



WELL CONSTRUCTION DETAILS AND ABANDONMENT FORM

FIELD REPRESENTATIVE: _____ TYPE OF FILTER PACK: _____

DRILLING CONTRACTOR: Frontz Drilling GRADIATION: _____

DRILLING TECHNIQUE: Mud Rotary / Sonic AMOUNT OF FILTER PACK USED: _____

AUGER SIZE AND TYPE: _____ TYPE OF BENTONITE: _____

BOREHOLE IDENTIFICATION: PW-10 AMOUNT BENTONITE USED: _____

BOREHOLE DIAMETER: _____ TYPE OF CEMENT: _____

WELL IDENTIFICATION: _____ AMOUNT CEMENT USED: _____

WELL CONSTRUCTION START DATE: _____ GROUT MATERIALS USED: _____

WELL CONSTRUCTION COMPLETE DATE: _____ DIMENSIONS OF SECURITY CASING: _____

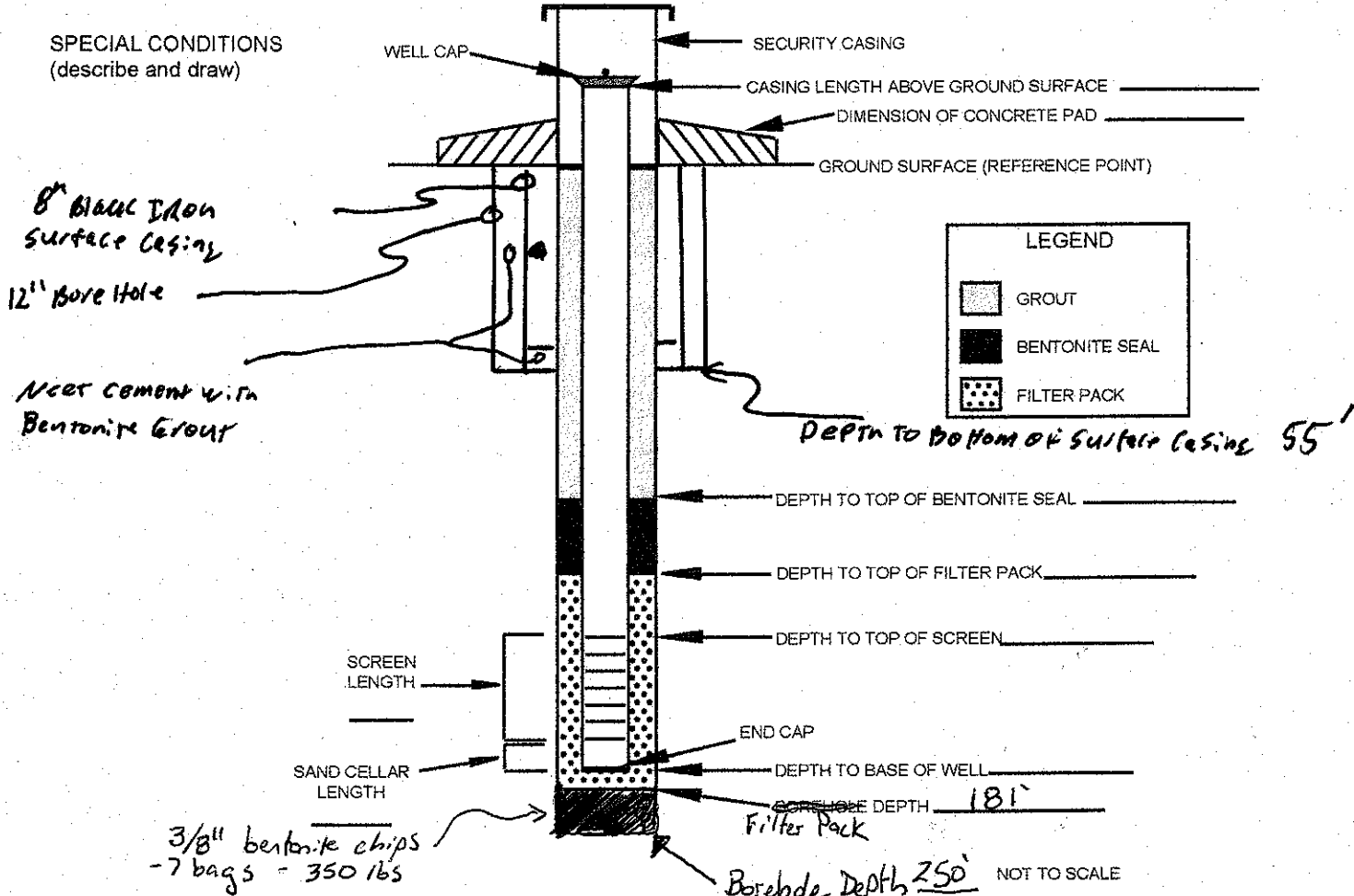
SCREEN MATERIAL: _____ TYPE OF WELL CAP: _____

SCREEN DIAMETER: _____ TYPE OF END CAP: _____

STRATUM-SCREENED INTERVAL (FT): _____ COMMENTS: _____

CASING MATERIAL: _____

CASING DIAMETER: _____



INSTALLED BY: _____ INSTALLATION OBSERVED BY: _____

DISCREPANCIES: _____



BORING LOG

Borehole ID: PW-10
 Sheet 1 of 18

Project Name STANDARD CHLORINE			Project Number E10022.03		LTCCODE (IRPIMS)		Location NEW CASTLE, DE	
Drilling Company FRONTZ			Driller D. SCHENCKENGOST		Ground Elevation		Site ID	
Drilling Equipment VERSA-DRILL - VERSA SONIC			Drilling Method SONIC		Borehole Diameter 6 5/8" OD		Date/Time Drilling Started 6-26-09/1340	
Type of Sampling Device 5" / 10 FT - 4" OD COKE BARREL			Water Level (bgs) First		Date/Time Total Depth Reached Final			
Sample Hammer Type NA Driving Wt. Drop			Hydrogeologist		Checked by/Date			

Location Description (include sketch in field logbook)
APROX. 50 FT WEST & 20 FT NORTH OF MW-10

Depth	Interval	Recovery	RECOVERY Flow Control	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				CLAYEY SILT - DARK YELLOWISH BROWN (10YR 4/4), FRABLE, NON PLASTIC, DRY, VERY STIFF			40.9	
2			5/4	GRAVEL (GRAWITE?) TO 3" DIAMETER			19.9	
3							6.6	
4				ROOTS/ROOTLETS @ 4.5'	ML	COLUMBIA FORMATION	25.0	
5							24.8	
6							78.8	
7			6/4				51.2	
8							10.3	
9							8.2	
				CLAY - DK. YELLOWISH BROWN (10YR 4/4)	CH			

Project Name <u>S.C.S</u>			Project Number <u>E10022.03</u>		Location <u>NEWCASTLE, DE</u>		
Depth	Interval	Recovery	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Lithology	Water Content	Remarks <small>(Include all sample types & depth, odor, organic vapor measurements, etc.)</small>
10			SAME AS ABOVE - MED. DENSITY, V. MOIST, HIGH PLASTICITY, COHESIVE	CH		7.0	
11							
12		5/5	SILTY SAND - DK YELLOWISH BROWN (10YR 4/4), COBBLES TO 3.5", DAMP TO MOIST, FINE GRAIN, DENSE	SM		9.1	
13							
14			SAND - BROWNISH YELLOW (10YR 6/6), POORLY GRADED, DAMP, FINE TO MEDIUM (TRACE), MED. DENSE			53.4	
15							
16			BECOMES WET @ APPROX 18'	SP	COLUMBIA FORMATION	28.7	
17		4/5					
18			INTERBEDDED POORLY GRADED FINE SAND AND MEDIUM SAND, SATURATED	SW		69.6	
19							
20						34.4	
21							
22						23.9	
23							
24		10/10				23.2	
25							
26						58.1	
27							
28						5.4	
29							
30						80.5	
31							
32						14.9	
33							
34						51.2	
35							
36						68.7	
37							



BORING LOG (cont'd)

Borehole ID: PW-10
 Sheet 3 of 18

Project Name				Project Number		Location			
S.C.S				E10022.03		NEW CASTLE, DE			
Depth	Interval	Recovery	RECOVERY Flow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks	
								(Include all sample types & depth, odor, organic vapor measurements, etc.)	
25				SAME AS ABOVE				105	SET TEMP. SCREEN FROM 25-30' TO COLLECT GW SAMPLE: MCOF-92210-25-30
26			10/10	CEMENTED IRON FRAGMENTS, FLAT, APPROX. 0.2' THICKNESS				NO ODOR	
27					SP			7.1	
28								0.0	
29								0.0	
30				GRAVEL FROM 30-34' RES; SMALL TO 2.0" DIAMETER, ROUND		COLUMBIA FORMATION		0.0	
31									20.2
32									2.9
33									0.0
34			9/10	UNLIMITED IRON FRAGMENTS, ANGULAR; NO GRAVEL	SP				0.0
35									1.6
36									55.8
37									7.4
38									4.5
									11.8

Project Name <u>S.C.S.</u>			Project Number <u>E10022.03</u>		Location <u>NEW CASTLE, DE</u>		
Depth	Interval	Recovery <small>RECOVERY PERCENTAGE</small>	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Lithology Water Content	Remarks <small>(Include all sample types & depth, odor, organic vapor measurements, etc.)</small>	
37			SAME AS ABOVE ; COLOR CHANGE TO STRONG BROWN (7.5YR 4/6), SAME GRAIN SIZE, DISTRIBUTION			10.7	
40				SP		RESULT DRILLING 6-27-09 0745 6.1	
41						2.1	
42						3.0	
43						3.5	
44		10/10	CLAY - V. PALE BROWN (10YR 7/3), MOTTLED W/ REDDISH-YELLOW (7.5YR 4/6), HIGH PLASTICITY, STIFF, COHESIVE, MOIST	CH	COLUMNAR FOLIATION	3.9	
45			POORLY GRADED SAND - YELLOWISH BROWN (10YR 5/6), FINE GRAIN, TRACE SILT, WET, TRACE GRAVEL, ANGULAR TO 1.0", DENSE	SP		4.5	
46						8.4	
47						1.0	
48			COLOR CHANGE TO STRONG BROWN (7.5YR 4/6)			4.5	
49			CLAY - YELLOWISH RED (5YR 5/6), MOTTLED, HIGH PLASTICITY, STIFF, COHESIVE, MOIST	CH		3.4	
49			POORLY GRADED SAND - STRAW BROWN (7.5YR 5/8), FINE GRAIN, SOME GRAVEL, SUBANG. TO ROUNDED, SIZE TO 1.5"	SP/SW		7.1	
50			@ 48.6 BECOMES WELL GRADED, FINE TO COARSE SAND, SOME GRAVEL	SC		7.4	
51			CLAYEY SAND - LT. BROWNISH GRAY (10YR 6/2) MOTTLED W/ STRONG BROWN (7.5YR 5/8), V. FINE SAND, DENSE, WET, TRACE ANGULAR GRAVEL TO 1.0"	CL		FOLIATION	33.4
52		4.7/5	SEE NEXT PAGE FOR DESCRIPTION	CL			

SET TEMP SCREEN FROM
 45-50' TO CORRECT GW
 SAMPLE MCD9 - TW16-45-50

Project Name				Project Number		Location		
S.C.S.				E1022.03		New Castle, DE		
Depth	Interval	Recovery	Blow Counts	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Lithology	Water Content	Remarks <small>(Include all sample types & depth, odor, organic vapor measurements, etc.)</small>
53				Silty clay - DK. Gray (2.5YR 4/1) stiff non-cohesive, non plastic, moist			5.9	
54				Clay - grey (10YR 6/1) From 51.5-52 From 52 mottled gray (10YR 6/1) and red (2.5YR 4/6), Hard, dry, cohesive, high plasticity when moist	CL		2.2	
55								
56		0.8	5.0	Minimal Recovery - grout Fragments >4" diameter few orange sands	-			End Sonic Drilling - Return w/ mud rotary to set surface casing
57								
58								
59								
60								1400
61		5.5	5	Silty clay - red (2.5YR 4/6) / gray (10YR 6/1) mottling, dry, low/med plasticity, Decreasing red w/depth	CL		0.0	PP 4.0
62				Increasing sand content w/depth ↓			0.0	PP 74.5
63							0.0	
64				64-65 - sandy clay - gray (10YR 7/1) few fine sands, cohesive			0.0	PP 2.5
65		~6		v. stiff low plasticity, mod dilatance			0.0	
66		5.5	5	Clayey sand - light gray (10YR 7/1) very finely grained, non-uniform/ well graded, grades to darker gray (10YR 6/1) with depth	SL		0.0	805 PP 0.75

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Resume
drilling
7/22/09
-1340
-MM

↓
7/23/09
MM

Project Name				Project Number		Location			
S.C.S				E10022-03		New Castle, DE			
Depth	Interval	Recovery	Blow Counts	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Lithology	Water Content	Remarks <small>(Include all sample types & depth, odor, organic vapor measurements, etc.)</small>	
67				non plastic, non-cohesive (cont.) Intermittent beds of sandy clay - sandy clay @ 65-66' bgs + 66.5-67.5' + 68-68.5 bgs - medium/stiff, moist	SC			0.0	No. odor pp 1.0
68								0.1	pp 1.5
69				Silty clay @ 70' bgs, very stiff very dark gray (10YR 3/1), dry/moist cohesive, low plasticity - (Approx 0.5')				0.1	pp 2.5
70									
71				Silty clay - dark gray (10YR 4/1) v. stiff/hard, dry, gradual grade change to clayey sand @ 72-72.5 bgs	CL			0.2	840 pp 4.0
72			5x S					0.2	pp 1.5
73				72.5-74 - sandy clay, gray (10YR 4/1) moist, v. stiff, lignite fragments, cohesive, low plasticity	ML			0.0	pp 2.5
74				74-75 - abrupt transition to clayey sand, gray (10YR 4/1) wet/moist, non-cohesive, non plastic	CL			0.1	pp 2.0
75			no					0.5	
76			5x S	Clayey sand - gray (10YR 6/1), fine grained, trace lignite @ top of recovery	SC			0.2	900 pp 4.0
77				(little/few - pockets of fine sand w/ trace silts - yellowish brown) 2.5 x 6/3	ML			0.1	
78				moist, slight cohesive, non-plastic wet @ 79' bgs	CL			0.2	
79								0.1	
80				76.0-76.4 - silty clay - gray (10YR 6/1) v. stiff/hard, cohesive, low plasticity, dry/moist				0.1	

RAIN

Project Name <u>SL S.</u>				Project Number <u>E10022-03</u>		Location <u>New Castle, DE</u>		
Depth	Interval	Recovery	Blow Count	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
96			5	95-96 - SAA - increased clay/silt content		SC	0.0	1105
97				96-100 - silty sand - gradat transition, brownish yellow (10XR 6/6)		SM	0.0	no sample collected
98				moist/wet, trace fines			0.0	- drill down
99				non-cohesive, non plastic			0.0	additional
100				non uniform			0.1	S + consider sampling
101			4	Silty sand, trace clay, fine grained brownish yellow (10XR 6/6)		SM	0.2	1140
102				slight color change @ 102.5' gradual change to reddish yellow (5XR 6/6) wet			0.1	Attempt to collect sample
103				non plastic			0.1	1355
104				non cohesive			0.0	- headspace
105				non uniform/well graded			0.2	0.0ppm
106			5	105-108 - SAA - less silts more uniform fine sand (poorly graded) brownish yellow (10XR 6/6), wet		SM	0.3	1450
107							0.3	
108				108-110 - Abrupt transition to silty clay, trace gravel, red (10R 5/6) (subangular)		CL	0.1	PP > 4.5
109				hard, dry			0.0	
110				@ 110' bgs some brown/grey mottling			0.0	



BORING LOG (cont'd)

Borehole ID: PW-10
 Sheet 9 of 13

Project Name		Project Number		Location			
S.C.S		E10022-03		New Castle, DE			
Depth	Interval	Recovery	Blow Counts	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Lithology Water Content	Remarks <small>(Include all sample types & depth, odor, organic vapor measurements, etc.)</small>
110				Clay - gray (10YR 7/1), hard, low plasticity, lean, dry, cohesive & massively bedded, seams of red/gray mottled clay throughout below depths of >113' bgs red (10R 5/8)	CL		0.0 1510
111			5/5				0.1 PP >4.5
112							0.0
113							0.1
114							0.1
115				SAA - increased mottling 50% gray 50% red dry	CL		1540
116			5/5				0.1 PP >4.5
117							0.1
118							0.0
119							0.1
120				120-121 - SAA - trace/little brown seams, increased silt hard 121-124 - clayey silt, trace sand gray (10YR 7/1), dry, stiff non cohesive, non plastic 124-125 - silty clay, gray (10YR 7/1) brown seams (10YR 4/3), dry, cohesive, low-plasticity, hard	CL		1610
121			5+ 5				0.2 PP >4.5
122							0.0
123							0.1 PP 2.0
124							0.0 PP 2.5
125			5/5		CL		0.0 PP >4.5

Project Name <u>S.C. S</u>				Project Number <u>E10022-03</u>		Location <u>New Castle, DE</u>		
Depth	Interval	Recovery	Blow Counts	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Lithology	Water Content	Remarks <small>(Include all sample types & depth, odor, organic vapor measurements, etc.)</small>
120				clay - yellowish brown (10YR 5/1) gray mottling (10YR 7/1) - 20% dry & very stiff → hard low plasticity, cohesive, massively bedded	ML			0.0 920
127			0.0 PP 4.0					
128			0.0 PP 3.0					
129			0.0 PP 3.5					
130			0.1					
131			5/5	130-133- SAA - hard, dry, trace lignite/coal @ 131.8'	ML			0.0 940
132			133-135- abrupt transition silt (10YR 7/1) light gray wet, non plastic, non cohesive increased grain size w/depth silt with trace/little fine sands @ bottom of recovery increased sand content w/depth	0.0 PP > 4.5				
133				sandy silt - fine sands 135-139 → gray, moist, (10YR 7/1) medium to stiff, non cohesive, non plastic, massive 139-140- gradual transition to silty clay, brown/black streaking noted throughout, trace lignite-like black nodules, gray (10YR 4/1)	ML			0.0
134			0.1					
135			0.0					
136			0.0 1300					
137			5/5					0.0 PP 1.0-2.0
138			0.0					
139			0.0					
140			0.0 ← PP > 4.5					
					CL			0.0 ← PP > 4.5

7/24/09 ↓
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Project Name				Project Number		Location		
S.E.S				E10022-03		New Castle, DE		
Depth	Interval	Recovery	Blow Counts	Description	USCS Symbol	Lithology	Water Content	Remarks
				(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)				(Include all sample types & depth, odor, organic vapor measurements, etc.)
141				silty clay, gray (10XR 7/1)			0.2	1325
142			54	increasing silt content w/depth			0.1	>4.5
143				massive structure, dry, low plasticity, cohesive, hard, few (+) silt		CL	0.1	}
144				near bottom of recovery, trace fine sand, brown (10XR 5/3)			2.0	
145			55	discoloration @ approx 142-143' (30%)			0.2	
145				145-146 - Abrupt transition from silty clay → silty sand - trace ^{grain in transition} - moist		CL	0.0	pop >4.5 1405
146			5	145.0-146 - Red clay (10R 4/6) moist, cohesive, low plasticity			0.0	
147			5	146-150 - silty sand, gray (10XR 7/2), fine grained, wet non plastic, non cohesive uniform/poorly graded		SM	0.0	Attempt sample
148							0.0	- Screen of pump silted with fines
149							0.0	(yellowish red in color 5XR 5/6) @ gallons purple
150							0.0	
151			5	SAA - Fine silty sand (10XR 7/1) wet, uniform/poorly graded		SM	0.3	1505
152				color change @ 153.5 to reddish yellow (5XR 7/6)			1.0	Attempt sample (H ₂ O)
153				trace pyrite-like grains noted - Fine grained in size			0.3	pump @ 1.25 gal/min @ 0.75 gal/min
154							0.2	Collect sample
155							0.2	1635
							0.0	headspace

Project Name				Project Number		Location			
S.C.S				E 10022-03		New Castle, DE			
Depth	Interval	Recovery	Blow Counts	Description	USCS Symbol	Lithology	Water Content	Remarks	
				(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)			(include all sample types & depth, odor, organic vapor measurements, etc.)		
156				Fine sand - reddish yellow (10XR 6/6) @ 156-157 - abrupt color change to light gray (10XR 7/1) @ 158-160, trace/little silts & fines uniform/poorly graded, wet Fine grained, non plastic, non cohesive - trace fine grained pyrite-like minerals noted @ 156-157			0.3	1715	
157			4.7					0.1	
158			5			SP		0.0	
159								0.0	
160								0.2	
161			4.9	Fine sand - light gray (10XR 7/1) little silts/fines, uniform/poorly graded, wet, Fine grained, non plastic, non cohesive, massive bedding, trace pyrite-like minerals noted throughout - Fine grained (#1mm)			0.4	1540	
162			5			SP		0.2	Attempt sample
163								0.2	- collect sample
164								0.4	7/25/09 9:35 @ headspace
165								0.6	0.75 gal/min
166			4	-SAA - very pale brown (10XR 7/3) - no pyrite-like mineral grains noted			0.1	1020	
167			5			SP		0.1	
168								0.1	
169								0.2	
170								0.2	- No Recovery - Headspace

7/25/09
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Project Name				Project Number		Location								
S.C.S				E 10022-03		New Castle - DE								
Depth	Interval	Recovery	Blow Counts	Description	USCS Symbol	Lithology	Water Content	Remarks						
				(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)				(Include all sample types & depth, odor, organic vapor measurements, etc.)						
171				- SAA - Fine sand, v. pale brown (10XR 7/3)	SP			0.3 1105						
172		4.5						0.1 Attempt						
173		5						0.2 to collect						
174								0.3 water sample						
175								0.10 collect sample - 1230						
175				175-178 - SAA - Fine sand v. pale (brown 10XR 7/3) gradual color change to light red (2.5XR 6/3) @ 177-177.8' abrupt color change immediately above clay to pale yellow (2.5X 8/2) @ 177.8-178 - wet	SP		0.3 1350							
176								0.10						
177								0.2						
178								← abrupt transition						
178				178-180 - silty clay - gray (10XR 6/1), trace fine sand - decrease w/ depth, hard, olive brown (2.5X 4/3) / Red color banding 178-179.5 - gray 2180', 15% plasticity, cohesive, dry	CL		0.1							
179								0.10						
180				180-180.5 - SAA - gray silty clay 180.5-180.8 - gray (10XR 7/1) silty sand seam, wet/moist 180.8-181.3 - gray silty clay, hard dry 181.3-181.8 - light red fine sand, trace hardened sand gravel (2.5X 8/2), moist 181.8-183 - gray clayey silt (10XR 7/1) dry/moist 45° fracture @ 183' - sandy gravel infill, moist 183-183.5 - red silty silty sand w/clay 183.5-184.8 - gray silty clay 184.8-185 - gray fine sand moist (10XR 7/1)	CL	SM	CL	SP	ML	SM	ML	SP	0.01440	
180.5														core vial out of outside liner - liner struck in cone some <u>DENSE</u>
181														
181.5														
182														
182.5														
183														
183.5														
184														
184.5														
185														

Project Name				Project Number		Location		
S.C.S				10022-03		New Castle, DE		
Depth	Interval	Recovery	Blow Counts	Description	USCS Symbol	Lithology	Water Content	Remarks
				(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)				(Include all sample types & depth, odor, organic vapor measurements, etc.)
186				Fine sand - very pale brown (10YR 7/3) little/few silts - moist/wet, no odor	SP			1630
187			S/S	<u>Abrupt</u>	ML			18.0 core viber
188				186-187 - gray (silty clay - trace sand (10YR 7/6) moist	SP			2.0 out of
189				<u>Abrupt</u>				lines
190				Fine sand - red (2.5 YR 5/6), trace → few silts + fines, moist/wet, uniform/poorly graded clay lens - gray (10YR 7/1) noted ~0.2 @ 173				21.0 lines
191			S/S	Fine sand - little silts - decreasing w/ depth to trace @ 195				20 crumpled
192				190.5-191 - strong brown (7.5 YR 5/8)	SP			<u>DENSE</u>
193				191-192 - dark gray (10YR 4/1) / black				15.5
194				192-195 - brownish yellow (10YR 6/6) moist, uniform/poorly graded, no odor trace lignite 191-192				10.0 core viber
195				red/gray silty clay 190.5-191 gravel/cemented sand noted 190.5 - bleached illuvium @ 192-193				1.0 out of lines
196			10Y/10	195-195.5 - Fine sand, gray (10YR 7/1) moist/wet	SP			liner crumpled during drilling
197				195.5-197 - abrupt transition silty clay w/ sand (little)	ML			13.5 <u>DENSE</u>
198				trace/few lignite fragments ~10mm in diameter				Attempt H ₂ O sample
199				cohesive, low plasticity, dry	CL			1730
200				197-205 - silty clay gray - dry, low plasticity, cohesive (10YR 7/2) massively bedded				22.8

7/21 ↓

↓ 10' FUNDS

Project Name				Project Number		Location			
S.C.S				10022-03		New Castle, DE			
Depth	Interval	Recovery	Blow Counts	Description	USCS Symbol	Lithology	Water Content	Remarks	
				(include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)				(Include all sample types & depth, odor, organic vapor measurements, etc.)	
201				<p>SAA - gray silty clay - increased silt content 198-199' - m. stiff - little brown/red discoloration</p>	CL			20	PP > 4.5
202			30						
203			66						
204			6.5						
205			33.9						
206				<p>SAA - gray silty clay (10XR2 1/2) v. stiff - hard, cohesive, low plasticity</p> <p>209-211 - gradual transition into clayey sand w/silt v. dark gray (10XR3 1/2) lignite fragments 1" diameter moist, no odor</p> <p>211-215 - clayey silt abrupt transition trace lignite, dressing w/dark hard, dry, crumbles easily cohesive, low/low plasticity uniform/massive structure dark gray (10XR 4/1)</p>	CL			12.3	PP ~ 4.5 or greater
207			15.2						
208			75.6						
209			0.2						
210			0.0						
211			1.4						
212			18.5						
213			18.5						
214			21.0						
215			23.8						
					ML			25.0	

Project Name				Project Number		Location			
SC.S.				E10022-03		New Castle PE			
Depth	Interval	Recovery	Blow Counts	Description	USCS Symbol	Lithology	Water Content	Remarks	
				(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)				(Include all sample types & depth, odor, organic vapor measurements, etc.)	
216				<p>SAA - clayey silt + trace sand gray (10XR 5/1) dry/moist, medium/stiff - gray fine sand bed (approx 3") @ 219'</p> <p>dark color with depth</p> <p>gradual transition to <u>sandy silt</u> → <u>fine sand</u></p> <p>@ 220' - 224.5 - increasing grain size w/ depth dark gray (10XR 4/1), moist, little lignite</p> <p>224.5-225 - dark greenish brown (10XR 4/2) clayey silt, dry hard cohesive, non plastic, trace fine grained pyrite-like minerals, crumbles</p>				3.7 1030	<p>PP1-2</p>
217			10					11.0	
218			10			ML		11.2	
219								6.7	
220								20.3	
221								1.1	
222						SM		8.9	
223								8.0	
224								4.0	
225						ML		1.0	
226			104	<p>225-227 - SAA - gray (10XR 6/1) dry/moist, very stiff/hard + trace sand</p> <p>227-235 - Fine silty sand gray, (10XR 7/1), moist little/few fines, fine grained, non cohesive, non-plastic,</p> <p>- 234-235 - Increasing lignite w/ depth, darker gray (10XR 4/1)</p>				2.2 PP 4.0-4.5	
227			10			ML		3.0	
228								3.6	
229						SM		7.5	
230								1.5	

trace/little mica/pyrite-like flakes ~ 1mm in diameter

Project Name				Project Number		Location			
S.C.S.				E10022-03		New Castle, DE			
Depth	Interval	Recovery	Blow Counts	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Lithology	Water Content	Remarks <small>(Include all sample types & depth, odor, organic vapor measurements, etc.)</small>	
240				<p><u>Sand</u> - gray (10YR 7/1) Fine/medium → grades to medium/coarse w/depth most, massively bedded, uniform/poorly graded loose</p>		SP		4.5	
241			5/5					3.0	Attempt to collect sample 2/6/80
240								3.5	
249								3.9	
250								3.1	
				<p>- complete drilling @ 250' bgs</p>					

SCD - PW 10 7/28/09
USA 5

LOG PARAMETERS

MATRIX DENSITY: 2.25

NEUTRON MATH: SWSGONE

MATRIX DENSITY: 2.65

MAGNETIC DEC.: 0

ELECT. CUT/OFF: 5000

BT SIZE: 475

PRESENTATION NAME DATE: gamma GR 08/02/02

