



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 1 OF

PROJECT NUMBER	32635.1.3	ID	B-2500	CD	Dare	GEO	Bradley/Plummer	GROUND WATER	0 HOUR	24 HOUR		
SITE DESC	Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet							Depth to WATER	N/A	N/A		
BORING NUMBER	B-59	STA		OFFSET	FT	ALIGNMENT	EAST	Depth to BTM				
ELEVATION		FT	TOTAL DEPTH	199.7	FT	NORTH		DATE				
DRILL MACHINE	CME-550X	DRILL EQMT NUMBER		DRILL METHOD	H Casing / 3 7/8" Tri-cone			HAMMER TYPE	Auto			
START DATE	5/12/11	COMP DATE	5/14/11	SURFACE WTR DEPTH	19.8	FT	DEPTH TO ROCK	FT	DRILLER	Mike M / JES-NW		
DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL & ROCK DESCRIPTION	
	0.5 R	0.5 R	0.5 R	0	25	50	75	100				
4.2											SS-22/4.2-5.7 SAT	Coastal Brown coarse T. fine SAND plain w/ trace of silt (A.3) Deposit
5	3	6	7		13							
9.3											Ref SS-22 SAT	Brown coarse T. fine SAND w/ trace of silt (A.3)
10	6	6	10		16							
14.3											SS-23/14.3-15.8 SAT	Gray silty coarse T. fine SAND (A.2.4)
15	6	8	8		16							
19.3											Ref SS-23 SAT	Gray silty coarse T. fine SAND (A.2.4)
20	2	3	5		8							
24.3											SS-24/24.3-25.8 SAT	Gray silty coarse to fine SAND (A.2.4)
25	4	3	3		10							
29.3											Ref SS-24 SAT	Gray silty coarse to fine SAND (A.2.4)
30	0	15	18		33							
34.3											SS-25/34.3-36.7 SAT	Gray fine SANDY SILT w/ some SHELL FRAGMENT (A.4)
35	4	6	5		15							

NOTES: 1) Advanced H Casing T. 100' (Total used 74.4')
2) Advanced 3 7/8" Tri-cone T. 199.7' feet
3) Ocean H₂O used as drilling fluid
4) Approx drilling fluid density

DECK TO DATUM DISTANCE FT: _____

DRILLING FLUID PROPERTIES _____

FINAL CASING DEPTH FT: _____

SIGNATURE _____ DATE _____

NOTES: 5) Some loss of drilling fluid observed

RED LINE _____



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 3 OF 5

PROJECT NUMBER	32635.1.3	ID	B-2500	CD	Dare	GEO	Bradley/Plummer	GROUND WATER	0 HOUR	24 HOUR
SITE DESC	Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet									
BORING NUMBER	B-59	STA		OFFSET	FT	ALIGNMENT		Depth to WATER		
ELEVATION		TOTAL DEPTH	199.7	FT	NORTH	EAST		Depth to BTM		
DRILL MACHINE	CMR-530X	DRILL EQMT NUMBER		DRILL METHOD	H CASING / 3" TRI-CONE			HAMMER TYPE	Auto	
START DATE	5/12/2011	COMP DATE	5/11/11	SURFACE WTR DEPTH	19.8	FT	DEPTH TO ROCK	FT	DRILLER	J. WHITE

DEPTH	BLOW COUNT			BLOWS PER FOOT	SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL & ROCK DESCRIPTION
	0.5 R	0.5 R	0.5 R					
99.7	7	9	17		SS-20/10.2-41.7			GRAY FINE SANDY SILT (A-4)
32.8					REF SS-26	SAT		GRAY FINE SANDY SILT (A-4)
1218.2					SS-27/10.2-51.7	SAT		GRAY SILTY FINE SAND WITH SOME SHELL FRAGMENTS (A-2.4)
55.2	12	19	20		REF SS-27	SAT		GRAY SILTY FINE SAND WITH SOME SHELL FRAGMENTS (A-2.4)
69.2	6	7	7		SS-28/10.2-61.7	SAT		GRAY SILTY COARSE TO FINE SAND WITH TRACE SHELL FRAGMENTS (A-2.4)
2025.3	15	28	34		REF SS-28	SAT		GRAY SILTY COARSE TO FINE SAND WITH TRACE SHELL FRAGMENTS (A-2.4)
70.0	20	25	38		SS-29/10.0-71.5	SAT		GRAY SILTY COARSE TO FINE SAND (A-2.4)
74.7	13	20	32		REF SS-29	SAT		GRAY SILTY COARSE TO FINE SAND (A-2.4)
79.7	10	13	27					

NOTES

SIGNATURE

DATE

NOTES

M DISTANCE
PROPERTIES

FT

FINAL CASING DEPTH

FT



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 3 OF 5

PROJECT NUMBER 32635.13	STA B-2500	DATE Dare	GEO Bradley/Plummer	GROUND WATER 0 HOUR	24 HOUR
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet					
BORING NUMBER B-59	STA	OFFSET FT	ALIGNMENT EAST	DEPTH TO WATER	
ELEVATION FT	TOTAL DEPTH 199.7 FT	NORTH	EAST	DEPTH TO BTM DATE	
DRILL MACHINE CME-550X	DRILL EGMT NUMBER	DRILL METHOD H-CASING / 3" TRICONE	HAMMER TYPE Auto		
START DATE 5/12/2011	COMP DATE 5/14/11	SURFACE WTR DEPTH 19.8 FT	DEPTH TO ROCK FT	DRILLER J. WHITE	

DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT	SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL & ROCK DESCRIPTION
	0.5 ft	0.5 ft	0.5 ft					
11/216					SS-30/19.7 SAT	81.2		GRAY SILTY COARSE TO FINE SAND (A-2-4)
20-1820	11	12	16		REF SS-30	SAT		GRAY SILTY COARSE TO FINE SAND (A-2-4)
88.6	20	17	20		SS-31/88.6 SAT	90.1		GRAY SILTY COARSE TO FINE SAND (A-2-4)
93.6	10	20	20		REF SS-31	SAT		GRAY SILTY COARSE TO FINE SAND WITH TRACE SHELL FRAGMENTS
98.6	21	25	21		SS-32/98.6 SAT	100.1		GRAY SILTY COARSE TO FINE SAND WITH TRACE SHELL FRAGMENTS
103.3	13	18	14		REF SS-32	SAT		GRAY SILTY COARSE TO FINE SAND (A-2-4)
108.3	6	9	13		SS-33/108.3 SAT	109.8		GRAY SILTY COARSE TO FINE SAND WITH SOME SHELL FRAGMENTS (A-2-4)
113.3	12	22	30		REF SS-33	SAT		GRAY SILTY COARSE TO FINE SAND (A-2-4)
118.3	15	30	42		SS-34/118.3 SAT	119.8		GRAY SILTY COARSE TO FINE SAND WITH TRACE SHELL FRAGMENTS

NOTES	SIGNATURE	DATE
DECK TO DATUM DISTANCE	NOTES	
DRILLING FLUID PROPERTIES		
FINAL CASING DEPTH		



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

11.3
SHEET 4 OF 5

PROJECT NUMBER 32635.1.3	ID B-2500	CO Dare	GEO Bradley/Plummer	GROUND WATER 0 HOUR	24 HOUR
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet					
BORING NUMBER 13.59	STA 199.7	OFFSET FT	ALIGNMENT EAST		
ELEVATION FT	TOTAL DEPTH FT	NORTH	EAST		
DRILL MACHINE CME-5502	DRILL EQUIP NUMBER	DRILL METHOD H CASING 1 3/8" TETRA	HAMMER TYPE Auto		
START DATE 5/12/2011	COMP DATE 5/14/11	SURFACE WTR DEPTH 19.8 FT	DEPTH TO ROCK FT	DRILLER J. WHITE	
SOIL & ROCK DESCRIPTION					
DEPTH (ft)	BLOW COUNT			SOIL or ROCK NAME (w/ color, density/consistency, texture, plasticity, organics, other)	
	0.5 R	0.5 R	0.5 R		
122.3	17	37	47	REF SS-34 SAT GRAY SILTY COARSE TO FINE SAND (A-2-4)	
126.3	13	33	40	SS-35/126.3 SAT GRAY SILTY COARSE TO FINE SAND (A-2-4) (LITTLE PLASTICITY)	
133.3	4	4	6	SS-36/133.3-134.8 M Gray silty clay (A-7.5)	
138.9	3	5	9	REF SS-36 M Gray silty clay (A-7.5)	
143.9	3	5	9	SS-37/143.9-145.4 M Gray silty clay (A-7.5)	
148.6	5	7	6	REF SS-37 M Gray silty clay (A-7.5)	
153.6	7	9	10	SS-38/153.6-155.1 M Gray silty clay (A-7.5)	
158.5	5	6	7	REF SS-38 M Gray silty clay (A-7.5)	
NOTES					
DECK TO DATUM DISTANCE FT					
DRILLING FLUID PROPERTIES					
FINAL CASING DEPTH FT					
SIGNATURE					
DATE					
RED LINE					
Form GE					



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 5 OF 5

PROJECT NUMBER 32635.1.3	ID B-2500	CO Dare	GEO Bradley/Plummer	GROUND WATER Depth to WATER	0 HOUR	24 HOUR
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet				DEPTH TO BTTM DATE		
BORING NUMBER B.59	STA 199.7	OFFSET FT	ALIGNMENT EAST	HAMMER TYPE Auto		
ELEVATION FT	TOTAL DEPTH FT	NORTH	EAST	DRILLER MIA m		
DRILL MACHINE CMC-550X	DRILL EQMT NUMBER	DRILL METHOD Hollow / 3 7/8" T.C. line	SURFACE WTR DEPTH 19.8	DEPTH TO ROCK FT		
START DATE 5/12/2011	COMP DATE 5/14/11					
DEPTH (R)	BLOW COUNT 0.5 R 0.5 R 0.5 R	BLOWS PER FOOT 0 25 50 75 100	SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL & ROCK DESCRIPTION SOIL or ROCK NAME (w/ color, density/consistency, texture, plasticity, organics, other)
163.4	600H 3 6	9	SS-30/163.4-164.9	M		Gray silty clay (A-7.5)
168.4	6 18 47	65	Ref SS-39	M		Gray silty clay (A-7.5)
173.2	40 60/0.4	100/0.5	SS-40/173.2-174.1	M		Gray silty fine SAND (A-2.4)
178.4	57 43/0.4	100/10.7	Ref SS-40	M		Gray silty fine SAND (A-2.4)
183.4	50 40 17	57	SS-41/183.4-184.9	M		GRAY SILTY FINE SAND WITH SOME CLAY ROCKETS (A-2.4)
188.8	00 40/0.3	80/0.2	SS-42/188.8-189.6	SAT		GRAY SILTY FINE SAND (A-2.4)
193.8	100/0.5	100/0.5	SS-43/193.8-194.3	SAT		GRAY SILTY COARSE TO FINE SAND WITH SOME SHALE FRAGMENTS
199.7	100/0.5	100/0.5				
NOTES						
DECK TO DATUM DISTANCE FT						
DRILLING FLUID PROPERTIES						
FINAL CASING DEPTH FT						
SIGNATURE						
NOTES						
DATE						



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 1 OF 5

PROJECT NUMBER	32635.1.3	ID	B-2500	CO	Dare	GEO	Bradley/Plummer	GROUND WATER	0 HOUR	24 HOUR	
SITE DESC	Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet							Depth to WATER	N/A	N/A	
BORING NUMBER	B-61	STA		OFFSET	FT	ALIGNMENT	EAST	Depth to BTM			
ELEVATION		FT	TOTAL DEPTH	198.2	FT	NORTH		DATE			
DRILL MACHINE	CMK-550	DRILL EQMT NUMBER		DRILL METHOD	A CASING / 3 1/8" T.C. CASE			HAMMER TYPE	Auto		
START DATE	5/14/11	COMP DATE	5/15/11	SURFACE WTR DEPTH	20.8	FT	DEPTH TO ROCK	N/A	FT	DRILLER	J. WILSON/m.k.m
DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT			SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL or ROCK NAME (w/ color, density/consistency, texture, plasticity, organics, other)	
	0.5 ft	0.5 ft	0.5 ft	0	25	50	75	100			
2.0											
5	9	8	7								
7.6	WR	WR	WR								
10											
12.0	3	2	1								
15											
17.4	3	6	3								
20											
22.9	WH	WH	7								
25											
27.4	10	13	8								
30											
31.7	4	5	2								
35											
36.7	4	9	9								
NOTES											
1) ADVANCED W/ CASING TO 58.6 FEET (85.4 FEET USED)											
2) ADVANCED 3 1/8" T.C. CASE TO 197.4 FEET											
3) Ocean H ₂ O USED AS DRILLING FLUID											
4) APPROXIMATE OCEANIC FLUID DENSITY											
5) Some loss of Drilling fluid observed											
DECK TO DATUM DISTANCE											
DRILLING FLUID PROPERTIES											
FINAL CASING DEPTH											
SIGNATURE											
DATE											
NOTES											
RED LINE											



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 2 OF 5

PROJECT NUMBER	32635.1.3	ID	B-2500	CO	Dare	GEO	Bradley/Plummer	GROUND WATER	0 HOUR	24 HOUR				
SITE DESC	Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet													
BORING NUMBER	B-61	STA		OFFSET	FT	ALIGNMENT		Depth to WATER						
ELEVATION		FT	TOTAL DEPTH	198.2	FT	NORTH		Depth to BTM						
DRILL MACHINE	CME-550X	DRILL EQMT NUMBER		DRILL METHOD	H CASING / 3/4" TRICONE BIT			HAMMER TYPE	Auto					
START DATE	5/14/2011	COMP DATE	5/15/11	SURFACE WTR DEPTH	26.8	FT	DEPTH TO ROCK	N/A	FT	DRILLER				
								S. WHITE/m.k.m						
DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMPLE NO. & INTERVAL		MOI	ORIGIN	SOIL & ROCK DESCRIPTION		
	0.5 ft	0.5 ft	0.5 ft	0	25	50	75	100					SOIL or ROCK NAME (w/ color, density/consistency, texture, plasticity, organics, other)	
44.7													SS-S/4.7-M 43.2	
	7	12	16										GRAY SILTY FINE SAND w/ SOME SHELL FRAGMENTS (A-2.4)	
46.3													REF SS-51 SAT	
	6	7	8										GRAY SILTY FINE SAND w/ SOME SHELL FRAGMENTS (A-2.4)	
51.3													SS-S/51.3 SAT 52.0	
	10	13	15										GRAY SILTY FINE SAND w/ TRACE SHELL FRAGMENTS (A-2.4)	
56.3													REF SS-53 SAT	
	10	23	36										GRAY SILTY-FINE SAND (A-2.4)	
61.3													SS-53/61.3 SAT 62.8	
	11	11	18										Gray silty fine sand (A-2.4)	
66.3													REF SS-53 SAT	
	14	17	20										Gray silty fine sand (A-2.4)	
71.5													SS-54/71.5 SAT 73.0	
	8	6	14										Gray silty fine sand (A-2.4)	
76.8													REF SS-54 SAT	
	8	16	18										Gray silty fine sand (A-2.4)	

NOTES

DECK TO DATUM DISTANCE FT

DRILLING FLUID PROPERTIES

FINAL CASING DEPTH FT

SIGNATURE

DATE

NOTES

RED LINE



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 3 OF 5

PROJECT NUMBER 32635.1.3	ID B-2500	CO Dare	GEO Bradley/Plummer	GROUND WATER 0 HOUR	24 HOUR
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet				Depth to WATER	
BORING NUMBER B-61	STA	OFFSET FT	ALIGNMENT EAST	Depth to BTM	
ELEVATION FT.	TOTAL DEPTH 198.2 FT	NORTH	EAST	DATE	
DRILL MACHINE cmc-550x	DRILL EQMT NUMBER	DRILL METHOD H casing / 3 7/8" T. cone	HAMMER TYPE Auto		
START DATE 5/14/11	COMP DATE 5/15/11	SURFACE WTR DEPTH 26.8 FT	DEPTH TO ROCK N/A FT	DRILLER M. K. M / J. R. W	

DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT	SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL & ROCK DESCRIPTION
	0.5 R	0.5 R	0.5 R					
81.8	13	18	22	40	SS 55/81.8-83.3	SAT		Gray silty coarse to fine SAND (A-2.4)
86.9	17	21	19	40	Ref SS 55	SAT		Gray silty coarse to fine SAND (A-2.4)
92.1	9	11	18	29	SS 56/92.1-93.6	SAT		Gray silty fine SAND (A-2.4)
97.1	9	18	19	37	Ref SS 56	SAT		Gray silty fine SAND (A-2.4)
102.1	15	20	27	47	SS 57/102.1-103.6	SAT		Gray silty coarse to fine SAND w/ trace shell fragments (A-2.4)
107.1	14	22	26	48	Ref SS 57	SAT		Gray silty coarse to fine SAND (A-2.4)
111.7	15	26	31	57	SS 58/111.7-113.2			Gray silty coarse to fine SAND (A-2.4)
116.7	18	33	33	66	Ref SS 58			Gray silty coarse to fine SAND (A-2.4)

NOTES	SIGNATURE	DATE
DECK TO DATUM DISTANCE	NOTES	
DRILLING FLUID PROPERTIES		
FINAL CASING DEPTH		



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 4 OF 5

PROJECT NUMBER 32635.1.3	ID B-2500	DATE	GEO Bradley/Plummer	GROUND WATER Depth to WATER	0 HOUR	24 HOUR
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet				ALIGNMENT EAST		
BORING NUMBER B.61	STA TOTAL DEPTH 198.2	FT	OFFSET FT	DEPTH TO BTM DATE		
ELEVATION FT	DRILL MACHINE CMC-550X	DRILL EQMT NUMBER	DRILL METHOD H casing / 3 7/8" Tri-cone	HAMMER TYPE Auto		
START DATE 5/14/11	COMP DATE 5/15/11	SURFACE WTR DEPTH 26.8	DEPTH TO ROCK N/A	DRILLER M. L. M / J. S. W		
DEPTH (ft)	BLOW COUNT 0.5 ft 0.5 ft 0.5 ft	BLOWS PER FOOT 0 25 50 75 100	SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL & ROCK DESCRIPTION (w/ color, density/consistency, texture, plasticity, organics, other)
131.7	14 24 40		SS-59/121.7-123.2	SAT		Gray fine T. coarse sand w/ trace of silt (A-3)
5			Ref SS-59	SAT		Gray fine T. coarse sand (A-3)
126.7	12 10 12					
10						
131.7	4 5 7		SS-60/131.7-133.2	m		Gray silty clay (A-7.5)
15			Ref SS-60	m		Gray silty clay (A-7.5)
136.2	WON 4 5					
20			SS-61/141.2-142.7	m		Gray silty clay (A-7.5)
141.2	WON 4 7					
25			SS-62/150.7-154.2	m		GRAY SILTY CLAY (A-7.5)
146.7	2 4 4					
30						
152.7	2 4 4					
35						
158.1	3 5		Ref SS-62	m		GRAY SILTY CLAY w/ some silty fragments (A-7.5)
NOTES			SIGNATURE			
DECK TO DATUM DISTANCE			DATE			
DRILLING FLUID PROPERTIES			NOTES			
FINAL CASING DEPTH			RED LINE			



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 5 OF 5

PROJECT NUMBER 32635.1.3	ID B-2500	CO Dare	GEO Bradley/Plummer	GROUND WATER 0 HOUR 24 HOUR		
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet						
BORING NUMBER B-41	STA TOTAL DEPTH 198.2	OFFSET FT NORTH	ALIGNMENT EAST	DEPTH TO WATER DATE		
ELEVATION FT	DRILL EQMT NUMBER DATE 5/15/2011	DRILL METHOD H CASING 13 3/8" TRIUMPH APT	SURFACE WTR DEPTH 24.8	HAMMER TYPE Auto		
DRILL MACHINE CATE-550X	COMP DATE 5/15/11	DEPTH TO ROCK N/A	FT	DRILLER K WHITE		
DEPTH (ft)	BLOW COUNT 0.5 ft 0.5 ft 0.5 ft	BLOWS PER FOOT 0 25 50 75 100	SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL & ROCK DESCRIPTION (w/ color, density/consistency, texture, plasticity, organics, other)
107.1	31 50 58%4		SS 63/1031-104.5	SAT		GRAY SILTY FINE SAND (A-2-4)
108.1	35 8%5		REF 65.63	SAT		GRAY SILTY FINE SAND (A-2-4)
113.6	23 14 11		SS 64/113.6-115.1	M		GRAY SILTY CLAY (A-7-5)
118.6	75 2%1		SS 65/118.6-119.2	SAT		GRAY SILTY COARSE TO FINE SAND (A-2-4)
123.6	25 45 58%4		SS 66/123.6-125.0	SAT		GRAY SILTY FINE SAND (A-7-9)
128.4	47 5%1		SS 67/128.4-129.3	SAT		GRAY SILTY COARSE TO FINE SAND (A-2-5)
132.8	70 3%1		SS 68/132.8-133.4	SAT		GRAY SILTY COARSE TO FINE SAND WITH SOME WELL FINEMENTS (A-2-5)
137.4	25 75%3		REF 65.68	SAT		GRAY SILTY COARSE TO FINE SAND
NOTES						
DECK TO DATUM DISTANCE FT						
DRILLING FLUID PROPERTIES						
FINAL CASING DEPTH FT						
SIGNATURE						
DATE						
NOTES						



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 1 OF 5

PROJECT NUMBER 32635.1.3	ID B-2500	CO Dare	GEO Bradley/Plummer	GROUND WATER 0 HOUR 24 HOUR
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet				Depth to WATER N/A N/A
BORING NUMBER 13-62	STA TOTAL DEPTH 182.5	OFFSET 0 FT	ALIGNMENT EAST 3027939	Depth to BTM DATE
ELEVATION FT	DRILL EQMT NUMBER	DRILL METHOD H Casing / 3 7/8" Dragg Bit	HAMMER TYPE Auto	
START DATE 5/11/11 @ 3 PM	COMP DATE 5/12/11 @ 2:30 PM	SURFACE WTR DEPTH 21.3	DEPTH TO ROCK N/A	DRILLER M. KR M

DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT	SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL & ROCK DESCRIPTION
	0.5 R	0.5 R	0.5 R					
3.1					SS.1/3.1-4.6	SAT	and ff Coastal Plain Deposition	Gray silty fine SAND w/ shell fragments (A.2.4)
5	7	18	6	24	Ref SS-1	SAT		Gray silty fine SAND w/ shell fragments (A.2.4)
8.1	7	7	8	15				
10								
13.1	3	1	1	2	SS.2/13.1-14.6	W		Gray fine SANDY clay (A.6)
15								
18.1	1	3	4	7	SS.3/18.1-19.6	SAT		Brown coarse to fine SAND w/ trace silt (A.3)
20								
23.1	6	5	3	8	Ref SS.3	SAT		Gray fine SAND w/ trace silt (A.3)
25								
28.1	4	5	3	8	SS.4/28.1-29.6	W		Gray fine SANDY silt (A.4)
30								
31.9	4	5	4	9	Ref SS.4	W		Gray fine SANDY silt (A.4)
35								
36.9	11	17	17	34	SS.5/36.9-38.4	W		Gray fine SANDY silt (A.4)

NOTES	SIGNATURE	DATE
1) H ₂ O T. Top of Barge 40 ft		
2) Advanced H Casing To 50.1 ft (7.4 ft used)		
3) Advanced 3 7/8" Dragg Bit To 181.2 ft		
4) Ocean H ₂ O used as drilling fluid		
5) Approx drilling fluid density		
6) Some Loss of drilling fluid observed		

DECK TO DATUM DISTANCE	FT
DRILLING FLUID PROPERTIES	
FINAL CASING DEPTH	FT

7/19-401-5706
627

17 15 21

62.3 SHEET 2 OF 5

NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

PROJECT NUMBER 32635.13	ID B-2500	CO Dare	GEO Bradley/Plummer	GROUND WATER Depth to WATER	0 HOUR	24 HOUR
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet				ALIGNMENT EAST	3027939	
BORING NUMBER B-6Z	STA 1825	OFFSET 0 FT	DRILL METHOD H.C. 550x	DEPTH TO ROCK N/A	HAMMER TYPE Auto	
ELEVATION FT	TOTAL DEPTH 1825 FT	NORTH 752581	DRILL EQUIPMENT NUMBER 5/12/11	DEPTH TO ROCK N/A	DRILLER Mike M	
START DATE 5/11/11	COMP DATE 5/12/11	SURFACE WTR DEPTH 21.3 FT				

DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL or ROCK NAME (w/ color, density/consistency, texture, plasticity, organics, other)
	0.5 ft	0.5 ft	0.5 ft	0	25	50	75	100				
41.9	2	3	7						Ref SS-5	W		Gray fine SANDY silt (A-4)
47.3	12	12	36						SS-6/47.3-48.8	SAT		Gray silty coarse T. fine SAND w/ Trace shell fragments (A-2-4)
52.3	7	11	19						SS-6			Gray silty coarse T. fine SAND (A-2-4)
57.3	11	40	43						SS-7/57.3-57.8	SAT		GRAY SILTY COARSE TO FINE SAND w/ TRACE SHELL FRAGMENTS (A-2-4)
62.8	24	34	28						Ref SS-7	SAT		GRAY SILTY COARSE TO FINE SAND w/ TRACE SHELL FRAGMENTS (A-2-4)
67.8	30	40	50						SS-8/67.8-69.3	SAT		GRAY SILTY COARSE TO FINE SAND w/ TRACE SHELL FRAGMENTS (A-2-4)
72.8	14	20	19						SS-9/72.8-74.3	SAT		
77.6	17	15	21						Ref SS-9	SAT		GRAY SILTY COARSE TO FINE SAND w/ TRACE SHELL FRAGMENTS

NOTES

DECK TO DATUM DISTANCE
DRILLING FLUID PROPERTIES

FT

FINAL CASING DEPTH

FT

SIGNATURE
NOTES

DATE

RED LINE

NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 3 OF 5

PROJECT NUMBER 32635.1.3	ID B-2500	CO Date	GEO Bradley/Plummer	GROUND WATER 0 HOUR	24 HOUR
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet					
BORING NUMBER B-62	STA	OFFSET 0 FT	ALIGNMENT EAST	DEPTH to WATER	
ELEVATION FT	TOTAL DEPTH 182.5 FT	NORTH -752581	EAST 3027939	DEPTH to BTM	
DRILL MACHINE CMB-550X	DRILL EQMT NUMBER	DRILL METHOD Hecox 1 3/8" DRAG BIT	HAMMER TYPE Auto		
START DATE 5/11/2011	COMP DATE 5/12/11	SURFACE WTR DEPTH 21.3 FT	DEPTH TO ROCK N/A	DRILLER J. WHITE	

DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL & ROCK DESCRIPTION (w/ color, density/consistency, texture, plasticity, organics, other)
	0.5 ft	0.5 ft	0.5 ft	0	25	50	75				
82.6	14	17	23						SS 10/82.6-134	SAT	GRAY SILTY COARSE TO FINE SAND w/ TRACE SHELL FRAGMENTS (A-2-4)
87.6	15	23	78						REF SS 10	SAT	GRAY SILTY COARSE TO FINE SAND w/ TRACE SHELL FRAGMENTS (A-2-4)
92.1	19	27	32						SS 11/92.1-136	SAT	GRAY SILTY COARSE TO FINE SAND w/ TRACE SHELL FRAGMENTS (A-2-4)
97.1	10	11	20						REF SS 11	SAT	GRAY SILTY COARSE TO FINE SAND w/ TRACE SHELL FRAGMENTS (A-2-4)
102.1	17	27	39						SS 12/102.1-103.6	SAT	GRAY SILTY COARSE TO FINE SAND w/ TRACE SHELL FRAGMENTS (A-2-4)
106.5	17	27	39						REF S 12	SAT	GRAY SILTY COARSE TO FINE SAND w/ TRACE SHELL FRAGMENTS (A-2-4)
111.5	27	35	40						SS 13/111.5-115.0	SAT	LIGHT GRAY COARSE TO FINE SAND (A-2-4)
116.5	25	27	33						REF S 13	SAT	LIGHT GRAY COARSE TO FINE SAND (A-2-4)

NOTES

DECK TO DATUM DISTANCE _____ FT

DRILLING FLUID PROPERTIES _____

FINAL CASING DEPTH _____ FT

SIGNATURE _____ DATE _____

NOTES

RED LINE



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 4 OF 5

PROJECT NUMBER 32635.1.3	ID B-2500	CO Dare	GEO Bradley/Plummer	GROUND WATER 0 HOUR	24 HOUR
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet					
BORING NUMBER B-62	STA TOTAL DEPTH 182.5 FT	OFFSET 0 FT	ALIGNMENT EAST		
ELEVATION	DRILL EQMT NUMBER	DRILL METHOD H casing 3 1/8" DRAG BIT	DEPTH TO ROCK 21.3 FT		
DRILL MACHINE CME-SSOX	COMP DATE 5/12/11	SURFACE WTR DEPTH 21.3 FT	DEPTH TO ROCK 21.3 FT		
START DATE 5/11/2011				HAMMER TYPE Auto	DRILLER J. WHITE

DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMPLE NO. & INTERVAL	MOI	ORIGIN	SOIL & ROCK DESCRIPTION
	0.5 ft	0.5 ft	0.5 ft	0	25	50	75	100			SOIL or ROCK NAME (w/ color, density, consistency, texture, plasticity, organics, other)
121.3	27	33	63						SS-4/121.3-122.8	SAT	LIGHT GRAY SILTY COARSE TO FINE SAND w/ TRACE SMALL FRAGMENTS (A-2.4)
126.3	27	37	47						SS-5/126.3-127.8	SAT	DARK GRAY SILTY COARSE TO FINE SAND w/ SOME SMALL FRAGMENTS (A-2.4)
131.3	2	1	5						SS-16/131.3-132.8	M	GRAY SILTY CLAY w/ TRACE SMALL FRAGMENTS (A-7.6)
135.9	2	4	7						REF SS-16	M	GRAY SILTY CLAY w/ TRACE SMALL FRAGMENTS (A-7.6)
140.7	1	4	7						SS-17/140.7-142.2	W	GRAY SILTY CLAY w/ TRACE SMALL FRAGMENTS (A-7.6)
146.5									REF SS-17	W	GRAY SILTY CLAY w/ TRACE SMALL FRAGMENTS (A-7.6)
151.0	4	7	9						SS-18/151.0-152.5	M	Gray SILTY clay (A-7.5)
156.2	5	6	10						Ref SS-18	M	Gray SILTY clay (A-7.5)

NOTES	SIGNATURE	DATE
DECK TO DATUM DISTANCE _____ FT.	NOTES	
DRILLING FLUID PROPERTIES		
FINAL CASING DEPTH _____ FT.		



NCDOT GEOTECHNICAL ENGINEERING UNIT
FIELD BORELOG (ENGLISH)

SHEET 5 OF 5

PROJECT NUMBER 32635.1.3	ID B-2500	CO Dare	GEO Bradley/Plummer	GROUND WATER 0 HOUR	24 HOUR		
SITE DESC Bridge No. 11 (Bonner Bridge) on NC 12 over Oregon Inlet							
BORING NUMBER B.6Z	STA	OFFSET 0 FT	ALIGNMENT EAST				
ELEVATION FT	TOTAL DEPTH 182.5 FT	NORTH 752581	EAST 3027939				
DRILL MACHINE CME-5502	DRILL EQMT NUMBER	DRILL METHOD H Casing (3 7/8" Dia) B.I	HAMMER TYPE Auto				
START DATE 5/11/2011	COMP DATE 5/12/11	SURFACE WTR DEPTH 213 FT	DEPTH TO ROCK N/A FT	DRILLER Mike M / Jenson W			
DEPTH (ft)	BLOW COUNT			SOIL & ROCK DESCRIPTION			
	0.5 ft	0.5 ft	0.5 ft				
	BLOWS PER FOOT						
	0	25	50				
	SAMPLE NO. & INTERVAL						
	MOI						
	ORIGIN						
161.2	7	24	59	82	55.19/161.2-162.7 m	Gray silty clay w/ Trace Shell Fragments (A.2.3)	164.0
166.2	57	43	10.3	100	55.20/166.2-167.0 SAT	Gray silty fine SAND w/ Trace shell Fragments (A.2.4)	
171.2	55	45	10.2	100	Ref 55.20 SAT	Gray silty fine SAND w/ Trace shell Fragments (A.2.4)	
176.2	60	40	0.2	100	55.21/176.2-176.9 SAT	Gray silty fine SAND w/ Trace shell fragments (A.2.4)	
181.2	3	41	59	100	Ref 55.21 SAT	Gray silty fine SAND w/ Trace shell fragments (A.2.4)	182.5
Boring Terminated at Elevation 182.5 in Gray silty fine SAND w/ Trace shell fragments							
NOTES							
SIGNATURE							
DATE							
NOTES							
DECK TO DATUM DISTANCE FT							
DRILLING FLUID PROPERTIES							
FINAL CASING DEPTH FT							