

### OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

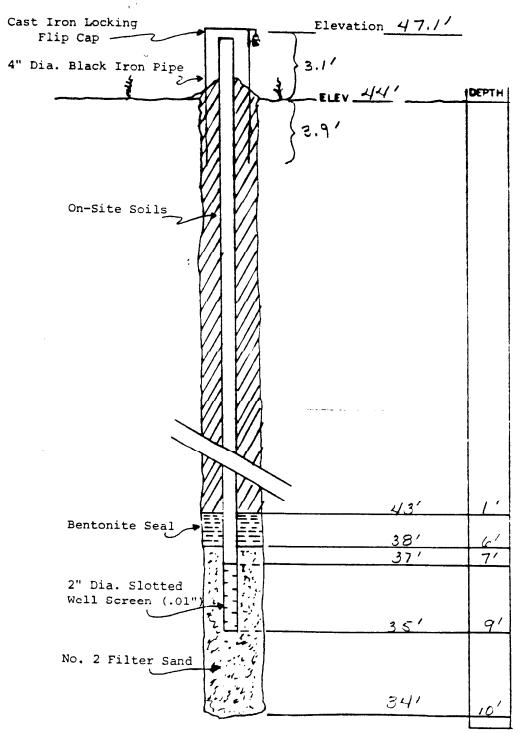
Aberjona River, Wells G&H

P/0/061: Woburn MA

DACW-33-85-D-001
Profest We. D.O.#0003

₩ • 11 @ • . FD85- 5

Cluster No. S-87



## CLUSTER 3-87

### FO-85-5

	DACW 23-85-D-0011
Site Aberjano River, Woburn	JECT NO. D.O.≠3 Page 1 of 3 Pages
Hole No.FD-85-5 Diam. (Casing) 4"	Boring Started 10/0/85
Co-ordinates: N 5-0 mon E	Boring Completed 10/2/85
Orilled by liavis and Lauking	Report Submitted
Purpose of Exploration <u>observation</u>	wells are required to EPA for delive they others
Elevation Top of Note 44 M.S.L. Total Overburden Drilled 10 Feet	TOTAL TOTAL
Elevation Top of Rock	3.1 ' stick up
Elevation Bottom of Nois 34 M.S.L.	SEE FD-85-4 FOR Soil LOG
Total Rock DrilledFeet	
Total Depth of Hole	
core RecoveredFt.;Dimin.	
loil Samplesin. DianNo.	
loil SamplesIn. DiamRo.	Water Table Dooth 1.31
Beeth Method of Brilling	189QX
20 10.0 11.55" I 4h 11.00 Story, 1	Bround Seter Back of Page _/
HYDRANT WATER USEO	Boring Location SketchBeck of Page/
DURING ALL DRILLING	Overburden RecordPage
	Rock DrillingPage
	Pogo
	700
Preserved by <u>Franchis</u>	
Substituted by 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Lab. Data

			PIE	ZOMETER INST	ALLATION REF	PORT		
							···	
PROJEC	CT: +	1. 1.	11 .	F .	DATE.	a oct	85	
LOCATI	ION (STA): -	na en la celar.	(	OFFSET FROM CENTER LINE:			PIEZ NO.: F	7-04-5
i	TYPE:		2″¥7	, DEPIR			R PIPE	D-05-3
PIEZ	TIP SET IN			SOIL	€5 € 3			
;	TYPE): : 1				E NO.: LEG		NG DIAM: 8	
TYPE (	D OF INSTALL OF PROTECTIO	_ATION: ⊸∜∞ ON	11000	· ( , , , , , , , , , , , , , , , , , ,	6 2 10			
FOR P	IEZ: 4" (asi	19 7 Total			VE	NT: /3c	K can	
GROUNI	D ELEV.:	14 (		ELEV. TOP OF RISER:	47.1'	ELEV	TIP: 35	
FILTER	R: •	- ; : :	FROM	ELEV:	1		ELEV: 38	
-			***				ELEV: 4/ 5	
	LLED BY: L			C	ONTRACTERCE	33-85-		
		······································			0.: 0-001		REMAN: End	
METHOI	OF INSTALLAT D OF					ERVATION	Is: 10/16/13	
TESTI	NG PIEZ.:	FALLIN	6 HEA	en Tes,				
TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET
		4.41	3	4.41				
41	0	0.18						:
	1 1/2	3,28		İ				t
		4. 11						i
	7	4.37		<u>:</u> :				
REMARI	vc.	•	<b>_</b>	<u></u>	• · · · · · · · · · · · · · · · · · · ·		L	
ACHANI								
			· · · · · · · · · · · · · · · · · · ·					
		<del> </del>						
	_			<u>_</u>				-
				·····				

TISHER INSPECTOR



### OBSERVATION WELL INSTALLATION DETAIL

DACW-33-85-D-001 ARMY CORPS OF ENGINEERS, NED D.O.#0003 Aberjona River, Wells G&H FD85- 4 ●/●€ €: Woburn MA Cluster No. S-87 Elevation 46.9' Cast Iron Locking Flip Cap -4" Dia. Black Iron Pipe 2.91 ELEV 44' IDEPTH | On-Site Soils 31 311 Bentonite Seal 36 81 371 2" Dia. Slotted Well Screen (.01"

No. 2 Filter Sand

391

#### CLUSTER 5-87

F0 - 85 - 4

Hole No. E	PROJECT N BERJONA RIVER, NOBURN MASS  D-85-4 Dim. (Comp) 44  Stes: Nere mage  M Sauce Davis Kovan Hawans	•
	f Exploration <u>Sore samples &amp; A.</u>	
Total Overt Elevation T Elevation B Total Book Total Depth Core Recove Soil Sample	Top of Note : 44' N.S.L.  burden Drilled 40 Feet  Top of Nock N.S.L.  Notion of Note 4' N.S.L.  Drilled 0 Feet  of Note 40.0 Feet  pred 5  pred 5  pred 10.0 In. Dism. 8 No.  No. 10. Dism. 10.	Casing Laft in Place 7.00 ToTAL Fo 2,9 / Stickup
Depth	Hethod of Drilling	1886X
From To	AUGEL (1665) (1665) AUGEL (1665	Bround Nater Back of Page  Boring Location Sketch Back of Page  Overburden Record Page  Rock Brilling Page  Page  Page  Page
	Prepared by Gree THE TALER. Field Bata	Lah Deta

FIEL Elevat Total Elevat Total Elevat Total Core I	CORPS IEW EN D LO Hen Tel Overbui Hon Tol Rock E Hon Bo Depth Recover	G OF p of Bo rden Dr p of Ro prilled_ ottom o of Bori ed	TE TE Oring	ST E	BORIN AA AO ON ON ON ON ON ON ON ON ON O	M.S.L. Hemmer Wt	Boring Started 10/1/85  Boring Completed 10/1/85  Build Casing  Port Casing  Completed 10/1/85
Soil S	Sample		_		_m. D	iamNo. Classification By:	Gran Hetzled.
-	EPTH			APLE (C)	PER FT.	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIAL
	15	55 1	13/6	352	7-,-	B" HOLLOW STEM AUGUR	PEAT, BK, MOST. (P)
	20	55-7 S5-7		1002	V08-322	FLOWING SAWOS, ROLLER WASH	POSSIBLE CHANGE  GENERAL SITE BY MUT BOOM (QL-E  THATTA GAVE STATE (CH)  M. SAND, BR, MOIST, (SP)  FIND, GT, MUT (SM)  SILTY F. SAND, GY, WET (SM)  FIND; SOME SILT WER SA
Pi	NERAL	REM	IARH	(S:	ED '	CO TAMINANTS.	TO TO THE SECOND SECOND

Site		12		راحا	v.	icol-n	Boring No. FD-85-	4	44	Poge 3	:
	DEPTH	COR	E/SA	MPLE	BLOWS PER FT	1 .	ING AND CORI	NG	,	05 44750 44.5	7
25 ?			<u> </u>	=	1-2011	OPE	ERATIONS		CHASSIFICATION		=
26.5		55-6	14	53	256.	- 11 m	يه به استخداد المحمد	· .	CHISTAG NAT,	200 SD	<u>.</u>
											<u> </u>
30		~	_	-	79.4		المراجعة المحادث المحا	the state of the s			
315		557		69	2.4				SAME AS SS-S		:
		Tur.			,						_
35					20	· * ***.			CM SIAND; WE	11. 74 (SAIN	-
365		<b>55-8</b>		65	20.3		· <b>\$</b>		(1757,05,05		-
40.0					•						
	=					Bottom	of Boring	7			]
			:								-
	=										;
	크										20
•											
	$\exists$										
	긬										
	丰										
	=======================================										
	크							i			<u>-</u>
											•
	7							,			
									•	ļ	 <b>           </b> 
					ľ					E	-

O FORM 58A(Test)

Boring No FD-85-4

			PIEZ	OMETER INST	ALLATION REP	ORT		
PROJEC"	: ABER	JONA RI	ver, wo	surn MA	SS DATE.	10/1/	15	
!			″ 0	FFSET FROM ENTER LINE:		, .	PIEZ NO.:	4
PIF7 T	_	2"×2'50	TEO .	DEDTU	ez: 39 '	RISE DIAM	R PIPE	
PIEZ T	IP SET IN			SOIF	E NO.: 5-8			3 ~
		SANG WET				BUKI	NG DIAM: €	
METHOD	OF INSTALL	ATION: /	MGER	A"II	<u> </u>			
FOR PI	F PROTECTION	CASING	7/	Length	VE	NT: 2	ar Cap	
GROUND	ELEV.:	44'		ELEVY TOP OF RISER:	46.9	ELEV PIEZ	TIP: 5'	
FILTER	: 50ND	# 2	FROM	ELEV: 4	•	TO	ELEV: 8	,
SEAL:	BEDTON I te	- Pellets	3/8 FROM	ELEV: 8	/	TO	ELEV: 13	,
INSTAL	LED BY:	AUL DAV	/	C	ONTRACT 10.: 10.0.=3		REMAN: PAT 5	Sullivan.
	F INSTALLA		11/85	-	DATE OF OBS			
METHOD			HE	• - T=	<u> </u>		<u> </u>	
TIME	ELAPSED	DEPTH TO		ELAPSED	DEPTH TO	TIME	ELAPSED	DEPTH
11ME	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WATER FEET
		4.13	3	4.13 lo	11 of 45+			
4:09	0	0.16			:			,
	1/2	3.21		1				
1	ı	3.91						i
	2	4.12		:		<u> </u>		:
REMARK	· ·	····				•	•	
CLIMN	· · · · · · · · · · · · · · · · · · ·		<del></del>	<u> </u>		<del></del>		
						· • · · · · · · · · · · · · · · · · · ·		

Greeny J HETZLER INSPECTOR



#### OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

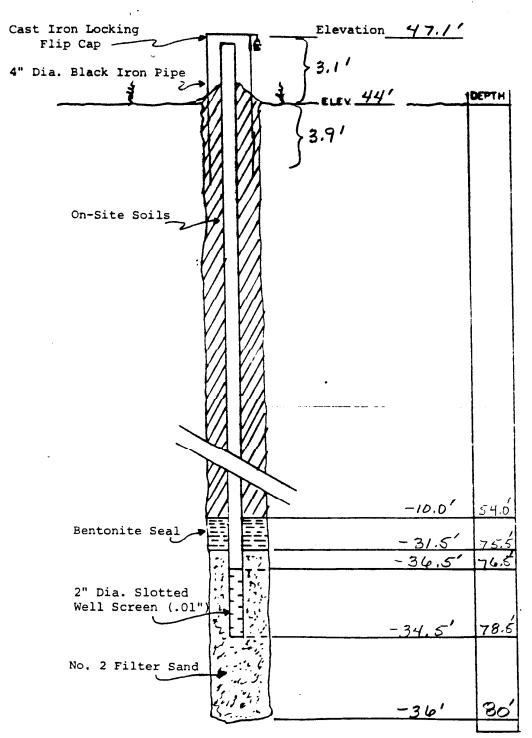
DACW-33-85-D-001: D.O. #0003

Aberjona River, Wells G&H

Well We, FD85- 14

Project: Woburn MA

Cluster No. S-87



	FERTANA RIVER, HOBURN,	TACN-33-85-D-0011 T NO. D.O. = 3	
	and the second s		•
	PD-85-14 Diam. (Casing) 4'	Boring Started 10/11/85	
Co-ordin	ates: N SEE E DRAWING	Boring Completed_10/16/85	
Drilled	MY CAMPRIDAE & BRYTA	Report Submitted	
Purpose	of Exploration <u>Soil Samplin</u>	NO + INSTALL PIEROMETER	
	Top of Note : 44	Casing Left In Place Torac 7-0	Fac
	rburden Drilled <u>PO.O</u> Feet	3.1' strek ur	
	Top of Rock	J	
	Drilled Feet		
	th of Hole BO: D Feet		
	vered\$		
ore Reco	eredft.;pi.mfn.		
	esIn. DianNo.	Water Table Basth 1.47	
Depth From To	Method of Brilling and Type of Bit Used	INCX	
0 80		Bround WaterBack of Page	
	A" DRIVEN CASING. HYDRAUT	Boring Location SketchBock of Page	
_	DRILLING	Overbunden RecordPage	
	DF1=27703	Rock DrillingPage _	
$-\Gamma$		7a go	
		Page	
	Personal by M Time		-
	Prepared by M. THEN	Lab. Deta	
	Sumitted by HILANTIC TESTING	G LAB	

	1	U.S. SOFE INGLAN	ENGIN D DIV	EER: / 18	ON	Boring No. <u>FD-85-14</u> Desig	· · · · · · · · · · · · · · · · · · ·
	Total Rock Elevation & Total Depth Core Recove Core Recove	urden D  op of R  Drilled  lottom  of Bor  ored	ock	ring.	80 - 3 80 No. Box	Feet Hemmer Drop 30  M.S.L. Greing Left 44  Feet Hebeurteus Weter 1  M.S.L. Dbs. Well 2 <sup>N</sup> Feet Drilled By 4 <sup>N</sup> Mfg. Dec. Drill 7 <sup>N</sup> amtn. Inspected By: 1 <sup>N</sup> Memory Drop 30  Mine Drilled By 4 <sup>N</sup> Mine Dec. Drilled By 1 <sup>N</sup> Min	Dotal Page  BRIDGE + BOYER  ACK MOUNTED CME 55  LU FISHER
•	Soil Sample Soil Sample DEPTH	P\$		PLE	-in. Di	SAMPLING AND CORING OPERATIONS	
			13/5	REL		ADVANCE BORING BY 3" ROLLER BIT FOLLOWED BY 4" DRIVEN CASING	501L LOGS FOR OTO 40 FT FOUND ON FM-85-4
•	41.5	<u>55 1</u>		10%	110- 100- 15		Brown-Black conf SAND GRAVE wet (BD-SW)
	45_	5572	13/8	20%	43-19-		SAME AS 45-11
	57.5 53-		178	POTa	33-		Brown conf SAND; and ORAVEL (Wel)  BOULDER ENKOUNTERED Q. 520+5
· · · · · · · · · · · · · · · · · · ·	\$2.5 \$7.5		13/8	1001	18-28 6 100/, "		FORMERS SS-3; NEW end into and thorage through companies of contaminants of the ten mounts of the ten mounts of the ten mounts of the ten mounted of ten mounted of the ten mounted of ten moun
	GENERA		MARK!	 \$:	<u> </u>		

DEPTH	COR			SLOWS PER FT. CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIAL
Q.5	5-5	<del> </del>	<del>                                     </del>	50-44 104,"	OF ENATIONS	GROY CONF SAND; SOME GRAU
						BULDES ENCOUNTERED
150	5-6	101		SAMPU	· · ·	Q 40-65.0'
	<u> </u>	(W)	OH.	SVIII		WASH SAUPLE 110.0-15.0
109.0 108.5	<u> </u>	134		93-123		Brown cut sure; and (
GA.O	l	L.TD.		***		BOULDERS ENCOUNTERLY Q DO.
70.0	-				·	MULLIAS ENCOCIERCO DE 10.
=						
50	3-a	13/10			10	
					Water level 3'4" (10/14 pm)	Grey conf'SAND', and GRAVE
		. 10	.0,0	291		(wet) BULDER ENCOUNTERED 2
800						76.0' to 78.5' BUZINO TERMINATED 280.0'
						2000
					·	
	İ					,
					· · · · · · · · · · · · · · · · · · ·	-
目				•		
	·					•
=======================================						
3						·
=						

) FORM 58A(Test)

(

Boring No. 82-85-14

The state of the s

Acare the way to be greater

	`		PIEZO	METER INST	ALLATION REP	ORT	• :	
PROJECT	: Aberjona	River W	loburn		DATE.	10/15/8	<b>35</b>	
LOCATIO	N (STA):	hee Had	CE	FSET FROM NTER LINE:			PIEZ NO.: F.	D-85-14
PIEZ TY	PE: 5/0Ha	d -010" (be	2 6x2	LOC OF PI	EZ: 7 <b>8.</b> 5		R PIPE	4
	P SET IN YPE): بعرب	.K, SANO +		SOIL	E NO.: 5-	~		4"
METHOD	OF INSTALL	ATION: Holl	10	Á	5015			
TYPE OF FOR PIE	PROTECTIC Z: 4" (a	ising 71-	Total			NT: loca	K cap	
GROUND		44'		LEV. TOP F RISER:	47.1'	ELEV PIEZ		
FILTER:	Silia	sand #2	FROM E	LEV:	-36		ELEV: -31.5	/
SEAL:		E Gurry	FROM E	LEV: - 3	51.5		ELEV: -10	/
INSTALL	ED BY: QI	nbridae &	Power	C N	ONTRACT O.: DO			- 5mer
DATE OF	INSTALLAT	TION: 10/10	1		DATE OF OBS			,
METHOD	OF PIEZ.: 3			<del> </del>				
TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED . TIME MINUTES	DEPTH WATER FEET
		4.57						:
6 23	0	0.10			;			1;
	1/2	4.57						1
REMARKS	······································					<u> </u>		<u> </u>
							<del></del>	
<del> </del>	**			W-147				
						<del></del>	•	
	<del></del>							
1					Į.	/ [[]		
; ;					<del>/</del>	/ <i>ISHER</i> INS	PECTOR	

o productiva de la companya de la c La companya de la companya de la companya de la companya de la companya de la companya de la companya de la co



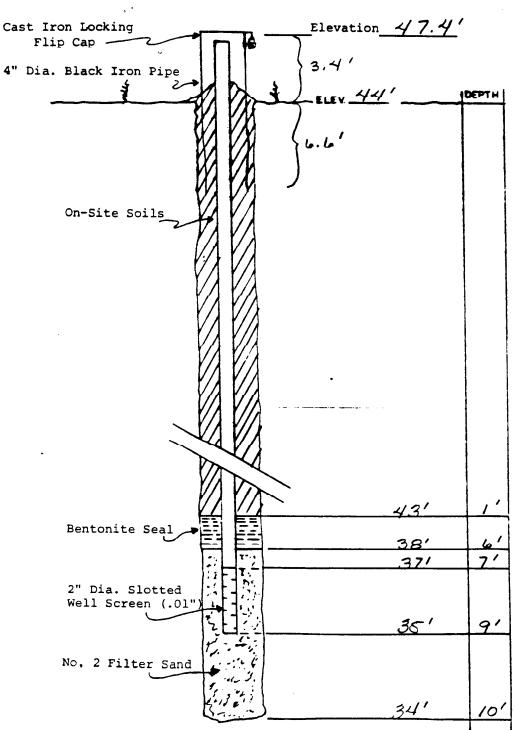
#### OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

Aberjona River, Wells G&H

Project: Woburn MA

Cluster No. S-88



### CLUSTER 5-88

FD-85-12

ABERSONA RIVER PROJECT N	DACW-33-85-D-0011
Site Ware GOH , WORKER MA	0. <u>Oo. 3</u> Page I of <u>~ Pages</u>
Hole No. FD-85-12 Diam. (Casing) 4"	Boring Started 10/11/85
Co-ordinates: N JEE E DRAWING	Boring Completed 10/11/85
Drilled by DAUS THAWKINS	Report Submitted
Purpose of Exploration F3R NSTALLAT	ion of Picsometre
Elevation Top of Hole 44 N.S.L.	Casing Left in Place 4" & Torac 10 Fee
Total Overburden Drilled 10 Feet	3.4 STICHUR
Elevation Top of RockN.S.L.  Elevation Bottom of NoisN.S.L.	SEE FO-85-9 FOR SOIL LOG
Total Rock Drilled Feet	
Total Besth of Nois	
Core Recovered	
Core RecoveredFt.:Dimin.	
3011 Samples In. Diss. No.	·
Soil SamplesIn. DiamNo.	Weter Table Booth 0.531
Septh Method of Brilling	IRIGX
0 10 3" Rower Formers By 4"	Ground Water Back of Page
DRIVEN CASING. HYDRANT WATER	Boring Location SketchBock of Page _/_
USEC FOR AL DRILLIAM.	Overburden RecordPage
	Nock DrillingPage
	hp
	Pop
Propared by Fisher	_
A Field Bata	Lab. Deta
Submitted by	

PROJEC'	T: HBEAL	IONA RIVER	1 00	FSET' FROM	DATE.	10/	12/85	
LOCATI	ON (STA): S	See DRAW		NTER LINE:			PIEZ NO.: F	-D-8s
PIEZ T	YPE: 2"	SLOTTER	.010 x	DEPTH OF PI عيدُ 2		RISE	R PIPE	. 11
	IP SET IN	· SAND + GARV		SOIL	F0-85- E NO.: 55-	9 - 3 RODI	NG DIAM.	1 "
							WEN CA	
ITYE U	r PRUIECIIO	אכ					-	5/NG
FOR PI	EZ: 4"	9 MOE	<i>Z /0</i>	LEV. TOP	ENCTH VE	ELEV	OCK CAP	<del></del>
GROUND	ELEV.:	44	₹	F RISER:	47.4	PIEZ	TIP: 35	
FILTER	: 72	SANO	FROM E	LEV:	3 4	TO	ELEV: 38	
SEAL:	PELON	me 3/8	FROM E	LEV:	88	TO	ELEV: 4	3
INSTAL	LED BY: I	AUIS TI	Hawas	NS N	ONTRACT DAC	-		HER
DATE O	F INSTALLA	TION: 10	11/85		DATE OF OBS	SERVATION	,	7./20
METHOD	OF	FALL NO				2011	70/	70
	ELAPSED	DEPTH TO		ELAPSED	DEPTH TO		ELAPSED	DEP1
TIME	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WAT FEE
7.48		3.93						
	0	0.55						
	1/4	3 70			:			1
	1/2	3,90						
	1	3,73						
REMARK	٠,٠					<u> </u>	·	
						<del></del>		
				<u></u>				
		······································	<del></del>					
								-
					*			

appearance in the second second and the second



### OBSERVATION WELL INSTALLATION DETAIL

DACW-33-85-D-001 ARMY CORPS OF ENGINEERS, NED D.O.#0003 Aberjona River, Wells G&H FD85- /5 / 0 | 0 C 1: Woburn MA Cluster No. S-88 Elevation 47./ Cast Iron Locking Flip Cap -3.11 4" Dia. Black Iron Pipe ELEV. 444 6.91 On-Site Soils 31' Bentonite Seal 2" Dia. Slotted Well Screen (.01"

No. 2 Filter Sand

39'

41

### CLUSTER 5-88

FD-85-13

## CORPS OF ENGINEERS, U. S. ARMY NEW ENGLAND DIVISION FOUNDATION AND MATERIALS BRANCH FIELD LOG OF TEST BORING

and the second second second second second second second second second second second second second second second

Hole No. FD-85-13 Diam. (Casing) 4 4 Co-ordinates: N SEE E DRAWING	10. <u>OACN-33-85-Doon</u> Dp. #3 Page 1 of Pages  Boring Started 10 / 11 / 85  Boring Completed 10 / 11 / 85
Orilled by DAVIS + HANKINS	Report Submitted
Purpose of Exploration Sour Sompwing	+ PREZOMETER INSTALLATION
Elevation Top of Note 44 M.S.L.	Casing Left in Place 4 X TOTAL 10's
Total Overburden Drilled 40 Feet	Casing Laft in Place 4 X TOTAL 10 Fee 3.1 STICKUP
Elevation Top of Rock	SEE FD-85-9 FOR SOIL LOG
Core Recovered	Water Table DeethO, 51 '
Gepth Method of Brilling From To and Type of Bit Used	180EX
0 40 3"ROLLER SIT FOLLOWED BY	
4" ORIVE CASING	Boring Location SketchBock of Page _/_
HYDRANT WATER USED OVRING ALL	Overbunden RecordPage
DRILL, NO	Rock DrillingPage
Prepared by FISITER Field Bata Sumitted by ATLANTIL TESTION	NC LAB

•				PIEZ	OMETER INST	ALLATION REP	ORT		
10	PROJECT	T: Aserso	NA RIVER	W	DOURN	DATE.	10	112/85	
1			_	0	FFSET FROM ENTER LINE:				FD-85-13
1					DEPTH ツメ2'OF PI	EZ: 39'	RISE DIAM	R PIPE	11
1	PIEZ T	IP SET IN TYPE): GA	werr F	SANO (	SOIL SAMPL	FO-85 E NO.: 55.			4"
•	;	OF INSTALL		-	PRIVEN				
<b>(</b>	TYPE O FOR PI	F PROTECTI€ EZ:	IN 6 Pipe x			f	NT: 🚣	OLK CAP	
1		ELEV.:	44	_	ELEV. TOP OF RISER: -	47.1	ELEV PIEZ		
1.	FILTER	: #2 <	SANO	FROM	ELEV:	4	TO	ELEV: 8	
	SEAL:		NE 3/8	#FROM	ELEV:	8		ELEV: / =	3
	INSTAL	LED BY: C	AU15 Y	HANK		ONTRACT CACA O.: 00 =		D-0011_ REMAN: Fish	'ER
		F INSTALLAT	TION: /0	/11/	85	DATE OF OBS	ERVATION	S: 10/12	185
	METHOD TESTIN	G PIEZ.:		16 HE	AD TE				
	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET
/	10:53		3.61						:
		0	0			:			:
		1/4	3.55		•			·	•
		1/2	3.60						
		/	361					·	1
	REMARK	ά <b>:</b>							
	!								
	<del></del>								
					·				
	;								
							75 HE	PECTOR	
						•	2.,,		



DACW-33-85-D-001.

#### OBSERVATION WELL INSTALLATION DETAIL

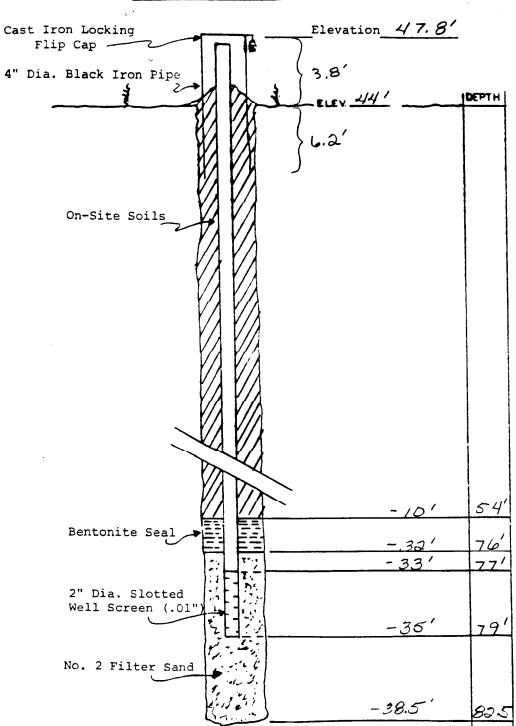
ARMY CORPS OF ENGINEERS, NED

Project We. D.O.#0003

Aberjona River, Wells G&H

Vell & . FD85- 9

Cluster No. S-88



ABCRIONA RIVER PROJECT Site WELL GALL, NOBURN MA  Hole No. FD-85-9 Diam. (Casing) 4"					
Co-ordinates: W SEE R DRAWING  Drilled by DAVIS + HAWKINS	Boring Started				
Purpose of Exploration	MOLES + INSTALL PREZUMETER				
Elevation Top of Hole 44 M.S.L.  Total Overburden Drilled 825 Feet  Elevation Top of Rock M.S.L.  Elevation Bottom of Hole 38.5 M.S.L.  Total Rock Drilled Feet  Total Depth of Hole 82.5 Feet  Core Recovered Ft.: Dian. In.  Soil Samples / 78 In. Dian. /3 No.  Soil Samples In. Dian.   No.	Casing Left in Place 4" X TOTAL 10 Fee  3.8' STICKUP  Water Table Depth 0.411				
Dopth  From To  and Type of Bit Used  D. 3 525 3" ROLLER BIT FLUSHER WITH  HYDRENT WATER, FELLENGE BY  4" PRIVEN CASING	Bround Water Back of Page Boring Location Sketch Back of Page  Overburden Record Page  Rock Drilling Page  Page  Page  Page  Page				
Prepared by PAUL FIGHER  FIGHE Data  Substitute by ATLANTIC IESTING L.	AB.				

r range	. e 11.		عبدية الرابع	ماندان ماند ماندان ماند	relation of	
	U.S. 6 OF E	NGIN	EERS		Boring No. FD-85-9 Desig. P2-9	
FIELD LO	G OF	TES	ST B	ORING	Co-ordinates: N SEE DAM	NINC X
Elevation To Total Overbu	p of B	oring		44 92.	M.S.L. Hemmer W1, 140 <sup>2</sup> 5 Feet Hemmer Drop 30	Boring Started 10/9/85
Flauntian To	n of R	ock			M.S.L. Cosing Left 4"	Boring Completed 10/10/6
Total Rock	Drilled.			_0	Foot  Subsurface Water D	
			-1	-38	5 MS.L.   Obs. Well 2"	+ Hannes
Total Depth	of Bor	ing_		32-	5 Feet Drilled By <u>DAVIS</u> Mfg. Dec. Drill <u>TRAC</u>	K MOUNTED CMC 45
Core Recove	red		% N Ft: -	Dia	mtn. inspected By:	AUL FISHER
Soil Sample		3/8		tn. Dia		PAUL FISHER
					mNo. Classification By:	
DEPTH	COR	E/SAN	PLE	LOWS ER FT.	SAMPLING AND CORING	CLASSIFICATION OF MATERIA
I°• 5.0			PORT I		O PERATIONS	PEA- ORI-ANICS WET BK (PT
1.5	55-1	14	52	wt or Rap	TURNED 3" POLLER BIT FOLLOWED BY ADRIVEN 4"	124, 000, 21, 12, 12
					CASING USING A 300 LB HAMMER	
	1 .					·
5.0	1			7 7/0	•	F.M. SAND, BR, MUIST (SP)
6-5	55-2	+	100%	710		ASSUMED CHANGE
	3					
	1					
10.0	-	+	<del> </del>	76 7		M.C. SAND + GRAVEL (SP-GI GREY
11.5	55-7	-	15	-67		
-	3				•	
ļ.,	‡					
15.0	-	+	+-	7 z4		Same As 55-3
16.5	55	4	20	77.		
-	∃ .					
	=				30 BLOW/FT @ 20'ON 4"CASIMO	
20.0	<del>]</del> -	+-	+-	21	SOBLOW/FI C TO SOME	NOTED GRAVEL CUTTING
7.15	J 55 -	5	0	85	1	

GENERAL REMARKS: HYDAMI WATER USEC DURING EXPLORATION

Boring No. FD-85-9

NED FORM 58 (Test)

Site Aist	40010	بند کھ	îus.	4	Boring No.		Page Z	:
1/200 G	- 14	No	BUK	N 1	Mai FD-85-9	9	of3_	!
DEPTH	COR	E/SA	MPLE	BLOWS PERFT	SAMPLING AND CORING		<u> </u>	1
250	No.	SIZE	PAMP	CORE	OPERATIONS	CLASSIFICATION OF	MATER IALS	1
	55-6	1.L		37 12 10		1 - 1		•
ر بن المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق ا - المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المناطق المن	1 300	118	10	10		SAME AS 55-3		1
	1							
	1							
30,2	-		_	16	+	1	<del></del>	İ
3/.5	55-7		10	£1,,	<del> </del>	SAME AS SS	- 3	_;
				<b> </b>				ł Ł
=				,			•	ĺ
357 <b>-</b>				/ <del></del>	290 Clear /2-			{ · -}
145	555		10	120		SAMEAS SS.	- 3	
-								
3								
40,0				·				
41.5	55-9		10	17 <sub>6</sub> 3		GRAVELLY F. SAND, BR. WET (SP)	TR 5.27	į
					1		•	1
45.0		;					ı	
96.5	55-10		100	457	Ť ·	F.M SAND, Lines &	MANY COP, MICSH	1 <del>}-</del>
3					-	(SP)		<del>}</del>
		ļ			·			
50.2					- 160.0			
· 4/2			0	15,5,,	22 100 Reow /FT ON +"CASING			_
						4000- SEMER	5 30-1/41	
55.0					ENO 10/9/85 STACT 10/19/85		٠,	
	.\		0		,	SAMPLER OF TOR CO	COBRLE THE COMP	
			1					
		İ				•		•.
600						•		 
j 1,5	55-11	4	50	23 <sub>10</sub> 6		BRAVELLY F.MC. SAND, BR WET, (SW-GA)	TRSILT	-
						7,5%		•
=								
								-
						•		

SITE REFERENCE P Boring No	Page 3
WELL GAL WHOLEN MIA FD-85-9	01 _3
DEPTH CORE/SAMPLE BLOWS PER FT. SAMPLING AND CORING  1° 5.0 NO. SIZE PARTICIPE OPERATIONS  CLASSIFICATION	N OF MATERIALS
55.12 15 407, 50 TA SAME AS 55 SAME AS 55 BIT IN CLASSE CHANGE	-11 (EN-GP)
BIT IN CHASE CHAVEL	
SAMPLER ON TO NE ADVANCEMEN	P OF COROLE
	WITH DLOVS
SAMPLE ON TO NO ADVANCAGE	UP OF CORRER
SS-13 SAMPLE DE CLIMAGES DRIVEN TO 80' SAMPLER ON 7	TO OF CODE
92.5 ENC OF EXPLORATION NO CHANCE IN	ER BIT TO 82.5, MATERIAL
	20.
	· 

#### PIEZOMETER INSTALLATION REPORT

PROJEC1	: ABERNO	ONA PIVER	Wo.	DFFSET FROM	DATE.	10	112/85	
LOCATIO	N (STA):	SEE DRAW	1,NG C	ENTER LINE:			PIEZ NO.: F	D-85-9
- DIF/ II	D CEL IN	DE SCOTIE		COLL			: <u> </u>	111
•	-				- FOLLOW			
TYPE OF FOR PIE					1) ZananyE			
GROUND	ELEV.:	44		ELEV. TOP OF RISER: -	47.8	ELEV PIEZ	TIP: -3	·5
FILTER:	#2	SANO			-36		ELEV: — 3	3Z
SEAL:	BENTONIT	E SLURRY	FROM	ELEV:	32	T0	ELEV: -/	0
INSTALL	ED BY:	AUIS + H	AWKI	~/≤ N	-32 ONTRACT <i>DA</i> O.: <i>DO</i> =	1cw-3. ≠3 F0	ヌー85-D REMAN: ノニュ	-0011 - 22 22 11
DATE OF	INSTALLAT	TION: /C	/10	185	DATE OF OBS	ERVATION	s: 10/1	405
TESTING	S PIEZ.: <i>F</i> ELAPSED	PAZCING I DEPTH TO 1	· HEI	ELAPSED			EL ADCED	/
TIME	TIME MINUTES		TIME	TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET
		4.21						
0.3630	0	.60						
0:36:45	1/4	4.21		•				
0:37:00	1/2	4.21		:				
				<u>.</u>	•			! *
REMARK:	S:		·····				· · · ·	
						·····		
						· · · · · · · · · · · · · · · · · · ·	direction of the second of the second of the second of the second of the second of the second of the second of	
•			<del></del>					
						· · · · · · · · · · · · · · · · · · ·		
					<u> </u>			
							PECTOR	



DACW-33-85-D-00

#### OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

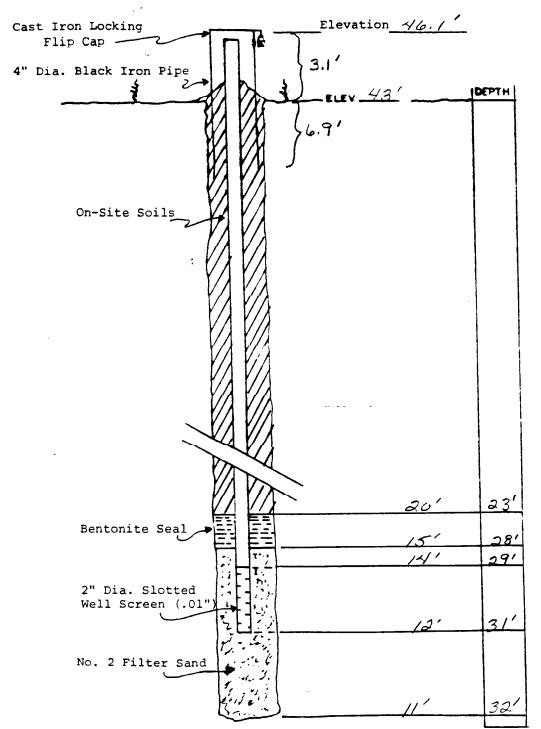
Project No. D.O. #0003

Aberjona River, Wells G&H

• 11 @ • FD85- 10

/ • | • E f : Woburn MA

Cluster No. S-89



AB Site W	CERSUNA RUER LE G+H, WOBURN MA PROJECT I	NO. DACW-33-85-D-0011, D.O. #00 Page 1 of 2 Pages	3
Hole No.	FD-85-10 Diam. (Casing) 4"	Boring Started 10/9/85	
Co-ordina	ites: N SEE & DRAWING	Baring Campleted 10/9/85	
Drilled t	M CAMBRIOLE + BOYER	Report Submitted	
Purpose o	of Exploration <u>INSTALLATION</u>	OF PIREOMETER	
	Top of Mole <u>4.3</u> ± M.S.L.	Casing Left in Place 4"6 TOTAL 10	Foo
Total Over	burden Drilled 320 Feet	Casing Left in Place 4"6 TOTAL 10  3.1 STICMUP	,
Elevation	Top of Rock	SEC FO-85-2 FOR SOILL	<b></b> 26
	n or noteFeet		
	ered		
Soil Samel	en Nove in olan No.		
Soil Sempl	esNo.	Water Table Dooth AT SURFACE	
Depth From To	Method of Drilling and Type of Bit Used	11003	
0 32	3" ROLLER AND 4" DRIVEN CASING	Ground WaterBack of Page _	
	USING HYDDART WATER ONLY	Boring Location SketchBock of Page _	
	QURING CORLLING	Overturden RecordPagePagePagePagePagePagePagePagePagePagePagePagePagePagePagePage	
		Rock BrillingPage	
		Pero	
		hp.	
	Preserved by PAUL FISHER Floid Bate		_
	Sumitted by ATLANTIC TRETING L	AB	

	PIEZOMETER INSTALLATION REPORT							
PROJECT	: ABERSO	NAR, L	NoBU	en, MA	DATE.	10	/12/8	<u>'</u> 5
LOCATIO	PROJECT: ABERJONA R, WOBURN, MA DATE. 10/12/85  OFFSET FROM  LOCATION (STA): TEE DRAWING CENTER LINE:  PIEZ NO.: FD-85-10							
LUCATIO	on (31A):	I C		" DEPTH	<b></b> 7 /		RPIPE	
PIEZ TI	(PE: 2 × 2 ¢ IP SET IN	PLOTTE	0,0	6011		DIAM		
		, M. SAND			E NO.: 55 -			4
					A" DRIV			
FOR PIE	Z: 4"	PIPE X	10'	TOTAL	LENGTH VE	NT: ∠	OUT CA	ρ
GROUND	ELEV.:	43		ELEV. TOP OF RISER: •	LENGTH VE 46.1	PIEZ PIEZ	TIP: /	2
FILTER	_	SAND			/ /		ELEV: / 3	
SEAL:	PRLONITE	= 3/8	FROM	ELEV:	/ 5 ONTRACT OAC	TO	ELEV: Z	0
		AMBRIOGO		OYER N	ONTRACT OAC 10.: Do	7 FO	REMAN: F15	· Ex
	F INSTALLAT		/-				s: 10/.	/
METHOD				HEAD	TEST	21.41.1.2011		
	ELAPSED	DEPTH TO		ELAPSED	DEPTH TO		ELAPSED	DEPTH TO
TIME	TIME minutes	WATER FEET	TIME	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WATER FEET
1151		3.16		4	3.16			:
	0	0.10						1
i	1/2	3.10		•				
	/	3.11						1
		3.75		:				
REMARK		<del></del>	1		. •	<u> </u>		<del></del>
NEMAKK								-
								<del></del>
			<del></del>	· · · · · · · · · · · · · · · · · · ·				
				·			•	
						_		
: •				···	<u></u>	13 H E 1	₹	
i						IN	PECTOR	

where the control of



DACW-33-85-D-0011

#### OBSERVATION WELL INSTALLATION DETAIL

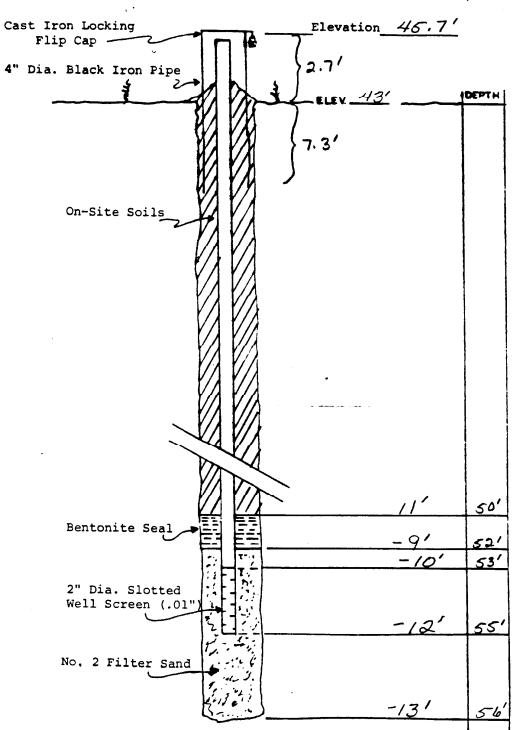
ARMY CORPS OF ENGINEERS, NED

Aberjona River, Wells G&H

Project No. D.O. \$0003

Project: Woburn MA

Cluster No. S-89



Hole No. FD-85-11 Diam. (Casing) 4"	NO. DO. #3 Page   of Z Pages  Boring Started 10/9/85
Orilled by CAMBRIDGE & BOYER	Report Submitted
Purpose of Exploration /NSTALLATION	OF PIEZOMETER
Elevation Top of Note	Casing Left in Place 4" X TOTAL 10 Foo Z7'STICKUP SEE FD-85-2 FOR SOIL LOC
Core Recovered	Water Table Deeth0.16 '
Depth Nethod of Brilling From To and Type of Bit Used  0 56 3" ROWER WASH & 4" DRIVE.  CREWY HYDREN- WATER  VIEW CURINGE ORILLING	## Bround Water Back of Page  ## Boring Location Sketch Back of Page  ## Overlanden Record Page  ## Rock Drilling Page  ## Page  Page  Page  Page  Page  Page  Page  Page  Page
Prepared by Field Bata Sumitted by ATLANTIC TES	STING LAS

	<del></del>	<del></del>				~~=		
	PIEZOMETER INSTALLATION REPORT							
PROJEC	T. MARRIA	ALA R	I lorun	n MA	DATE.	10	112/85	
LOCATION	ON (STA):	SEE DRAW	1NG C	FFSET FROM ENTER LINE:			PIEZ NO.: 7 R PIPE : Z	-D-85-11
PIEZ T	YPE: Z#	SLOTTED	XZ'L	DEPIH OF PIE	z: 55 ′	DIAM	K PIPE : <u>2</u>	, *
(SOIL	TYPE): F 5	AND TR M	1.C. SAR	SAMPLE	NO.: 55-/	Z BORI	NG DIAM:	4"
METHOD	OF INSTALL	ATION:	3" ROL	LER +	4" DRIV	en Ca	151NC	
TYPE OF FOR PI	F PROTECTIO EZ: 4 "	N / 10	Total	1 ENGTH	VE	NT: 4	LOCK C.	40
GROUND	ELEV.:	43		ELEV. TOP OF RISER:	45.7	ELEV	10017 C	Z
· ·	: #2				- 9		ELEV: -	
	BENTON							
				C.(	ONTRACT DAC	W-33-	ELEV: //	
							REMAN: 55	
METHOD	) OF		/ /	185		ERVATION	s: 10/	12/85
TESTIN	G PIEZ.:				1857			
TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET
11:44		2,54	4	2,54				:
	0	.63						
	1/2	275		; † ;				•
!	/	2.46						
	ح	2,50						!
REMARK	ζS:	· · · · · · · · · · · · · · · · · · ·						
					<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>			
-								
<del></del>							•	
						<del></del>	,	
:								
:						SHER INS	SPECTOR	
							-	

A Committee of the Comm



### OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

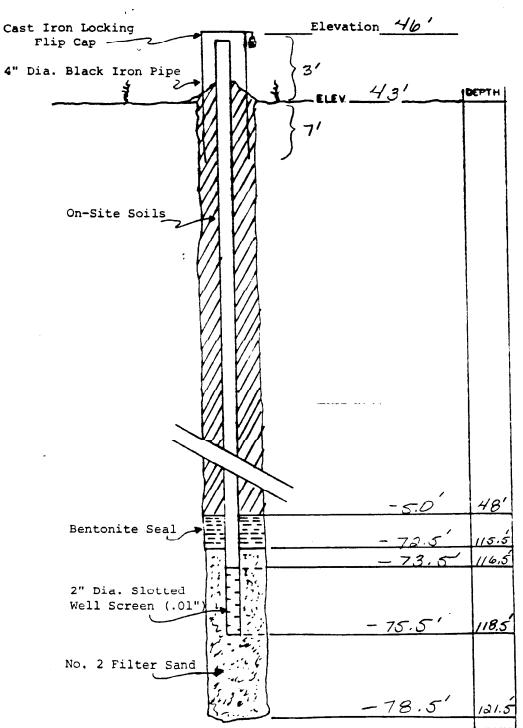
DACW-33-85-D-00 Profest Me. D.O.#0003

Aberjona River, Wells G&H

\*\*Prefect: Woburn MA\*\*

Well We FD85- 2

Cluster No. S-89



Hole No. ED-85-2 Diam. (Casing) 4"  Co-ordinates: N See Map E  Drilled by Cambridge and Boyer	NO. D.O. 4 3 Page 1 of 4 Pages  Boring Started 9/30/85  Boring Completed 10 /8/85  Report Submitted				
Purpose of Exploration observation wells at hydrologic modeling	e required by EFA for by others				
Elevation Top of Hole	Casing Left in Place 10'TOTAL  3.0 STICKUP  at Surface Water Table Doots (O.6'during drilling)				
Posth  From To  and Type of Bit Used  O 45' Hollow Stem Auger  O 126 4" Stive room.  History horse Uses Ovalue All  Orineins	Bround Water Back of Page  Boring Location Sketch Back of Page  Overburden Becord Page  Rock Brilling Page  Page  Page  Page  Page				
Prepared by PAUL Fig NEW Field Bata Substituted by # !!anling Text	Lab Bata				

Total Over Elevation Total Research	erburden i n Top of i ock Drille n Sottom opth of So	Drilled Rock d of Bo:	0 ing -7 121.	941g. Des. Dril	30" 10' az füring Completed /9 Neter Date More "JO SEARY (AMBRIDGE, Jim TRACK MOUNT EME 55
Core Rec	overed	<u> </u>	1O	iem. — in. inspected Bylem. Z4 No. Classification	N BYI PAUL FISHER  BYI PAUL FISHER  BY: GALG HETELER
DEP		RE/SAMI	PLE PLOWS PER PT AFE CORE NECES	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF M
	5   55-7	2	70% 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	4" Aver	DEAT, BK, MOIST (FOR ANIC MISSAND, BA  ORSANIC SILT, BK, WAY, ROOT HAIR, WOOD (OH)  SAME AS 55 3
į.	RAL RE		1007. HAMMI		Same As 55-3

NED FORM 58 (Test)

Boring No. <u>FD-85-2</u>

J ,	Sile ABO			er,	hbour	IN, MA	Boring No. Page		
\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	neus				a. 0.wa	<u> </u>	FD-85-2	01 4	
· · · · · · · · · · · · · · · · · · ·	DEPTH		SIZE	MPLE	BLOWB PERFT PORE REGAY		ING AND CORING	CLASSIFICATION OF MATERIA	
- <del>-  </del> -   <del>-  </del> -	250	556						SAME AS 55-3	
	24.5	1 30	1/8	10010	6	10/1/05	CONT. B" HOLLOW STEM	M. SANO, GU, WAT, (3A)	
<b>-</b>		3				AUGRA	•		
-	30,0	‡	-		/7-			RM. SAND, GR, WET (SP)	
• }	3,5	55 <i>-</i> 7		1007.	17-22-		<del>-</del> .	(SAME AS 55-6)	
 4:	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	∄			·				
		∃			`			·	
G &	35.	=			9-			54ME AS 55-7	
	36,5	55-4		<i>40%</i>	9,72	-		JAMIE 113 33 7	
· · ·		=							
<u> </u>	son.	₫ .							
	715	55-9		60%	9-7-3			F. SANG , TR SILT, TAN, MUST (	
						Ī			
		] :							
•	45.				 	FLOWING	Sings Porces Acetho	ars	
	455	5510	ļ	65 %	75	10/2/8	5 STHETER DEFINIS REFERE CONTRA	SAME As 55-9	
.;	-	7							
Bry 1	500	=							
4	51.5	55-11		10%	13 - 12 - 5	1		F. SINC, LITTLE SUT, BR, WET (S.	
»; √		=							
Box Z	55.0	╂	+-	-	4 -	-		F, SAND, TRM-CSAND, TAN, W.	
	565	55-12	+-	100%	4-6-6	-		F, SANO, THE GSANO, TAN, W.	
· · ·		#							
.2	600	]							
<b>21</b>	61,5	55 /3	3	40%	10-14:			F. SAND, TALL, WET (SP)	
	_								
		]							
_	650		1	407	ě. j	-		SAME AS 55-13	
<u> </u>	6.0.	- 55 14	1	70/	18	+		3500 65 33-13	
				1	<del></del>	<del></del>			

D. FORM 58A(Test)

Boring No. FD-85-2

WELL GY					MA	Boring No. FD-85-2		1 4 of 4
DEPTH		/SA N	APLE		SAMPL	ING AND CORING	CLASSIFICATION C	E MATERIAL
74.0	55.15			579	10/3/85 CASING (	Conr. 4" Daive 2 70'	f SAND to Silt (	( P
7/5								
75:0-					. •			
	SG-16		680	Ng.		• •	FSAND; TOSILT S	P) AND
80				,	1	adge ferekt opger. •×		
30 € <b>-</b>	55-17		15%	578	Rouga Ro	95 OF 4' CAS NO, USE - TO WASH TO 90'	FSAND, WET, T	KAN (312)
-								
					•			
	1							
	;							
90_	\$ \$ · \\		-		2 DROVE	A' CASING TO 90'		./6.3
	122.5				1 (~)/0	BLOW /FT). 10/4 KOLLER WA FOOT FOR GARJE! SPAR.	(sesumed)	((3))
	1							•
-			-		BEG. 10	015/85		
<i>97.</i> <	357		1	W/AC	2		70.0	(22)
/00	3.7						(ASSUMED)	
121 .	55-20 55-20	8	/a:	2 ê ¿z · 3	- ORA!	s A"CARME TO 100" Crewfe-). "	1A11 ( ) 6 1/2 ( )	· , · , · ,
							EOME Gravel	jtrose Co
					· .	NOSO 10-5-85		
	=				٤ . ١	1 AUFO 10-6-85		
-	=							
110		,	+	LIP)	-1	1050 10-6-85 1050 10-7-85	FSAINIL J THIN	(12)

D FORM 58A(Test)

Boring No. FD-85-2

	SILE AB			EK.		Boring No	-85-2		Poge =
-	DEPTH	COR	E/SAMPLE	SLOWS PERFT CORE REC'VY		ING AND CO	RING	CLASSIFICATION O	F MATER IA
	1/6:5	25.22	UASH		Drive 4"0 280 Blo	Asing to 11 US/FY.	<i>5</i> ′	TAN-Grey F.S.	
-	118	55 23	WA	SHEO	_			M SAND, TAN, GO.	
}	121.5	55-24	302	45 175	1	ve To 120' De Expen		GRAVELLY C.M.F.	SANO TR
	-			•					

D. FORM 58A(Test)

Boring No FD-85-2

「大きななったないないのと、「「「「大きなな」」

			PIEZ	OMETER INS	TALLATION RE	PORT		
PROJECT	T: dkarie	na Dwel		bum.	MA DATE	10-	8-85	
LOCATIO	ON (STA).	SEC DAM	0	FFSET FROM	. —			2R/-
LUCATIO	JN (SIA): 2	JEE JAME	Z"XZ'	DEPTI	: H	RISE	PIEZ NO.: F	, , ,
PIEZ T	YPE: 5/64/06 IP SET IN	1.010" (25a GI	ands te	OF P <u>هم</u> SOIL	161: 118.3	DIAM	: -	<b>A</b>
(SOIL	TYPE): TA	N M. SANC	2	SAMP	LE NO.: 53-	23 BORI	NG DIAM: 🗲	2"
METHOD	OF INSTALL	ATION: Pa	CLEP	B,+ + D	PIVE CASI	No		
FOR PI	F PROTECTIO EZ:	10' Los	us X	4" OIA	CASING V	ENT: Loc	K CAR	
GROUND	ELEV.:	43		ELEV. TOP OF RISER:	CA31NG V	ELEV PIEZ	TIP: - 7	' <b>5</b> .5
FILTER	: #2	SANO	FROM	ELEV:	-78.5	TO	ELEV: ーフ	2.5
					<del>-</del>			5.0
INSTAL	LED BY: A	over ond	Cam'o	1169	72.5 CONTRACT LAC NO.: D.O. =	のき3-65 ラ FC	REMAN: Fis	-معان
		TION: /a					IS: 10/13	2/85
METHOD	OF	FALLING						1
	ELAPSED	DEPTH TO		ELAPSED	DEPTH TO	TIME	ELAPSED	DEPTH T
TIME !	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WATER FEET	TIME	TIMF MINUTES	WATER FEET
		2.93						
	0	0				!		
·	1/4	2.90		*				
1	1/2	2.93				İ	<u> </u>	1
		<u> </u>						;
:			<u> </u>	1			•	· · · · · · · · · · · · · · · · · · ·
REMARK	<u>(S:</u>							
			<u> </u>					
<del></del>								
	· · · · · · · · · · · · · · · · · · ·							

INSPECTOR



DACW-33-85-D-00

D.O.#0003

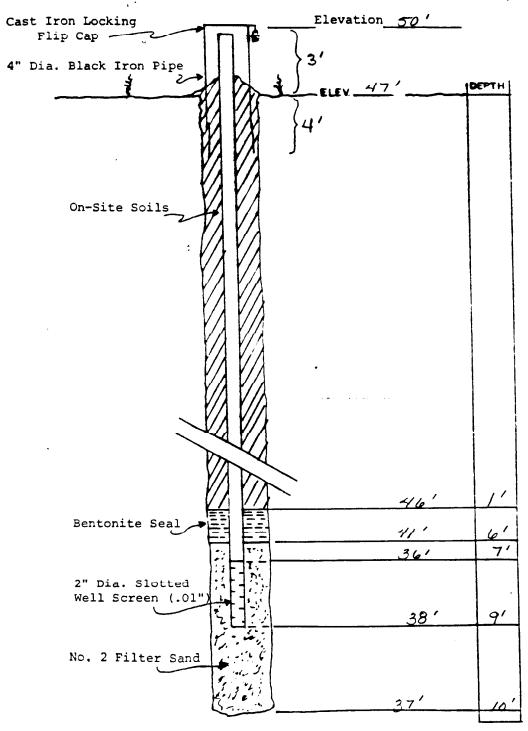
### OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

Aberjona River, Wells G&H

FD85

FD85- 3 Cluster No. S-90



Site ABER JUNA RIVER. WOSCIEN MASS  Hole No. FD-85-3 Diam. (Casing) 4"  Co-ordinates: N E See Deanne  Drilled by Paul Pauls, Keven Hangins	Page   of Pages  Boring Started 10 = 1 - 85  Boring Completed 10 = 1 - 85  Report Submitted
Purpose of Exploration INSTALL DIEZON	nete/
Elevation Top of Note : 47 M.S.L.  Total Overburden Drilled /6 Feet  Elevation Top of Nock	Casing Left in Place 7' TOTAL Foo
Elevation Bottom of Hole 37 M.S.L.  Total Book Drilled 0 Feet  Total Depth of Hole 10 6 Feet  Core Recovered 5	See FDEE-1 for drilling log
Core RecoveredFt.;Diamin.  Soil Samplesin. DiamNo.  Soil Samplesin. DiamNo.	4.0 on 9/31/85 Water Table Booth 3.35 on 10/24/85
Depth   Method of Brilling   From   To   and Type of Bit Used	1 HOES
0 10 Ruser 4 33.	Bround WaterBack of Page /
HYDRANT WATER CLED DURING	Boring Location SketchBock of Page _/_
ALL DRILLING	Overtunden RecordPage
	Rock DrillingPage
and the second of the second o	
Preserved by Gies HETYLER. Florid Data	Lab Data

### PIEZOMETER INSTALLATION REPORT

PROJEC	T: ABERSO	WA River	WOBUNE	( wal Cal	DATE.	10/1	185	
1	ON (STA):	. •	U	ENTER LINE:			PIEZ NO.:	=D-85-3
PIEZ I	YPE: CASA	Z" XZ'	,01	DEPTH OF PI	EZ: 91	RISE DIAM	R PIPE Z"	
PIEZ	IN 2F1 IN	SAND.		2011	F0-85 E NO.: \$5-	- 1		3"
	OF INSTAL		ノムデド			3 0011	NO DIAM.	
TYPE (	OF PROTECTION	JN			7'	·- 1		
FOR P			ر در ا	ELEV. TOP	- 7 Lenou VE	ELEV	TIP. 38	,
GROUN!	D ELEV.:	21-1		OF RISER:		PIEZ		
FILTE		SAND	FROM	ELEV: 37		TO.	ELEV: 4/	
SEAL:	Peltra, te	4	FROM	ELEV: 4/	ONTRACT	T0	ELEV: 44	<del></del>
INSTA	LLED BY: F	Paul Anui	s/ +41		0.: Doz	<u> 203</u> FO	REMAN: Pat s	Sulliva.
	OF INSTALLA	TION:	10/1/	85	DATE OF OBS	ERVATION	15: 10/24/8ª	
METHO: TESTI	D OF NG PIEZ.:	FALLING	HEAD.	EST				
TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET
817		6.35	838	4.0	5.71			·
8:34	0	.45	842	8.0	£.20	, 		
	0,5	2.24	849	15.0	6.33	!		•
835	1.0	3, 38	904	30.0	6.35			:
836	2.0	4.70		:				: 
REMAR	KS:							
*		•						
<del></del>								
			······································					<u></u>
							<del></del>	

INSPECTOR



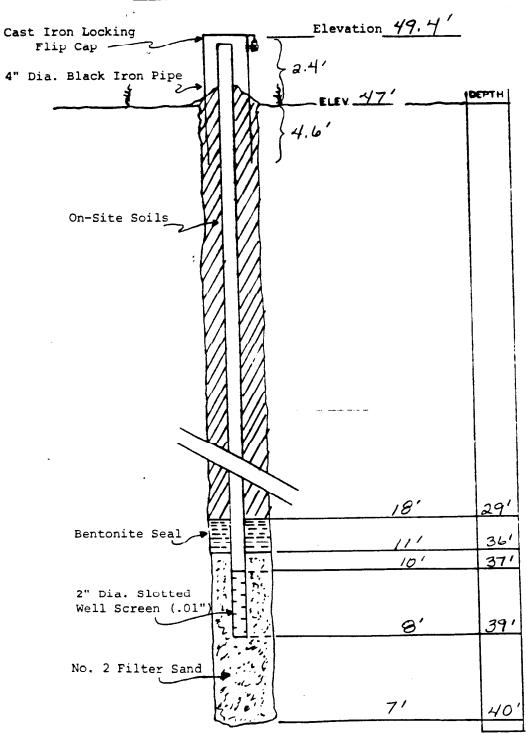
## OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

Aberjona River, Wells G&H

Project: Woburn MA

Cluster No. S- 90



CLUS	TER	5-	90
$L_{\perp}U$	1	•	,-

FD-85 -1

PROJECT NO Site ABFRJONA RIVER, WOBUCH MASS  Hole No. ED-85-1 Diam. (Casing)  Co-ordinates: N E SEE DRAWING	Boring Started 9/30/85  Boring Completed 10-1-85
Purpose of Exploration	Report Submitted
Elevation Top of Note : 47 N.S.L.  Total Overburden Drilled 40:0 Feet  Elevation Top of Nock N.S.L.  Elevation Bottom of Note Feet	Casing Left in Place 7.00 total For 2.41 -Hickory.
Total Book Brillad Feet  Total Book Brillad Feet  Total Book Brillad Feet  Core Recovered Ft.; Dian. In.  Soil Samples In. Dian. Bho.  Soil Samples In. Dian. Ho.	Unter Table Back (3. C' DURING DRILLING)
Bopth  From To  and Type of Bit Used  0 4 4 T.D Hollow Stem Auger  HYDRANT WATER CAR OURING ALL  DRILLING	Brownd Water Back of Page
Prepared by GSEC HETMLER Floid Bata Submitted by F	Lab. Dala

γ.	FIELD LO Elevation To Total Overbu Elevation To Total Rock Elevation B Total Depth Core Recover	p of Boring p of Rock Drilled ofform of E of Boring red	EST BORING  ed 40  Boring 7	M.S.L. Hemmer Wt., Feet Hemmer Dre M.S.L. Cosing Left W.S.L. JOBS. Well Feet Drilled By Mrg. Dec. Dr Inspected 6	MO.0 Soring Steries 9/30.  Do 30"  Soring Completed 9/30/  17/70/2/4// Castra	- (g
	Soli Sample	•	tn. Die		Non By:	
	DEPTH In the second	L	AMPLE BLOWS PER FT. CORE REC'YY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATER	14
		1.22 3.5.2	19 60° 36° 11	4" AUGER	M+fsand; Br moist (SP  MSAND, ID, moist S	-
<u>10/1/65</u>	17.0	55-4 1-55-4	50% 411.5 25 253.	7/31/85	SAMP ME EL-Z  GINELY SAWID MORE TO SAMP SOME GUALT, TO  UET SPIGE M SAND; Little GMINE, B.	A.A.
	Bully	L REMA	RKS: SANS (	unshed TATO Auger	E \$7.0	<i>5.</i> _

NED FORM 58 (Test)

Boring No. F. 85-1

SILE	ONA	RIVER.	Boring No. FD-85-1	Page <u>&gt;</u> of <u>-</u> 2
DEPTH	CORE/S		SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIAL
26.5	L	65'473-7	Auger 4" Cont.	CMFSANO; LIHILGIALIUMIE
300 =	53-7	602 724	•	ems savo; Tr Gravel, Br wet. (SW)
35	55-8	Z 515,17		onf samp to Gravel. Si on f Jan 19 Some Gravel wet Br, (SWIEP)
40.0			BOTTOM CE HOLE.	

D. FOHM 58A(Test)

Boring No. FD-85-1

PIEZOMETER INSTALLATION REPORT
ROJECT: ABERJOIA RIVER WOBURNI MASS. DATE OCT 1,1985
OFFSET FROM OCATION (STA): SEE DRAWING CENTER LINE: PIEZ NO.: FD-85-
IEZ TYPE: CASA GRANDE . 010" OF PIEZ: 39' DIAM: Z"JD
SOIL TYPE): CMSSAVO; Some Grave! SAMPLE NO.: S-& BORING DIAM: &"
ETHOD OF INSTALLATION: AUGER
OR PIEZ: VENT: LOCK CAR
ROUND ELEV.: 47 DF RISER: 49.4 PIEZ TIP: 9'
TILTER: SAND # Z FROM ELEV: 7' TO ELEV: //
SEAL: PELTENATIE, 3/8 FROM ELEV: // TO ELEV: 16'
INSTALLED BY: FAIL DAVIS & HAWKINS NO.: DO #3 FOREMAN: PAT SCILLIUM

TIME	G PIEZ.: ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH WATE FEET
2/4		595	1045	4 D	5.00			
214 1 CHS	0	,35	1050	8.0	6.75	! !		
	6.5	1,49	1057	15.0	5.26	:	·	,
1043	1. C	18.46	1/10	   30.0	5.95			:
1044	20	3.73		1				:

IS NE STOR IN SUSA for A West English SAND



## OBSERVATION WELL INSTALLATION DETAIL

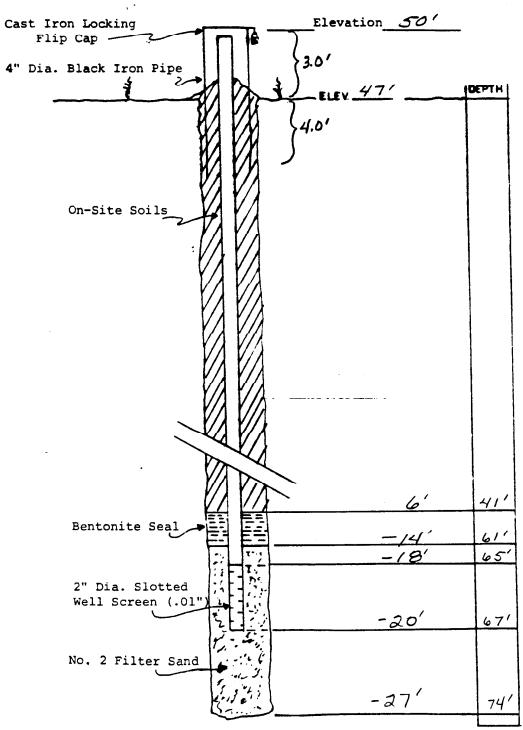
ARMY CORPS OF ENGINEERS, NED

Aberjona River, Wells G&H

Project: Woburn MA

DACW-33-85-D-001
D.O.\$0003

Cluster No. S- 90



, ,	RIONA RIVER PROJECT N - G+# 5172, Wayan MA	OACN - 53 - 85 - D - 001 ( 10		
	2-85-/1 Diam. (Casing) 4"	Boring Started 10/14/85		
Co-ordinat	es: N SEE E DAANING	Boring Completed 10/23/85		
Drilled by	DAVIS + HANKINE	Report Submitted		
Purpose of	Exploration <u>Soil Samphing</u>	+ Set PRESONETER		
Elevation To	op of HoleH.S.L.	Casing Laft in Place TOTAL 7.0' Fee		
	urden Drilled <u>67</u> Feet	30 SICKUP		
	00 01 Rock M.S.L.			
	ottom of HoleH.S.L.			
	of Note			
	red Roved Bit			
	redFt.;Di ain.			
	n. DianNo.	2071		
Soil Sample	in. Dian No.	Water Table Depth 3.87'		
Depth	He thad of Brilling	19003		
From To	3" ROLLER BIT TOLLOWEL BY	Bround Water Back of Page		
0 0.1	4" BRIVEN THE KELLINGT	Boring Location SketchBock of Page		
	WATTER USED DURING ALL DERELO			
0 61	PULLED 4" (ASING & PERKE	Rock BrillingPage		
	NITH SPINNING SHOE DUE TO EXISTING COULDERS OR BEDROLF			
61 70	ADVANCED WITH 3" CASING			
70 74	ADVANCED WITH ROLLER BIT			
	Property PAUL FISHER Floid Data			
	Subjected to ATLANTIC TESTIN	La Lar		

CORPS NEW EN FIELD LO Elevation To Total Overbu Elevation To Total Rock I Elevation Sc Total Depth Core Recover Soil Sample	G OF  p of Bor  rden Dri  p of Roc  Drilled_  of Borin  red_  red_  red_  red_	TEST  TINE	BORING  47  - 24  72  74  No. Bono  In. Die	M.S.L. Hemmer Wt. 190  Poet Hammer Drop 70  M.S.L. Cesing Left 4"  Feet Isoperture Water S  M.S.L. Obs. Well 7  Feet Drilled By 79  Mrg. Dec. Drill 794  Inspected Sy:	Diam. (Cooling) 4"  Pawinc E  Tooling Startes 10/14/87  Soring Completed 10/23/65  Date: Ways  Completed 10/23/65  Date: Mawres CME 45  Pav- Fisher  M. Tuen
DEPTH In.	CORE	/SAMPLE		SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
	:				SECFD-85-1 FOR SOIL LOG FROM O'TO 40
41.0	5-1	1 <del>%</del> 70	100	ADVANCED BORRING BY 3" POWER BIT FOLLOWED BY 4" DRIVE CASING	GRAVELLY CMF, SAND TR SILT, GY (SM)
45P	5-2	11 /0	0463	•.	CMPSAND+GRAVEL SY/BA (SU-GO)
500	5-3	11 //	104 80 95		Same As 5-2
55,0 54.5			360 400fin		no recovery due to boulder
-	BEM	ARKS.	A 4",	DRIVE SHOE CASING WAS ADVANCE	es To 67' (Rouse Br To 20'
IN ROCK	THEN	Russ	o. 44"	SPIN SHIE CASINGWAS THEN IN TO TO TO INPUR FOLLOWED	ADVANCED TO 61: A 3

	· Ate					·	Boring (				Page 2	
	NOBUE DEPTH		RE/SA	MPLE	BLOWS PER FT.	SAMPL	ING AND C	35-15 Oring			01_2	-
	600	Na.		-		OPE	RATIONS				MATER IALS	<u> </u>
-	M.5	5-4	/78	2	150	· -	-		Same as	5-2		
							•					
	5.5	5-5	11/4	10%	110- <b>1</b> 00	4008			Same as 5-			
-	67.0					casing re	lusal 10	67.0' (4")	ralisas de	to bout	ders or Par	-
		nur			` '				BOULDER	CH BEOR	ock .	7
+	70.0					3"5an C Apranceo	Zh" Roce	e Br	+			
	=					,						
-	74.0					ENO OF	Examon	PATTON				-
	=											_
	目						•					
·.	=											20.
			.			- ·						
	1											·
	7				.							
										•		<u> </u>
	=											-
	긬								,			_
	_ <u>_</u>											Ė

D FORM 58A(Test)

Boring No FD-85-15

			PIEZ	OMETER INSTA	ALLATION REP	ORT		apininte <u>nnique</u> de Parte de Parte dep <sub>res</sub>
i2ROJEC	T: Abetion	R. Wot	AUX		DATE	10/15/8	**	
	ON (STA):	has Who	0	FFSET FROM ENTER LINE:			PIEZ NO .: F	0-85-15
	YPE: SIOHE	) "00° C	251 GAR	DEPTH OF PII SOIL	EZ: 67	/ RISE DIAM	R PIPE	
	IP SET IN TYPE): ZM				E NO.: ゴー	≤ BORI	NG DIAM:	1"
1					ISING +		ree Bir	-
ITYPE O	F PROTECTIO EZ: 4" (25)	N	al 3.			_	ck cap	***************************************
	ELEV .: 4	7		ELEV. TOP	50.0'	ELEV PIEZ		70'
	: Z SwoY	Maryon 12			- 2フ		ELEV:	
	Serrovire:	SLURRY	FROM		-14	····		6
1	LED BY: Had	. 1:	ZVIS	C	ONTRACT	W-33-85	5-D-001L	HER
:	F INSTALLAT	<i>-</i>		<u>'</u> 75	DATE OF OBS			4/85
CCHTEM	). OF	alling He	orl To	÷	DATE OF OBE	LINFIT ICH	<u></u>	7705
TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET
819	-	6.87				i		
	9	0						i
		!	1		1			• ,
	)			;			!	
		•			1	!	:	<i>i</i>
REMARK	(5; = tol w	oter fas	ler tha	me could	e measure	No Poll	ing devel	
							J	
		· ————————————————————————————————————						
		,						
							<del></del>	<del></del>

- FISHER INSPECTOR



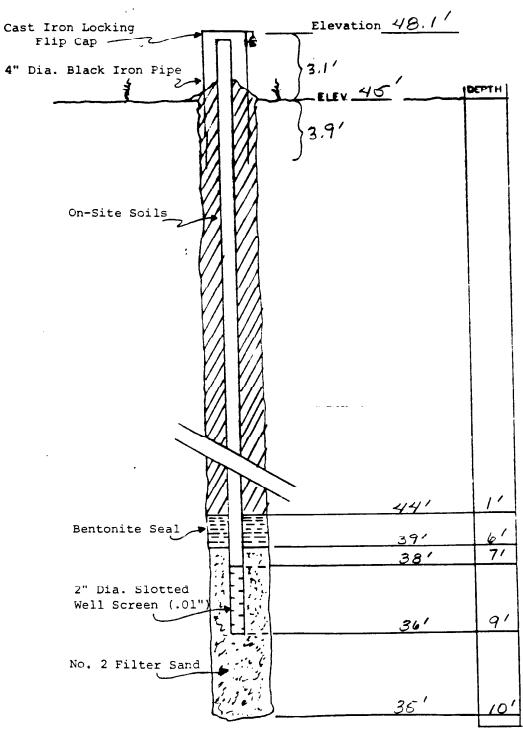
## OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

Aberjona River, Wells G&H

FD85- 7

Cluster No. S- 9/



WELLS 6+H PROJECT DE AVENTORE PROJECT DE SITE AVENTORE PROJECT DE MA	10. L.o. = 2 8 - 5 - 0011				
lole No. <u>FD-85-7</u> Diem. (Casing) <u>"/"</u>					
o-ordinates: N see man E	Boring Started 10/2/25 Boring Completed 10/2/25				
rilled by traves and traveline	Report Submitted				
turpose of Exploration observations usells	ing ky owers:				
evention Top of Hole : 45 N.S.L.	Casing Left in Place 7,00  3,10' Stickup				
evation Top of Rock	- SEE FO-85-6 FOR SOIL LOS				
Depth Hethod of Drilling rom To and Type of Bit Used	Water Table Depth 1.18'				
DID 11, BE " I State State From the Power	PagePage				
Prepared by シッカラング	PopsPopsPopsPops				
Submitted by 1					

			PIEZ	OMETER INSTA	LLATION REPO	RT		
DD0.15CT	. 41 - 1 - 1 - 1				DATE	-		
LOCATIO	N (STA): <	rr NOC	O C	FFSET FROM ENTER LINE: Z'2000 DEPTH			PIEZ NO.: F	D-85-7
PIEZ TY	PE: 5/0/40	A . 010" C	2"\$ X	Z'Louis DEPTH	:Z: 9'	DICE	DIDE	
PIEZ TI	P SET IN YPE): SE	SM sitia	nd, son	SOIL SAMPLE	553 OF NO.:FUBS-	- 6 BORII	S Z'	3"
				r fuces				
TYPE OF FOR PIE	PROTECTION  Z: 4/2 Castle	N 1 T542	20 F.16	151 ckup	VE	NT: /ac	Kron	
GROUND	ELEV.:	5′		ELEV. TOP' OF RISER:	VEI (8.1'	ELEV PIEZ	TIP: 56′	
FILTER:			FROM	ELEV: 35	<u> </u>	TO	ELEV: 37	/
SEAL:	18 borlo.	Ac pelolo	FROM	ELEV: 35 ·	/	TO	ELEV: -//	/
		100 and 9		L	JIN I KAL I JH ZOJ	35-85- 9 FO	REMAN: දුල	<u> </u>
		10N: 200	+ 85		DATE OF OBS	ERVATION	S: 10/12	/a5
METHOD TESTIN	G PIEZ.:			EPO TE	ST		r Ancen	I DEDTU T
TIME	ELAPSED TIME MINUTES	DEPTH TO   WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH T WATER FEET
		4.23	1638	4	4.06			
6:34	0	0-15	1642	g	4.28			
	h	1.45		: !				
	/	235		!				•
1636		3,36		:	-		· ·	1
REMARK	.s:							
					·			
***************************************								
•						754EI	₹ SPECTOR	



### OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

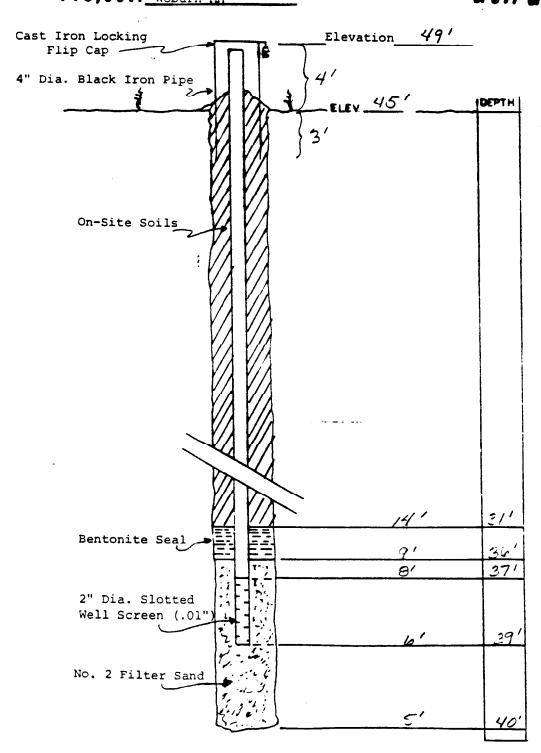
DACW-33-85-D-00

D.O.#0003

FD85- 6

Aberjona River, Wells G&H Project: Woburn MA

Cluster No. S- 9/



Hole No. FD-85-toien. (Casing) 4"  Co-ordinates: N	Page 1 of Pages  Boring Started				
Purpose of Exploration observation wells	or required typeph for				
Elevation Top of Note	Casing Left in Place 7.00  4.0' Sticking  Water Table Depth 1.04'				
Dooth Hothod of Drilling  From To and Type of Bit Used  O 400 4.25" T. D. Hollow Stew. Award  Hyproxit. Was Overe. A. Crimina	Bround Water Back of Page Boring Location Sketch Back of Page  Overburden Record Page  Rock Brilling Page  Page  Page  Page				
Prepared byField Data Subsitted by	Lab Deta				

Elevation Top of Rock	Boring No. PD Desig. PZ  Co-ordinates: N	Boring Started 20-42-  Boring Completed 20-42-  Dotal IPage  and Hay Vir (ATI)  Friday (FTI)  Friday (FTI)
DEPTH CORE/SAMPLE SLOWS PER FT.	SAMPLING AND CORING	CLASSIFICATION OF MATERIALS
1.5 - 551 18 1002 124  5.0 - 352 18 1002 124  1.5 - 352 18 1002 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	4.25% TO Hallow Stem Lucke	ar 1 of 2: a fort sed, 60%.  Inde change to 0.5-10.  Jet 0 of 0: 50 dark brown:  Me sand, 1: the organic,  matter  SD-ME sand, trace organic,  grey with deprintation  SP-SH firesand, ten with  Sayurated  Sayurated, trace containing  Saturated, trace containing  Saturated, trace containing

Site	4.	· )			2. 11.	Boring No. FD-85-6	_	Page _
DEPTH		E /5A1	MPLE	BLOWB PERFT	SAMPLING AND CORING			CLASSIFICATION OF MATERIA
25.0	HQ	3126	HANGE	RECVY	OP	ERATIONS	4.	
54.5	556	15/8	40%	2, ,				5M-Pine sond and silt the with rust he middless, we trace conform hands
31.5	557	/월	652	377		•.	. <del>-</del> -	SP-SM mp sand, som
36.5	558	15/8	40°0	13 810			-	Sw-GF mf sand, some graves, brown, wex
446				•	FND 0	F EXPLORATION	<b>5</b> .	
	+							
			,					
								·
								·

D. FIRM 58A(Test)

Boring No FD-85-6

			PIEZ	OMETER INST	ALLATION REP	ORT		
PROJE	CT: Alserja.	a Times	<u> </u>	MA MA		5 CM	185	
LOCAT	ION (STA):	SER HOC	C	ENTER LINE:		DICE	PIEZ NO.: /	=D-85-6
PIEZ	TYPE: -/	· - " (3	<u> </u>	OF PI	EZ: 🤫 🖰 🐪	DIAM		
(SOIL	TYPE):	4. 1		SOIL SAMPL	E NO.:	BORI		
i e	D OF INSTALL							
TYPE	OF PROTECTIT	)N		_		NT· /A	V 200	
GROUN	IEZ: 4/// D ELEV.: 1/	<u>'</u>		ELEV. TOP OF RISER:	0 VE ~19	ELEV PIEZ	TIP: 6'	
FILTE	R: - ' ' - '	, , , , , , , , , , , , , , , , , , ,	FROM	ELEV: 5'		TO	ELEV: 9	
SEAL:	1/8" berio	المعارض والمعالج والمعالم	FROM	ELEV: 91	ONTRACT 1 + / 4 0 . : . Co. = 3	Ţ0	ELEV: 14	/
INSTA	LLED BY: ().	ا د ه د د	Sec. 4 .	C N	ONTRACT 1. → / ¼ O.: TXS . = 3	٠	REMAN:	
DATE	OF INSTALLAT						S: /o//	
METHO	D OF NG PIEZ.: /							7 13
TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET
611		5.04	1650	4	4.52		THOTES	
1646	0	0	1454	8	4.98			i
	1/2	127	1659	15	5.04			
	/	2.28						i
643	2	3.40		:				}
REMAR	KS:							-
		# · · · · · · · · · · · · · · · · · · ·	<del></del>					
	· · · · · · · · · · · · · · · · · · ·							
<del></del>								
<del></del>	<del> </del>			<u> </u>		•		
						13 HE1	PECTOR	·
						• • • •		

the control of the co

i



## OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

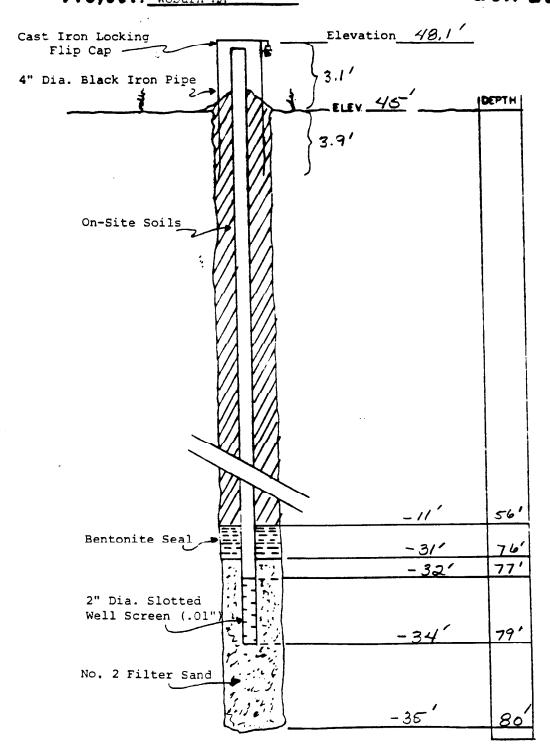
DACW-33-85-D-00

Profest We. D.O. #0003

Aberjona River, Wells G&H

FD85- 8

Cluster No. S-9/



ABERSONA RIVER PROJECT NO.  Site 144 O + 4 , 66 BURN, MA  Hole No. FO-85-8 Dism. (Casing) 4 "  Co-ordinates: N SEC DRANENCE  Drilled by DAVIS + HAWRING (ATL)  Purpose of Exploration Soic SAMPLING +  FOR EPA CONTAMINATION STUDY	Page   of Pages  Boring Started /0 - 3 - 85  Boring Completed _/0 -8 - 85  Report Submitted
Elevation Top of Hole : 45 M.S.L.  Total Overburden Drilled	Casing Laft in Place 4"\$ TOTAL 7 FOR  3.1 STICKUP  SEE FD-85-6 FOR SOIL LOG  FROM 0 TO 40'
Core Recovered	Weter Table Doom 1.25'
BOOTH Mothod of Brilling  From To  Od Type of Bit Wood  C.O. 300 3" ROLLEN BIT FOLLOWER BY 4"\$  CASING WASH WITH WATER  300 71.0 3" ROLLER BIT FOLLOWED BY 4"\$  CASING WASH WITH BENTONITE MIX  TOO DOO FI WINED OUT BENTONITE AND  CONTINUED, AS ABOVE, WITH WATER	Bround Water Back of Page  Boring Location Sketch Back of Page  Overtainden Record Page  Rock Brilling Page  Page  Page  Page  Page
Preserved by FAUL FISHERS FIELD BOLD SUBJECTED BY ATERNATIC TESTING	-A 13

CORPS NEW EI FIELD LO	G OF	ARMY NGINEER D DIVIS! TEST E	s on BORING 45	Site 16.2 Co. Bosig. PZ. B  Co-ordinates: N SEE DRAWN  M.S.L. Hemmer Wt. 140  Feet Hammer Drop 30	Poge   ofPoge   of
Elevation To Total Rock I Elevation Be Total Depth Core Recover	p of Red Drilled. Ottom of Bori ed	ock	No. Bows  Dien  In. Dien	Feet   Subserfee Water &	IS. HAURINS  K MOUNTED CME 45
)°•	<b>#</b> 0.	SIZE ALC	? (°C	THE CHE WASH (WITH WATER)	CLASSIFICATION OF MATERIA  SEE BORING FO-85
415 415 465 465 50 0	35-1	9	16,5 mg 10 m	TURNED TO 30'. LOST WATER, IN PACC DRILL MUD, UREDUCE UC PIT. CONT. DETELINA A"CARING. TARED SAMPLING & 40'	FOR C. CARD, AX FIRST
GENERAL	L REM	MARKS:	ER ')	ISED DURING ALL	·

ile Lect						Boring No.		Page		
1522 S					(1)	FD-85-8		01		
DEPTH 60.0	NQ.	E/SA SIZE	MPLE	SLOWS PERFT CORE	D	NG AND CORING RATIONS	CLASSIFICATION	CLASSIFICATION OF MATERIALS		
			NO		10/8/85 -N	7 0/ m./	0 60			
					<b>y</b> ymin	7 0, 7.	ļ			
65.0 - 66.5 -	-<. 3	<u> </u>	7.2	22 <sub>16</sub> 33	·		grace, com Fig.	Cardinate Little		
96.5			-				Tar- Wet (SV).	- 12)		
	,			,						
\[ \frac{1}{2} \frac{1}{2} \]	04.4		16	7 48	WASHED (	PRILL MUD FOR	4 Sand and Ma	Vel Tritio and it		
71.6	7		75	748	10 WITH	HYDRANT WATER	three sand and gland insuit (SD-SM	<u>(A)</u>		
						THE THE PARTY OF T				
75.0	25-5		190	150/3"		·				
=							GRAVELLEY F.	MG 3AND 61(5W)		
=		4.								
800					Eno a	EXCLORATION				
13										
=										
1 = 3	İ									
=										
			İ							
1 = 1								•		
=										
=										

#### PIEZOMETER INSTALLATION REPORT

PROJEC	T: ABERSON	e River	WELG.	1+ War	MA DATE.	10/1	2/85	
LOCATI	ON (STA):	See Down	0 (NG C	FFSET FROM ENTER LINE:			PIEZ NO.:	-0-85-
PIEZ T	YPE: Sco IP SET IN	,	_	DEPTH SOIL	EZ: 79 ' E NO.: 55-	DIAM	R PIPE : Z	"
TYPE O	OF INSTALL F PROTECTIO	)N	4"7	URNED O				
FOR PI	EZ: 4"/		TUTAL 3	ELEV. TOP	VE	NT: <u>~</u> ELEV	OCK CAP	<del></del>
GROUND	ELEV.:	45'		OF RISER:	48.1		TIP: -3	4
FILTER	: #2	SANO	FROM	ELEV: -	35	TO	ELEV: - 3	3 1
SEAL:	BENTONT	= SLURR	- FROM	ELEV: —	31	то	ELEV: - 1	1
INSTAL	LED BY:	Avis T th	twister		ONTRACT Once  0.: Do. =			++&-
	F INSTALLAT		18/8		DATE OF OBS			105
METHOD	OF G PIEZ.: ≠	74. 10%	HEAD	EST				
TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET
1:27	_	4.35		2	4.35			•
. !	O	.32						
	1/4	2,13		:				
-	1/2	3.70						•
:		4.20			•			
REMARK	S:	•		,				
							-	, , , , , , , , , , , , , , , , , , , ,
	•							
	<del></del>							
<del></del>								
							•	
•						415 R Ins	PECTOR	
						2.70		



## OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

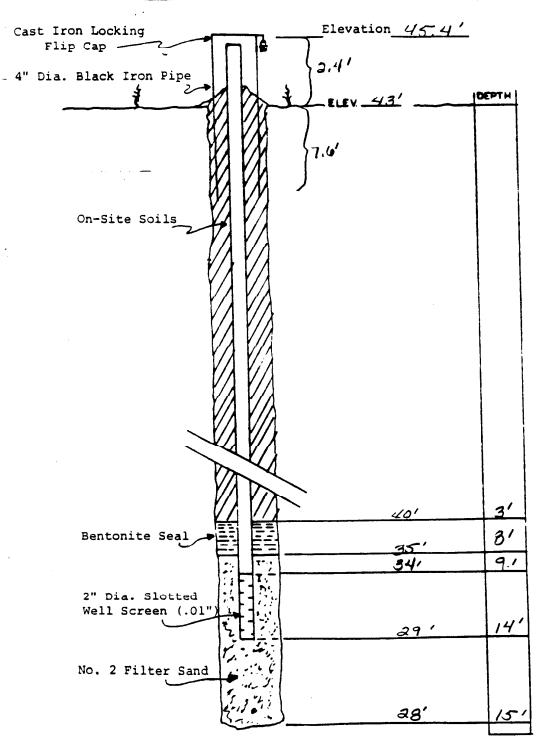
Project No.

DACW-33-85-D-0011 D.O.#0003

Aberjona River, Wells G&H

₩•11 ₩•. FD85- 27

Cluster No. S-92



SITE NEWS STILL WOODEN, MA	DACW-37-35-D JOH NO. D.O. 3
Hole No. FD-85-27 Diam. (Casing) 4	
Co-ordinates: N SEE E TRAWING	Boring Completed
Orilled by DAVIS & HAWKINS	Report Submitted
Purpose of Exploration PIEZOME	TER INSTRUCTION
Elevation Top of Hole43'N.S.L.	Casing Left in Place TOTAL 10 Fee
Total Overburden Drilled /5 Feet	Foot
Elevation Toe of BockM.S.L.  Elevation Bottom of HoleM.S.L.  Total Rock DrilledFeet  Total Depth of Hole	SEE FD-85-25 FOR SUIL LOB
Coré Recovered	·
Core RecoveredFt.:Bi.min.	
Soil Samplesin. Dianilo.	,
Soil Samplesin. Dian No.	Water Table Deeth 0.21
Depth Method of Drilling	IIIQ
O 15 4"In Auger	Bround WaterBack of Page
HYDRANT WATER USED DRIN	
ALL DRILLING	Overbunian BaconiPege
	Rock OrillingPage
	np_
Propared by Paul Fisher Flore Bota	
<i>n</i>	Lab Deta
Smitted by FTLANTIL TESTING	G AAG

		PIEZO	METER INST	ALLATION REPO	JK I		
PROJECT: ABEA.	Lang P	Wood	an Ma	DATE.	- ///	1/35	
LOCATION (STA):		Ur	FOEI FROM		7	PIEZ NO.: Fi	S-85-27
	,		// DEPTH	, ,	RISER	PIPE //	
PIEZ TYPE: 2 '9 PIEZ TIP SET IN	\$ SLOTTE		SOIL	FO-85-	25		3 "
(SOIL TYPE):	4 = 5A			.E NO.: ブラー	3 BUKIN	IG DIAM: Z	<u> </u>
METHOD OF INSTALL TYPE OF PROTECTION		F"I	0 H100				
FOR PIEZ:	"4 X 10	<u>ت دیرن نے ل</u>	ورز LEV. TOP		NT: <u></u> ELEV	024 /213	
GROUND ELEV :	143'		F RISER:	45.4'	PIEZ 1	TIP: 29	} 
FILTER: 72	SAND	FROM E	ELEV:	28'	TO 1	ELEV: 35	
SEAL: 3/8 Pell		FROM I	ELEV:	35'	TO 1	ELEV:	0'
INSTALLED BY: 1		lance		CONTRACT NO.: 0,0	≠3 F0I	REMAN:	ورعد ب
DATE OF INSTALLA		1, 13:		DATE OF OBS		/	185
METHOD OF	FALL 1			Est		///	
TESTING PIEZ.: ELAPSED	DEPTH: TO		ELAPSED	DEPTH TO		ELAPSED	DEPTH TO
TIME TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WATER FEET
	2,61	1447	3	2.61			
433		7 / / /					
7 - 1	ŧ		!				
1/2	2.46		!		<u> </u>		:
1445	2.55					<del></del>	
1996 2	2,59	<u> </u>			1		
REMARKS: Z.4	A RISER	STICK	حس		<del></del>		
5_′	screen						
					> <	_	
;					IN	SPECTOR	



### OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

Project Me. D.O. #0003

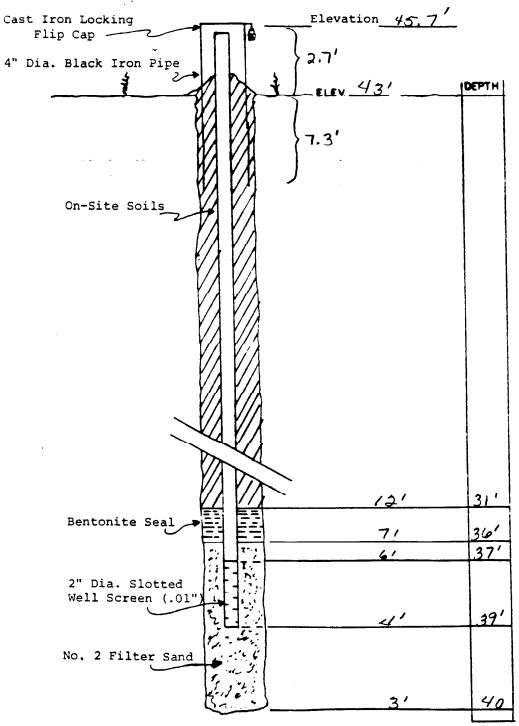
DACW-33-85-D-0011

Aberjona River, Wells G&H

• FD85- 28

Project: Woburn MA

Cluster No. S-92



Total Overbarden Drilled 40 Feet  Elevation Too of Rock	ABERJUNA RIVER PROJECT NO SITE WELLS 5+1+, Wassury, MA  Hole No. FD-85-28 Diem. (Casing) A  Co-ordinates: N SEE E DARNING  Drilled by Dayis + HAWKING	Page   of Pages  Boring Started
Total Overbarden Orilled 40 Feet  Elevation Too of Book	Purpose of Exploration PIEZOMETER	INSTALLATION
From To and Type of Bit Used  O 40 A"ID AUSER  HYDRANT WATER USE DURING  ALL ORILLING  Page  Rock Brilling  Page  From	Total Overburden Drilled 40 Feet  Elevation Top of Rock M.S.L.  Elevation Bottom of Hole 3 M.S.L.  Total Rock Drilled 0 Feet  Total Depth of Hole 40 Feet  Core Recovered 5  Core Recovered Ft: Dies. In.  Soil Samelee In. Dies. No.	
SINISTE TESTING LAB	Preserved by PAUL FISHER  From To MI Type of Bit Used  O 40 A "ID AUSER  HYDRANT WATER USE DURING  ALL DRILLING  PROSERVED TO THE PROPERTY OF	Bround Water Back of Page  Boring Location Sketch Back of Page  Overburden Record Page  Rock Brilling Page  Page  Page  Page  Page

			PIEZ	OMETER INST	ALLATION REP	ORT		
חחת ובכד	. 4000				DATE.		1/25	
PROJECT	: FINERS	OVA P	<i>برر ق ول</i> ه ا0	FFSET FROM	<del></del>	1//	1/85	
		SEE DRAW		DEDE		RISE	PIEZ NO.:F7	D-85-28
PIEZ TY	'PE: Z g IP SET IN	5 Scotte	0,.0	10" OF PI - SOIL		DIAM	: <u>2</u>	
		MF SAN	o (s		E NO.: 55-		NG DIAM:	8"
METHOD	OF INSTALL	ATION:	F"IO	Augs	حرم			
TYPE OF FOR PIE	PROTECTIO	N "D × 1	O'Lon	is PIDE	_ VE	NT:	OCIT CA	P
GROUND	ELEV.:	43'	(	ELEV. TOP OF RISER:	45.7'	ELEV PIEZ	_	/
FILTER:	#2 9	SAND	FROM	ELEV:	3	ТО	ELEV:	7
SEAL:	3/8 Per	TONITE	FROM	ELEV:	フ	то	ELEV: /Z	<u>,                                     </u>
INSTALL	ED BY: D	avist 1	HANKI		CONTRACT 10.: Qo.	3 F0	REMAN: ノデ	3 +1 EX
DATE OF	INSTALLAT		1, 10.		DATE OF OBS		/	185
METHOD TESTING	OF G PIEZ.: /	Esec. v			- -		,,,,,	
) TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET
1434		2.77		IIIWOTES			MMOTES	:
1449	O	0			:			1
1	1/2	2.74	;					
1450	/	2.76						:
1451		2.77						:
REMARK	S: 2.7	RISER	Stick	0		<u>*</u>		<del>*************************************</del>
1	· · · · · · · · · · · · · · · · · · ·	MOEN	21101					•
						<u> </u>		
			<del></del>					
							····	
			<del></del>				•	
<del></del>								
						)	-	
!						F15	HER	

and the second second second second second second second second second second second second second second second



DACW-33-85-D-0011

### OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

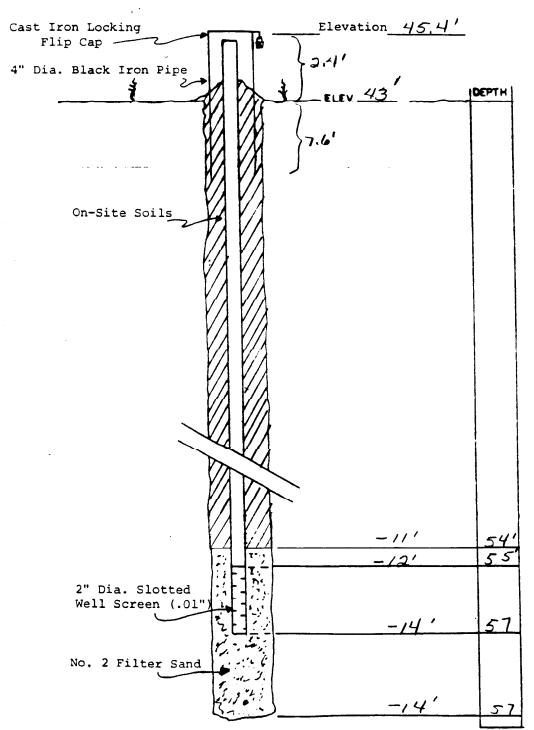
D.O.#0003

Aberjona River, Wells G&H

FD85- 29

Cluster No. 5- 92

/ • | • c f : Woburn MA



ABBRIUNA PIVER PROJECT N Site WELLS 6+H, WASURN, MA	00.0. 3 Page 1 of _2 Pages
Hole No. FD-85-29 Diem. (Casing) 7	Boring Started 11/1/85
Co-ordinates: N SEC E Denimines	Boring Completed ////95
Orilled by Davis + HAWITING	Report Submitted
Purpose of Exploration Pazumerson	INSTALLATION
Elevation Top of Hole	Casing Left in Place 10 Feet
Total Overburden Drilled 57 Feet	
Elevation Top of RockM.S.L.	SEE FD-85-25 FOR Soulou
Elevation Bottom of Hole	
Total Deeth of Hole 57 Feet	
Care Nacovered	
core RecoveresFt.;Dissin.	
Soil Samelesin. Dianin.	
Soil Samplesin. DiamNo.	Weter Table Depth 0.19
Death . Method of Brilling	11963
10 57 4" IO AUGER	Ground Water Back of Page
HYDRANTWATER USED	Boring Location SketchBock of Page
DURING ALL DRILLING	Overturden RecordPage
	Rock OrillingPage
	h
Preserved by PAUL FISHER FIELD BOLL	
Sumitted to ATLANTIC TESTIA	in lan
Mailton A The Color of Salar	

				PIEZ	OMETER INST	ALLATION REP	ORT		
	DDO.1FC	r. ABLA.	na R	1.62	an Ma	DATE.	-11/1	145	
	LOCATI	ON (STA):	SEL CAA.	C وزیرور م	FFSET FROM ENTER LINE:		DICE	PIEZ NO.: F	
	PIEZ T	YPE: Z "🍫	SLOTED	.01	DEPTH O OF PI	EZ: 5フ	DIAM		··
	PIEZ T (SOIL	IP SET IN TYPE): 🗡	7F SANO	(51	2011	FO-35- E NO.: 55-	<b>7</b> <	NG DIAM: 8	? ''
	METHOD	OF INSTALL	ATION:	9"IC	Auca	R			
	FOR PI	F PROTECTIO EZ: <del>✓</del>	in 1. p × 1.6	·Lones	PIRE	VE	NT: ∠	LOCK CA	م
	GROUND	ELEV.:	43'		ELEV. TOP OF RISER:	45.4'	ELEV PIEZ		7 '
	FILTER	:#2	SAND	FROM	ELEV:	-14	TO	ELEV: —	/ 1
	SEAL:	Mons		FROM	ELEV:		TO	ELEV: —	
	INSTAL	LED BY: 🔎	DAVIS +	HAWIS	ins N	ONTRACT O.: D,O,	3 F0	REMAN:	- 5 HER
		F INSTALLAT	ION: ///	///8	5	DATE OF OBS	ERVATION	S: ///4	185
	METHOD TESTIN	G PIEZ.: /	FALLIN	16 1	4000 T	Es,			
)	TIME	ELAPSED TIME MINUTES	DEPTH: TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET	TIME	ELAPSED TIME MINUTES	DEPTH TO WATER FEET
/	435		2.59		3	2,59			:
	456	<u> </u>	O			:			i
		15	222						!
	1		2.50						
			7.58		<u>.</u>			1	
	REMARK	s: 2-	7 RISER	Smo	- CO				
)							_		
1	1					F	P	THER	
	}					<del></del>	INS	SPECTOR	

and the second of the second o



## OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

Aberjona River, Wells G&H

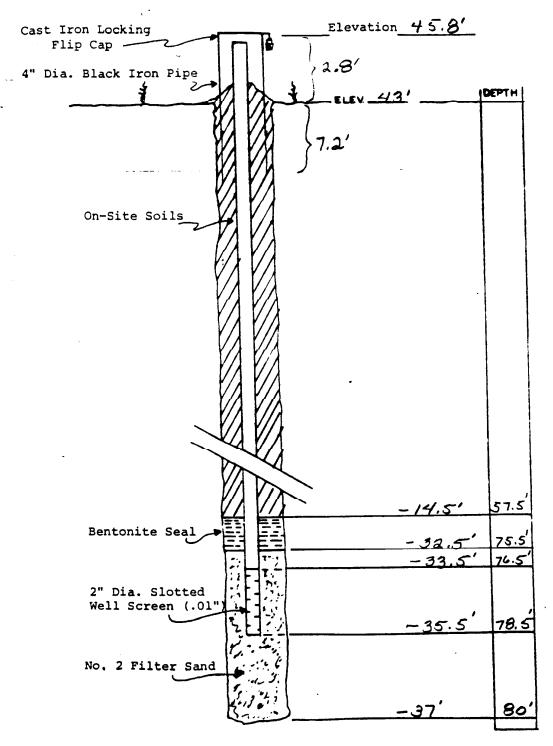
Project: Woburn MA

DACW-33-85-D-0011

Profest Me. D.O.#0003

Well we FD85- 25

Cluster No. 5-92



1	0	DACW-33-85-D-0011				
HOE	MONA RIVER PROJECT NO	). Do. #3				
Site_WE	LLS G+H WOBURN, MA	Page 1 of 5 Pages				
Hole No.Fo	-85-250im. (Casing) 4"	Boring Started 10 /30/85				
Co-ordinate	es: N SEE E PRAWING	Boring Completed 10/31/85				
Orilled by	DAVIE + HANKINS	Report Submitted				
Purpose of	Exploration Soil Sampline	AND PIRZOMETER				
1N57	ALLATION					
Slowetter Too	of Hole43M.S.L.					
	: 20	Casing Left in Place / OTAL / O Fee				
	of RockN.S.L.					
	rilled Feet					
	of HoleFeet					
Coré Recovere						
	H					
		. /				
Soil Samples	In. DianNo.	Water Table Deeth				
Dooth	Method of Drilling	IIIG				
Free To	and Type of Bit Unid	Ground Mater Back of Page				
	4" PRIVEN CASING AND 37/3 ROLLER BIT	Boring Location Shotch Back of Page				
	HYDRANT WATER USE DAING	Overturden RecordPage				
	ALL DRILLING	Rock Brilling Page				
		hp_				
	Property - PRUL FISHIER					
•	A Plate lote	<b>UK 30</b>				
:	Somitted to ETLANTIC EST L	48				

Total Rock Drilled  Elevation Bottom of Boring  Total Depth of Boring  Core Recovered  F1 : Did  Soil Samples	Boring No. 50-85-25 Desig. 25  G Co-ordinates: N Sec Opp.  M.S.L. Hemmer Wt. 140  Feet Hammer Drop 30  M.S.L. Casing Left 4"  Feet   Subserfece Water 37 M.S.L. Obs. Well 2"  Feet Drilled By 90  Mfg. Des. Drill 28  am	Boring Sterted 10/30/85
Soil Samplesin. Did DEPTH CORE/SAMPLE BLOWS PER FT.	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIAL
1.5 = 55.1   18 2111 GAAB SAME  5 = 55.2   10 Watt  10 = 55.3   100 234	DRIVEN 4" CARING WASHED WITH 376 ROLLER BIT	pat, bit in sust
GENERAL REMARKS		black seit of sand to cray, moust

NED FORM 58 (Test)

Boring No. FD-85-25

-		ABE				<del></del>	-	Boring No.	- 35-25	Page 2
	<u> </u>	WOB	URIV,	1/6	L				- 33 3	01
		EPTH	COR Ná			PER FT. CORE REC'VY		ING AND CORING	CLASSIFICATION OF	MATERIALS
		% % }	55-6		100	<sup>3</sup> 3 <sub>2</sub>		Pasua (4") wash (3%)	black Aut, Som	201
	I	30	\$5-7		100	965			black mf san	a
		35 	55-8		D	5 4 q		· ·	- charai; firs	- the sance.
-	- 1	40 — 40 — 41.6 —	55-9		0	546	w \$		Ton, m Fsico	
		k					34 0 J			
		46.5 1	<b>S</b> S-10			<sup>8</sup> ≤8			Symilar Soldani	15 55-7
	]	31.5	\$5-11		100	747			Similar Soils	4 559
	5	25	53.12		100	1399			Eunior sous Nos tremos Con	
	1	6 - 1 15 - 1	25-13		100	"77			Similar Soils NUS DETECTED CO	As 55-9 NTAMINAUTS
	6	5-5-6-5-	55-14		80	742		Y	similar Soils	A2 35.9

) FORM 58A(Test)

Boring No FD-85-25

The state of the s

sile An						Boring No.	7 - 5	15-25		Page 3	
DEPTH	COF	RE/SA	MPLE	BLOWS PER FT	SAMPLI	NG AND CORIN	ıG			*···	j
r:	NQ	SIZE	PANGE	CORE	OPE	RATIONS		CLASSIFICA	TION OF	MATER IALS	
	=										-1
//o			·00	"124							1
715	-			4		,		SAME A	7 55	- 9	-
	₹										1
75	1										ì
3.5	5-76		ಾಂ	Π94				SAMEA.	55-	9	
	3										1-
80	1				END OF	EXPLORATIO	<b></b> )				-
						,					+
-	<b>†</b> ···										
	=										ł
-	1										
-			:								
	1										!
	-										
	3										1
, ], =											-
-	1										
=											F
-				.							
									•		-
											-
							ĺ			·	L
								•	•		١.
											F
=		İ	- 1				1				F

MRM 58A(Test)

Boring No. FD-85-25

			PIEZO	METER INST	ALLATION REP	ORT		
PROJECT	: ABERS	UNA R.	4/08	URN NI	DATE.	101	131 /85	
		SEE On	OF	FFSET FROM INTER LINE:		D. C. C.	PIEZ NO.: F	D-85-25
PIEZ TY	D CET IN	\$ Scotte		ולחלו		/ RISE	: <u>Z</u>	
(SOIL T	YPE):	ME SAN	10 (57	SAMPL	E NO.: 55-	76 BORII	NG DIAM: 9	2 "
	OF INSTALL	ATION:	4"6	PRIVER	CA5, NG	, 37	Rouer	BIT
FOR PIE	PROTECTIO	#" \$ X		No PA	VE VE		OCIT CA	.A
GROUND	ELEV.:	43'		LEV. TOP OF RISER:	45.8'	ELEV PIEZ	TIP: -35	5.5'
FILTER:	# 2_	SANO	FROM	LEV:	- 37′	ТО	ELEV: - 3	<b>2</b> .5
SEAL:	BENTONIS	re Swaa	FROM I	ELEV:	3Z.5 ONTRACT	T0	ELEV: -/	4.5
INSTALL	ED BY: J	DAVIS &	HANN		0.: 20.	<b>₃</b> F0	REMAN:	SHER
DATE OF	INSTALLAT	TION: 10	131/	85	DATE OF OBS	ERVATION	s: 11/4	185
	PIEZ.: ELAPSED	JACLUA DEPTH: TO	is He	ELAPSED	DEPTH TO		ELAPSED	DEPTH TO
TIME	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WATER FEET
1432		2.76	1941	3	271	_		:
1438	0	0	14.42	4	2.76			!
	1/2	2.42			:			1
1439		2.56						
1440		2.64			· · · · · · · · · · · · · · · · · · ·		*	
REMARKS	S: 28	RISER STIC	KUP					
!							·•.	
						·		
: 							•	•
1 :					_	<u> </u>		
1						TIN	SPECTOR	
į					•	A 17.		

. . . . .

. .



### OBSERVATION WELL INSTALLATION DETAIL

ARMY CORPS OF ENGINEERS, NED

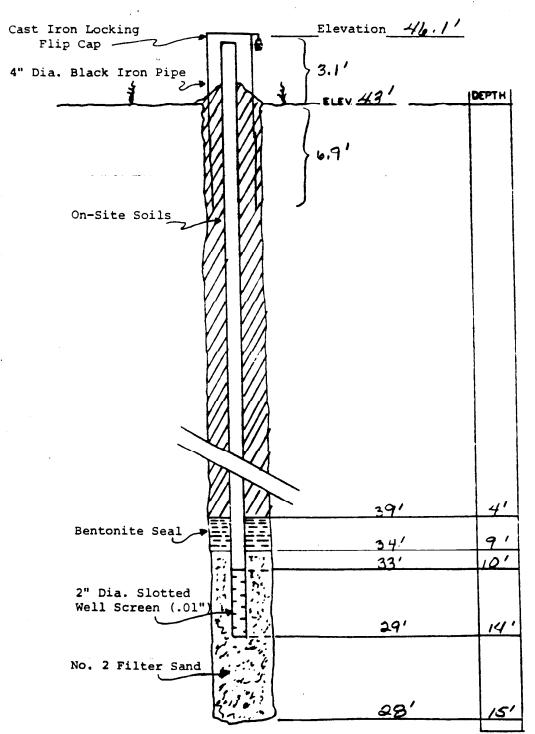
DACW-33-85-D-0011 Profess Web. D.O. #0003

Aberjona River, Wells G&H

Wall wa FD85-23

\*\* Woburn MA

Cluster No. 5-93



ABERIONA RIVER Site WELLS G+ 1+, 2 Hole No. FD-85-23 Diam. (Casing)	4	Boring Started 10	29/05
Co-ordinates: N SEE E	BOKE	Boring Completed	
Purpose of Exploration	EZOMETE	RINSTALLATION	
Elevation Top of Note		Casing Left in Place	OTAL 10
Elevation Top of Rock  Elevation Bottom of Hole 28  Total Rock Brilled 0  Total Beeth of Hole 15  Core Recovered Ft.: Discount In Additional Page 15	M.S.L. FeetSeet	SEC FO-65-19	FUR SOIL LOG
Soil Samplesin. Di		Weter Table Dooth 0.21	
Dooth No thod of From To and Type of O 15 4" I D AUGER HYDRANT WOOLA ALL DRILLING	USED DURING	Boring Location Sketch  Overburden Record  Reck Brilling	Pogo _
			Prop
)	FISHER FIOLE TESTIA	16 LAB	GL BG

			PIEZO	METER INS	TALLATION REP	ORT			
neo icct	· Age	INA R.	Ti.	LOBURN	DATE	10	129/8	<u> </u>	
			OF	FSET FROM			PIEZ NO.:FD	-85-23	
		SEE DRA			Η , ,	RISER	PIPE _ 4		
PIEZ TYPE: Z" & Seate .010" OF PIEZ: 14 DIAM: Z  PIEZ TIP SET IN  SOIL FO-85-19 SAMPLE NO.: 5.3 BORING DIAM: 8"									
(SOIL T	YPE): M	4 SANO	(50		LE NO.: 53	BORIN	اG DIAM: ک	3	
METHOD OF INSTALLATION: 4" ID AUGER									
FOR PIEZ: A"6 X 10 LONG PROE VENT: LOCK CAP									
GROUND		43'	į	LEV. TOP OF RISER:	46.1	ELEV PIEZ	TIP: 29		
	#2	SAND	FROM	ELEV:	2 <i>8</i> ′	TO 1	ELEV: 34	<i>f</i>	
	3/0 PELTE		FROM		34.	TO	ELEV: 3	<del>7</del> ′	
					NO .: D.O.		REMAN: FI	SHER	
		AMBRICHE						0/85	
METHOD	F INSTALLA OF	_	129/3		DATE OF OBS	SERVATION	3. / 5/ 9=	/ 0	
TESTIN	G PIEZ.: ELAPSED	DEPTH: TO	- HEA	ELAPSED	I DEPTH TO	1	ELAPSED	DEPTH TO	
TIME !	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	WATER FEET	TIME	TIME MINUTES	' WATER : FEET	
09 30		3,31						•	
.1	0	0	<del>  </del>			·			
09 45					•	i			
	1/2	3.24				· ·			
0946		3.3/	<u> </u>						
i						<u>.</u>			
REMARKS: 3.1 RISER STICK UP									
		- 2'5,	OTTER	SCRE	en Usec	For	PIERO		
<del></del>			· · · · · · · · · · · · · · · · · · ·						
`									
9			•			FISHE	. 0		
:						IN	SPECTOR		