)	SCR / (ROD)	FLUSH RETURN % (TYPE)	SAMPLES (CaCO ₃ , SPT, UCS, etc)	R.L.	DEPTH	GRAPHIC LOG	ROCK TYPE Grain Size, Texture/Fabric, Colour, Minor Components	WEATHERING	ESTIMATED ROCK STRENGTH				FREQUENCY (per m)	SPECIFIC			GENERAL DESCRIPTION Planarity, Roughness, Coating, Infill			
				m	m				EL	VL	MI	VI		UH	HE	Is 50 (MPa)		TYPE	ANGLE	THICKNESS (mm)
					11															
				13.03	12.30		Continued from Borehole CORE LOSS: 1.03m (clayey fines in drilling mud return).													
					13															
				12.00	13.33		CLAY (CH) very stiff to hard, grey-brown, with silt.													
					14															
					15															
				9.88	15.45	 15.22 ironstone lens (<3mm) breaks down to ironstone sand fine to coarse grained, angular CORE LOSS: 1.29m (clayey fines in drilling mud return).													
					16															
				8.59	16.74		CLAY (CH) hard, grey-brown, with traces of silt.													
					17															
					18															
				6.88	18.45	 17.42 high strength ironstone band to 17.45m 17.97 Ironstone gravel, coarse grained, sub-angular 18.12 ironstone lens 18.20 ironstone lens 18.33 black ash 18.43 ironstone lens (<2 mm thick plates), break down to ironstone sand fine to medium grained angular CORE LOSS: 0.45m (clayey fines in drilling mud return).													
				6.43	18.91		CLAY (CH) soft to firm, grey-brown.													
				5.87	19.46		CLAY (CH) hard, grey-brown.													

NOTES Hole Diameter 100mm to 22.95m depth. (Solid Flight Augering to 9m. HW casing to 9.4m. Washboring with 100mm diameter tri-blade bit from 9m to 12m, 75mm diameter tri-blade bit from 21m to 22.5m. NMLC Coring from 12.3m to 21m. No free groundwater observed during drilling.)

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CLIENT DMR
PROJECT IPSWICH MOTORWAY UPGRADE - WACOL TO DARRA

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CONTRACTOR Terratest
DRILL MODEL Edson 3000
DRILLER Brent Ormsby
ANGLE Vertical
BEARING -
HOLE DIAMETER 100mm ()

GROUND LEVEL RL 25.33m
LOCATION 32732 E 150398 N
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DRILLING			STRATA		MATERIAL DESCRIPTION					DISCONTINUITIES				
TOR % (Drill rate)	SCR / (ROD)	FLUSH RETURN % (TYPE)	SAMPLER (CaCO ₃ , SPT, UCS, etc)	R.L.	DEPTH	ROCK TYPE Grain Size, Texture/Fabric, Colour, Minor Components	WEATHERING	ESTIMATED ROCK STRENGTH	Is 50 (MPa)	FREQUENCY (per m)	SPECIFIC			GENERAL DESCRIPTION
				m	m						GRAPHIC LOG	TYPE	ANGLE	
82()	82(82)		SPTLS N 13:20.29		21	CLAY (CH) hard, grey-brown. (continued) ... 20.23 low to medium strength ironstone band to 20.32m								
			SPTLS N 15:29.32	2.38	22.95	End of Borehole at 22.95m								
					23									
					24									
					25									
					26									
					27									
					28									
					29									

NOTES Hole Diameter 100mm to 22.95m depth. (Solid Flight Augering to 9m. HW casing to 9.4m. Washboring with 100mm diameter tri-blade bit from 9m to 12m, 75mm diameter tri-blade bit from 21m to 22.5m. NMLC Coring from 12.3m to 21m. No free groundwater observed during drilling.)

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BOREHOLE PHOTOGRAPHS



PROJECT:	Ipswich Motorway and Centenary Highway Upgrade	CLIENT:	Department of Main Roads	PROJECT NUMBER:	86015
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Hole: BH 231



Depth: 12.3m - 18m



Depth: 18.45m - 21m