

APPENDIX B

BORINIG LOGS AND WELL CONSTRUCTION LOGS

HTRW DRILLING LOG

HOLE NUMBER

GSBP-83-MW01

1. Company name: **IT Corporation**

2. Drill Subcontractor: **MILLER DRILLING**

Sheet 1 of 5 sheets

3. Project: **Fort McClellan**

4. Location: **Parcel 83**

5. Name of driller: **Ken Gobell**

6. Mfr. designation of drill: **CME-550**

7. Sizes and types of drilling and sampling equipment:

Hollow Stem Auger

5'x8.5"od augers

2'x2" steel split spoons

8. Hole location **NW of Bldg. 2252**

9. Surface elevation (feet above mean sea level): **719.94**

10. Date started: **08/02/99**

11. Date completed: **08/03/99**

12. Overburden thickness (feet bgs): **>30**

15. Depth groundwater encountered (feet bgs): **19 Ft**

13. Depth drilled into rock (feet bgs): **0**

16. Depth to water and elapsed time after drilling completed (feet bgs): **NA**

14. Total depth of hole (feet bgs): **30**

17. Other water level measurements (specify): **NA**

18. Geotechnical samples: **NA**

Disturbed:

Undisturbed:

19. Total no. of core boxes: **NA**

20. Samples for chemical analysis:

VOC

Metals

Other (specify)

Other (specify)

Other (specify)

21. Total core recovery:

X

X

CL Pest

CL Herb

SVOCs

NA

22. Disposition of hole:

Backfilled

Monitoring well

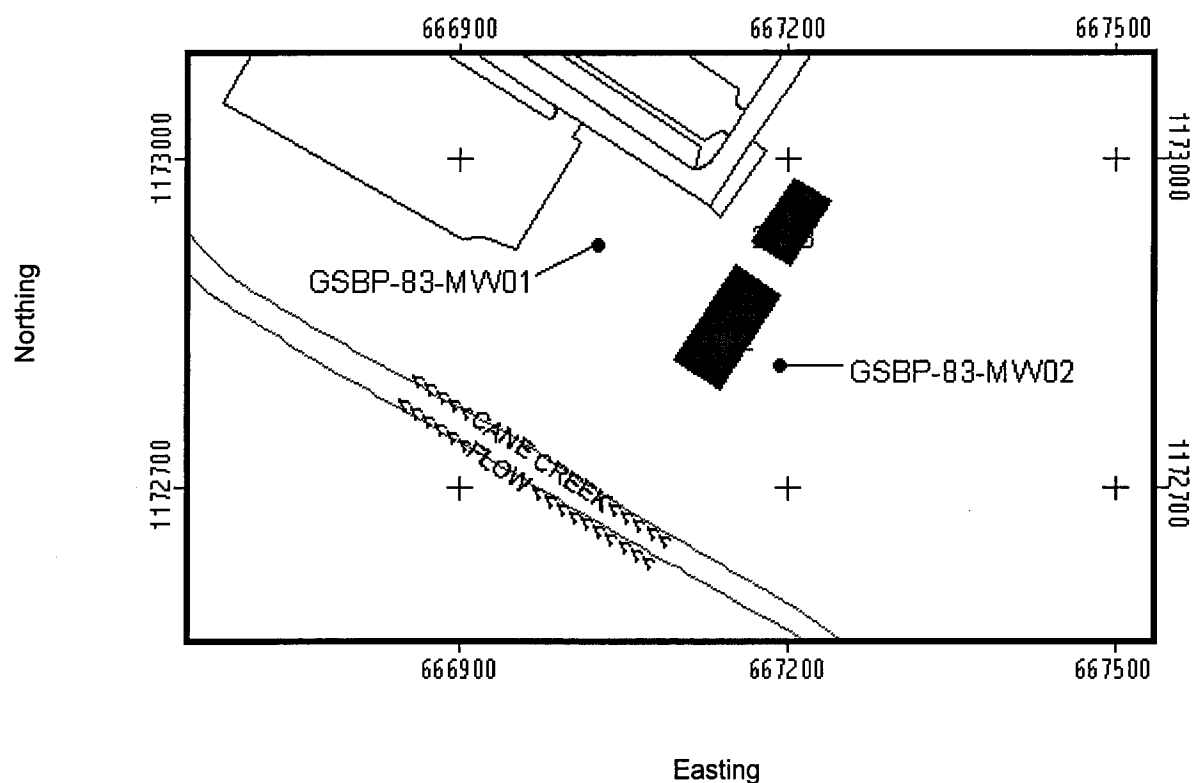
Other (specify)

Geologist:

JOSH JENKINS

Permanent

LOCATION SKETCH/COMMENTS:



Project: **Fort McClellan**

bgs= below ground surface
NA = Not applicable

Hole no.: **GSBP-83-MW01**

HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: GSBP-83-MW01

Project: Fort McClellan

Geologist: JOSH JENKINS

Sheet 2 of 5 sheets

Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow counts (g)	Remarks (h)
0	0	ml: Light brown, dry, SILT, trace coarse Sand and Gravel, grading to yellowish orange at 0.4', coarse Gravel in tip of spoon.	ml		Organic Vapor = 1.3ppm				Rec 1.4'/2.0' Blow 9, 9 25 50/5"
1	1	ml: Yellowish orange SILT and gray, coarse Limestone Gravel.	ml						
2	2		ml						
3	3		ml						
4	4	cl-ml: Light brown and greenish mottled SILT and CLAY, relict bedding structure present, moderately plastic, dry.	cl-ml		Organic Vapor = 0.0ppm				Rec 2.0'/2.0' Blow 5 10 15 24
5	5		cl-ml						
6	6	ml: Light brown and light gray mottled SILT, little Clay, some oxidation apparent, relict bedding structure, firm dry.	ml		Organic Vapor = 0.0ppm				Rec 2.0'/2.0' Blow 10 19 25 50/6
7	7		ml						
8	8	ml: Light brown and light gray mottled SILT, little Clay, little Quartz Gravel, relict bedding structure, firm, dry, low plasticity.	ml		Organic Vapor = 0.0ppm				Rec 2.0'/2.0' Blow 14 18 28 50/5"
9	9		ml						

HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: GSBP-83-MW01

Project: Fort McClellan

Geologist: JOSH JENKINS

Sheet 4 of 5 sheets

Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow counts (g)	Remarks (h)
20	20	sh: Olive gray weathered SHALE, dry-damp.	sh						
	21								
	22								
	23								
	24								
25	25								
	26								
	27								
	28								
	29								
		Bottom of borehole is 30'.							

HTRW DRILLING LOG (Continuation Sheet)							HOLE NUMBER: GSBP-83-MW01		
Project: Fort McClellan				Geologist: JOSH JENKINS			Sheet 5 of 5 sheets		
Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow counts (g)	Remarks (h)

HTRW DRILLING LOG

HOLE NUMBER

GSBP-83-MW02

1. Company name: **IT Corporation**

2. Drill Subcontractor: **MILLER DRILLING**

Sheet 1 of 3 sheets

3. Project: **Fort McClellan**

4. Location: **Parcel 83**

5. Name of driller: **Ken Gobell**

6. Mfr. designation of drill: **CME-550**

7. Sizes and types of drilling and sampling equipment:

Hollow Stem Auger

5'x8.5"od augers

2'x2" steel split spoons

8. Hole location **E of Bldg. 2252**

9. Surface elevation (feet above mean sea level): **718.82**

10. Date started: **08/02/99**

11. Date completed: **08/03/99**

12. Overburden thickness (feet bgs): **>16**

15. Depth groundwater encountered (feet bgs): **16 Ft**

13. Depth drilled into rock (feet bgs): **0**

16. Depth to water and elapsed time after drilling completed (feet bgs): **NA**

14. Total depth of hole (feet bgs): **16**

17. Other water level measurements (specify): **NA**

18. Geotechnical samples: **NA**

Disturbed:

Undisturbed:

19. Total no. of core boxes: **NA**

20. Samples for chemical analysis:

VOC

Metals

Other (specify)

Other (specify)

Other (specify)

21. Total core recovery:

X

X

CL Herb

CL Pest

SVOCs

NA

22. Disposition of hole:

Backfilled

Monitoring well

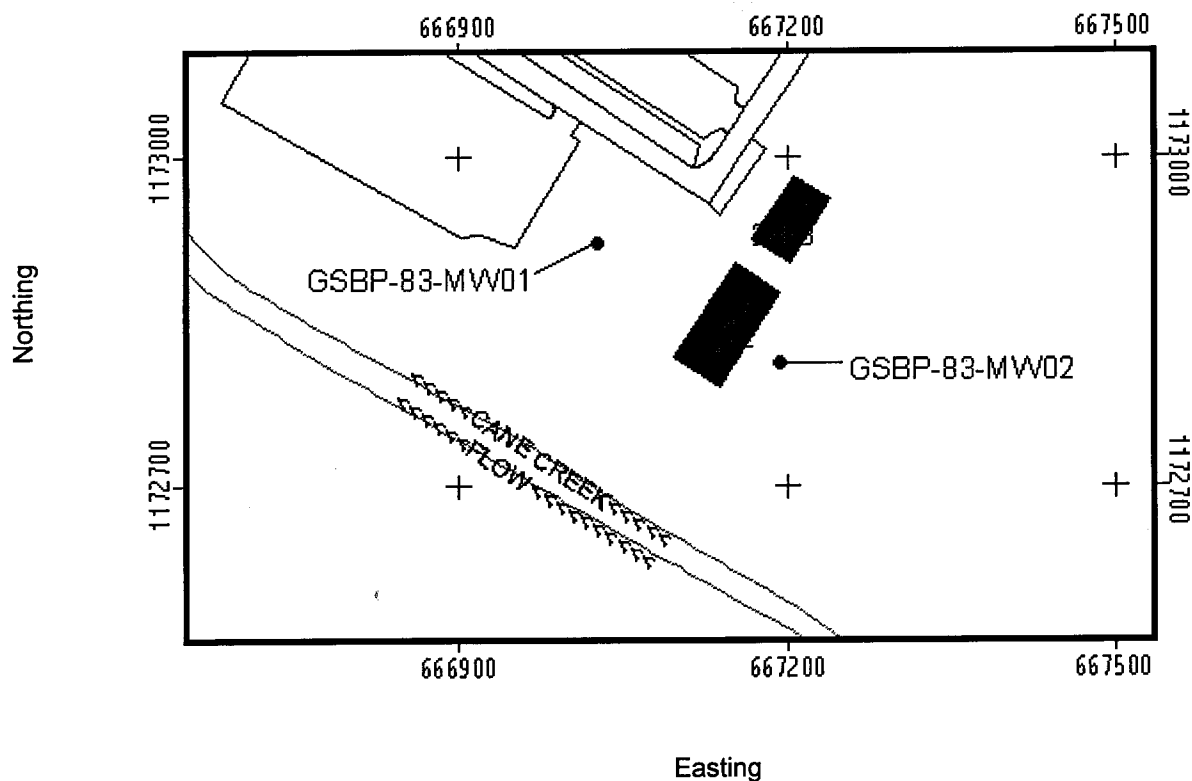
Other (specify)

Geologist:

JOSH JENKINS

Permanent

LOCATION SKETCH/COMMENTS:



Project: **Fort McClellan**

bgs= below ground surface
NA = Not applicable

Hole no.: **GSBP-83-MW02**

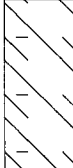
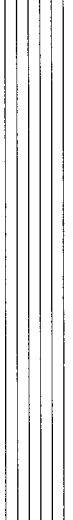
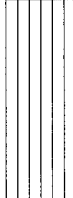
HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: GSBP-83-MW02

Project: Fort McClellan

Geologist: JOSH JENKINS

Sheet 2 of 3 sheets

Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow counts (g)	Remarks (h)
0	0	cl-mi: Brown SILT, little coarse Sand, firm, dry, some Clay, becoming more plastic at 1.0' below ground surface with less coarse Sand.	cl-mi		Organic Vapor = 0.0ppm				Rec 2 1/2' Blow 7 8 10 9
1									
2		cl-mi: Orange yellow and light gray mottled CLAY, some Silt, moderately plastic, little medium to fine Sand, dry.			Organic Vapor = 0.0ppm				Rec 2 1/2' Blow 5 5 7 10
3			cl-mi						
4		cl-mi: Orange yellow and light gray mottled CLAY, some Silt, low- medium plasticity, grading to gray SILT at 5.0', little CLay and coarse Quartz Sand, relict bedding structures present, firm, low plasticity, dry.	cl-mi		Organic Vapor = 0.0ppm				Rec 1.7 1/2.0' Blow 3 3 12 24
5		mi: Dark gray SILT, some coarse Quartz Sand, near vertical relict bedding structures, dry, non-plastic, firm.	mi		Organic Vapor = 0.0ppm				
6					Organic Vapor = 0.0ppm				
7									
8		mi: Dark gray SILT, little Quartz Sand, near vertical relict bedding, Shaley, dry.	mi		Organic Vapor = 0.0ppm				Rec 1.0 1/2.0' Blow 13 50/6
9									

HTRW DRILLING LOG (Continuation Sheet)							HOLE NUMBER: GSBP-83-MW02		
Project: Fort McClellan				Geologist: JOSH JENKINS			Sheet 3 of 3 sheets		
Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow counts (g)	Remarks (h)

10	10	ml: Dark gray SILT, little Quartz Sand, near vertical relict bedding, Shaley, dry.	ml		Organic Vapor = 0.0ppm				Rec 0.5'/2.0' Blow 50/5"	10
	11									11
	12	NA: No recovery.	NA							12
	13									13
	14	ml: Black Shaley SILT and weathered SHALE, dry to damp.	ml		Organic Vapor = 0.0ppm				Rec 0.5'/2.0' Blow 13 24 50/4"	14
15	15									15
	16								Auger refusal at 16'. Bottom of borehole is 16'.	16

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Boring Log Report Form

Boring No. SIQ-GWS 01BPage 1 of 2Client USACEESE Project FTMC-SISite Location SI 67ESE Project No. 3196314GESE Field Crew Leader: Rich HillESE Project Manager William ElliottDate Start 5-18-98Finish 5-18-98Drill Type GeoprobeContractor: Graves ServicesDriller Josh ConveyBoring Depth 8' 8"Diameter 2"Geologist: Rich HillBoring Location See Map

Depth (ft)	Sample Interval	Sample #	Sample Type	Blows per 6 Inches	Soil Headspace	Breathing Zone	DESCRIPTION	USCS Classification	REMARKS
0							0-5' - Silty Sand, 25% silt, brownish yellow, (10YR-6/8), non-plastic, medium dense, subangular, poorly graded, moist to wet at	SM	
5							5-8' 8" - Shale, dark yellowish brown (10YR-4/4), non plastic, medium dense, wet		- BCH = 8' 8"
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
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Boring Log Report Form

Boring No. SI07-GW-S03Page 1 of 2Client USACEESE Project FTMC-SISite Location SI07ESE Project No. 3196314GESE Field Crew Leader: Rich HillESE Project Manager William ElliottDate Start 5-18-98 Finish 5-18-98Drill Type GeoprobeContractor: Graves ServicesDriller Josh BreyBoring Depth 7' Diameter 2"Geologist: Rich HillBoring Location See MAP

Depth (ft)	Sample Interval	Sample #	Sample Type	Blows per 6 Inches	Soil Headspace	Breathing Zone	DESCRIPTION	USCS Classification	REMARKS
0'-4'							0'-4' - SILTY SAND WITH GRVEL, DARK BROWN (2.54R-3/4), 30% SILT, 20% GRAVEL, NON-PLASTIC, VERY DENSE, ROUNDED TO SUB-ROUNDED, DRY.	SM/GR	
4'-7'							4'-7' - SILTY SAND, 10% SILT, VERY PLE BROWN (10YR-8/4), NON-PLASTIC, LOOSE, ROUNDED, DRY. PERIODIC LARGE QUARTZ COBBLES (3+ inches).	SM/GR	-TD = 7'
7'-10'									
10'-13'									
13'-16'									
16'-19'									
19'-22'									
22'-25'									
25'-28'									
28'-31'									
31'-34'									
34'-37'									
37'-40'									
40'-43'									
43'-46'									
46'-49'									
49'-52'									
52'-55'									
55'-58'									
58'-61'									
61'-64'									
64'-67'									
67'-70'									
70'-73'									
73'-76'									
76'-79'									
79'-82'									
82'-85'									
85'-88'									
88'-91'									
91'-94'									
94'-97'									
97'-100'									

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Boring Log Report Form

Boring No. SLC7 - GWS5 Page 1 of 2

Client USACE
 Site Location SLC7
 ESE Field Crew Leader: Rich Hill
 Date Start 5-18-98 Finish 5-18-98
 Contractor: Graves Services
 Boring Depth 10' Diameter 2"
 Boring Location See MAP

ESE Project FTMC-SI
 ESE Project No. 3196314G
 ESE Project Manager William Elliott
 Drill Type Geoprobe
 Driller Justin Lacey
 Geologist: Rich Hill

Depth (ft)	Sample Interval	Sample #	Sample Type	Blows per 6 inches	Soil Headspace	Breathing Zone	DESCRIPTION	USCS Classification	REMARKS
2							0'-4.5' SILTY SAND, DARK RED (2.5YR-3/6), 25% SILT, NON PLASTIC, MED. DENSE, POORLY GRADED, DRY.	SM	
4							4.5'-7' SLAYEY SAND, 25% CLAY, SLINGY BROWN (7.5YR-5/6), MED. PLASTIC, DENSE, WET AT 7'-8'	CL	
6							7'-10' - Shale, Grey (7.5YR-5/1), NON PLASTIC, MED. DENSE, WET.	Rx	-BLH = 10'

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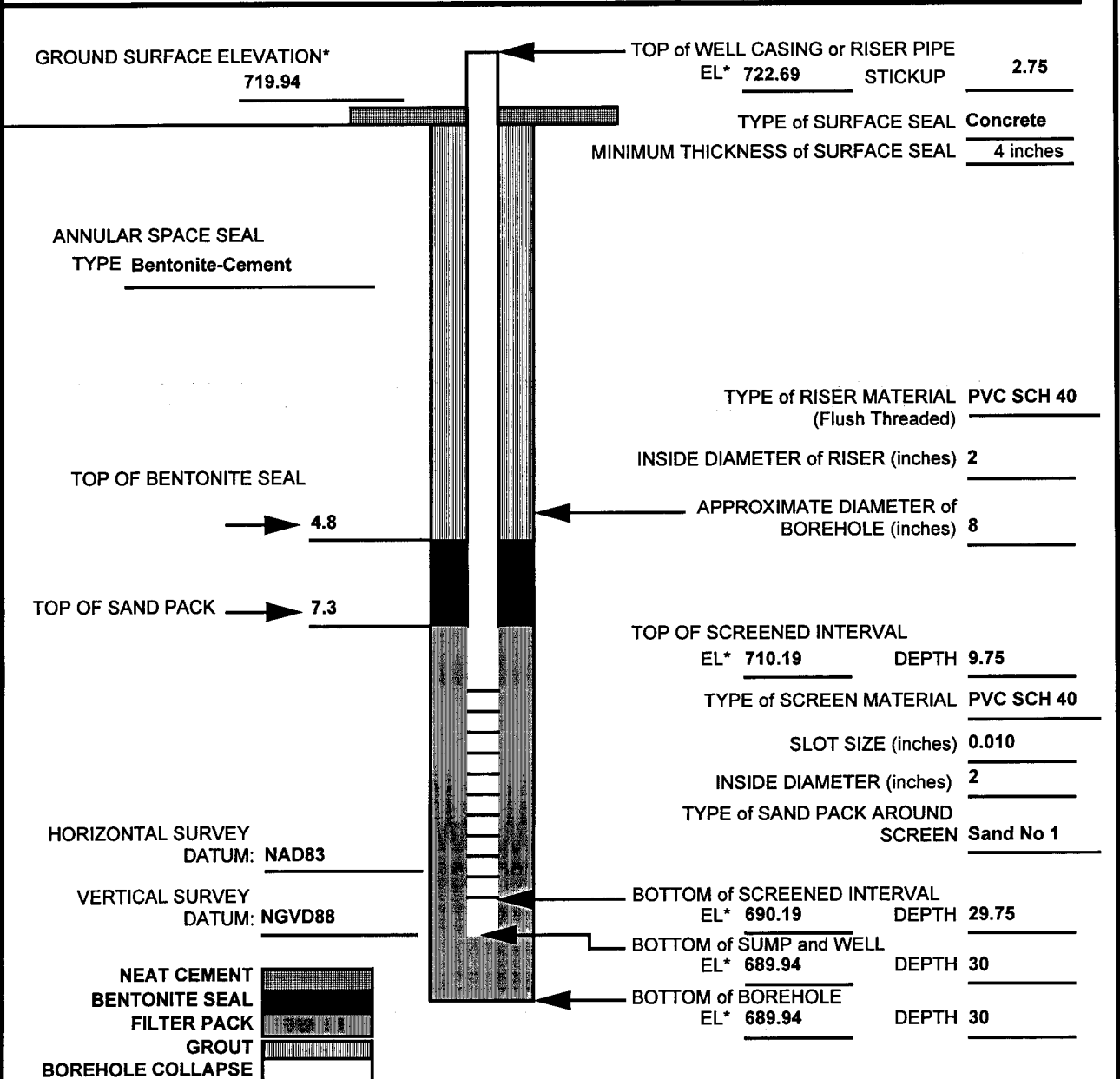
Boring Log Report Form

Boring No. SI07-GWS6 Page 1 of 2Client USACEESE Project FTMC-SISite Location SI07ESE Project No. 3196314GESE Field Crew Leader: Rich HillESE Project Manager William ElliottDate Start 5-18-98 Finish 5-18-98Drill Type GeoprobeContractor: Graves ServicesDriller JOHN RILEYBoring Depth 9 1/2' Diameter 2"Geologist: Rich HillBoring Location SEE MAP

Depth (ft)	Sample Interval	Sample #	Sample Type	Blows per 6 Inches	Soil Headspace	Breathing Zone	DESCRIPTION	USCS Classification	REMARKS
2'							0'-3 1/2' - SILTY SAND, 25% SILT, YELLOWISH BOD (SYR 14-6), New Plastic, med. Dense., Dry.	SM	COLLECTED SAMPLE S506A (EFMIS#34) FROM 0-1'
4'							3 1/2' - CLAYEY SAND, 20% clay, BROWN (SYR-513), SLIGHTLY PLASTIC, MED. DENSE POWDERY GRADED, MOIST	SC	COLLECTED SAMPLE S506B (EFMIS#35) FROM 3-4'

MONITORING WELL INSTALLATION DETAIL

PROJECT: Fort McClellan, SAD TERC	WELL NO: GSBP-83-MW01
LOCATION: Anniston, AL	DRILLING METHOD: Hollow Stem Auger
CLIENT: USACE Mobile District	INSTALLATION DATE: 08/03/99
CONTRACTOR: MILLER DRILLING	NORTHING: 1172918.09
DRILLER: ITC	EASTING: 667026.59
IT FIELD REPRESENTATIVE: JOSH JENKINS	JOB NO: 774645A



*All elevations (EL) are referenced to MSL.

All depths and heights are given in feet and are referenced to the ground surface.

MONITORING WELL INSTALLATION DETAIL

PROJECT: Fort McClellan, SAD TERC

LOCATION Anniston, AL

CLIENT: USACE Mobile District

CONTRACTOR MILLER DRILLING

DRILLER: ITC

IT FIELD REPRESENTATIVE: JOSH JENKINS

WELL NO: GSBP-83-MW02

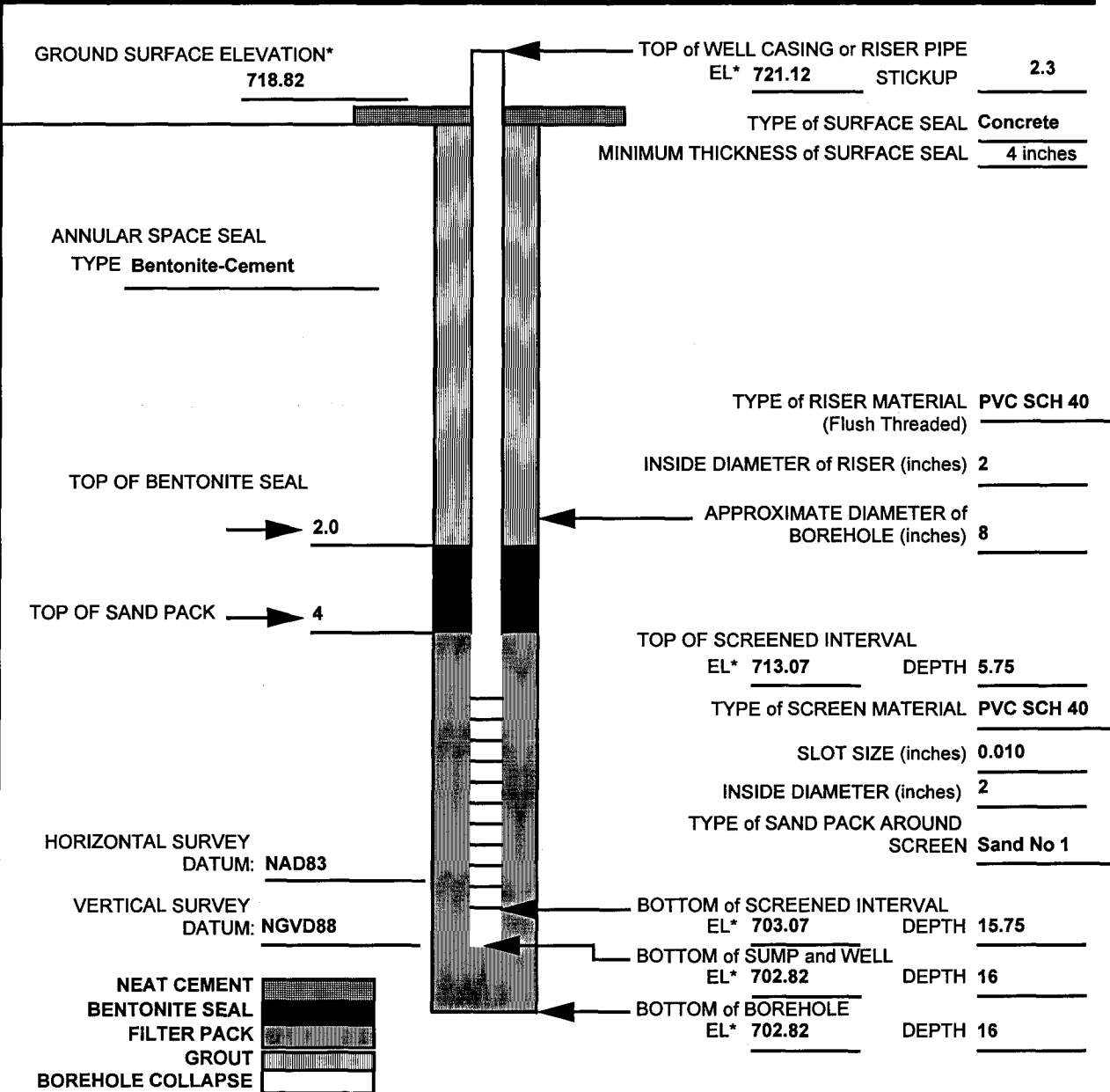
DRILLING METHOD:
Hollow Stem Auger

INSTALLATION DATE 08/03/99

NORTHING: 1172809.62

EASTING: 667192.94

JOB NO: 774645A



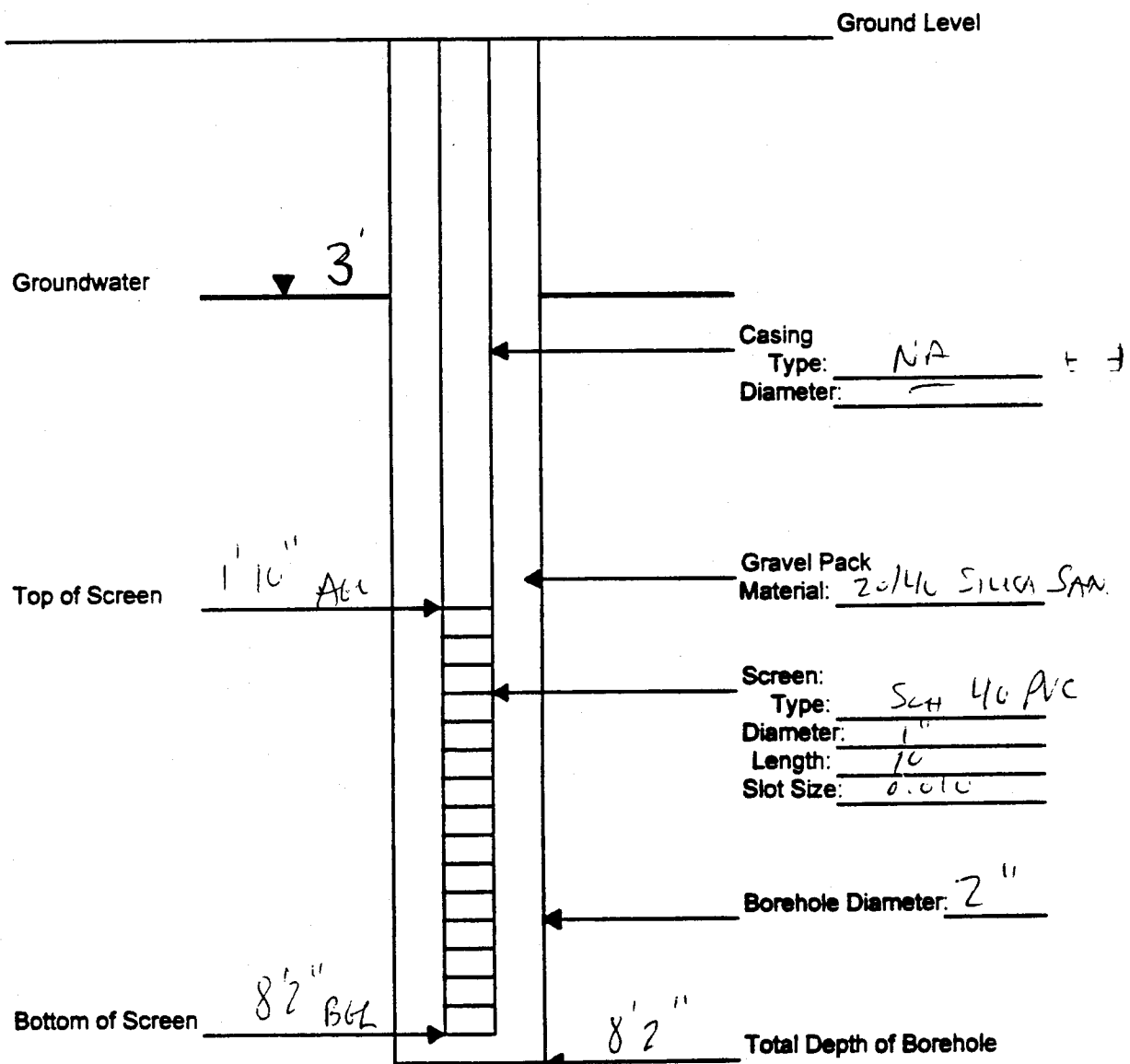
*All elevations (EL) are referenced to MSL.

All depths and heights are given in feet and are referenced to the ground surface.

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QST Temporary Monitor Well Construction Log

Well ID: SI07-GW501 Project #: 3196314G
 Logged By: RA HILL Client: USACE
 Drilling Contractor: GRAVES Start Date/Time: 5-18-98
 Driller's Name: R.A. HILL Finish Date/Time: 5-18-98
 Comments: SFT GW501 to 8' 2". Refusal @ 8' 2" IN
PVC FRAGMENTS AT 4' & SEWAGE ODOR. RIG (DRILLED THROUGH) A PVC
UP STATION PIPE (2" DIA). THIS GWS POINT WAS ABANDONED (NOT SET) AND REPLACED
 Depths are in Reference to Ground Level with SI07-GW501B



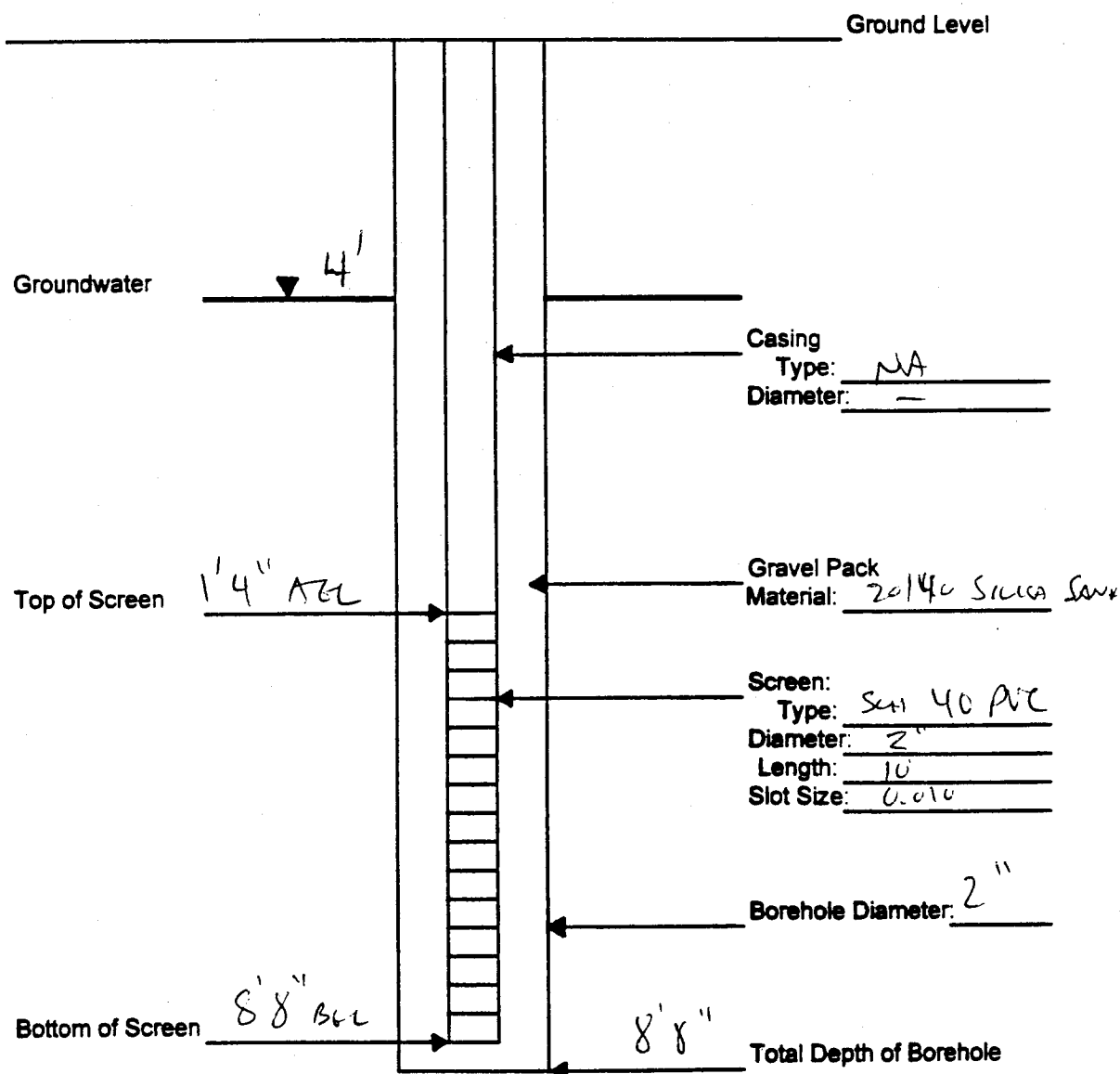
QST Temporary Monitor Well Construction Log

Well ID: SIOT-GWSCI B
Logged By: R. A. Hill
Drilling Contractor: GRAVES
Driller's Name: Jeff Toney

Project #: 3196314G
Client: USACE
Start Date/Time: 5-18-98
Finish Date/Time: 5-18-98

Comments: SIOT-GWSCI was pulled out. THIS is the replacement well. Set GW SCI
to 8' 8" Refusal @ 8' 8" in Shale.

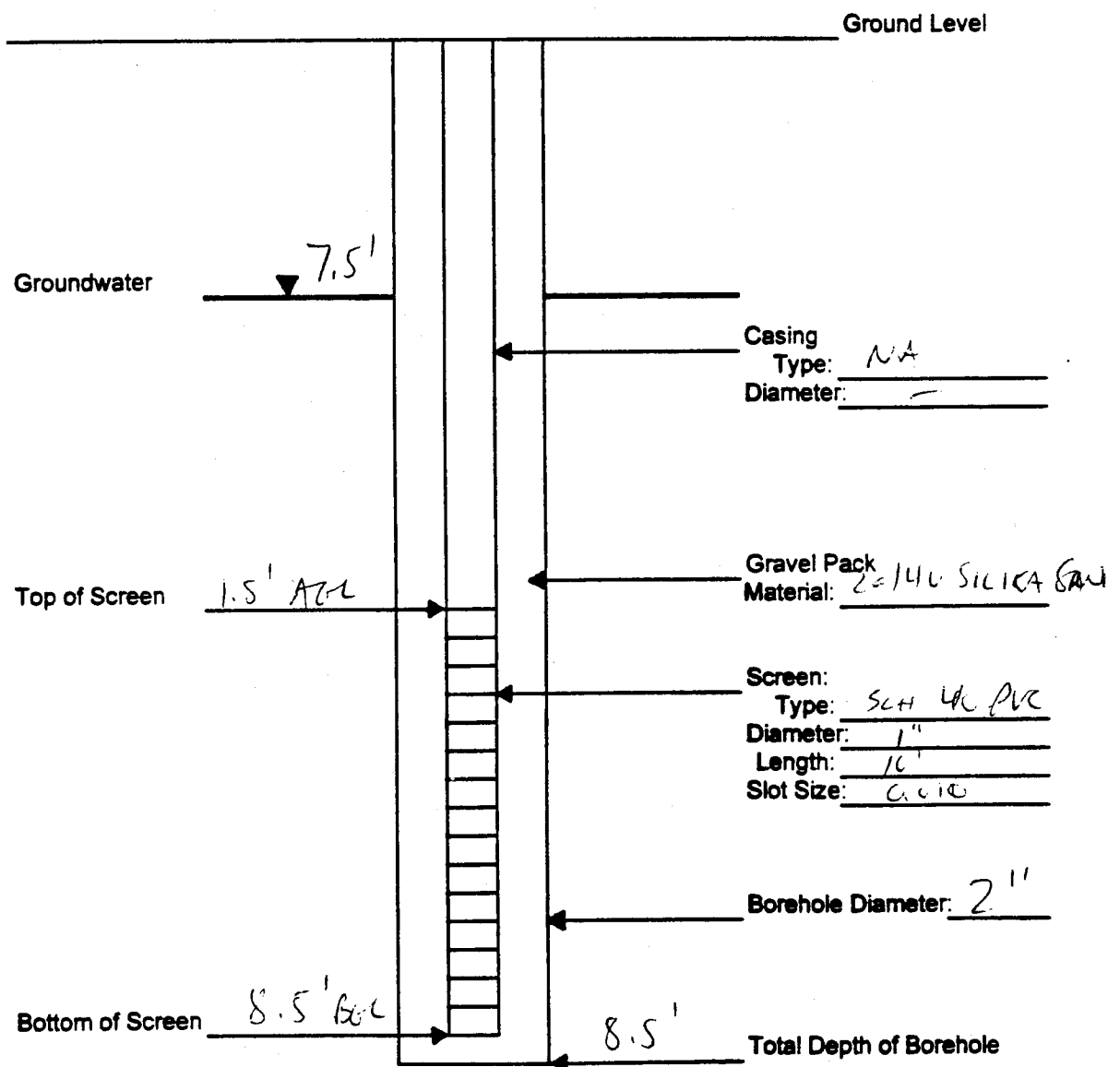
Depths are in Reference to Ground Level



QST Temporary Monitor Well Construction Log

Well ID: SIT-66502 Project #: 3196314G
Logged By: RA Hill Client: USACE
Drilling Contractor: GRAVES Start Date/Time: 5-18-93
Driller's Name: JUST TERRY Finish Date/Time: 5-18-93
Comments: SET SIT-66502 to 8.5' BGL. Refusal @ 8.5' in Shale.

Depths are in Reference to Ground Level



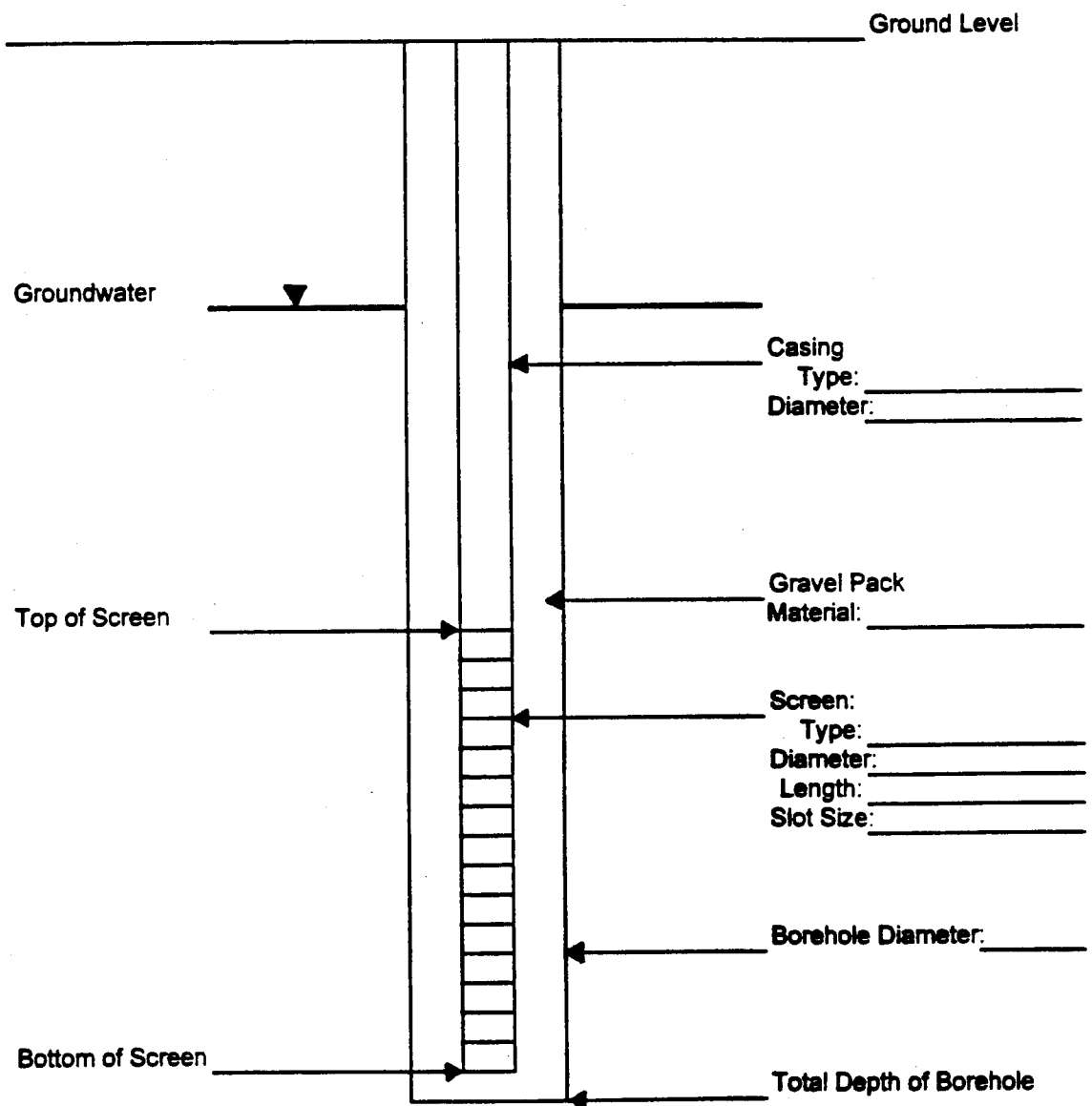
13 2 of 2

QST Temporary Monitor Well Construction Log

Well ID: SIC7-GW503 Project #: 3196314G
Logged By: RAH Client: USACE
Drilling Contractor: GRAVES Start Date/Time: 5-18-98 0950
Driller's Name: JOSH Wiley Finish Date/Time: DID NOT FINISH
Comments: DID NOT INSTALL GW503, DRY HOLE, PERHAPS
@ 7' IN GRAVELY SAND.

Depths are in Reference to Ground Level

NA

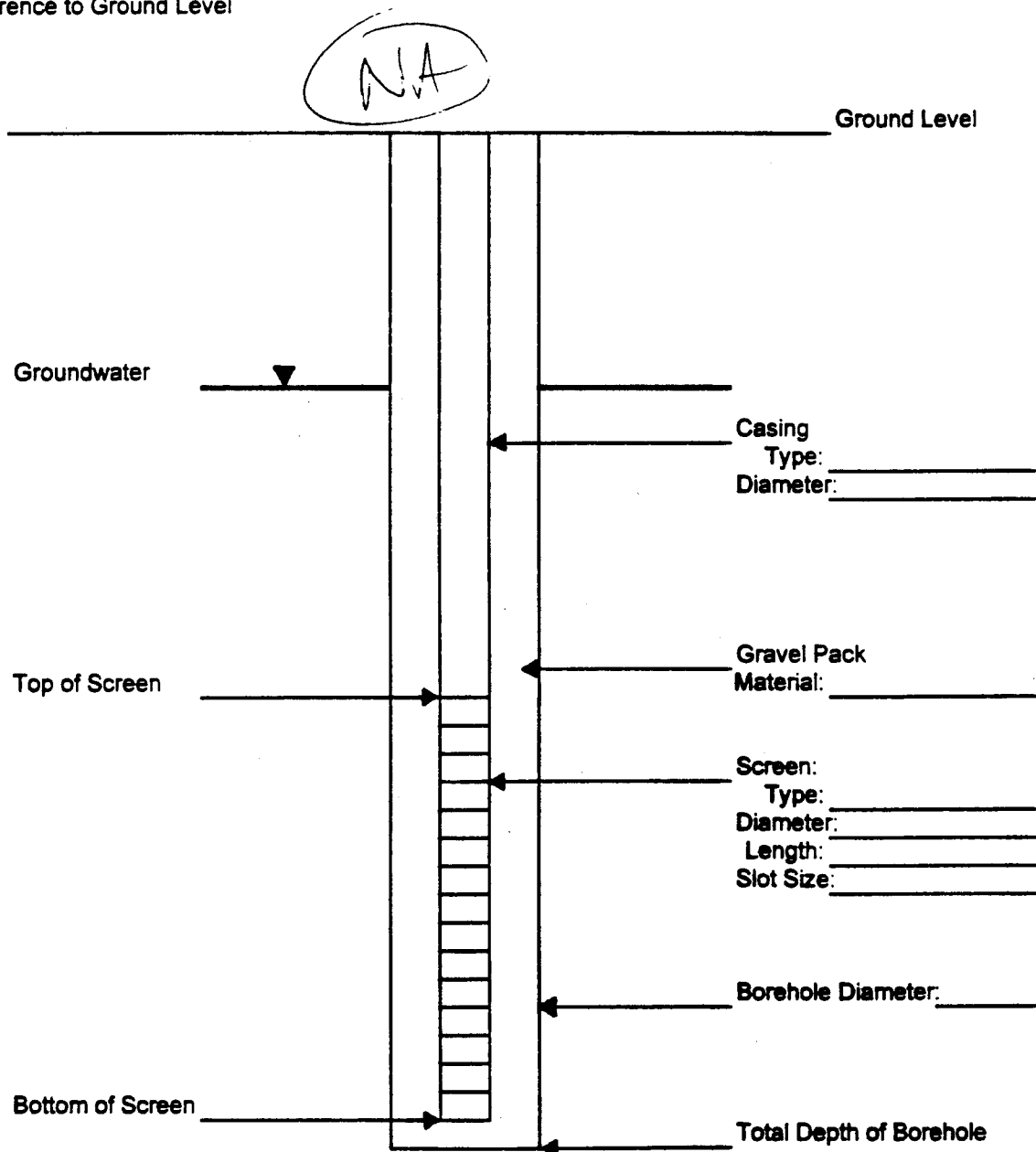


QST Temporary Monitor Well Construction Log

Well ID: SIIC-WSN
 Logged By: PAH
 Drilling Contractor: GRAVES
 Driller's Name: R.A. Hill
 Comments: DID NOT SET CWSOY. DRY HOLE. REFUSE @ 9'
IN SHALE

Project #: 3196314G
 Client: USACE
 Start Date/Time: 5-18-98
 Finish Date/Time: DID NOT SET

Depths are in Reference to Ground Level



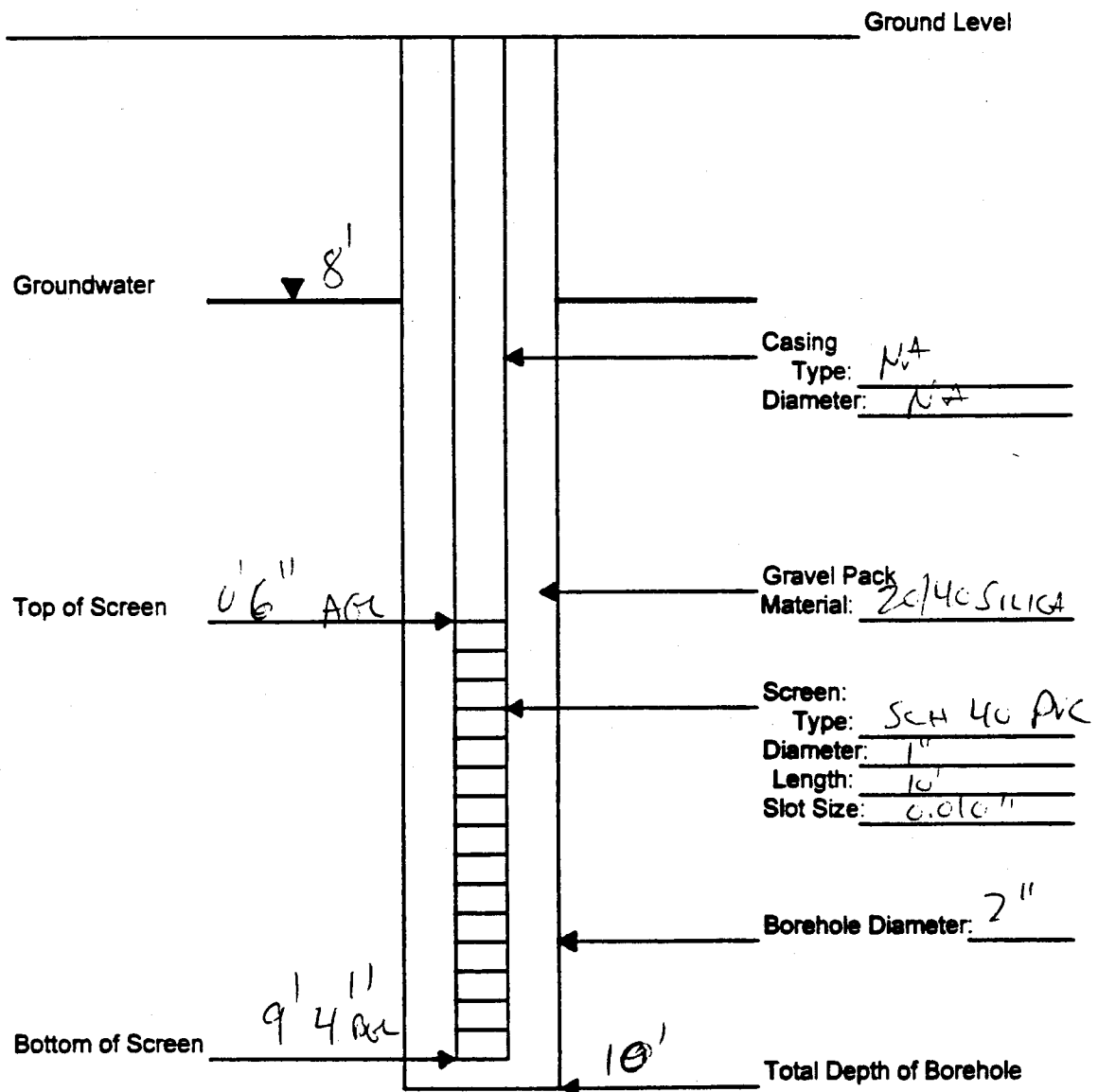
QST Temporary Monitor Well Construction Log

Well ID: SI07 - GWS05
Logged By: RA. Hill
Drilling Contractor: GRAVES
Driller's Name: JOHN Toney

Project #: 3196314G
Client: USACE
Start Date/Time: 5-18-98
Finish Date/Time: _____

Comments: _____

Depths are in Reference to Ground Level



QST

Pg 2 of 2

Temporary Monitor Well Construction Log

Well ID:

SI07-GWS06

Project #:

3196314G

Logged By:

R. A. Hill

Client:

USACE

Drilling Contractor:

GRAVES

Start Date/Time:

5-18-98

Driller's Name:

JOSH TENEY

Finish Date/Time:

DID NOT SET

Comments:

DID NOT SET GWS06. REFUSAL @ 9 1/2' IN SHALE.
DRY HOLE

Depths are in Reference to Ground Level

