

PROJECT: HUR-CO052-01.57		DRILLING FIRM / OPERATOR: OTB / A. FAY		DRILL RIG: MOBILE B-57		STATION / OFFSET: 4+61, 7 LT		EXPLORATION ID																									
TYPE: BRIDGE REPLACEMENT		SAMPLING FIRM / LOGGER: URS / T. GEORGE		HAMMER: AUTOMATIC HAMMER		ALIGNMENT: OLD STATE 52		B-007-0-14																									
PID: 97114 BR ID: 3942562		DRILLING METHOD: 3.25' HSA / NQ		CALIBRATION DATE: 10/30/13		ELEVATION: 949.5 (MSL) EOB: 29.0 ft.		PAGE																									
START: 1/13/14 END: 1/13/14		SAMPLING METHOD: SPT / NQ		ENERGY RATIO (%): 95.6		COORD: 518590.072 N, 1944527.659 E		1 OF 1																									
MATERIAL DESCRIPTION AND NOTES																																	
		ELEV.		DEPTHS		SPT/RQD		REC SAMPLE		GRADATION (%)		ATTERBERG		WC		ODOT CLASS (GI)		BACK FILL															
		949.5		1		8																											
11" ASPHALT		948.6		2		6		14		72		SS-1						A-4a (V)															
LOOSE, BROWN, SANDY SILT, MOIST [FILL]		946.5		3		3																											
LOOSE BROWN AND GRAY, GRAVEL, TRACE SILT, LITTLE SAND, DAMP [FILL]		945.5		4		6		10		56		SS-2						A-1-a (V)															
SOFT, BROWN, SANDY SILT, MOIST		944.0		5		3												A-4a (V)															
LOOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, DAMP				6		4		14		11		SS-3																					
@8.5'; MEDIUM DENSE, GRAY				7		3																											
				8		6																											
				9		9		32		17		SS-4		68		3		2		20		7		NP		NP		NP		5		A-2-4 (0)	
SHALE; BROWNISH GRAY, COMPLETELY TO HIGHLY WEATHERED, EXTREMELY WEAK.		939.0		10		7		13																									
@13.5'; MODERATELY WEATHERED, WITH INTERBEDDED SANDY SILTSTONE.				11		18		92		67		SS-5																					
				12		24		34																									
				13																													
				14		30		40		143		SS-6		42		10		2		32		14		32		19		13		6		A-6a (3)	
				15		40		50																									
				16		20		32		139		SS-7																					
				17		55																											
				18																													
				19		930.7																											
@18.7'; BIOTURBATED.				20																													
SANDSTONE; LIGHT GRAY WITH BLACK, FRESH WEATHERED, STRONG, FINE GRAINED.				21																													
@20.5'; SANDY SILTSHALE.				22																													
				23																													
				24																													
SHALE GRAY, FRESH WEATHERED, EXTREMELY WEAK TO WEAK.				25		925.0																											
@25.3'; BIOTURBATED.				26																													
@25.4'; SANDY SILTSTONE.				27		922.6																											
@25.6'; CLAY-FILLED FRACTURE.				28																													
SANDSTONE; LIGHT GRAY, FRESH WEATHERED, STRONG, FINE GRAINED.				29		920.5																											
@28.5'; BIOTURBATED.				EOB																													

NOTES: GROUNDWATER NOT ENCOUNTERED ATD.
 ABANDONMENT METHODS: MATERIALS: QUANTITIES: ASPHALT PATCH; BACKFILLED WITH AUGER CUTTINGS: CEMENT-BENTONITE GROUT; CONCRETE

PROJECT: HUR-CO052-01.57		DRILLING FIRM / OPERATOR: OTB / A. FAY		DRILL RIG: MOBILE B-57		STATION / OFFSET: 5+34.6 RT		EXPLORATION ID																									
TYPE: BRIDGE REPLACEMENT		SAMPLING FIRM / LOGGER: URS / T. GEORGE		HAMMER: AUTOMATIC HAMMER		ALIGNMENT: OLD STATE 52		B-002-0-14																									
PID: 97114 BR ID: 3942562		DRILLING METHOD: 3.25" HSA / NQ		CALIBRATION DATE: 10/30/13		ELEVATION: 949.3 (MSL) EOB: 28.5 ft.		PAGE																									
START: 1/13/14 END: 1/13/14		SAMPLING METHOD: SPT / NQ		ENERGY RATIO (%): 95.6		COORD: 518517.582 N, 1944516.737 E		1 OF 1																									
MATERIAL DESCRIPTION AND NOTES																																	
		ELEV.		DEPTHS		SPT/ RQD		N ₆₀		REC SAMPLE (%)		HP (tsf)		GR		GRADATION (%)		ATTERBERG		ODOT CLASS (GI)		BACK FILL											
		949.3																															
8" ASPHALT		948.6		1		8		5		-		4.5																					
VERY STIFF TO HARD, GRAYISH BROWN, SANDY SILT, SOME SAND, TRACE GRAVEL, COHESIVE, MOIST [FILL]				2		5		6		-		3.5																					
				3						-		4.5																					
@3.5'; MEDIUM STIFF				4		3		4		-		0.5		3		5		23		42		27		16		9		18		A-4a (V)			
		942.8		5		4		3		-		4.0		5		23		42		27		16		9		18		A-4a (V)					
@6.0'; SOFT				6		2		3		-		0.50		-		-		-		-		-		-		-		-		A-4a (V)			
LOOSE, GRAY AND DARK BROWN, GRAVEL, SOME SAND, TRACE SILT				7		3		4		-		-		-		-		-		-		-		-		-		-		A-1-a (V)			
LOOSE, BROWN, COARSE AND FINE SAND, LITTLE GRAVEL, TRACE SILT, WET		941.3		8						-		-		-		-		-		-		-		-		-		-		-			
MEDIUM DENSE, DARK BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, SOME SAND, TRACE SILT, GRAVEL AS SANDSTONE, WET		938.8		9		5		4		-		-		17		21		47		11		4		NP		NP		18		A-3a (0)			
				10		4		5		-		-		-		-		-		-		-		-		-		-		-			
DENSE, BROWNISH GRAY, SANDY SILT, LITTLE SAND, TRACE SILT, GRAVEL AS SHALE/SANDSTONE @14.0'; 1/2" HORIZONTAL SAND SEAM		936.3		11		20		15		-		-		50		16		16		14		4		19		14		5		10		A-1-b (0)	
				12		15		10		-		-		-		-		-		-		-		-		-		-		-		-	
SILTSTONE, LIGHT GRAY, HIGHLY WEATHERED, VERY WEAK, FINE GRAINED, SANDY.		933.8		13		5		8		-		-		39		6		7		37		11		26		18		8		13		A-4a (3)	
				14		8		28		-		-		-		-		-		-		-		-		-		-		-		-	
SHALE, DARK GRAY, SLIGHTLY TO MODERATELY WEATHERED, VERY WEAK.		931.8		15		50/2"		-		-		-		-		-		-		-		-		-		-		-		-		-	
@19.7'; 3/4" SANDY SILTSTONE.				16		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
				17		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
@22.5'; SANDSTONE, LIGHT GRAY, SLIGHTLY WEATHERED, WEAK TO MODERATELY STRONG, FINE GRAINED, WITH FOSSILIZED BURROWS.				18		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
@22.8'; SHALE, EXTREMELY WEAK, BROKEN.				19		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
@24.0'; VERY WEAK TO EXTREMELY WEAK.				20		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
SANDSTONE, LIGHT GRAY, FRESH WEATHERED, STRONG, FINE GRAINED.		921.8		21		62		98		-		-		-		-		-		-		-		-		-		-		-		-	
				22		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
				23		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
				24		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
				25		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
				26		64		96		-		-		-		-		-		-		-		-		-		-		-		-	
		920.8		27		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
				28		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
				EOB																													

NOTES: GROUNDWATER ENCOUNTERED @ 8.5-15' BGS ATD.
 ABANDONMENT METHODS, MATERIALS, QUANTITIES: ASPHALT PATCH; BACKFILLED WITH AUGER CUTTINGS; CEMENT-BENTONITE GROUT; CONCRETE