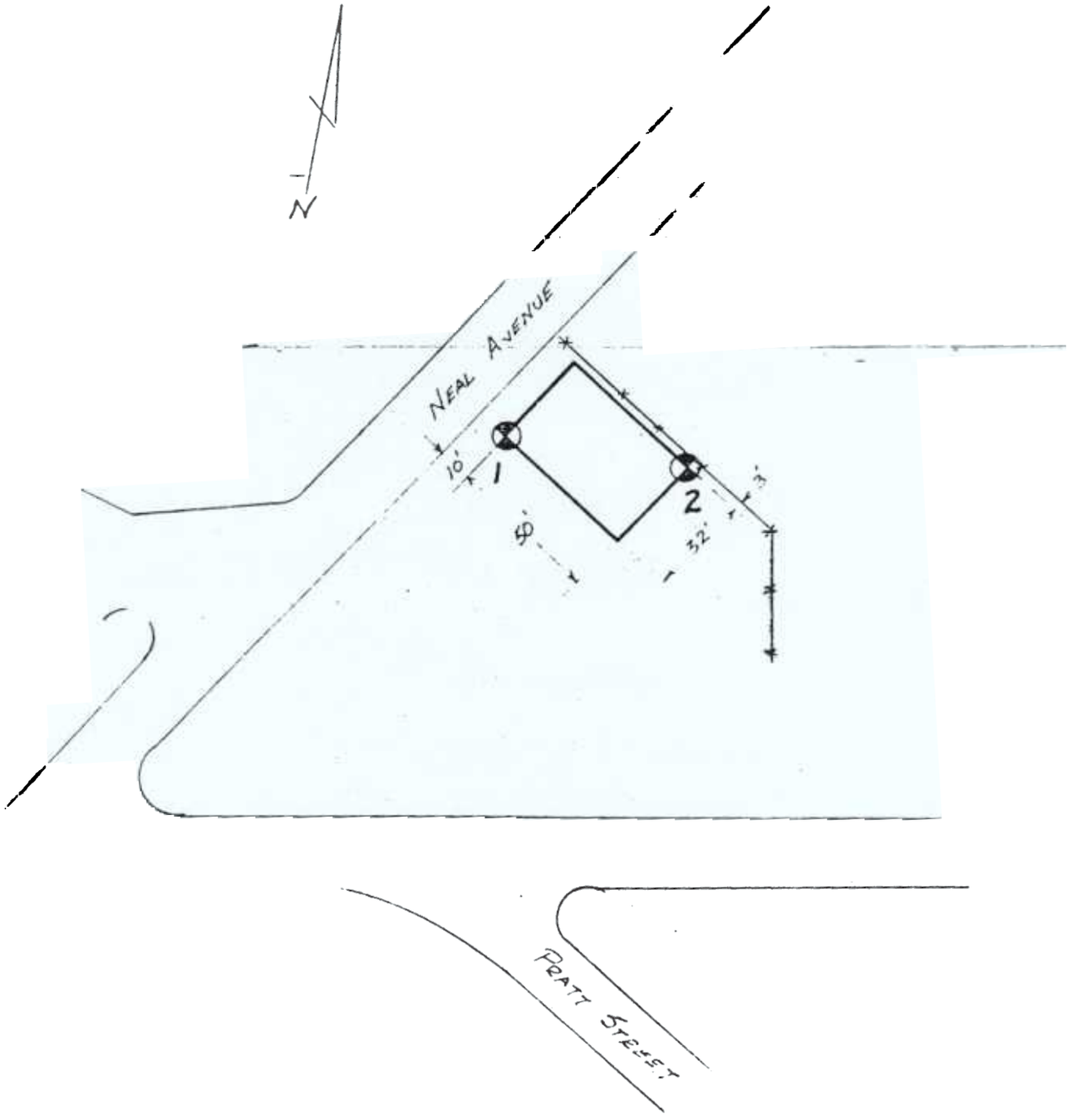
FILE 76



LOCATION OF BORINGS

PROJECT:	QUALITY CONTROL BUILDING, DCL OPERATIONS
LOCATION:	LANGLEY AIR FORCE BASE VIRGINIA
DATE: FEBRUARY 1971	SCALE: 1" = 50'

ROBERT D. SAYRE
Consulting Engineer

Hole No. 1

Elevation 6± ft.	Depth 0	DESCRIPTION	N	REMARKS
5.5	0.5	Topsoil		
		Gray Sandy Clay, trace of small gravel FILL	13	
3	3		13	Water Table @ 3 ft
		Gray clay, trace of sand FILL	9	
1.5	4.5	Gray sandy CLAY		
0.5	5.5		3	
		Gray CLAY and SAND		
			4	
-6	12			
		Brown sandy CLAY, some gravel		
-10.5	16.5			
		Boring Terminated		

Boring Contractor: Carpenter Construction Company

N = Blows per foot on 2" OD, -3/8" ID sampling spoon with 140 lb hammer falling 30"

PROJECT: QUALITY CONTROL BUILDING
POL Operations
Langley Air Force Base, Virginia

DATE: February 1971

ROBERT D. SAYRE
Consulting Engineers
RICHMOND, VIRGINIA

BORING LOG

Hole No. 2

Elevation 6± ft	Depth 0	DESCRIPTION	N	REMARKS
5.5	0.5	---Topsoil ----------		
		Brown Sandy Clay, trace of gravel Fill	23	
3	3	----------	19	Water Table @ 2.7 ft
		Brown Sandy CLAY	14	FILL?
			8	
	7	----------		
		Gray Silty CLAY		
			2	
-10.5	16.5		2	
		Boring Terminated		

Boring Contractor: Carpenter Construction Company

N = Blows per foot on 2" OD, -3/8" ID sampling spoon with 140 lb hammer falling 30"

PROJECT: QUALITY CONTROL BUILDING
POL Operations
Langley Air Force Base, Virginia

DATE: February 1971

ROBERT D. SAYRE
Consulting Engineers
RICHMOND, VIRGINIA

Hole No. 118DH-1

DRILLING LOG	DIVIS NAD	INSTALLATION LAFB	SHEET OF SHEETS

1. PROJECT: ADAL VARIOUS ADMIN FACILITIES BLDG 764
2. LOCATION (Coordinates or Station): LAFB
3. DRILLING AGENCY: ATEC ASSOCIATES
4. HOLE NO. (As shown on drawing title and file number): 118DH-1
5. NAME OF DRILLER: JUNIOR DAVIS
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 10.0 FEET
10. SIZE AND TYPE OF BIT: 2 IN OD SPLITSPOON
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 45
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5; UNDISTURBED 1
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: SEE BELOW
16. DATE HOLE: STARTED 5 OCT 83; COMPLETED 5 OCT 83
17. ELEVATION TOP OF HOLE: +8.4
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Matthew T Brown

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) DEPTH, FT.	BLOWS/6 IN
+8.60	0.35		ASPHALT			0 - 1	CORED
+7.60	1.00		CONCRETE				
			(CH)-(SC) CLAY HIGH PLASTIC SAND, TRACE TO LITTLE GRAVEL, TRACE ORGANIC FIBERS, MOIST, DARK GRAY, SOFT "FUEL SMELL" PROBABLE FILL	AND	1	1 - 2	AUGERED
					2	2 - 4	1-3-2-4
			d/o LITTLE ORGANICS (FIBERS) SOFT		3	4 - 6	TUBE*
+2.6	6.0						
			(SM) SAND FINE, SOME SILT, TRACE GRAVEL, SOME SHELL, WET, YELLOW "OXIDIZED YORKTOWN" "FUEL SMELL"		4	6-8	3-3-5-9
+0.1	8.5		(SM) SAND FINE, NON PLASTIC, TR - LITTLE SILT, TRACE - LITTLE SHELL, GRAY, "FUEL SMELL" YORKTOWN		5	8-10	7-7-6-6
-1.4	10.0						

BOTTOM OF HOLE 10.0'
WATER ON COMPLETION 7.5 FT
WATER ON RIG @ 9.0'
* TOO MUCH GRAVEL IN SAMPLE TO PROPERLY TEST ON THE CONE PENETROMETER
6-INCH TOTAL RECOVERY

PAST EXPLORATIONS HAVE SHOWN GROUNDWATER TO BE AT ELEVATION +5.0 IN THIS P

FILE 122

IC-2

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT ADAL VARIOUS ADMIN FACILITIES LAFB | HOLE 118

Hole No. 118DH2

DRILLING LOG	DIVI NAD	INSTALLATION N..O	SHEET OF SHEETS
1. PROJECT	ADAL VARIOUS ADMIN FACILITIES BLDG. 764	10. SIZE AND TYPE OF BIT	2 IN OD SPLITSPOON
2. LOCATION (Coordinates or Station)	LAFB	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
3. DRILLING AGENCY	ATEC ASSOCIATES	12. MANUFACTURER'S DESIGNATION OF DRILL	CME 45
4. HOLE NO. (As shown on drawing title and file number)	118 DH-2	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 10 / UNDISTURBED 0
5. NAME OF DRILLER	JUNIOR DAVIS	14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER	SEE BELOW
		16. DATE HOLE	STARTED 5 OCT 83 / COMPLETED 5 OCT 83
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	+ 8.4 %
9. TOTAL DEPTH OF HOLE	35.0 FEET	19. SIGNATURE OF INSPECTOR	Matthew T. Byrne

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) DEPTH, FT	BLOWS/6IN
+8.4	0.0	c	d	e	f	g	
+8.07	0.33		ASPHALT				
			(GP-GM) GRAVEL BASE		1	0-2	AUGER
+6.4	2.0		(SM) SAND FINE, SOME SILT, MOIST, TRACE CLAY, ORGANIC SMELL				
			(CH) CLAY HIGH PLASTIC, TRACE TO LITTLE GRAVEL, TRACE SHELL, MOIST, (FUEL SMELL) 4" RECOVERY		2	2-4	4-4-4-8
+4.4	4.0		(SC-CH) SAND FINE, LITTLE SILT LITTLE HIGH PLAS. CLAY, LITTLE SHELL FRAGMENT, TRACE GRAVEL (FUEL SMELL) YEL AND GRAY		3	4-6	3-2-2-5
+2.4	6.0		(SM) SAND FINE, SOME SILT NON PLASTIC LITTLE SHELL "OXIDIZED YORKTOWN"		4	6-8	7-11-10-12
-0.1	8.5		(SM) SAND FINE, NON PLASTIC TR-LITTLE SILT, TR.-LITTLE SHELL WET GRAY "YORKTOWN"		5	8-10	5-10-8-11
						10-13.5	AUGER
			d/o		6	13.5-15	4-3-4
						15-18.5	AUGER
			d/o w/ TRACE SHELL		7	18.5-20	4-5-8
						20-23.5	AUGER
			d/o		8	23.5-25	3-4-4
						25-28.5	AUGER
			d/o		9	28.5-30	2-4-6
						30-33.5	AUGER
-26.6	35.0		d/o IC-3		10	33.5-35	3-5-8

BOTTOM OF HOLE 35.0'
WATER ON COMPLETION 9.0'

PROJECT ADAL VARIOUS ADMIN FACILITIES | HOLE NO. 118DH2

Hole No. 118 DH3

DRILLING LOG | DIVIL NAD | INSTALLATION JAO | SHEET 1 OF 1 SHEETS

1. PROJECT: ADAL VARIOUS ADMIN FACILITIES BLDG 586
2. LOCATION (Coordinates or Station): LAFB
3. DRILLING AGENCY: ATEC, ASS
4. HOLE NO. (As shown on drawing title and file number): 118 DH-3
5. NAME OF DRILLER: JUNIOR DAVIS
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 20.0'
10. SIZE AND TYPE OF BIT: 2 IN OD SPLITSPOON
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 45
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8 | UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER: SEE BELOW
16. DATE HOLE: STARTED 5 OCT 83 | COMPLETED 5 OCT 83
17. ELEVATION TOP OF HOLE: +6.4
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Matthew T Byrne

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)	
+6.4	0.0					DEPTH, FT	BLOW/6 IN
+5.9	0.5		(SM) TOPSOIL		1	0-2	6-10-11-6
+5.4	1.0		(GM) GRAVEL SOME SILT AND SAND				
			(SM) SAND, VERY FINE, SOME SILT, BROWN MOIST				
+3.4	3.0		(CH) CLAY HIGH PLASTIC, TRACE TO LITTLE VY. FINE SAND, MOIST TO WET, SOFT, PREDOMINATE GRAY W/ TRACE YELLOW		2	2-4	3-2-2-3
					3	4-6	2-1-2-2
+0.4	6.0		(SM)(SC) SAND, FINE, LITTLE HIGH PLASTIC CLAY		4	6-8 ★	2-1-2-1
			(SM) SAND VERY FINE, TRACE PLASTICITY, WET, YELLOW LOOSE		5	8-10	1-0-1-1
						10-12	AUGER
-6.6	13.0		(SM) SAND FINE, NON PLASTIC SOME SILT, LITTLE SHELL FRAGMENTS WET "YORKTOWN"		6	12-14	
					7	14-16	4-6-7-9
							AUGER
-13.6	20.0				8	18-20	3-5-8-10

BOTTOM OF HOLE 20.0 FT
WATER ON COMPLETION AT 10.2 FT
WATER MAY 31 1984 AT 4.3 FT
★ TUBE PUSHED FROM 7.0 TO 9.0 FT
1¼ INCH WELL INSTALLED UPON COMPLETION OF BORING

IC-4

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT ADAL VARIOUS ADMIN FACILITIES LAFB | HOLE NO. 118 DH-3

FILE
109

Hole No. 89 DH-

DRILLING LOG | DIVISION: NAD | INSTALLATION: NAO | SHEET 1 OF 1 SHEETS

1. PROJECT: SQUADRON OPERATION
2. LOCATION (Coordinates or Station): LAFB, VA
3. DRILLING AGENCY: RAAMOT-O'BRIEN
4. HOLE NO. (As shown on drawing title and file number): 89 DH-1
5. NAME OF DRILLER: GARY CHAMBERLAIN
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20.0'
10. SIZE AND TYPE OF BIT: 3⅜" ID SPLIT SPOON
11. DATUM FOR ELEVATION SHOWN (USGS or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: JOY B-50
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: 4.3' @ completion
16. DATE HOLE: STARTED 6 Feb 75; COMPLETED 7 Feb 75
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING
19. SIGNATURE OF INSPECTOR: Harvey E Strawnsnyder Jr

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0.9'		ASPHALT (3"), CONCRETE (6")			ROLLER BIT
	1.5'		SAND & GRAVEL		S-1	SPLIT SPOON 12-11-12
			(CL-SC) - fn to med SAND & CLAY, tr. silt, med to high plast clay, v. moist, brn., saturated w/ fuel			HAWTHORN BIT
	5.3'				S-2	S.S. 4-6-5
			(SM) med SAND & coarse SHELL FRAGS, tr clay & silt, olive brn to yel brn, moist some cemented conglomerates @ 6.5'		S-3	S.S. 8-17-39
					S-4	S.S. 22-32-40
						WASHED
	10.0			9.7	S-5	S.S. 32-36-40
			(SM) fn SAND & SHELL FRAGS, little silt, bluish-gray, moist			WASHED w/ HAWTHORN BIT
					S-6	S.S. 7-13-20
	15.0		u.fn SAND & u fn SHELL FRAGS, little to some silt w/ depth			WASHED
					S-7	S.S. 5-8-12
						WASHED
	20.0				S-8	S.S. 3-4-8
			Bottom of Hole			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE | PROJECT | HOLE NO.

Hole No. 89 DH-2

DRILLING LOG	DIVISION NAD	INSTALLATION NAO	SHEET 1 OF 1 SHEETS
1. PROJECT: SQUADRON OPERATION		10. SIZE AND TYPE OF BIT: 3⅜" ID SPLIT SPOON	
2. LOCATION (Coordinates or Station): LAFB, VA		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: RAAMOT-O'BRIEN		12. MANUFACTURER'S DESIGNATION OF DRILL: JOY B-50	
4. HOLE NO. (As shown on drawing title and file number): 89 DH-2		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 8 / UNDISTURBED 0	
5. NAME OF DRILLER: GARY CHAMBERLAIN		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: 4.2' @ 24 hr.	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 6 Feb 75 / COMPLETED 6 Feb 75	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE: 20.0'		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: Nancy E. Strausmeier Jr	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g Blows/6"
	9"		3" ASPHALT, 6" CONCRETE			ROLLER BIT
	15"		6" GRAVEL & SAND SUBBASE		S-1	SPLIT SPOON 3-3-5
			(CL-SC) - fn. SAND & CLAY, tr to little silt, med. to high plast, brn, v. moist to wet, saturated w/ fuel		S-2	SPLIT SPOON 4-5-10
	5.0				S-3	SPLIT SPOON 2-3-7
	6.0				S-4	SPLIT SPOON 20-31-49
			(SM) - fn SAND & coarse SHELL FRAGS, tr to little silt, brn to yellow brn, change to bluish-gray @ 7.5', moist			HAWTHORN BIT WASHED
	10.0				S-5	SPLIT SPOON 16-24-20
						WASHED
			v. fn. SAND & SHELL FRAGS, little to some silt, moist to v moist w/ depth bluish-gray		S-6	SPLIT SPOON 16-16-22
	15.0					WASHED
					S-7	SPLIT SPOON 11-15-25
						WASHED
	20.0				S-8	SPLIT SPOON 4-5-8
			Bottom of Hole			
			Water Level 4.3' @ completion			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT | HOLE NO.

DRILLING LOG	DIVISION: NAD	INSTALLATION: NAO	SHEET: OF 1 SHEETS
1. PROJECT: SQUADRON OPERATION BLDG.		10. SIZE AND TYPE OF BIT: 3 3/8" SPLIT SPOON	
2. LOCATION (Coordinates or Station): L.A.F.B. VA		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: RAAMOT - O'BRIEN		12. MANUFACTURER'S DESIGNATION OF DRILL: JOY B-50	
4. HOLE NO. (As shown on drawing title and file number): 89DH-3		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5	UNDISTURBED 2
5. NAME OF DRILLER: GARY CHAMBERLAIN		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: 3.5'ℓ COMP.	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 18 Feb 75	COMPLETED 18 Feb 75
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE: 20.0'		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: William J. Barton	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	
	0.45		ASPHALT & CONCRETE	LAB TESTS		ROLLER BIT	
	1.0		SAND & GRAVEL				
			(CL-SC) - fn. SAND & CLAY, tr silt & pea gravel, brn., v. moist to wet med. plast, sat. w/ fuel	W=20% LL=38 PL=17 PI=21	UND #1	PRESSED 30" SHELBY TUBE	
					UND #2	PRESSED 30" SHELBY TUBE	
	4.8		(SM) - fn. SAND & SHELL FRAGS., tr. silt, yellow-brn, v. moist to moist			WASHED	
					S-1	SPLIT SPOON	22-27-35
	8.0		(SM) - fn SAND & SHELL FRAGS, color change to bluish gray, increase in silt w/ depth gradation change to v fn. SAND & SHELL FRAGS.,			WASHED	
					S-2	S.S.	8-16-33
						WASHED W/ HAWTHORN BIT	
					S-3	S.S.	7-8-20
						WASHED	
					S-4	S.S.	7-10-23
						WASHED	
					S-5	S.S.	4-6-20
	20.0		Bottom of Hole				

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT | HOLE NO

Hole No. 89 DH-4

DRILLING LOG	DIVISION NAD	INSTALLATION NAO	SHEET 1 OF 1 SHEETS

1. PROJECT: SQUADRON OPERATION	10. SIZE AND TYPE OF BIT: 1 3/8" SPLIT SPOON
2. LOCATION (Coordinates or Station): LA F B, VA	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL
3. DRILLING AGENCY: RAAMOT - O'BRIEN	12. MANUFACTURER'S DESIGNATION OF DRILL: JOY B-50
4. HOLE NO. (As shown on drawing title and file number): 89 DH-4	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 9; UNDISTURBED 0
5. NAME OF DRILLER: GARY CHAMBERLAIN	14. TOTAL NUMBER CORE BOXES
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: 3.5' @ completion
	16. DATE HOLE: STARTED 7 Feb 75; COMPLETED 7 Feb 75
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING %
9. TOTAL DEPTH OF HOLE: 20.0'	19. SIGNATURE OF INSPECTOR: Harvey E Strausnyder Jr

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	BLOWS/6"
	0.5		CONCRETE (6")			ROLLER BIT	
	1.0		SAND & GRAVEL				
			(CL-SC) - fn. SAND & CLAY little silt, brn. wet, tr pea gravel, med plast		S-1	SPLIT SPOON	7-9-9
					S-2	S.S.	1-5-6
	4.0		(SM) - coarse SHELL FRAGS tr. silt & clay, olive brn to yel. brn, v. moist		S-3	S.S.	9-13-12
					S-4	S.S.	8-22-22
	7.0		(SM) fn. SAND & SHELL FRAGS., little silt, bluish gray, moist		S-5	S.S.	8-15-20
						WASHED W/ HAWTHORN BIT	
					S-6	S.S.	6-10-11
						WASHED	
					S-7	S.S.	5-10-19
						WASHED	
			V. fn. SAND & SHELL FRAGS, little to some silt, moist		S-8	S.S.	4-7-9
						WASHED	
					S-9	S.S.	3-6-11
	20.0		Bottom of Hole				

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT | HOLE NO.

Hole No. 89DH-5

DRILLING LOG	DIVISION NAD	INSTALL. NAO	SHEET OF SHEETS
1. PROJECT		10. SIZE AND TYPE OF BIT 3/8" SPLIT SPOON	
		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
		12. MANUFACTURER'S DESIGNATION OF DRILL JOY B-50	
		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 9 / UNDISTURBED 0	
		14. TOTAL NUMBER CORE BOXES	
		15. ELEVATION GROUND WATER 2.81 @ COMP.	
		16. DATE HOLE: STARTED 18 Feb 75 / COMPLETED 18 Feb 75	
		17. ELEVATION TOP OF HOLE	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	%
9. TOTAL DEPTH OF HOLE 20.0'		19. SIGNATURE OF INSPECTOR William J Barker	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	BLOWS/6"
			CONCRETE (5")			ROLLER BIT	
	1.0		SAND & GRAVEL (?)		S-1	SPLIT SPOON	10-6-6
			(CL-SC) - fn. SAND & CLAY, tr. silt, brn & gray, med. plast., v moist to wet, sat w/ fuel		S-2	S.S.	7-5-6
	4.5				S-3	S.S.	1-2-8
			(SM) fn. SAND & SHELL FRAGS., little silt. yellow brn. to bluish gray @ 5.5' moist.		S-4	S.S.	10-17-24
					S-5	S.S.	7-12-15
						WASHED W/ HAWTHORN BIT	
					S-6	S.S.	6-12-20
			u.fn. SAND & SHELL FRAGS w/ depth			WASHED	
					S-7	S.S.	6-14-16
						WASHED	
					S-8	S.S.	7-12-20
						WASHED	
					S-9	S.S.	7-10-23
	20.0		Bottom of Hole				

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT | HOLE NO.

FILE 70

TEST BORING REPORT

CARPENTER CONSTRUCTION COMPANY
Engineers and Contractors
Norfolk – Virginia

Project SOIL BORINGS — Date JANUARY 6 1969

BASE CULL ENGINEERS — Job No. REPORT NO. 69-205

BUILDING 623 SITE NAVAL BUILDING 745 LANGLEY AFB

BORING NO. 1 SAMPLER SIZE 2" ACKER SPLIT BARREL DATE 1-2-69 WATER TABLE -2'3" MATERIAL CLASSIFICATION	STRATUM THICKNESS	DEPTH AT WHICH SAMPLE TAKEN	NUMBER OF SAMPLE	BLOWS TO DRIVE SAMPLER 6 IN.	REMARKS
NOTE 1	0'6"				
NOTE 2.	1'0"	1'6"	1	3-4-5	
GRAYISH BROWN FINE TO MEDIUM SANDY CLAY		3'0"	2	6-7-7	
		4'6"	3	5-5-4	
	3'6"				
GRAY FINE SILTY SAND WITH TRACE OF CLAY		6'0"	4	4-3-3	
	3'0"				
GRAY SIL CLAY		11'6"	5	1-1-1	
		16'6"	6	1-1-2	
	7'6"				
GRAY I TO CO SILTY AND G		21'6"	7	15-12-13	
	7'6"				
GRAY MEDI WITH SILT PEB		26'6"	8	10-11-14	
	3'6"				
GRAY FINE TO SAND AND GRAVEL TRACE OF SIL		30'0"	9	11-13-12	
NOTE 1 GRAY TOPSOIL AND SILTY SAND	FINE TO MEDIUM				
NOTE GRAY BR SI DY PE 2	OWN FINE TO MEDIUM CLAY WITH TRACE OF				

BORING NO. 2 SAMPLER SIZE 2" ACKER SPLIT BARREL DATE 1-3-69 WATER TABLE -2'4" MATERIAL CLASSIFICATION	STRATUM THICKNESS	DEPTH AT WHICH SAMPLE TAKEN	NUMBER OF SAMPLE	BLOWS TO DRIVE SAMPLER 6 IN.	REMARKS
NOTE 1	0'6"				
NOTE 2	1'6"	1'6"	1	3-5-6	
NOTE 3	1'0"	3'0"	2	7-7-9	
GRAY FINE TO MEDIUM SILTY SAND WITH LAYERS OF BROWN AND TRACES OF CLAY		4'6"	3	7-5-5	
		6'0"	4	4-3-2	
	5'0"				
GRAY SILTY CLAY		11'6"	5	1-1-1	
	9'0"	16'6"	6	1-1-2	
GRAY FINE SILTY SAND WITH TRACE OF SHELL		21'6"	7	4-6-7	
		26'6"	8	7-9-13	
		30'0"	9	8-10-15	
NOTE 1 GRAY SANDY TOPSOIL AND CLAY					
NOTE 2 BROWN FINE TO MEDIUM SANDY CLAY					
NOTE 3 GRAY FINE TO MEDIUM SILTY SAND WITH LAYERS OF BROWN					

Figure in right hand column indicates number of blows required to drive Sampler 6 inches, using 140 # weight falling 30 inches unless otherwise noted.

Total Footage 60 FEET 0 INCHES

Foreman E.E. CALDWELL

1C

TEST BORING REPORT

CARPENTER CONSTRUCTION COMPANY
Engineers and Contractors
Norfolk – Virginia

Project SOIL BORINGS
BASE CIVIL ENGINEERS
BUILDING 623 SITE NEAR BUILDING 745 LANGLEY A.F.B. REQ. NO. 69-20

Date JANUARY 6 196

Job No.

BORING NO. 3
SAMPLER SIZE 2" ACKER SPLIT BARREL
DATE 1-3-69
WATER TABLE -2'2"

MATERIAL CLASSIFICATION	STRATUM THICKNESS	DEPTH AT WHICH SAMPLE TAKEN	NUMBER OF SAMPLE	BLOWS TO DRIVE SAMPLER 6 IN.	REMARKS
NOTE 1	0'6"				
NOTE 2	1'0"	1'6"	1	2-4-5	
NOTE 3		3'0"	2	5-4-4	
	3'6"	4'6"	3	4-3-3	
GRAY SILTY CLAY		6'0"	4	3-2-2	
		11'6"	5	1-1-1	
GRAY FINE SILTY SAND AND CLAY	11'0"	16'6"	6	1-1-4	
GRAY FINE SILTY SAND WITH TRACE OF SHELL	2'0"	21'6"	7	7-8-11	
		26'6"	8	7-9-14	
		30'0"	9	5-6-13	

NOTE 1
GRAY TOPSOIL

NOTE 2
GRAY SILTY SANDY CLAY WITH LAYERS OF BROWN FINE TO COARSE SANDY CLAY WITH TRACE OF GRAVEL

NOTE 3
GRAY SILTY SANDY CLAY WITH LAYERS OF BROWNISH GRAY SILTY CLAY AND TRACES OF SAND

BORING NO. 4
SAMPLER SIZE 2" ACKER SPLIT BARREL
DATE 1-6-69
WATER TABLE -2'5"

MATERIAL CLASSIFICATION	STRATUM THICKNESS	DEPTH AT WHICH SAMPLE TAKEN	NUMBER OF SAMPLE	BLOWS TO DRIVE SAMPLER 6 IN.	REMARKS
NOTE 1	0'6"				
NOTE 2		1'6"	1	2-3-4	
	3'0"	3'0"	2	4-4-5	
NOTE 3	1'6"	4'6"	3	4-3-3	
NOTE 4		6'0"	4	3-2-2	
	3'0"				
GRAY SILTY CLAY		11'6"	5	1-1-1	
		16'6"	6	1-1-1	
GRAY SILTY CLAY WITH LAYERS OF ORGANIC MATERIAL	10'0"				
GRAY FINE SILTY SAND WITH TRACE OF SHELL	4'0"	21'6"	7	3-3-4	
		26'6"	8		
				6-8-14	

NOTE 1
GRAY TOPSOIL AN[illegible] MEDIU[illegible]
SILTY SANDY C[illegible]

NOTE 2
GRAYISH BROW[illegible]
SANDY SILT[illegible]

NOTE 3
BROWN FIN[illegible] TO [illegible] ILTY
CLAYEY SAN[illegible]

NOTE 4
GRAYISH BR[illegible]N [illegible] TO M[illegible]
SILTY SANDY [illegible]LA[illegible]

Figures in right hand column indicates number of blows required to drive Sampler 6 inches, using 140# weight falling 30 inches unless otherwise noted.

Total Footage 60 FEET 0 INCHES

Foreman E.F. CALDWELL

FILE 110

Hole No. 109HA-1

DRILLING LOG	DIVISION NAD
1. PROJECT	STEAM LINE Bldg. 661
2. LOCATION (Coordinates or Station)	LANGLEY A.F.B.
3. DRILLING AGENCY	NAO
4. HOLE NO. (As shown on drawing title and file number)	109 HA-1
5. NAME OF DRILLER	R. BUCK
6. DIRECTION OF HOLE	☐ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	
8. DEPTH DRILLED INTO ROCK	
9. TOTAL DEPTH OF HOLE	13.0'
INSTALLATION	NAO
SHEET	OF SHEETS
10. SIZE AND TYPE OF BIT	2¼" MUD AUGER
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED / UNDISTURBED
14. TOTAL NUMBER CORE BOXES	
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED 1-25-82 COMPLETED 1-25-82
17. ELEVATION TOP OF HOLE	
18. TOTAL CORE RECOVERY FOR BORING	%
19. SIGNATURE OF INSPECTOR	Ron Buck

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	CORE RECOV.-DRY SAND	BOX OR SAMPLE NO. MOIST.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	1		(SM) SOD & TOPSOIL trace of clay & cinders			
	2		CINDERS			
			(SM-SP) fn. SAND, tan			
	3		(SM-SC) fn. SAND some fines, yellow-brown – gravel from 4½'-5'. -very moist-			MED.
	4					
	5			68%	23%	
	6		(SC) W/DEPTH			
W.L. 24 HRS	7			75%	27%	
WATER ENC.	8					
	9		(SM) fn. SAND, little silt, trace of clay yellow & lt. gray -wet-	80%	37%	SOFT Pumped 8'-11'
	10					
	11					
	12					MED.
			(SM) fn. SAND some shell - YORKTOWN			
	13		W.L. ON COMPLETION = 7.0' 2½ hrs after comp. = 6.4' 24 hrs " " = 6.6'			

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PROJECT

HOLE NO.

Hole No. 109 HA-2

DRILLING LOG	DIVISION NAD	INSTALLATION NAO	SHEET OF SHEETS
1. PROJECT STEAM LINE Bldg. 661		10. SIZE AND TYPE OF BIT 2 1/4" MUD AUGER	
2. LOCATION (Coordinates or Station) LANGLEY AFB		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
3. DRILLING AGENCY NAO		12. MANUFACTURER'S DESIGNATION OF DRILL M-HEO	
4. HOLE NO. (As shown on drawing title and file number) 109 HA-2		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED / UNDISTURBED
5. NAME OF DRILLER R. BUCK		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☐ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 1-25-82 COMPLETED 1-25-82	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE 13.5'		18. TOTAL CORE RECOVERY FOR BORING %	
		19. SIGNATURE OF INSPECTOR [signature]	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			(SM) Topsoil, cinders etc.			
	1–4		(SM-SC) fn. SAND some fines, trace gravel yellow-brw. -very moist-			MED.
	4–5		(SC) w/depth			
	5		(SC) w/CON. GRAVEL			STIFF
W.L. 24 HRS.	6–7		(SC) fn. SAND, some fines red-yellow -very moist-			MED.
WATER ENC.	8		(SC) blue, olive, yellow trace org. matter, oil smell		*	SOFT to MED.
	9–12		(SM) fn. SAND little silt, trace of clay, yellow & lt. olive -wet-			SOFT PUMPED 8'-12'
	13		(SM) fn. SAND some shell - YORKTOWN -			FIRM
	14		W.L. ON COMPLETION = 6.5' 45 min after comp. = 6.2' 24 hrs. " " = 6.3'			
			* POSSIBLE BACK FILL MATERIAL FROM 0 – 8.5'			

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO

Hole No. 89 DH-1

DRILLING LOG	DIVISION NAD	INSTALLATION NAO	SHEET 1 OF 1 SHEETS
1. PROJECT	SQUADRON OPERATION	10. SIZE AND TYPE OF BIT	1 3/8" ID SPLIT SPOON
2. LOCATION (Coordinates or Station)	LAFB, VA	11. DATUM FOR ELEVATION SHOWN (USM or MSL)	
3. DRILLING AGENCY	RAAMOT-O'BRIEN	12. MANUFACTURER'S DESIGNATION OF DRILL	JOY B-50
4. HOLE NO. (As shown on drawing title and file number)	89 DH-1	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8	UNDISTURBED 0
5. NAME OF DRILLER	GARY CHAMBERLAIN	14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED DEG. FROM VERT.	15. ELEVATION GROUND WATER	4.3' @ completion
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED	6 Feb 75
8. DEPTH DRILLED INTO ROCK		COMPLETED	7 Feb 75
9. TOTAL DEPTH OF HOLE	20.0'	17. ELEVATION TOP OF HOLE	
		18. TOTAL CORE RECOVERY FOR BORING	%
		19. SIGNATURE OF INSPECTOR	Harvey E Strausbaugh Jr

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		ASPHALT (3"), CONCRETE (6")			ROLLER BIT
	1.5'		SAND & GRAVEL		S-1	SPLIT SPOON 12-11-12
			(CL-SC) fn to med SAND & CLAY, tr silt, med to high plast clay, v. moist, brn., saturated w/ fuel			HAWTHORN BIT
	5.3'				S-2	S.S. 4-6-5
					S-3	S.S. 8-17-39
					S-4	S.S. 22-32-40
			(SM) med SAND & coarse SHELL FRAGS, tr clay & silt, olive brn, to yel. brn, moist. some cemented conglomerates @ 6.5'			WASHED
	10.0			-9.7	S-5	S.S. 32-36-40
			(SM) fn SAND & SHELL FRAGS, little silt, bluish-gray, moist.			WASHED w/ HAWTHORN BIT
					S-6	S.S. 7-13-20
	15.0		u. fn SAND & u fn. SHELL FRAGS, little to some silt w/ depth			WASHED
					S-7	S.S. 5-8-12
						WASHED
	20.0				S-8	S.S. 3-4-8
			Bottom of Hole			

FILE 81

Hole No. 89 DH-2

DRILLING LOG	DIVISION NAD	INSTALLATION NAO	SHEET 1 OF 1 SHEETS
1. PROJECT: SQUADRON OPERATION		10. SIZE AND TYPE OF BIT: 13/8" ID SPLIT SPOON	
2. LOCATION (Coordinates or Station): LAFB, VA		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: RAAMOT-O'BRIEN		12. MANUFACTURER'S DESIGNATION OF DRILL: JOY B-50	
4. HOLE NO. (As shown on drawing title and file number): 89 DH-2		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8	UNDISTURBED 0
5. NAME OF DRILLER: GARY CHAMBERLAIN		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: 4.2' @ 24 hr.	
		16. DATE HOLE: STARTED 6 Feb 75	COMPLETED 6 Feb 75
		17. ELEVATION TOP OF HOLE	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING: %	
9. TOTAL DEPTH OF HOLE: 20.0'		19. SIGNATURE OF INSPECTOR: Nancy E. Strausbaugh Jr	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	BLOWS/6"
	9"		3" ASPHALT, 6" CONCRETE			ROLLER BIT	
	15"		6" GRAVEL & SAND SUBBASE				
	5.0		(CL-SC) - fn. SAND & CLAY, tr. to little silt, med. to high plast. brn, v. moist to wet, saturated w/ fuel		S-1	SPLIT SPOON	3-3-5
					S-2	SPLIT SPOON	4-5-10
	6.0				S-3	SPLIT SPOON	2-3-7
					S-4	SPLIT SPOON	20-31-49
						HAWTHORN BIT WASHED	
	10.0		(SM) - fn SAND & coarse SHELL FRAGS, tr. to little silt, brn to yellow brn, change to bluish-gray @ 7.5', moist		S-5	SPLIT SPOON	16-24-20
						WASHED	
					S-6	SPLIT SPOON	16-16-22
	15.0		v. fn. SAND & SHELL FRAGS, little to some silt, moist to v moist w/ depth bluish-gray			WASHED	
					S-7	SPLIT SPOON	11-15-25
						WASHED	
	20.0				S-8	SPLIT SPOON	4-5-8
			Bottom of Hole				
			Water Level				
			4.3' @ completion				

2.0
3.5
5.0
8.0
11.0
12.5
13.5
15.0
16.0
17.5
18.5
20.0

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PROJECT

HOLE

Hole No. 89 DH-3

DRILLING LOG	DIVISION NAD	INSTALLATION NAO	SHEET 1 OF 1 SHEETS
1. PROJECT: SQUADRON OPERATION BLDG.		10. SIZE AND TYPE OF BIT: 3/8" SPLIT SPOON	
2. LOCATION (Coordinates or Station): L.A.F.B. VA		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: RAAMOT - O'BRIEN		12. MANUFACTURER'S DESIGNATION OF DRILL: JOY B-50	
4. HOLE NO. (As shown on drawing title and file number): 89DH-3		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5	UNDISTURBED 2
5. NAME OF DRILLER: GARY CHAMBERLAIN		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: 3.5'@ COMP.	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 18 Feb 75	COMPLETED 18 Feb 75
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE: 20.0'		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: William J. Barton	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	
	0.45		ASPHALT & CONCRETE	LAB TESTS		ROLLER BIT	
	1.0		SAND & GRAVEL				
			(CL-SC) - fn. SAND & CLAY, tr. silt & pea gravel, brn., v. moist to wet med. plast, sat. w/ fuel	W=20% LL=38 PL=17 PI=21	UND #1	PRESSED 30" SHELBY TUBE.	
					UND #2	PRESSED 30" SHELBY TUBE	
	4.8		(SM) - fn. SAND & SHELL FRAGS., tr. silt, yellow brn, v. moist to moist			WASHED	
					S-1	SPLIT SPOON	22-27-35
	8.0		(SM) - fn. SAND & SHELL FRAGS, color change to bluish gray, increase in silt w/ depth. gradation change to v. fn. SAND & SHELL FRAGS.,			WASHED	
					S-2	S.S.	8-16-33
						WASHED W/ HAWTHORN BIT	
					S-3	S.S.	7-8-20
						WASHED	
					S-4	S.S.	7-10-23
						WASHED	
					S-5	S.S.	4-6-20
	20.0		Bottom of Hole				

1.0 3.0 5.0 6.0 7.5 8.5 10.0 13.5 15.0 16.0 17.5 18.5 20.0

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO.

Hole No. 89 DH-4

DRILLING LOG	DIVISION NAD	INSTALLATION NAO	SHEET 1 OF 1 SHEETS
1. PROJECT SQUADRON OPERATION		10. SIZE AND TYPE OF BIT 13/8" SPLIT SPOON	
2. LOCATION (Coordinates or Station) LAFB, VA		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
3. DRILLING AGENCY RAAMOT-OBRIEN		12. MANUFACTURER'S DESIGNATION OF DRILL JOY B-50	
4. HOLE NO. (As shown on drawing title and file number) 89 DH-4		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 9	UNDISTURBED 0
5. NAME OF DRILLER GARY CHAMBERLAIN		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☐ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER 3.5' @ completion	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7 Feb 75	COMPLETED 7 Feb 75
		17. ELEVATION TOP OF HOLE	
		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE 20.0'		19. SIGNATURE OF INSPECTOR Harvey E. Straussnyder Jr.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0.5		CONCRETE (6")			BLOWS/6"
	1.0		SAND & GRAVEL			ROLLER BIT
			(CL-SC) - fn. SAND & CLAY little silt, brn. wet, tr. pea gravel, med. plast.		S-1	SPLIT SPOON 7-9-9
					S-2	S.S. 1-5-6
	4.0		(SM) - coarse SHELL FRAGS tr. silt & clay, olive brn to yel. brn, v. moist		S-3	S.S. 9-13-12
					S-4	S.S. 8-22-22
	7.0		(SM) fn. SAND & SHELL FRAGS., little silt, bluish gray, moist		S-5	S.S. 8-15-20
						WASHED W/ HAWTHORN BIT
					S-6	S.S. 6-10-11
						WASHED
					S-7	S.S. 5-10-19
						WASHED
			v. fn. SAND & SHELL FRAGS, little to some silt, moist		S-8	S.S. 4-7-9
						WASHED
	20.0		Bottom of Hole		S-9	S.S. 3-6-11

1.0 2.5 4.0 5.5 7.0 8.5 11.0 12.5 13.5 15.0 16.0 17.5 18.5 20.0

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO

Hole No. 89DH-5

DRILLING LOG	DIVISION NAD	INSTALLATION NAO	SHEET OF SHEETS
1. PROJECT: SQUADRON OPERATION BLDG		10. SIZE AND TYPE OF BIT: 3/8" SPLIT SPOON	
2. LOCATION (Coordinates or Station): L.A.F.B. VA		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: RAAMOT - O'BRIEN		12. MANUFACTURER'S DESIGNATION OF DRILL: JOY B-50	
4. HOLE NO. (As shown on drawing title and file number): 89 DH-5		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 9; UNDISTURBED 0	
5. NAME OF DRILLER: GARY CHAMBERLAIN		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: 2.8' @ COMP.	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 18 Feb 75; COMPLETED 18 Feb 75	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE: 20.0'		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: William J Barlow	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	BLOWS/6"	
			CONCRETE (5")			ROLLER BIT		0.5
	1.0		SAND & GRAVEL (7")					
			(CL-SC) - fn. SAND & CLAY, tr. silt, brn. & gray, med. plast., v. moist to wet, sat w/ fuel		S-1	SPLIT SPOON	10-6-6	2.0
					S-2	S.S.	7-5-6	3.5
	4.5		(SM) fn. SAND & SHELL FRAGS., little silt. yellow brn. to bluish gray @ 5.5' moist. u. fn. SAND & SHELL FRAGS. w/ depth		S-3	S.S.	-2-8	5.0
					S-4	S.S.	10-17-24	6.5
					S-5	S.S.	7-12-15	8.0
						WASHED W/ HAWTHORN BIT		11.0
					S-6	S.S.	6-12-20	12.5
						WASHED		13.5
					S-7	S.S	6-14-16	15.0
						WASHED		16.0
					S-8	S.S.	7-12-20	17.5
						WASHED		18.5
					S-9	S.S.	7-10-23	20.0
	20.0		Bottom of Hole					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. | PROJECT | HOLE NO.

Hole No. 89DH-6

DRILLING LOG | DIVISION NAD | INSTALLATION NAO | SHEET 1 OF 1 SHEETS

1. PROJECT: PARKING AREA - PLN#756
2. LOCATION (Coordinates or Station): LANGLEY AFB
3. DRILLING AGENCY: RAAMOT & O'BRIEN
4. HOLE NO. (As shown on drawing title and file number): 89DH-6
5. NAME OF DRILLER: GARY CHAMBERLAIN
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 6.0'
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 6.0'
10. SIZE AND TYPE OF BIT: 3⅜" ID SPLIT SPOON
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL
12. MANUFACTURER'S DESIGNATION OF DRILL: JOY
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4 | UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: NOT ENCOUNTERED
16. DATE HOLE: STARTED 2/18/75 | COMPLETED 2/18/75
17. ELEVATION TOP OF HOLE: N/A
18. TOTAL CORE RECOVERY FOR BORING: — %
19. SIGNATURE OF INSPECTOR:

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e)	BOX OR SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)	
	0						0
			(SC) fn. SAND, little clay, tr. to little gravel & fill material, gray brn.		1	SPLIT SPOON	3-4-5
	2.0						1.5
			(SC-CL) CLAY & fn. SAND tr. fill material, gray V. moist		2	SPLIT SPOON	7-12-17
							3.0
					3	SPLIT SPOON	11-14-21
	4.5						4.5
			(SM) fn. SAND, little SILT, tr. clay, gray, V. Moist		4	SPLIT SPOON	2-3-3
	6.0		BOTTOM HOLE				6.0

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO. 89DH