

RECORD OF BOREHOLE No 02-26

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METRIC

W.P. 392-98-00 LOCATION 29+230 Rt 4.7m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
 DATUM Geodetic DATE 2004.11.15 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT w _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT w _L	UNIT WEIGHT γ	REMARKS & GRAIN SIZE DISTRIBUTION (%)		
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa											
								○ UNCONFINED	✕ FIELD VANE	□ QUICK TRIAXIAL	★ LAB VANE	WATER CONTENT (%)							
183.8	Ground Surface						20	40	60	80	100						GR SA SI CL		
0.0	FILL - SAND & GRAVEL ----- - SAND & SILT - trace gravel, occasional cobbles, brown, compact		1	AS										○			Dry on completion. Cave @ 6.9m on completion. 1 55 (44)		
			2	SS	10										○				
			3	SS	5										○				
	----- - trace organics		4	SS	12										○				
	----- - Silty, some gravel, occasional cobbles, brown, loose to compact		5	SS	5										○				
			6	SS	5										○				
			7	SS	5										○				
			8	SS	13										○				
			9	SS	21										○				
			10	SS	4										○				
176.3																			
7.5	SAND - some gravel, trace silt, trace rootlets, occasional cobbles, brown, compact to dense		11	SS	20										○				11 67 (22)
			12	SS	14											○			
			13	SS	48										○				
174.2																			
9.6	End of Borehole @ 9.6m. Auger Refusal.																		

✕³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 1

RECORD OF BOREHOLE No 02-26A

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METRIC

W.P. 392-98-00 LOCATION 29+230 Rt 21.0m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
 DATUM Geodetic DATE 2004.11.16 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ	REMARKS & GRAIN SIZE DISTRIBUTION (%)
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					WATER CONTENT (%)				
							20	40	60	80	100	W _p	W	W _L			
176.8	Ground Surface																
176.0	TOPSOIL - 200mm		1	AS													
0.2	SAND - Silty, brown																
	----- - trace gravel, trace cobble		2	SS													
	----- - compact to very dense		3	SS	25												
			4	SS	26												
			5	SS	79												
173.2	End of Borehole @ 3.6m. Auger Refusal.																
3.6																	

\times^3, \star^3 : Numbers refer to Sensitivity \circ 3% STRAIN AT FAILURE

ENCLOSURE 2

RECORD OF BOREHOLE No 02-27

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METRIC

W.P. 392-98-00 LOCATION 29+295 Rt 3.0m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.17 CHECKED BY R.C.

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE			"N" VALUES	SHEAR STRENGTH kPa					WATER CONTENT (%)			
							20	40	60	80	100	W _p	W	W _L		
183.4	Ground Surface															
0.0	FILL - SAND & GRAVEL ----- - SAND - some gravel, some silt, brown					183										
182.1			1	SS	30											
1.3	End of Borehole @ 1.3m. Auger Refusal.															Numerous attempts between Stations 29+246 to Station 29+315. Auger Refusal between 0.3 and 2.4m.

RECORD OF BOREHOLE No 02-27A

1 OF 1

METRIC

W.P. 392-98-00 LOCATION 29+295 Rt 21.5m ORIGINATED BY K.S.
 DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.20 CHECKED BY R.C.

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE			"N" VALUES	SHEAR STRENGTH kPa					WATER CONTENT (%)			
							20	40	60	80	100	W _p	W	W _L		
173.7	Ground Surface															
173.7	TOPSOIL - 50mm		1	SS	31											
	SAND - Silty, trace gravel, brown, dense		2	SS	46	173										
172.6	End of Borehole @ 1.1m. Refusal.															
1.1																

x³, *³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 4

RECORD OF BOREHOLE No 02-74

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METRIC

W.P. 392-98-00 LOCATION 29+340 Rt 14.5m ORIGINATED BY K.S.
 DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.20 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ	REMARKS & GRAIN SIZE DISTRIBUTION (%)
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					WATER CONTENT (%)				
							20	40	60	80	100	W _p	W	W _L			
182.5	Ground Surface																
180.9	TOPSOIL - 50mm SAND - Silty, trace to some gravel, occasional cobbles & boulders, brown, compact		1	SS	29												
181.4			2	SS	21												
1.1	End of Borehole @ 1.1m. Refusal.																

RECORD OF BOREHOLE No 02-75

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METRIC

W.P. 392-98-00 LOCATION 29+320 Rt 14.5m ORIGINATED BY K.S.
 DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.20 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					WATER CONTENT (%)				
							20	40	60	80	100	W _p	W	W _L			
179.4	Ground Surface																
178.9	TOPSOIL - 50mm SAND - Silty, trace gravel, trace cobbles, brown, compact to dense		1	SS	33	179											
			2	SS	23												
178.1	End of Borehole @ 1.3m. Refusal.																
1.3																	

RECORD OF BOREHOLE No 02-76

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METRIC

W.P. 392-98-00 LOCATION 29+270 Rt 22.4m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.16 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC NATURAL LIQUID LIMIT MOISTURE LIMIT CONTENT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					WATER CONTENT (%)				
							20	40	60	80	100	W _p	W	W _L			
171.6	Ground Surface																
0.0	TOPSOIL - 300mm																
0.3	SAND & SILT - trace gravel, trace organics, grey/black, very loose to loose		1	AS													
			2	SS	5												
			3	SS	1												
	----- - occasional cobble, brown, compact to very dense		4	SS	13												
			5	SS	54												
168.1	End of Borehole @ 3.5m. Auger Refusal.																
3.5																	

✕³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 7

RECORD OF BOREHOLE No 02-77

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METRIC

W.P. 392-98-00 LOCATION 29+250 Rt 27.0m ORIGINATED BY P.R.
DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
DATUM Geodetic DATE 2004.12.16 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%)							
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa							W _p W W _L						
								○ UNCONFINED ✕ FIELD VANE □ QUICK TRIAXIAL ★ LAB VANE							WATER CONTENT (%)						
172.6	Ground Surface							20	40	60	80	100									
172.0	TOPSOIL - 200mm		1	AS																	
0.2	SAND & SILT - trace gravel, brown, loose to compact					▼	172														
			2	SS	9																
								171													
3	SS	10																			
							170														
			4	SS	7																
169.7							169														
2.9	SAND - Silty, grey/brown, loose		5	SS	5																
168.5	----- - some gravel		6	SS	9																
4.1	End of Borehole @ 4.1m. Auger Refusal.																				

×³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 8

RECORD OF BOREHOLE No 02-78

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METRIC

W.P. 392-98-00 LOCATION 29+220 Rt 19.2m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.16 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT w _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT w _L	UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%)	
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa										
<div>○ UNCONFINED ✕ FIELD VANE</div> <div>□ QUICK TRIAXIAL ★ LAB VANE</div> <div>20 40 60 80 100</div> <div>20 40 60 80 100</div>																		
178.8	Ground Surface		1	AS													GR SA SI CL	
178.0	TOPSOIL - 200mm																	
0.2	SAND & SILT - trace gravel, occasional cobbles & boulders, trace gravel, brown, dense to very dense		2	SS	70												4 59 (37)	
				3	SS	105												Dry 2hrs after completion. Cave @ 3.3m 2 hrs after completion.
				4	SS	54												
				5	SS	36												
175.2	End of Borehole @ 3.6m. Auger Refusal.																	
3.6																		

\times^3, \star^3 : Numbers refer to Sensitivity \bigcirc 3% STRAIN AT FAILURE

ENCLOSURE 9

RECORD OF BOREHOLE No 02-79

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METRIC

W.P. 392-98-00 LOCATION 29+198 Rt 14.6m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.19 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL					
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					WATER CONTENT (%)									
							20	40	60	80	100	20	40	60	80	100	10	20	30			
181.6	Ground Surface																					
180.0	TOPSOIL - 200mm		1	AS																		
0.2	SAND - Silty, some gravel, occasional cobble, brown/grey, compact to very dense		2	SS	18																	19 55 (27)
			3	SS	30																	
			4	SS	54																	
178.6	End of Borehole @ 3.0m. Auger Refusal.																					
3.0																						

UNIFIED SOIL CLASSIFICATION SYSTEM

