



APR 15 2013

# LOG OF BORING MW-13C

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PROJECT

**PJ's CLEANERS**

SITE

**2470 EAST TROPICANA AVENUE**

CLIENT

**TROPICANA EAST SHOPPING CENTER PHASE I**

GRAPHIC LOG	EASTING		NORTHING		WELL DETAILS	DEPTH (ft)	SAMPLES				TESTS		
	794223		26738714				USCS SYMBOL	SAMPLE No.	SAMPLE TYPE	RECOVERY (inch)	BLOW COUNT (blows/ft)	FIELD VAPOR TEST (PPM)	NOTES
	STATION		OFFSET										
	APPROXIMATE SURFACE ELEVATION (ft)												
DEPTH (ft)	DESCRIPTION	ELEVATION (ft)											
		FILL - Silty Gravel With Sand and Concrete Debris, Light Brown, Dry, Fine to Coarse Grained, Subrounded to Subangular				FILL							
3.5		CLAYEY SAND TRACE GYPSUM - Light Brown, Damp, Fine to Medium Grained, Subrounded to Subangular				SC							
		- Trace Gravel											
		- With Gravel											
9.0		CLAYEY GRAVEL WITH SAND - Brown, Damp, Very Dense, Fine to Coarse Grained, Subrounded to Subangular				GC							
		- With Cemented Lenses											
11.0		CEMENTED SAND AND GRAVEL - Light Brown, Dry, Moderately Strong				CGS							
13.0		CLAYEY SAND - Reddish-Brown, Moist, Dense, Fine Grained, Subrounded to Subangular				SC							
14.0		SANDY CLAY - Reddish-Brown, Medium Plasticity, Moist, Very Stiff				CL							
15.0													

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The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

SAMPLE TYPES: RS = Ring BS = Bag CPT = Cone Penetration Test  
SPT = Standard Penetration Test C = Core ST = Shelby Tube

<b>WATER LEVEL OBSERVATIONS, ft</b>		<b>Terracon</b>	<b>BORING STARTED</b> 04-09-2013	
WL DEPTH ∇ 12.70	04-09-2013		<b>BORING COMPLETED</b> 04-09-2013	
WL DEPTH ∇ 12.70	04-09-2013		RIG Guspeth 480RS	GEOLOGIST / ENGINEER REE
<b>NOTES</b>			PROJECT No. 64097025	PLATE A-7

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# LOG OF BORING MW-13C

PROJECT		PJ's CLEANERS		CLIENT		TROPICANA EAST SHOPPING CENTER PHASE I							
SITE				2470 EAST TROPICANA AVENUE									
GRAPHIC LOG	EASTING	794223	NORTHING	26738714	WELL DETAILS	DEPTH (ft)	SAMPLES				TESTS		
	STATION		OFFSET				USCS SYMBOL	SAMPLE No.	SAMPLE TYPE	RECOVERY (inch)	BLOW COUNT (blows/ft)	FIELD VAPOR TEST (PPM)	NOTES
	APPROXIMATE SURFACE ELEVATION (ft)												
	DEPTH (ft)	DESCRIPTION		ELEVATION (ft)									
		SANDY CLAY TRACE CALCAREOUS GRAVEL - Reddish-Brown, Medium Plasticity, Wet, Soft			CL								
17.5		CLAYEY SAND - Brown, Wet, Low to Medium Dense, Fine Grained, Subrounded to Subangular			SC	1							
20.0		- Trace Calcareous Gravel		20	GC								
21.0		CLAYEY GRAVEL WITH SAND - Brown, Wet, Low to Medium Dense, Fine to Coarse Grained, Subrounded to Subangular			CL								
23.0		SANDY CLAY TRACE CALCAREOUS GRAVEL - Brown, Medium Plasticity, Wet, Soft			CH								
25.0		FAT CLAY TRACE CALCAREOUS GRAVEL - Reddish-Brown, High Plasticity, Wet, Medium Stiff		25		2	RS	12					
26.5		SANDY CLAY - Reddish-Brown, Medium Plasticity, Wet, Soft			CL								
27.5		FAT CLAY TRACE SAND - Reddish-Brown, High Plasticity, Wet, Medium Stiff			CH								
28.0		CLAYEY SAND - Reddish-Brown, Wet, Medium Dense, Fine Grained, Subrounded to Subangular			SC								
29.0		SANDY CLAY - Reddish-Brown, Medium Plasticity, Wet, Soft			CL								
		SANDY CLAY - Reddish-Brown, Medium Plasticity, Wet, Soft		30									

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SPT = Standard Penetration Test C = Core ST = Shelby Tube

WATER LEVEL OBSERVATIONS, ft		BORING STARTED	
WL DEPTH ▽	12.70 04-09-2013		04-09-2013
WL DEPTH ▼	12.70 04-09-2013		04-09-2013
NOTES		RIG	Guspeth 480RS
		GEOLOGIST / ENGINEER	REE
		PROJECT No.	64097025
		PLATE	A-8

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# LOG OF BORING MW-13C

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<b>PROJECT</b>		<b>PJ's CLEANERS</b>		<b>CLIENT</b>		<b>TROPICANA EAST SHOPPING CENTER PHASE I</b>							
<b>SITE</b>		<b>2470 EAST TROPICANA AVENUE</b>											
<b>GRAPHIC LOG</b>	EASTING	794223	NORTHING	26738714									
	STATION		OFFSET										
	APPROXIMATE SURFACE ELEVATION (ft)												
	DEPTH (ft)	DESCRIPTION					ELEVATION (ft)						
	<i>Continued Next Page</i>												
				<b>WELL DETAILS</b>	<b>DEPTH (ft)</b>	<b>USCS SYMBOL</b>	<b>SAMPLE No.</b>	<b>SAMPLE TYPE</b>	<b>RECOVERY (inch)</b>	<b>BLOW COUNT (blows/ft)</b>	<b>FIELD VAPOR TEST (PPM)</b>	<b>NOTES</b>	
	31.0	Wet, Medium Stiff - Trace Calcareous Gravel											
	33.0	CLAYEY GRAVEL WITH SAND - Brown, Wet, Medium Dense, Fine to Coarse Grained, Subrounded to Subangular					GC	3					
	35.5	SANDY CLAY TRACE CALCAREOUS GRAVEL - Brown, Medium to High Plasticity, Wet, Medium Stiff					CL						
	36.5	CLAYEY SAND - Light Brown, Wet, Medium Dense, Fine Grained, Subrounded to Subangular					SC						
	37.0	FAT CLAY - Reddish-Brown, High Plasticity, Wet, Medium Stiff					CH						
	40.0	SANDY CLAY TRACE CALCAREOUS GRAVEL - Light Brown, Medium Plasticity, Wet, Medium Stiff - Light Greenish-Brown - Brown					CL	4					
	41.5	CLAYEY GRAVEL WITH SAND - Brown, High Plasticity, Wet, Medium Stiff					GC						
	42.5	FAT CLAY WITH SAND - Brown, High Plasticity, Wet, Medium Stiff					CH						
	44.0	CLAYEY SAND TRACE CALCAREOUS GRAVEL - Brown, Wet, Medium Dense, Fine, Subrounded to Subrounded					SC	5					
	45.0	FAT CLAY TRACE CALCAREOUS GRAVEL - Reddish-Brown, High Plasticity, Wet, Stiff					CH						

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<b>WATER LEVEL OBSERVATIONS, ft</b>		<b>BORING STARTED</b>	
WL DEPTH ▽ 12.70	04-09-2013	04-09-2013	
WL DEPTH ▼ 12.70	04-09-2013	04-09-2013	
<b>NOTES</b>		<b>RIG</b> Guspeth 480RS	<b>GEOLOGIST / ENGINEER</b> REE
		<b>PROJECT No.</b> 64097025	<b>PLATE</b> A-9

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## LOG OF BORING MW-13C

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<b>PROJECT</b>		<b>PJ's CLEANERS</b>											
<b>SITE</b>				<b>CLIENT</b>									
<b>2470 EAST TROPICANA AVENUE</b>				<b>TROPICANA EAST SHOPPING CENTER PHASE I</b>									
<b>GRAPHIC LOG</b>	EASTING		NORTHING		<b>WELL DETAILS</b>	<b>DEPTH (ft)</b>	<b>SAMPLES</b>				<b>TESTS</b>		
	794223		26738714				<b>USCS SYMBOL</b>	<b>SAMPLE No.</b>	<b>SAMPLE TYPE</b>	<b>RECOVERY (inch)</b>	<b>BLOW COUNT (blows/ft)</b>	<b>FIELD VAPOR TEST (PPM)</b>	<b>NOTES</b>
	STATION		OFFSET										
	APPROXIMATE SURFACE ELEVATION (ft)												
	<b>DEPTH (ft)</b>	<b>DESCRIPTION</b>		<b>ELEVATION (ft)</b>									
46.0	- With Cemented Lenses CLAYEY GRAVEL WITH SAND - Light Brown, Wet, Dense, Fine to Coarse Grained, Subrounded to Subangular		47.5	GC	6	RS	18						
47.5	SANDY CLAY TRACE CALCAREOUS GRAVEL - Brown, Medium Plasticity, Wet, Medium Stiff			CL									
50.5	FAT CLAY TRACE CALCAREOUS GRAVEL - Brown, High Plasticity, Wet, Stiff			CH									
51.5	CLAYEY GRAVEL WITH SAND - Light Brown, Wet, MEDIUM Dense, Fine to Coarse Grained, Subrounded to Subangular			GC									
54.0	SANDY CLAY TRACE CALCAREOUS GRAVEL - Brown, Medium Plasticity, Wet, Stiff			CL									
56.5	FAT CLAY TRACE CALCAREOUS GRAVEL - Reddish-Brown, High Plasticity, Wet, Stiff			CH									
57.0	CLAYEY GRAVEL - Brown, Wet, Dense, Fine to Coarse, Subrounded to Subangular			GC									
60.0	FAT CLAY TRACE CALCAREOUS GRAVEL - Reddish-Brown, High Plasticity, Wet, Stiff			CH									
60.0	- Light Green												

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SPT = Standard Penetration Test C = Core ST = Shelby Tube

<b>WATER LEVEL OBSERVATIONS, ft</b>				<b>BORING STARTED</b>		04-09-2013	
<b>WL DEPTH</b> ∇	12.70	04-09-2013		<b>BORING COMPLETED</b>		04-09-2013	
<b>WL DEPTH</b> ▼	12.70	04-09-2013		<b>RIG</b>	Guspeth 480RS	<b>GEOLOGIST / ENGINEER</b>	REE
<b>NOTES</b>				<b>PROJECT No.</b>	64097025	<b>PLATE</b>	A-10

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# LOG OF BORING MW-13C

PROJECT		PJ's CLEANERS		CLIENT		TROPICANA EAST SHOPPING CENTER PHASE I							
SITE				2470 EAST TROPICANA AVENUE									
GRAPHIC LOG	EASTING	794223	NORTHING	26738714	WELL DETAILS	DEPTH (ft)	SAMPLES			TESTS			
	STATION		OFFSET				USCS SYMBOL	SAMPLE No.	SAMPLE TYPE	RECOVERY (inch)	BLOW COUNT (blows/ft)	FIELD VAPOR TEST (PPM)	NOTES
	APPROXIMATE SURFACE ELEVATION (ft)												
	DEPTH (ft)	DESCRIPTION		ELEVATION (ft)									
	60.5	FAT CLAY - Light Green, High Plasticity, Wet, Stiff				CH							
		CLAYEY SILT - Light Green, Wet, Stiff				ML							
	61.0	FAT CLAY TRACE CALCAREOUS GRAVEL - Greenish-Brown, High Plasticity, Wet, Stiff - Reddish-Brown				CH							
	63.0	CLAYEY GRAVEL - Reddish-Brown, Wet, Medium Dense, Fine to Coarse Grained, Subrounded to Subangular				GC							
	63.5	FAT CLAY - Reddish-Brown, High Plasticity, Wet, Stiff - With Cemented Lenses  - Trace Calcareous Gravel				CH	10						
	65.0						11	RS	12				
	67.0	SANDY CLAY TRACE CALCAREOUS GRAVEL - Brown, Medium Plasticity, Wet, Stiff				CL							
	69.0	CLAYEY SAND - Brown, Wet, Medium Dense, Fine Grained, Subrounded to Subangular				SC	12						
	71.0	SANDY CLAY - Brown, Medium Plasticity, Wet, Medium Stiff				CL							
	72.0	FAT CLAY TRACE CALCAREOUS GRAVEL - Brown, High Plasticity, Wet, Stiff				CH							
	73.0	CLAYEY SAND - Brown, Wet, Medium Dense, Fine to Coarse, Subrounded to Subangular - Fat Clay Lense (4 inches)				SC	13						
	75.0												

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WATER LEVEL OBSERVATIONS, ft		BORING STARTED		04-09-2013	
WL DEPTH	12.70	04-09-2013	BORING COMPLETED		04-09-2013
WL DEPTH	12.70	04-09-2013	RIG	Guspeth 480RS	GEOLOGIST / ENGINEER
NOTES		PROJECT No. 64097025		PLATE	A-11

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# LOG OF BORING MW-13C

<b>PROJECT</b>																		
<b>PJ's CLEANERS</b>																		
<b>SITE</b>						<b>CLIENT</b>												
<b>2470 EAST TROPICANA AVENUE</b>						<b>TROPICANA EAST SHOPPING CENTER PHASE I</b>												
<b>GRAPHIC LOG</b>	EASTING <b>794223</b>			NORTHING <b>26738714</b>			<b>WELL DETAILS</b>	<b>DEPTH (ft)</b>	<b>SAMPLES</b>				<b>TESTS</b>					
	STATION			OFFSET					<b>USCS SYMBOL</b>	<b>SAMPLE No.</b>	<b>SAMPLE TYPE</b>	<b>RECOVERY (inch)</b>	<b>BLOW COUNT (blows/ft)</b>	<b>FIELD VAPOR TEST (PPM)</b>	<b>NOTES</b>			
	APPROXIMATE SURFACE ELEVATION (ft)																	
	DEPTH (ft)			DESCRIPTION												ELEVATION (ft)		
	75.5	SILTY SAND - Brown, Wet, Medium Dense, Fine Grained, Subrounded to Subangular														SM	14	RS
76.0	FAT CLAY - Brown, High Plasticity, Wet, Medium Stiff					CH												
<i>Bottom Depth at Approximately 76 feet</i>																		

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SAMPLE TYPES: RS = Ring BS = Bag CPT = Cone Penetration Test  
SPT = Standard Penetration Test C = Core ST = Shelby Tube

<b>WATER LEVEL OBSERVATIONS, ft</b>			<b>BORING STARTED</b>			04-09-2013		
WL DEPTH ▾	12.70	04-09-2013	<b>BORING COMPLETED</b>			04-09-2013		
WL DEPTH ▼	12.70	04-09-2013	RIG	Guspeth 480RS		GEOLOGIST / ENGINEER	REE	
<b>NOTES</b>			PROJECT No. 64097025			PLATE A-12		