

APPENDIX C
SOIL BORING LOGS
SOIL, SEDIMENT, AND WELL POINT LOCATION MAPS

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BUILDING 1200 AND DILUTION/SETTLING POND

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LANDFILL NORTH OF WINKLEPECK BURNING GROUNDS

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UPPER AND LOWER COBBS PONDS

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SAMPLE LOCATION MAPS, SOIL AND WELL POINT BORING LOGS
Demolition Area #2

Soil Samples:

DA2-so-1
DA2-so-002
DA2-so-003
DA2-so-004
DA2-so-005
DA2-so-006
DA2-so-007
DA2-so-008
DA2-so-009
DA2-so-010
DA2-so-011
DA2-so-012
DA2-so-013
DA2-so-014
DA2-so-015
DA2-so-016
DA2-so-017
DA2-so-018
DA2-so-019
DA2-so-020

Soil Samples (con't):

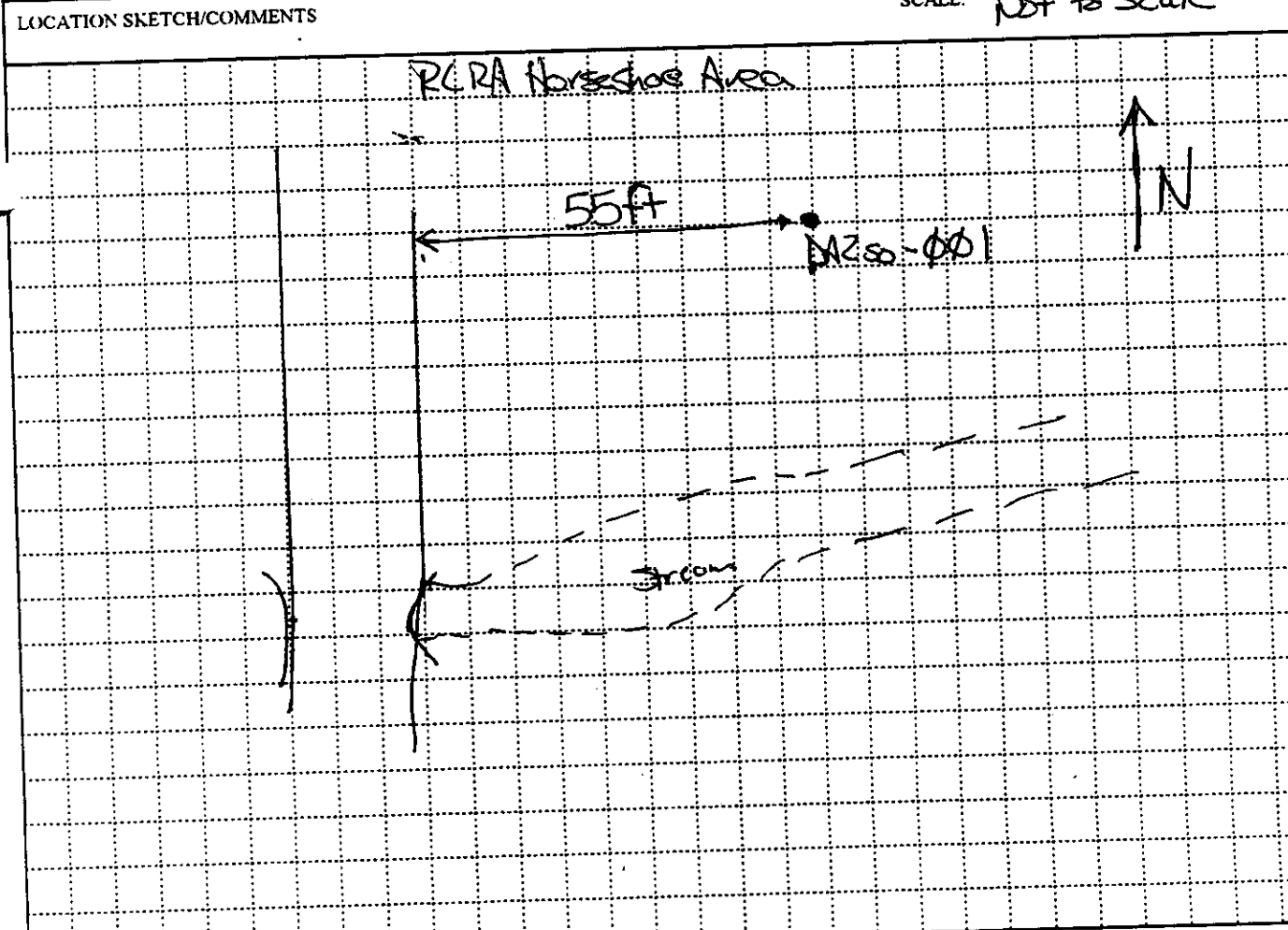
DA2-so-021
DA2-so-022
DA2-so-023
DA2-so-024
DA2-so-025
DA2-so-026
DA2-so-027
DA2-so-028
DA2-so-029
DA2-so-030

Surface Water, Pond, and Stream Sediment:

DA2-sd-031
DA2-sd-032
DA2-sd-033

DEMOLITION AREA
SOIL BORING LOGS
LOGBOOKS #23 AND #23A

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DA250-001	
1. COMPANY NAME SAIC		2. DRILL SUB-CONTRACTOR NA		SHEET SHEETS 1 of 2	
PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Hand Auger (Stainless steel)		8. HOLE LOCATION SEE SKETCH BELOW			
			9. SURFACE ELEVATION N/A		
			10. DATE STARTED 08/05/96		11. DATE COMPLETED 08/05/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED No GW encountered		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 4.7 ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY % NA
23. SIGNATURE OF INSPECTOR Sethney				SCALE: Not to Scale	

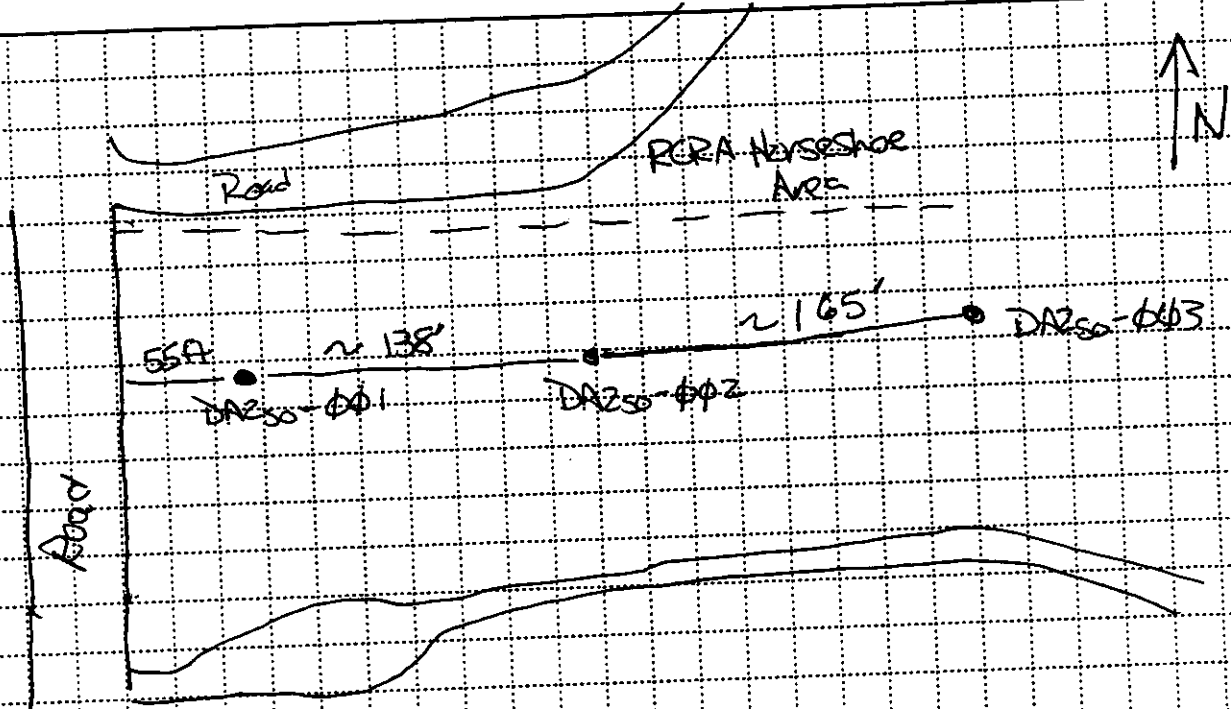


PROJECT Ravenna Army Ammunition Plant	HOLE NO. DA250-001
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HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DAZ-002	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2	
PROJECT RVAAP			4. LOCATION NA		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Hand Auger (S.S.)		8. HOLE LOCATION SEE SKETCH BELOW			
			9. SURFACE ELEVATION N/A		
			10. DATE STARTED 8/25/96		11. DATE COMPLETED 8/25/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED No GW Encountered		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 3.5 Ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY)	OTHER (SPECIFY)
21. DISPOSITION OF HOLE Abandoned		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY % NA
				23. SIGNATURE OF INSPECTOR S. Smith	

SCALE: **Not to Scale**

LOCATION SKETCH/COMMENTS



PROJECT RVAAP	HOLE NO. DAZ50-002 (Proponent: CECW-EG)
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HTRW DRILLING LOG

HOLE NUMBER
DAZ-002
SHEET **2 of 2**

PROJECT **RVAAP** INSPECTOR **S. Adams** REMARKS (G)

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Yellow Tan silt with rock fragments	1.2 ppm Head space 0.0 ppm	NA	DAZ50- 002- 0576- 50	
	2.0	fuse 24-30" Apex machine crystalline material Yellow Tan silt with more rock fragments	NA	NA	DAZ50- 002- 0577- 50	Refused at 3.5 ft dep
	3.5					

PROJECT **RVAAP**

HOLE NO. **DAZ50-002**
18

HTRW DRILLING LOG		DISTRICT Nashville CoE		HOLE NUMBER DA250-003	
1. COMPANY NAME SAIK		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Revere OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger & Little Beaver (6"-8")		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger Little Beaver Auger (Power)		8. HOLE LOCATION: See sketch for DA250-002			
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 8/05/96		11. DATE COMPLETED 8/05/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED No GW encountered		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 3.5 ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. DISPOSITION OF HOLE Abandoned		BACK-FILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR S. B. [Signature]
LOCATION SKETCH/COMMENTS				SCALE: N/A	
<p>See DA250-002</p>					
PROJECT RVAAP				HOLE NO. DA250-003 (Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NUMBER
DA250-003
SHEET **2 of 2**

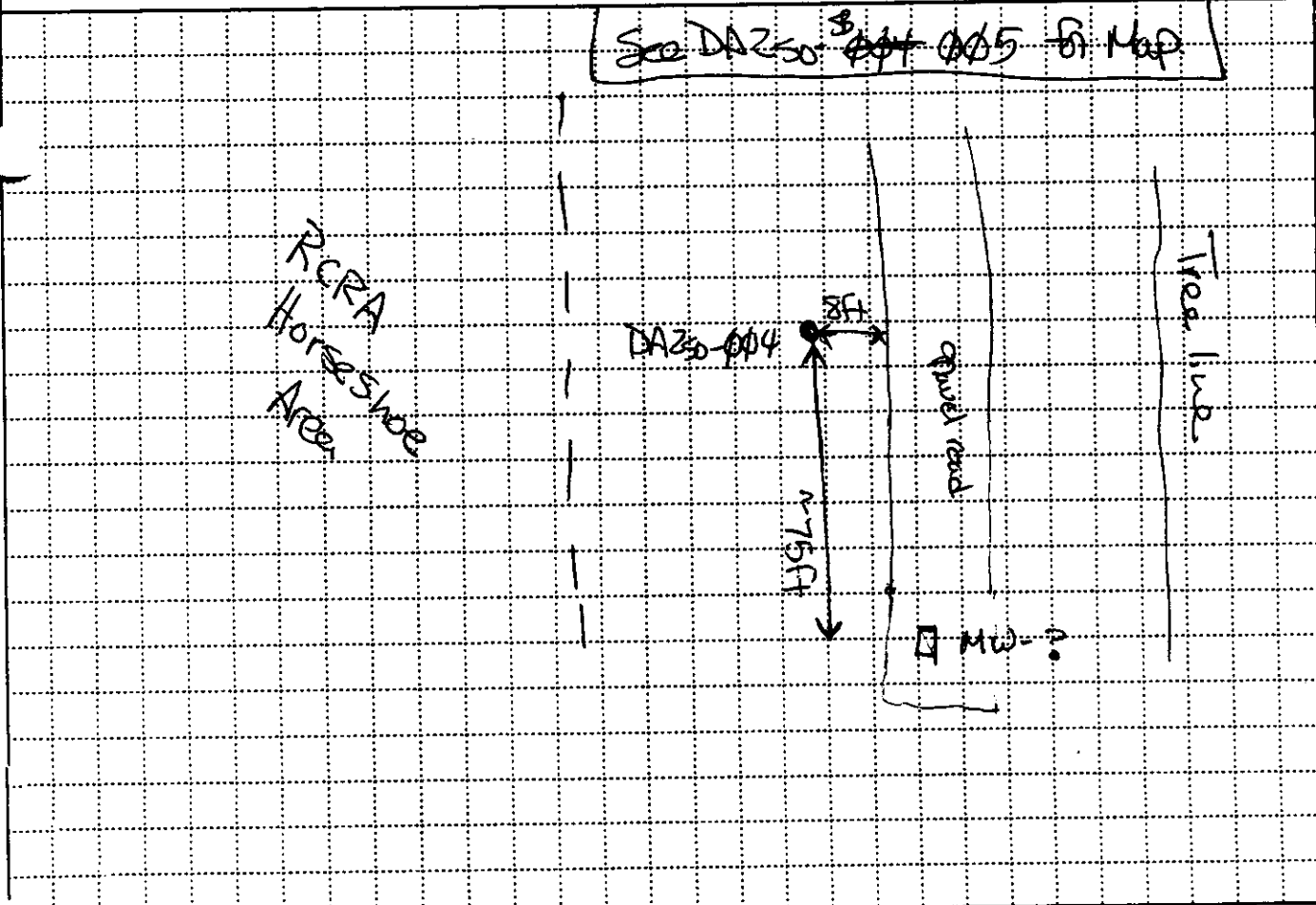
PROJECT RVAAP		INSPECTOR <i>S. Brown</i>				
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Yellow Tan Silt	φ. φppm Headspace φ. φppm	NA	DA250- 003 0578- 50	Hand Auger refusal 6" Used Little Bore 6"-8"
	2.0'	Yellow Tan Silt	NA	NA	DA250- 003- 0579- 50	Hand Auger refusal at 3.5 ft.
	3.5'					

PROJECT **RVAAP**

HOLE NO. **DA250-003** 20

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DAZ50-004	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Bowenna OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Hand Auger (Stainless steel)		8. HOLE LOCATION SEE SKETCH BELOW			
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 8/05/96		11. DATE COMPLETED 8/05/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 4.0A			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR J. Sidney	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	

LOCATION SKETCH/COMMENTS SCALE: Not to Scale



PROJECT RVAAP	HOLE NO. DAZ50-004
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HTRW DRILLING LOG

HOLE NUMBER **DA250-004**

SHEET **2 of 2**

DEPTH (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	2.0	Yellow Brown silt Sparse rock fragments fuse component at 18"	1.2 ppm headspace φ. 8	NA	DA250- 004- 0580- S0	
	4.0	Yellow Brown silt 41" Cor change to Brown organic clay/silt Small lens back to yellow Brown silt	NA	NA	DA250- 004- 0581- S0	

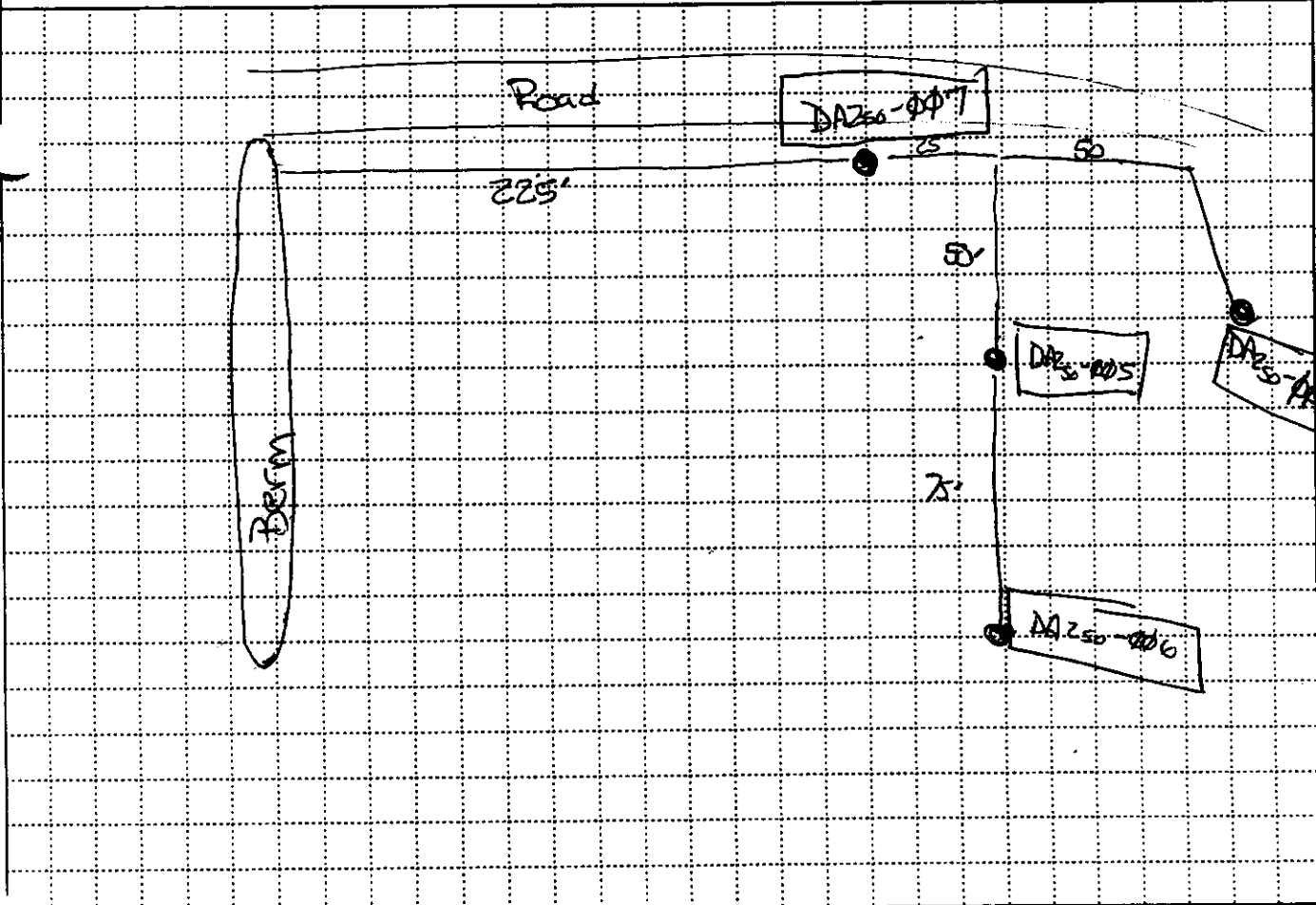
PROJECT **RVAAP**

HOLE NO. **DA250-004**

20

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DA250-005	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION See Sketch Below			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/06/96		11. DATE COMPLETED 8/06/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 4.0 FT		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	
				19. TOTAL NUMBER OF CORE BOXES 8	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
					21. TOTAL CORE RECOVERY % 85
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR B

LOCATION SKETCH/COMMENTS SCALE:



PROJECT RVAAP	HOLE NO. DA 250 - 005
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HTRW DRILLING LOG

HOLE NUMBER **DA250-005**

PROJECT **RVAAP**

INSPECTOR **S. Johnson**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	2.0	Tan grey silt w/ sparse medium rock fragments	φ. 0ppm Katspe φ. 0ppm	NA	DA250-005- 0585 0582 SO	
	4.0	Same as above	NA	NA	DA250-005-0583-S DA250-005-0584-F DA250-005-0585-SP	

PROJECT **RVAAP**

HOLE NO. **DA250-005**
Parake

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DA250-006	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Lawrence OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger / Littlebeaver Power Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger / Letar Power Auger		8. HOLE LOCATION SEE SKETCH Below			
		9. SURFACE ELEVATION N/A			
		10. DATE STARTED 8/05/96		11. DATE COMPLETED 8/05/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 325 ft bop		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED WA	UNDISTURBED WA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample log		VOC NA	METALS NA	OTHER (SPECIFY) BENTONITE	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	23. SIGNATURE OF INSPECTOR B. J. [Signature]	
LOCATION SKETCH/COMMENTS				SCALE:	
<p>See DA250-005 for figure</p>					
PROJECT RVAAP				HOLE NO. DA250-006	

HTRW DRILLING LOG

HOLE NUMBER **DA250-006**

PROJECT **RVAAP**

INSPECTOR **Biden**

SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		yellow tan silt little rounded pebbles up to 3 cm to 24"	Ø.Ø ppm Headspace Ø.4 ppm	NA	DA250- ØØ6- Ø586- SU	Refused w/ Hand Auger at 1.5 ft top
	2.Ø'	Little Beaver 1.5 to 2.Ø	NA	NA	NA	
	3.25'	Same as above			DA250- ØØ6- ØØ88 Ø587- SU	Hit Refusal at 3.25 ft with HandAuger

PROJECT **RVAAP**

HOLE NO **DA250-ØØ6 24**

HTRW DRILLING LOG		DISTRICT Nashville Coe		HOLE NUMBER DAZ50-007	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger Little Beaver		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger Little Beaver Rubber Auger		8. HOLE LOCATION See Sketch Below			
		9. SURFACE ELEVATION See Sketch Below ^{10/11/94} NA			
		10. DATE STARTED 8/26/96		11. DATE COMPLETED 8/26/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 4.0ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES 0				8/26/96	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. TOTAL CORE RECOVERY NA					
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Abandoned	23. SIGNATURE OF INSPECTOR [Signature]
LOCATION SKETCH/COMMENTS					SCALE: N/A
<p>See Map for DAZ50-005</p>					
PROJECT RVAAP				HOLE NO. DAZ50-007 (Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NUMBER: **DAZ50-007**

SHEET: **2 of 2**

PROJECT: **RVAAP** INSPECTOR: **Sweeney**

FLY (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	2.0	Tan grey silt	0.0 ppm Headspace 0.0 ppm	NA	DAZ50- 007- 0588- S0	
	4.0	3.5' hit iron stained silt with iron fragments in sample	0.0 ppm	NA	DAZ50 007- 0589- S0	225 heavy resistance on shale? Used Little Beaver 2.25 to 2.5 ft

PROJECT: **RVAAP**

HOLE NO: **DAZ 50-007**

34

HTRW DRILLING LOG		DISTRICT Nashville CEC		HOLE NUMBER DA250-008	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Reverna ON		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger			8. HOLE LOCATION See Sketch Below		
			9. SURFACE ELEVATION N/A		
			10. DATE STARTED 8/06/96		11. DATE COMPLETED 8/06/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NOGW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 3.75 Ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	8/20/96	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bent up	21. TOTAL CORE RECOVERY %
LOCATION SKETCH/COMMENTS				23. SIGNATURE OF INSPECTOR B. Jones	
				SCALE: Not to Scale	
PROJECT RVAAP				HOLE NO. DA250-008	

HTRW DRILLING LOG

HOLE NUMBER **DA250-008**

SHEET **2 of 2**

PROJECT **RVAAP** INSPECTOR **Sidney**

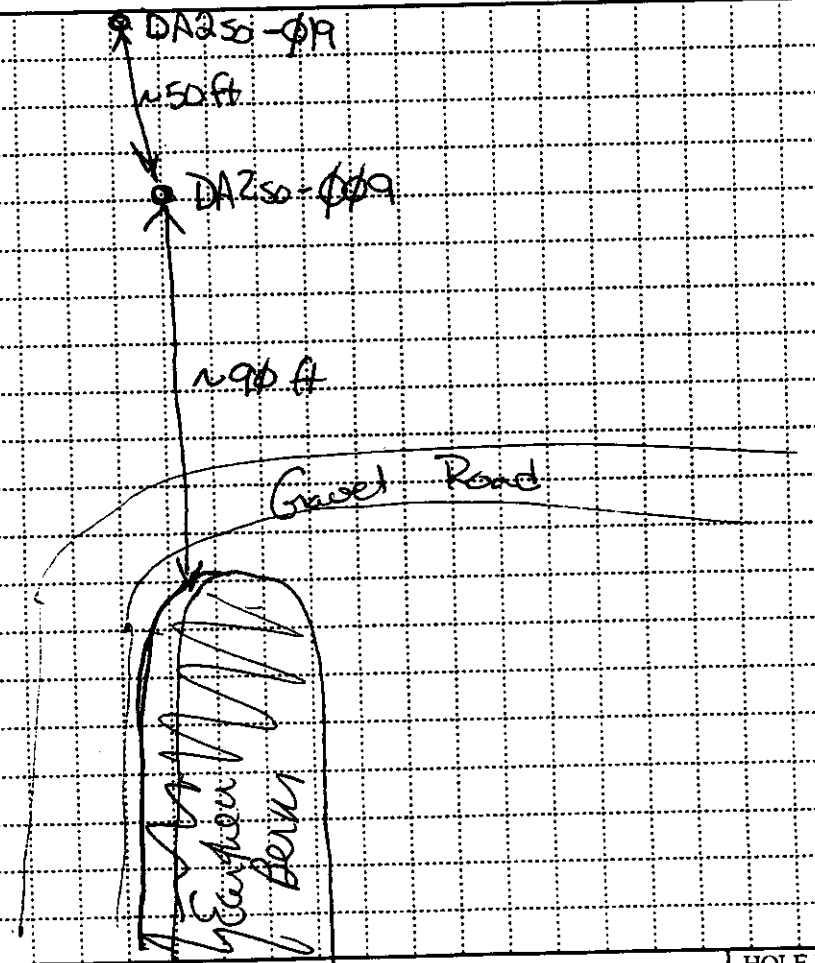
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Tan grey silt < 10% orange nodding	0.0ppm Headpace 0.0ppm	NA	DA250-008-0516-50 DA250-008-0511-FD DA250-008-0512-SP	
	2.0	Tan grey silt-clay < 10% orange nodding Trace Sider	NA	NA	DA250-008-0513-50	
	3.75					

PROJECT **RVAAP**

HOLE NO. **DA250-008**

HTRW DRILLING LOG		DISTRICT Nashua No 606		HOLE NUMBER DAZ50-009	
1. COMPANY NAME SAK		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS 388696	
PROJECT RVAAP			4. LOCATION Pavenna OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger / Little Beaver Pounce Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT NA		8. HOLE LOCATION ~ 90 feet north of barn (See sketch below)			
		9. SURFACE ELEVATION N/A			
		10. DATE STARTED 8/06/96		11. DATE COMPLETED 8/06/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	22. DISPOSITION OF HOLE Abandoned	
		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentrite	23. SIGNATURE OF INSPECTOR S. Brown

LOCATION SKETCH/COMMENTS SCALE: NDB to scale



PROJECT RVAAP	HOLE NO. DAZ50-009
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HTRW DRILLING LOG

HOLE NUMBER: **DAZ50-009**

PROJECT: **RVAAP**

INSPECTOR: *[Signature]*

SHEET: **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	2' 0"	Tan silt with Some rock fragments	Di Headpace	NA	DAZ50- 007- 0514- 50	
	2' 0"	Rock	NA	NA	DAZ56- 007- 0515- 50 Not Collected	Used Little Beaver at 2' bop Power Auger Refusal at 2' bop on large rock 2-4ft sample not collected

PROJECT: **RVAAP**

HOLE NO. **DAZ50-009**

HTRW DRILLING LOG		DISTRICT Nashville CoE		HOLE NUMBER DA250-010	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Ravenne OH		
5. NAME OF DRILLER NA			6. MANUFACTURER'S DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION See Sketch for DA250-013			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/09/96		11. DATE COMPLETED 8/09/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NOGW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 4.0 ft bop		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES ND		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC See Sample Log	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Random	21. TOTAL CORE RECOVERY NA
LOCATION SKETCH/COMMENTS				23. SIGNATURE OF INSPECTOR Jedman	
				SCALE: NA	
<p>See site location sketch in DA250-013</p> <p>8/09/96</p>					
PROJECT RVAAP				HOLE NO. DA250-010	

HTRW DRILLING LOG

HOLE NO. **DA250-Φ10**

PROJECT: **RVAAP** INSPECTOR: **S. Admet** SHEET: **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH. SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	2.0	Tan Silt	Basaltes Φ. Φ ppm	NA	DA250- Φ10- Φ596- SO	
	4.0	Same as Above	Basaltes Φ. Φ ppm	NA	DA250- Φ10- Φ598- SO	

PROJECT: **RVAAP**

HOLE NO. **DA250-Φ10** 44

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DA250-011	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Ravena OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger / Little Brown Power Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SG Hand Auger + Little Brown Power Auger		8. HOLE LOCATION See sketch for DA250-013			
9. SURFACE ELEVATION NA					
10. DATE STARTED 8/09/96			11. DATE COMPLETED 8/09/96		
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 4.0 FT			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
See sample log		NA	NA	NA	NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Ben-Tonite	21. TOTAL CORE RECOVERY NA
23. SIGNATURE OF INSPECTOR Radney				SCALE: N/A	
LOCATION SKETCH/COMMENTS See Site Location sketch for DA250-013					
PROJECT RVAAP				HOLE NO. DA250-011	

HTRW DRILLING LOG

HOLE NUMBER **DA25-~~011~~ 011**

PROJECT **RVAAP**

INSPECTOR **B. Bauer**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	4"	Tan Brown silt	3.0 ppm Headspace 8.5 ppm	NA	DA25- 011- 05A- SO	Hand Auger refusal at 14" got ^{2.5' below} Little Beaver Power Auger to 2.25' bsp
	2' 2.25'	Used Little Beaver Power Auger to 2.25 ft Rock Fragments in silt	NA	NA	NA	
	2' 2.25'	Tan Brown silt	2.5 ppm	NA	DA25- 011- 06A- SO	Sample from 2.25 ft to 4 ft
	4.0'					

PROJECT

RVAAP

HOLE NO.

DA25-011

42

HTRW DRILLING LOG		DISTRICT <i>Nashville COE</i>		HOLE NUMBER <i>DA250-012</i>	
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1 OF 2</i>	
PROJECT <i>RVAAP</i>			4. LOCATION <i>Raeenna</i>		
5. NAME OF DRILLER <i>NA</i>			6. MANUFACTURERS DESIGNATION OF DRILL <i>Hand Oper</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>NA</i>		8. HOLE LOCATION <i>See sketch below</i>			
			9. SURFACE ELEVATION <i>N/A</i>		
		10. DATE STARTED <i>8/07/96</i>		11. DATE COMPLETED <i>8/07/96</i>	
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>No GW</i>			
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>			
14. TOTAL DEPTH OF HOLE <i>4.0 ft</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>			
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC <i>NA</i>	METALS <i>NA</i>	OTHER (SPECIFY)	OTHER (SPECIFY)
<i>See Sample log</i>					
22. DISPOSITION OF HOLE <i>Abandoned</i>		BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Refract</i>	21. TOTAL CORE RECOVERY % <i>NA</i>
LOCATION SKETCH/COMMENTS				SCALE:	
<p><i>See site location sketch DA250-012 in logbook # 23A</i></p> <p><i>SB 8/07/96</i></p>					
PROJECT <i>RVAAP</i>				HOLE NO. <i>DA250-012</i> (Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NO. **DAZ50-012**

PROJECT

RVDAP

INSPECTOR

S. Brown

SHEET

2 of 2

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Grey brown silt	0.6 ppm Headspace 0.6 ppm	NA	DAZ50-012-0601-50	
		Same as above	0.6 ppm	NA	DAZ50-012-0602-50	

PROJECT

RVAAP

HOLE NO.

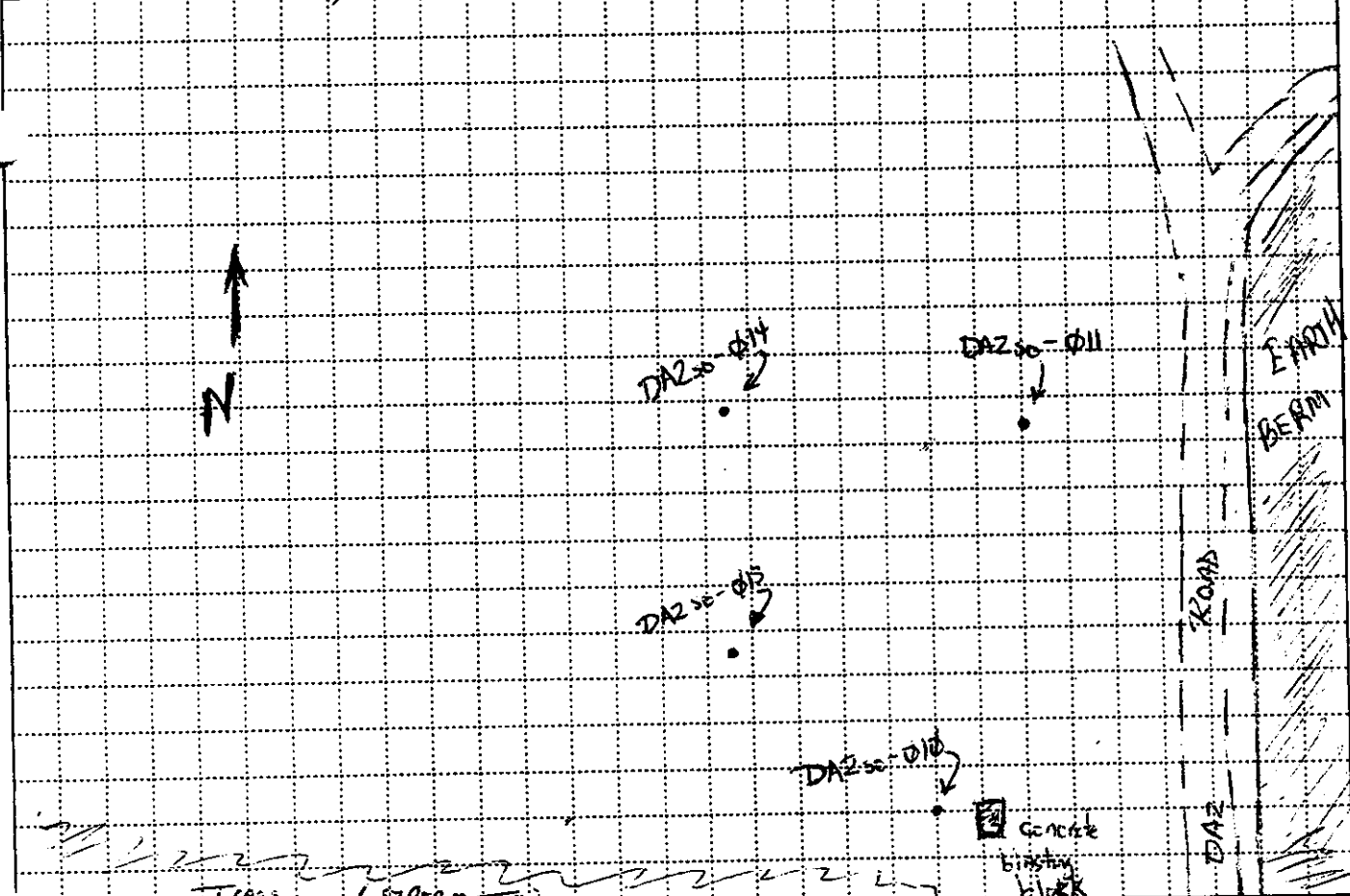
DAZ50-012

HTRW DRILLING LOG		DISTRICT <i>Nashville</i>		HOLE NUMBER <i>DA250-013</i>	
1. COMPANY NAME <i>SAK</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1 OF 2</i>	
PROJECT <i>RVAAP</i>			4. LOCATION <i>Ravenna OH</i>		
5. NAME OF DRILLER <i>NA</i>			6. MANUFACTURERS DESIGNATION OF DRILL <i>Hand Auger</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" SS Hand Auger</i>		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>			
			9. SURFACE ELEVATION <i>N/A</i>		
			10. DATE STARTED <i>8/08/96</i>		11. DATE COMPLETED <i>8/08/96</i>
12. OVERBURDEN THICKNESS <i>NA</i>			15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>		
13. DEPTH DRILLED INTO ROCK <i>NA</i>			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>		
14. TOTAL DEPTH OF HOLE <i>4.0 FT</i>			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>		
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
<i>See Sample Log</i>					
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY <i>NA</i>
<i>Abandoned</i>		<i>NA</i>	<i>NA</i>	<i>Remediate</i>	<i>Radney</i>

LOCATION SKETCH/COMMENTS

SCALE: 1" = 60ft

Southwest soil sample locations at DA2



PROJECT <i>RVAAP</i>		HOLE NO. <i>DA250-013</i>	
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HTRW DRILLING LOG

HOLE NUMBER **DA250-013**

SHEET **2 of 2**

PROJECT **RVAAP**

INSPECTOR **Bidney**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Tansilt with some 5mm rock fragments dry	1.0 ppm Headspace 17 ppm	NA	DA250-013-0604 ³ SD	
	2.0	Same as above but more moist	0.0 ppm	NA	DA250-013-0604 SD	
	4.0					

PROJECT **RVAAP**

HOLE NO. **DA250-013 38**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DAZ50-014	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER NA			6. MANUFACTURER'S DESIGNATION OF DRILL Hard Anker		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Anker		8. HOLE LOCATION See Sketch Below			
9. SURFACE ELEVATION N/A					
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 3.75 ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. TOTAL CORE RECOVERY % NA		OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Restrike	23. SIGNATURE OF INSPECTOR Medway
LOCATION SKETCH/COMMENTS				SCALE: N/A	
<p>See Site Sketch for DAZ50-013</p> <p style="text-align: center;">8/09/96</p>					
PROJECT RVAAP			HOLE NO. DAZ50-014		

HTRW DRILLING LOG

HOLE NUMBER: DA250-04

PROJECT: RVAAP

INSPECTOR: [Signature]

SHEET: 2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		tan silt + rock fragments	0.4 ppm Headspace 1:0 ppm	NA	DA250-014-0605-S0	
	2.0	Same as above Rocks	0.0 ppm	NA	DA250-014-0606-S0	Hand Auger refusal 2.75 ft. Use Little Beaver power Auger from 2.75 to 3.0 ft
	3.75	At 3.75 Gray clay marl shale				Auger refusal At 3.75.

PROJECT: RVAAP

HOLE NO. DA250-014 40

DAZ50-015

8/06/96

HTRW DRILLING LOG		DISTRICT Nashville		HOLE NUMBER DAZ50-014	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Bavenna OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger / Power Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT NA			8. HOLE LOCATION See sketch for DAZ50-026		
12. OVERBURDEN THICKNESS NA			9. SURFACE ELEVATION NA		
13. DEPTH DRILLED INTO ROCK NA			10. DATE STARTED 8/06/96		
14. TOTAL DEPTH OF HOLE 4.0 ft			11. DATE COMPLETED 8/06/96		
18. GEOTECHNICAL SAMPLES NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample Log			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
22. DISPOSITION OF HOLE Abandoned			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
DISTURBED NA		UNDISTURBED NA		19. TOTAL NUMBER OF CORE BOXES NA	
VOC		METALS		OTHER (SPECIFY)	
BACKFILLED NO		MONITORING WELL NA		OTHER (SPECIFY) Bedrock	
				21. TOTAL CORE RECOVERY NA	
				23. SIGNATURE OF INSPECTOR JB 8/06/96	

LOCATION SKETCH/COMMENTS

SCALE: N/A

~~See Map of DAZ50-009~~ JB 8/07/96

JB 8/06/96

See Site Sketch for
DAZ50-026
Logbook #23A
for Site Location

PROJECT RVAAP	HOLE NO. DAZ50-019
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HTRW DRILLING LOG

HOLE NUMBER DA250-015

PROJECT R/AAP

INSPECTOR [Signature]

SHEET 2 of 2

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	1.5'	Yellow Brown Silt	0.0 ppm Rock Frag 0.8 ppm	NA	DA250-015-0607-50	
	2.0'	Power Auger Rocks.	NA	NA	DA250-015-0607-50	Hand Auger Refused at 1.5' Used Little Beaver Power Auger
	3.0'	Yellow Brown Silt	0.0 ppm	NA	DA250-015-0608-50	
	4.0'					

PROJECT R/AAP

HOLE NO. DA250-015

HTRW DRILLING LOG		DISTRICT <i>Nashville COE</i>		HOLE NUMBER <i>DA250-016</i>	
1. COMPANY NAME <i>JAK</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1 OF 2</i>	
PROJECT <i>RVAAP</i>		4. LOCATION <i>Ravenna OH</i>			
5. NAME OF DRILLER <i>NA</i>		6. MANUFACTURERS DESIGNATION OF DRILL <i>Hand Auger Little Beaver Power Auger</i>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S.S. hand auger & Little Beaver Power Auger</i>		8. HOLE LOCATION <i>SEE SKETCH FOR DA250-026</i>			
		9. SURFACE ELEVATION <i>NA</i>			
		10. DATE STARTED <i>8/07/96</i>		11. DATE COMPLETED <i>8/07/96</i>	
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>			
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>			
14. TOTAL DEPTH OF HOLE <i>3.75 ft</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>			
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
<i>See sample log</i>		<i>NA</i>	<i>NA</i>	<i>Barbit</i>	<i>NA</i>
22. DISPOSITION OF HOLE <i>Abandoned</i>		BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <i>Sturdivant</i>
LOCATION SKETCH/COMMENTS				SCALE: <i>N/A</i>	
<p><i>See site location sketch DA250-026</i></p>					
PROJECT <i>RVAAP</i>				HOLE NO. <i>DA250-015</i>	

HTRW DRILLING LOG

HOLE NUMBER: **DA250-016**
 SHEET: **2 of 2**

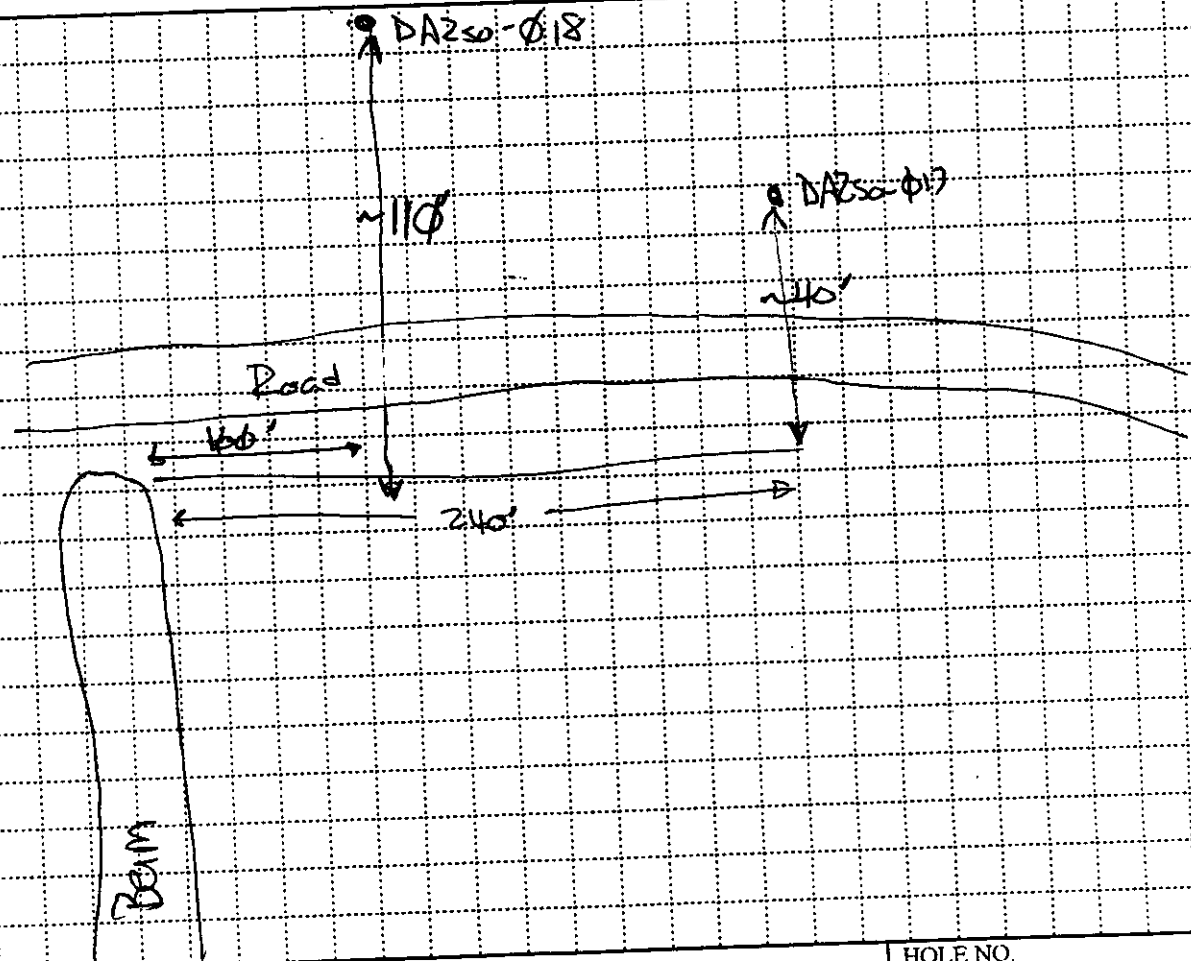
PROJECT	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
RVAAP		0-6" Tan silt	Ø.Ø ppm	NA	DA250-Ø16-Ø1Ø9-SØ	
	2.0	6" some grey shale out of shale at 10" back to Tan silt dry	Head space Ø.Ø ppm			
		Tan Clayey Silt Moist	Ø.Ø ppm	NA	DA250-Ø16-Ø1ØØ-SØ	Refusal at 375 ft.
	3.75	Refusal				

PROJECT: **RVAAP**

HOLE NO: **DA250-Ø16**

HTRW DRILLING LOG		DISTRICT Nashville CoE	HOLE NUMBER DA250-017
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
PROJECT RVAAP		4. LOCATION Ravenna OH	
5. NAME OF DRILLER NA		6. MANUFACTURER'S DESIGNATION OF DRILL Hand Auger / Little Beaver Power Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3.5" hand auger & Little Beaver Power Auger		8. HOLE LOCATION ~240 ft east of Beam +40 ft north	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/9/96	11. DATE COMPLETED 8/9/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 3.25 ft bop		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS See sample log	VOC NA	METALS NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE NA	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) NA
23. SIGNATURE OF INSPECTOR [Signature]			

LOCATION SKETCH/COMMENTS SCALE: Not to Scale



PROJECT RVA AP	HOLE NO. DA250-017 (Proponent: CECW-EG)
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HTRW DRILLING LOG

HOLE NUMBER **DA250-017**

PROJECT

RVAAP

INSPECTOR

R. B. ...

SHEET

2 of 2

ELFV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Yellow grey silt with <10% orange mudstone	Ø 6ppm Headspace Ø 6ppm	NA	DA250- Ø17- Ø611- SD	
	<p>2.0</p>	Same as above	NA	NA	DA250 Ø17- Ø612- SD	Hit refusal w/ Hand Auger at 3.25ft
	<p>3.25</p>					

PROJECT

RVAAP

HOLE NO.

DA250-017

HTRW DRILLING LOG		DISTRICT Washville COE		HOLE NUMBER DA250-018	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger & Little Beaver Power Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" s.s. hand auger & Little Beaver Power Auger		8. HOLE LOCATION Approx 100' East of Bern + 110' North			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/26/96		11. DATE COMPLETED 8/26/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 3.5ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE See Sample Log (Abandoned)		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Backfill	21. TOTAL CORE RECOVERY % NA
LOCATION SKETCH/COMMENTS			SCALE: NA		
PROJECT RVAAP			HOLE NO. DA250-018 (Proponent: CECW-E(7))		

HTRW DRILLING LOG

HOLE NUMBER **DA250-018**

PROJECT

RVAAP

INSPECTOR

Sechen

SHEET

2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		grey silt 30% orange material	Ø.0ppm headspace Ø.2ppm	NA	DA250- 018- 0613- 50	Sample 0' - to 1' 10" wt refusal Used little Beaver Power Auger to 2' bop
	2.0	Just below 2.0' augered up 10cm fuse component becoming a grey ^{silty} clay with depth	NA	NA	DA250- 018- 0614- 50	Hand Auger refusal at 3.5' bop
	3.5					

PROJECT

RVAAP

HOLE NO.

DA250-018

HTRW DRILLING LOG		DISTRICT Washville COE		HOLE NUMBER DA250-Ø19	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hard Auger & Little Beaver Power Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger Little Beaver Power Auger			8. HOLE LOCATION ~ 140 ft North of eastern Basin		
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 8/06/96		11. DATE COMPLETED 8/06/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED No GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 4.0 ft bqp			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY % NA
LOCATION SKETCH/COMMENTS				SCALE: NA	
PROJECT RVAAP				HOLE NO. DA250-Ø19	

HTRW DRILLING LOG

HOLE NUMBER: **DAZ50-01**
 SHEET: **202**

PROJECT: **RVAAP** INSPECTOR: **Bob [unclear]**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	2.0	Tan silt with some rock fragments	Φ. Φ ppm Heedoppe Φ. Φ ppm	NA	DAZ50-019-0615-50	
		Same as above	NA	NA	DAZ50-019-0616-50	
	4.0	3.5-4.0 Brown silt				

PROJECT: **RVAAP**

HOLE NO. **DAZ50-01** Page 218

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER DAZ50-020	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION DA2 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger & Little Beaver Power Auger.		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger & Little Beaver Power Auger.			8. HOLE LOCATION 240 FT North of Beam		
			9. SURFACE ELEVATION NA SEE SKETCH FOR DAZ50-026		
			10. DATE STARTED 8/06/96		11. DATE COMPLETED 8/06/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 48" BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
NA		NA	NA	NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
SEE SAMPLE COC					
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
Abandoned		NA	NA	Material	NA
LOCATION SKETCH/COMMENTS			SCALE: NA		
<p>8/8/96 See Location Sketch for DAZ50-026</p>					
PROJECT RVAAP			HOLE NO. DAZ50-020		

HTRW DRILLING LOG

HOLE NUMBER
~~DA250-020~~
 SHEET 2 of 2

PROJECT **RVAAP** INSPECTOR **K. Sumin**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0"					
	10"	Green silt w/ 20% orange mottling	Ø ppm	DA250-020		
	20"					
	30"	Brownish grey silt				
	40"					
	50"					Total depth = 48" bgs
						See DA250-020 for Site Location Sketch 8/17/16

PROJECT **RVAAP**

HOLE NO. **DA250-020**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DA250-021																											
1. COMPANY NAME Sve		2. DRILL SUBCONTRACTOR NW		SHEET 1 OF 2																											
PROJECT RVAAP			4. LOCATION Reverna OH																												
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger & Little Beaver Power Auger																												
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION																													
1" Auger & 3" S.S. hand Auger		SEE SKETCH FOR DA250-026																													
12. OVERBURDEN THICKNESS NA			9. SURFACE ELEVATION NA																												
13. DEPTH DRILLED INTO ROCK NA			10. DATE STARTED 8/6/96																												
14. TOTAL DEPTH OF HOLE 3.25 ft Bp			11. DATE COMPLETED 8/7/96																												
15. GEOTECHNICAL SAMPLES		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)																											
<table border="1"> <tr> <td>18. GEOTECHNICAL SAMPLES</td> <td>DISTURBED</td> <td>UNDISTURBED</td> <td colspan="3">19. TOTAL NUMBER OF CORE BOXES</td> </tr> <tr> <td>NA</td> <td>NA</td> <td>NA</td> <td colspan="3">NA</td> </tr> </table>		18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			NA	NA	NA	NA			<table border="1"> <tr> <td>20. SAMPLES FOR CHEMICAL ANALYSIS</td> <td>VOC</td> <td>METALS</td> <td>OTHER (SPECIFY)</td> <td>OTHER (SPECIFY)</td> <td>OTHER (SPECIFY)</td> <td>21. TOTAL CORE RECOVERY</td> </tr> <tr> <td>See Sample log</td> <td></td> <td></td> <td></td> <td></td> <td>A</td> <td>NA</td> </tr> </table>		20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY	See Sample log					A	NA	23. SIGNATURE OF INSPECTOR	
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES																												
NA	NA	NA	NA																												
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY																									
See Sample log					A	NA																									
22. DISPOSITION OF HOLE		23. SIGNATURE OF INSPECTOR		SCALE: N/A																											
Abandoned		NA		NA																											
LOCATION SKETCH/COMMENTS																															
<p>See site location sketch DA250-026</p> <p style="text-align: center;">8/7/96</p>																															
PROJECT RVAAP			HOLE NO. DA250-021																												

HTRW DRILLING LOG

HOLE NUMBER **DA250-021**

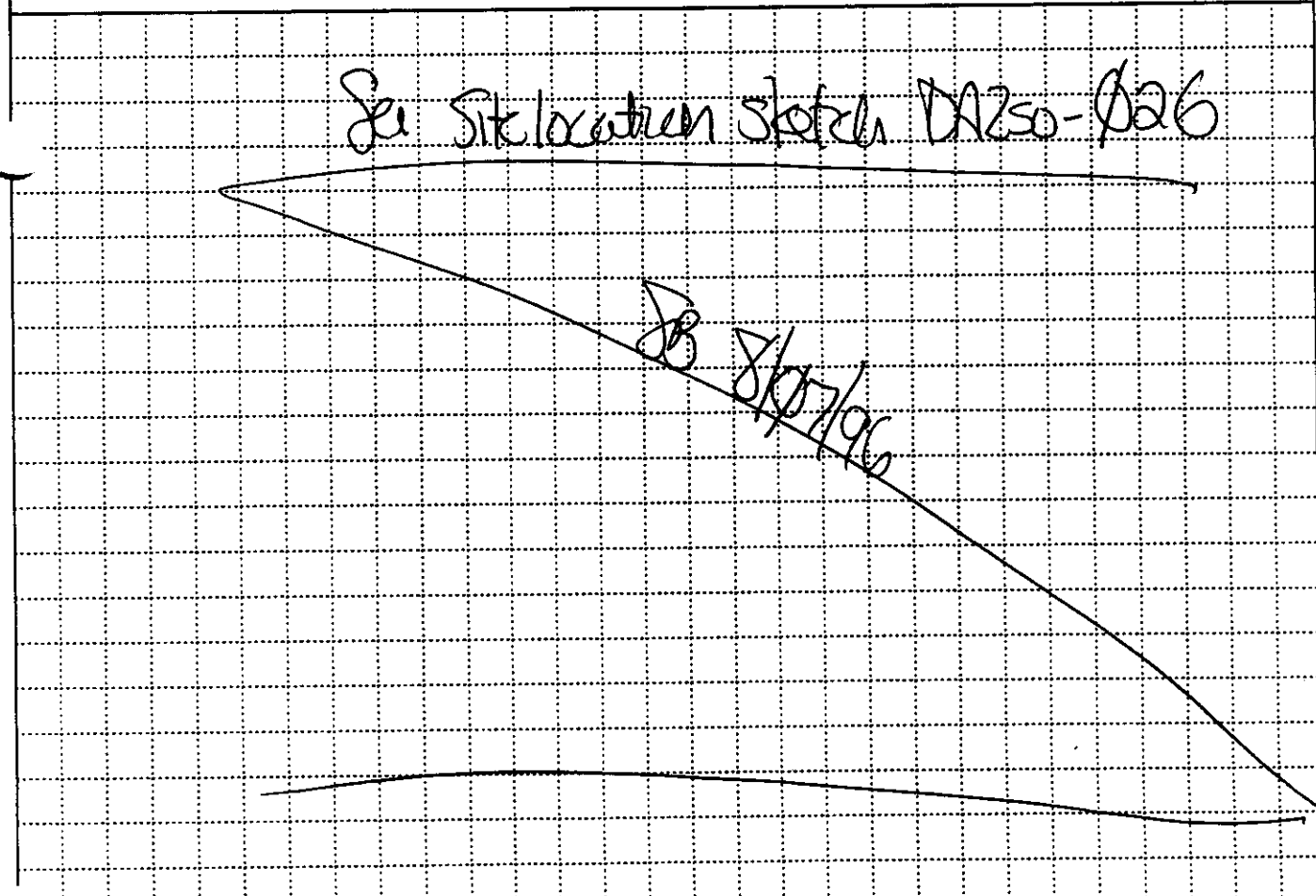
SHEET **2 of 2**

PROJECT	INSPECTOR	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)			
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	2.0	Yellowish Tan silt large rock fragments C-8"	Ø. Ø pp Headspace 3.2 pp	NA	DA250- Ø21- Ø619- SD	Power Auger from 8-12"
	3.25	Yellowish Tan silt and Slate quartz pebbles	Ø. Ø pp	NA	DA250- Ø21- Ø624- SD	Refusal 3.25 Hand Auger Refusal do not have extension for power auger to go deeper than 3 ft

PROJECT **RVAAP**

HOLE NO. **DA250-021**

HTRW DRILLING LOG		DISTRICT <i>Nashville COE</i>		HOLE NUMBER <i>DA250-022</i>	
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1 OF 2</i>	
PROJECT <i>RUAMP</i>			4. LOCATION <i>Ravenna OH</i>		
5. NAME OF DRILLER <i>NA</i>			6. MANUFACTURER'S DESIGNATION OF DRILL <i>Hard Ager & Little Beaver Power Auger</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S.S. hand auger & Little Beaver Power Auger</i>		8. HOLE LOCATION			
9. SURFACE ELEVATION					
10. DATE STARTED <i>8/07/96</i>			11. DATE COMPLETED <i>8/07/96</i>		
12. OVERBURDEN THICKNESS <i>NA</i>			15. DEPTH GROUNDWATER ENCOUNTERED <i>NO SW</i>		
13. DEPTH DRILLED INTO ROCK <i>NA</i>			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>		
14. TOTAL DEPTH OF HOLE <i>4.0 FT</i>			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>		
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See Sample Log</i>		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE <i>Abandoned</i>		BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Restoration</i>	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>
LOCATION SKETCH/COMMENTS				SCALE: <i>N/A</i>	



PROJECT <i>RUAMP</i>	HOLE NO. <i>DA250-022</i>
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HTRW DRILLING LOG

HOLE NUMBER **DA250-Ø22**
 SHEET **242**

PROJECT **RVAAP**

INSPECTOR **B. Mey**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Yellowish Tan silt with gravel	Ø.Ø ppm	NA	DA250-Ø22-Ø622-50	
	2.0	More shale with depth	Ø.Ø ppm	NA	DA250-Ø22-Ø623-50	
	4.0					

PROJECT **RVAAP**

HOLE NO. **DA250-Ø22**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DA250-023	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger & Beane (Little) Power Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger & little beane power auger		8. HOLE LOCATION 35.5' SEE SKETCH FOR DA250-026			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/07/96		11. DATE COMPLETED 8/07/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 4.6 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Recontact	21. TOTAL CORE RECOVERY % NA
23. SIGNATURE OF INSPECTOR [Signature]				SCALE: N/A	
LOCATION SKETCH/COMMENTS See Site sketch for DA250-026					
PROJECT RVAAP				HOLE NO. DA250-023	

HTRW DRILLING LOG

HOLE NO. **DAZ50-023**

PROJECT **RVAAP**

INSPECTOR **S. Johnson**

SHEET **2 of 2**

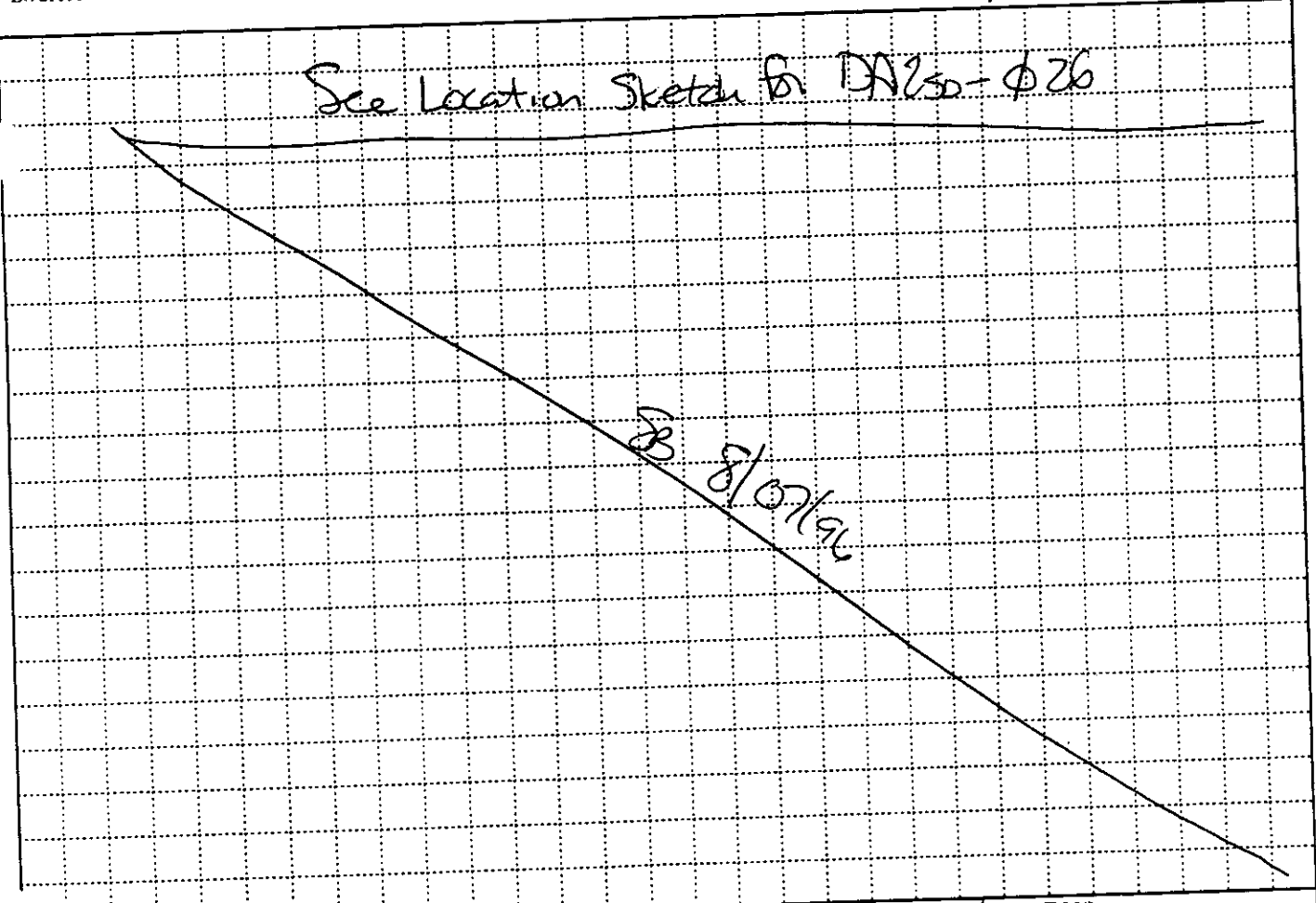
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Yellow brown silt	0.0 ppm Headspace 14 ppm	NA	DAZ50-023-0623-S0	
	2.0	Some co above	0.0 ppm	NA	DAZ50-023-0624-S0	
	3.25	Some shale				
	4.0					

PROJECT **RVAAP**

HOLE NO. **DAZ50-023**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DA250-024	
1. COMPANY NAME SAIL		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. SUBJECT RVAAP		4. LOCATION Lawrence OH			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger & Little Beaver Power Auger.			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger & Little Beaver Power Auger		8. HOLE LOCATION SEE SKETCH for DA250-026			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/07/96		11. DATE COMPLETED 8/07/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 4.0 FT		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandon		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY NA
LOCATION SKETCH/COMMENTS		23. SIGNATURE OF INSPECTOR B. H. [Signature]			

SCALE: N/A



PROJECT RVAAP	HOLE NO. DA250-024
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HTRW DRILLING LOG

HOLE NUMBER
DA250-024

PROJECT
RVAAP

INSPECTOR
J. Brown

SHEET
2 of 2

ELF. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		yellow brown silt	0.0 ppm Headspace 0.0 ppm	NA	DA250- 024- 0625- SO	
	<p>2.0</p>	2ft change to grey silt tiny rock fragments + trace pebbles	0.0 ppm	NA	DA250- 024- 0626- SO	
	<p>4.0</p>					

PROJECT
RVAAP

HOLE NO.
DA250-024

HTRW DRILLING LOG		DISTRICT <i>Nashville COE</i>		HOLE NUMBER <i>DA250-025</i>	
1 COMPANY NAME <i>SAIC</i>		2 DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1 OF 2</i>	
PROJECT <i>RVAAP</i>		4 LOCATION <i>Raveana OH</i>			
5 NAME OF DRILLER <i>NA</i>		6 MANUFACTURERS DESIGNATION OF DRILL <i>Hand Oper & Little Beaver Power Auger</i>			
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>NA with 3" s.s. hand auger & Little Beaver Power Auger</i>		8 HOLE LOCATION <i>SEE Sketch for DA250-026</i>			
		9 SURFACE ELEVATION <i>NA</i>			
		10 DATE STARTED <i>8/07/96</i>		11 DATE COMPLETED <i>8/08/96</i>	
12 OVERBURDEN THICKNESS <i>NA</i>		15 DEPTH GROUNDWATER ENCOUNTERED <i>No GW</i>			
13 DEPTH DRILLED INTO ROCK <i>NA</i>		16 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>			
14 TOTAL DEPTH OF HOLE <i>4.0 ft</i>		17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>			
18 GEOTECHNICAL SAMPLES <i>NA</i>		19 TOTAL NUMBER OF CORE BOXES <i>NA</i>			
20 SAMPLES FOR CHEMICAL ANALYSIS		DISTURBED <i>NA</i>		UNDISTURBED <i>NA</i>	
		VOC		METALS	
		OTHER (SPECIFY)		OTHER (SPECIFY)	
22 DISPOSITION OF HOLE <i>Abandoned</i>		BACKFILLED <i>NA</i>		MONITORING WELL <i>NA</i>	
		OTHER (SPECIFY)		23 SIGNATURE OF INSPECTOR <i>[Signature]</i>	
LOCATION SKETCH/COMMENTS		SCALE: <i>N/A</i>			
<p><i>See Site Location Sketch DA250-026</i></p>					
PROJECT <i>RVAAP</i>				HOLE NO. <i>DA250-025</i>	

HTRW DRILLING LOG

HOLE NUMBER **DA250-025**

PROJECT **RVAAP**

INSPECTOR **Sidney**

SHEET **2/2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	2.6	Tan silt force rock fragments	D.Ø ppm	NA	DA250-025-0627-S	
			Headspace		DA250-025-0628-S ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ ⑳ ㉑ ㉒ ㉓ ㉔ ㉕ ㉖ ㉗ ㉘ ㉙ ㉚ ㉛ ㉜ ㉝ ㉞ ㉟ ㊱ ㊲ ㊳ ㊴ ㊵ ㊶ ㊷ ㊸ ㊹ ㊺ ㊻ ㊼ ㊽ ㊾ ㊿	
	4.0	Same as above little darker color w/ depth	D.Ø ppm	NA	DA250-025-0630-S	

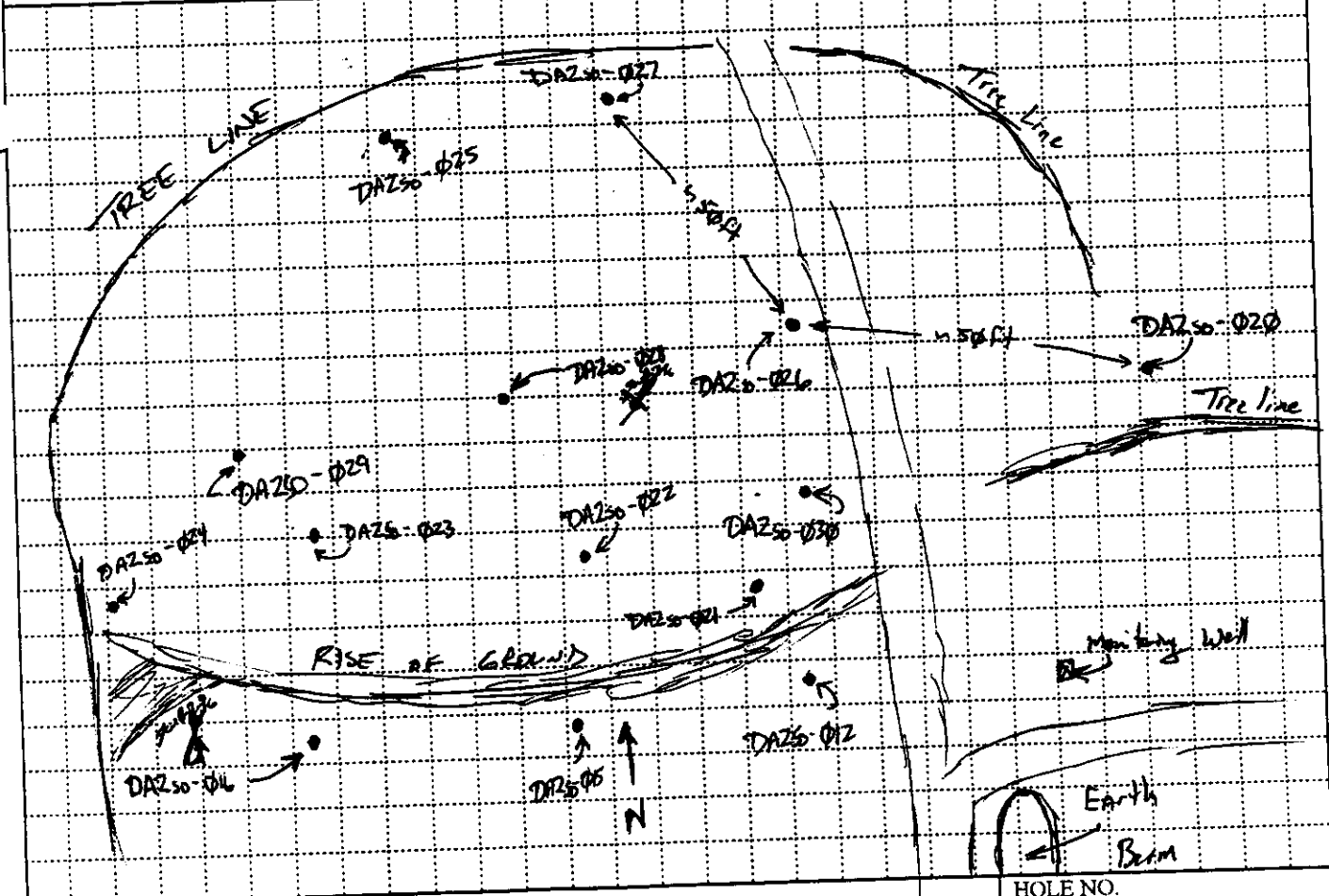
PROJECT **RVAAP**

HOLE NO. **DA250-025**

HTRW DRILLING LOG		DISTRICT <i>DeWitt Co</i>		HOLE NUMBER <i>DAZ50-026</i>	
1. COMPANY NAME <i>SAC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS OF	
PROJECT <i>RVAAP</i>			4. LOCATION <i>Ravenna OH</i>		
5. NAME OF DRILLER <i>NA</i>			6. MANUFACTURERS DESIGNATION OF DRILL <i>Hand Auger & Little Green Power Auger</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S.S. hand auger & Little Green Power Auger</i>		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>			
		9. SURFACE ELEVATION <i>NIT</i>			
		10. DATE STARTED <i>8/07/96</i>		11. DATE COMPLETED <i>8/14/96</i>	
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>ND GW</i>			
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>			
14. TOTAL DEPTH OF HOLE <i>4.0 ft BGS</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>			
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See sample log</i>		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE <i>Abandoned</i>		BACHELLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Restrike</i>	21. TOTAL CORE RECOVERY <i>NA</i>
				23. SIGNATURE OF INSPECTOR <i>DeWitt</i>	

LOCATION SKETCH/COMMENTS
North Side of Demolition Area #2 Soil borings

SCALE: *Not to scale (est. distances)*



PROJECT <i>RVAAP</i>	HOLE NO. <i>DAZ50-026</i>
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HTRW DRILLING LOG

HOLE NUMBER
DA250-026
SHEET
2 of 2

PROJECT **RVAAP** INSPECTOR **J. Johnson**

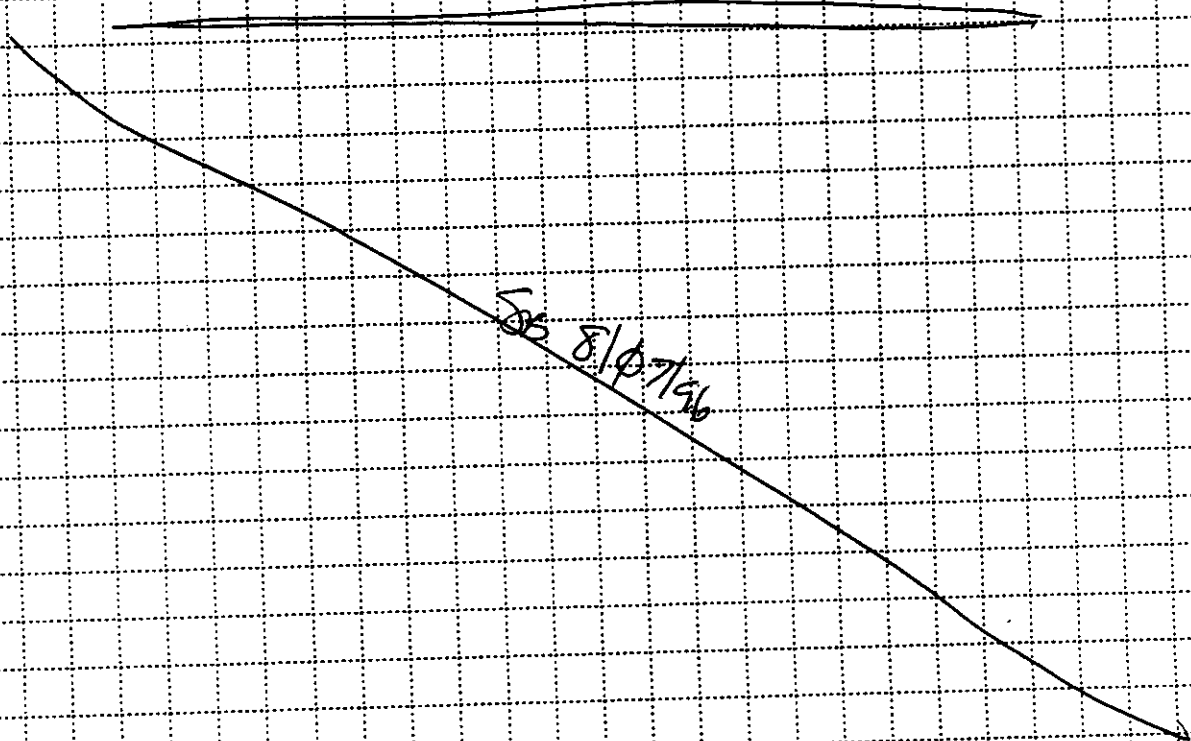
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Yellow brown silt	<1.0 ppm Hardness 0.5 ppm	NA	DA250- 026- 0631- 50	
	2.0	Yellow brown silt ^{3/4} silt/cl grey highly weathered shale	0.0 ppm	NA	DA250- 026- 0632- 50	
	4.0	3.75 to 4 ft up - Very coarse Sand and pebbles and subordinate grey SH				

PROJECT **RVAAP**

HOLE NO. **DA250-026**

HTRW DRILLING LOG		DISTRICT <u>Nashville Co</u>		HOLE NUMBER <u>DA250-027</u>	
1. COMPANY NAME <u>STIC</u>		2. DRILL SUBCONTRACTOR		SHEET <u>1</u> OF <u>2</u> SHEETS	
PROJECT <u>RVAAP</u>			4. LOCATION <u>Ravenna</u>		
5. NAME OF DRILLER <u>NA</u>			6. MANUFACTURER'S DESIGNATION OF DRILL <u>HOLE LOCATOR</u>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		3" S.S. Hand auger & Little Beaver Power Auger		8. HOLE LOCATION <u>SEE SKETCH FOR DA250-026</u>	
			9. SURFACE ELEVATION <u>NA</u>		
			10. DATE STARTED <u>8/06/96</u>		11. DATE COMPLETED <u>8/06/96</u>
12. OVERBURDEN THICKNESS <u>NA</u>			15. DEPTH GROUNDWATER ENCOUNTERED <u>NO GW</u>		
13. DEPTH DRILLED INTO ROCK <u>NA</u>			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <u>NA</u>		
14. TOTAL DEPTH OF HOLE <u>3.5ft bpd</u>			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <u>NA</u>		
18. GEOTECHNICAL SAMPLES		DISTURBED <u>SB 8/06/96</u>	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY <u>NA</u>
22. DISPOSITION OF HOLE <u>Abandoned</u>		BACKFILLED <u>NA</u>	MONITORING WELL <u>NA</u>	OTHER (SPECIFY) <u>Restored</u>	23. SIGNATURE OF INSPECTOR <u>Matthew West signing for "Inspector" S. Budney</u>
LOCATION SKETCH/COMMENTS			SCALE: <u>NA</u>		

See DA250-026 for sketch



PROJECT <u>RVAAP</u>	HOLE NO. <u>DA250-027</u>
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HTRW DRILLING LOG

HOLE NUMBER
DA250-027

PROJECT **RYAAP**

INSPECTOR **S. H. ...**

SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Grey Brown SH	Ø. Ø ppm Headspace Ø. Ø ppm	NA	DA250- Ø27- Ø634- SO	
	2.0	At 3 ft changed to highly weathered rock fragments white	Np	NA	DA250- Ø27- Ø635- SO	
	3.5					Hand Auger Refusal

PROJECT

RYAAP
C-60

HOLE NO.

DA250-Ø27
25

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DAZ50-028	
1. COMPANY NAME SLC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Ravening OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Oper ^{House} & Little Bear Hand-Auger.		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT NA 3" S.S. hand auger & Little Bear Power Auger.		8. HOLE LOCATION See Sketch for DAZ50-026			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/07/96		11. DATE COMPLETED 8/07/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 3.5 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Benzene	21. TOTAL CORE RECOVERY % NA
LOCATION SKETCH/COMMENTS				SCALE: NA	
See Site Location Sketch DAZ50-026					
PROJECT RVAAP				HOLE NO. DAZ50-028	

HTRW DRILLING LOG

HOLE NUMBER **DAZ50-028**

PROJECT **RVAAP**

INSPECTOR **Padman**

SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Yellow grey silt and shale	Ø.Øppm	NA	DAZ50-028-0635-50	
2.0		2-3 ft Rock fragments up to 3cm. in yellow grey silt matrix	Ø.Øppm	NA	DAZ50-028-0630-50 + DAZ50-028-0637-FD	3.5 Refusal on large rock.
3.5		3ft yellow grey clay silt				

PROJECT **RVAAP**

HOLE NO. **DAZ50-028**

HTRW DRILLING LOG		DISTRICT <i>Nashville COE</i>		HOLE NUMBER <i>DA250-029</i>	
1. COMPANY NAME <i>SIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1 OF 2</i>	
PROJECT <i>RVAAP</i>			4. LOCATION <i>Pavenna OH</i>		
5. NAME OF DRILLER <i>NA</i>			6. MANUFACTURERS DESIGNATION OF DRILL <i>Hand Auger & Little Beaver Power Auger</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" SS hand auger & Little Beaver Power Auger</i>		8. HOLE LOCATION <i>See Sketch for DA250-026</i>			
9. SURFACE ELEVATION <i>NA</i>					
12. OVERBURDEN THICKNESS <i>NA</i>			10. DATE STARTED <i>8/07/96</i>		
13. DEPTH DRILLED INTO ROCK <i>NA</i>			11. DATE COMPLETED <i>8/07/96</i>		
14. TOTAL DEPTH OF HOLE <i>3.75ft bcp</i>			15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>		
18. GEOTECHNICAL SAMPLES <i>NA</i>			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>		
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See samples log</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY % <i>NA</i>
22. DISPOSITION OF HOLE <i>Abandoned</i>		BACKFILLED <i>NA</i>	MONITORING WELL <i>NO</i>	OTHER (SPECIFY) <i>Bentonite</i>	23. SIGNATURE OF INSPECTOR <i>Shidney</i>
LOCATION SKETCH/COMMENTS				SCALE: <i>NA</i>	
<p><i>See Site Sketch for DA250-026</i></p>					
PROJECT <i>RVAAP</i>			HOLE NO. <i>DA250-029</i>		

HTRW DRILLING LOG

HOLE NUMBER **LAZ50-029**
 SHEET **2 of 2**

PROJECT **RVAAP** INSPECTOR **S. Buckley**

ELF. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		grey brown silt	0.0 ppm Headspace 1.8 ppm	NA	LAZ50-029-0638-S0	
	2.0	grey ^{silty} clayey silt	0.0 ppm	NA	LAZ50-029-0639-S0	
	3.75					3.75 refusal

PROJECT **RVAAP**

HOLE NO. **LAZ50-029** 35

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER DA250-030	
1. COMPANY NAME SAK		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION Rowena OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger & Little Beaver Power Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT NA Hand Auger (3" S.S.) & Little Beaver Power Auger		8. HOLE LOCATION SEE SKETCH FOR DA 250-026			
9. SURFACE ELEVATION NA					
10. DATE STARTED 8/07/96			11. DATE COMPLETED 8/07/96		
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED No GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 4 FT			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample Log		VOC NA	METALS NA	OTHER (SPECIFY) Bentonite	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		23. SIGNATURE OF INSPECTOR S. B. [Signature]			
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) NA	
LOCATION SKETCH/COMMENTS SCALE: NA					
See DA250-026 for Location Sketch					
S. B. 8/07/96					
PROJECT RVAAP				HOLE NO. DA250-030	

HTRW DRILLING LOG

HOLE NUMBER: **DAZ 50-030**
 SHEET: **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Reddish brown Very coarse Sand and pebbles 1.5 ft more gravel	$\phi. \phi$ ppm Needs spec $\phi. \phi$ ppm	NA	DAZ 50- $\phi 3 \phi$ - $\phi 64 \phi$ - SO DAZ 50- $\phi 3 \phi$ - $\phi 64 \phi$ - FD	
	2.0	Tan silt < 10% ^{gravel} _{modelling}		NA	DAZ 50- $\phi 3 \phi$ - $\phi 64 \phi$ - SO	
	4.0		$\phi. 4$ ppm			

PROJECT: **RVAAP** HOLE NO: **DAZ 50-030**

DEMOLITION AREA
SURFACE WATER, POND, AND STREAM SEDIMENT
LOGBOOK #32

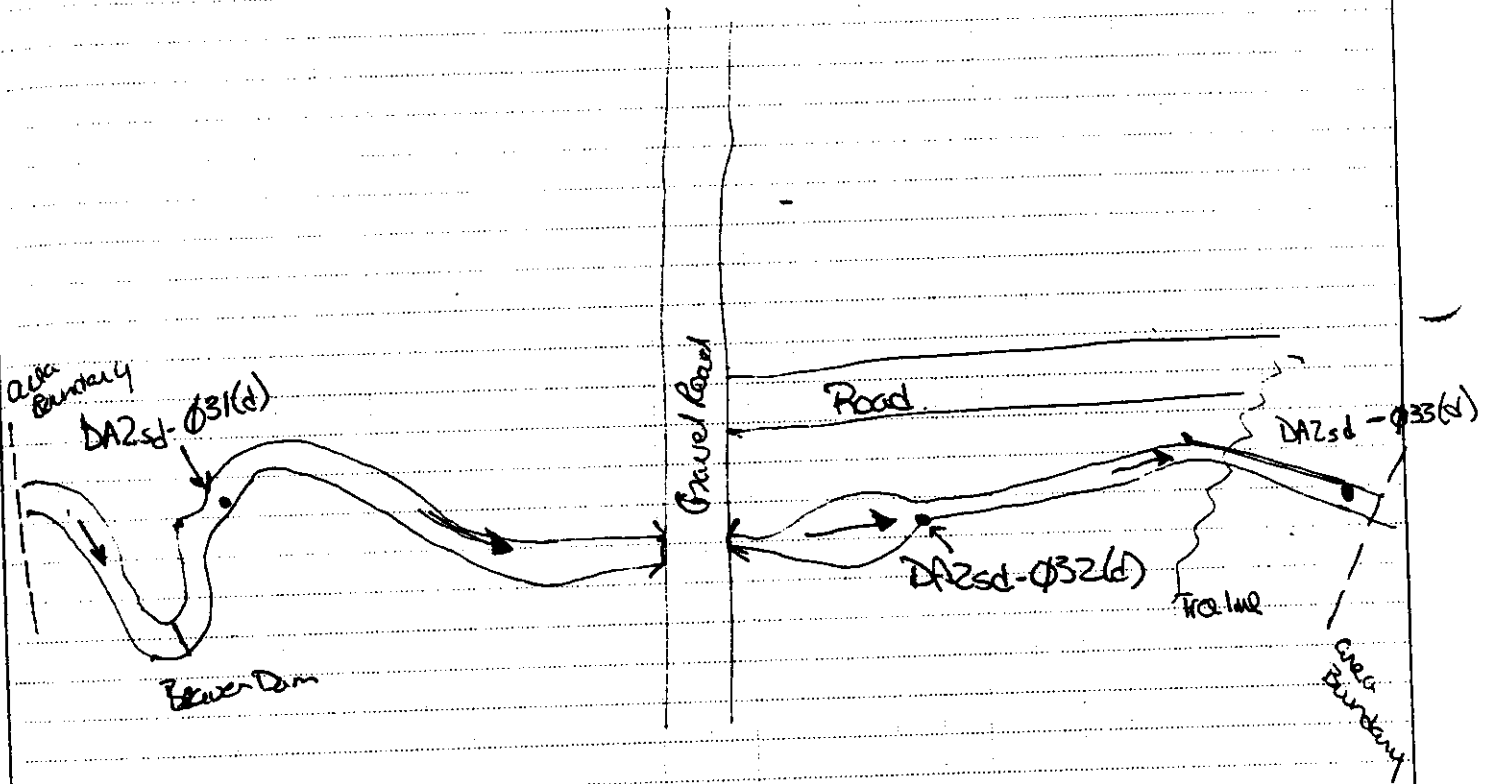
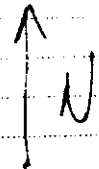
LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: DA25d-033(d)-0649-5D	DATE COLLECTED (mm/dd/yy): 08/08/96
SAMPLE LOCATION: 033 Mid stream where stream exits DA2.	TIME COLLECTED (hh:mm): 0825, 0955, & 0900
SAMPLING POINT: DA25d-033(d) & 031 & 032	DEPTH: 0-0.5 ft

- 031 Approx 100ft downstream of Beaver Dam just downstream of where stream enters DA2
- 032 Approx. 50ft East of intersection of stream & road



COMMENTS:

8/8/96

RECORDED BY: Sweeney	DATE 08/08/96	QA CHECK BY: John J. White	DATE 08-08-96
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SAMPLE LOCATION MAPS AND SOIL BORING LOGS
Winklepeck Burning Grounds

Soil Samples:

WBG-ss-001
WBG-ss-002
WBG-ss-003
WBG-ss-004
WBG-ss-005
WBG-ss-006
WBG-ss-007
WBG-ss-008
WBG-ss-009, 010, 011, 012, 013, 015
WBG-ss-014
WBG-ss-020, 021, 022, 023, 024, 025
WBG-ss-026, 027, 028, 016, 017, 018, 019
WBG-ss-029, 030, 031, 032, 033, 034
WBG-ss-035, 036, 037, 038
WBG-ss-039, 053
WBG-ss-040
WBG-ss-041
WBG-ss-042, 043, 044, 045, 046, 047
WBG-ss-048, 049, 050, 051, 052, 054, 055
WBG-ss-056
WBG-ss-057
WBG-ss-058
WBG-ss-063, 062, 061, 060, 059
WBG-ss-064

Soil Samples (con't)

WBG-ss-065, 066, 067, 068, 069, 070
WBG-ss-071, 072, 073, 074, 075, 076, 077

WBG-ss-097, 098

Drainage Sediments:

WBG-sd-078
WBG-sd-079
WBG-sd-080
WBG-sd-081
WBG-sd-082
WBG-sd-083
WBG-sd-084
WBG-sd-085
WBG-sd-086
WBG-sd-087
WBG-sd-088
WBG-sd-089
WBG-sd-090

WINKLEPECK BURNING GROUNDS

**SOIL BORING LOGS
LOGBOOKS #39, #40, AND #41**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WB655-001	
1. COMPANY NAME SATC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION WB655-001 / WB6 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger.		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS hand auger		8. HOLE LOCATION SEE SKETCH FOR WB655-001			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 07/31/96		11. DATE COMPLETED 07/31/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 FT + BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA %		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR Matthew [Signature] - signing for C. [Signature]	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Antonio [Signature]	
LOCATION SKETCH/COMMENTS See WB655-001					
SCALE: NA					
<p>SEE WB655-001 Log for sketch showing location of WB655-001.</p>					
PROJECT RVAAP				HOLE NO. WB655-001	

HTRW DRILLING LOG

HOLE NUMBER
W1565-001
SHEET
2 of 2

PROJECT

RVAAP

INSPECTOR

J. DeWanna

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	1.0	Brown silty clay, some sand, some mottling of grey silty clay; soft	dry			0 ppm background 0 ppm headspace
	2.0					
<p>Joe DeWanna 7/31/96</p>						

PROJECT
RVAAP

HOLE NO.
W1565-001

2 Cr

HTRW DRILLING LOG		DISTRICT <i>NASHVILLE</i>		HOLE NUMBER <i>WB655-002</i>	
1. COMPANY NAME <i>SAC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1 OF 2</i>	
PROJECT <i>RVAAT</i>			4. LOCATION <i>WB655-002</i>		
5. NAME OF DRILLER <i>NA</i>			6. MANUFACTURERS DESIGNATION OF DRILL <i>hand auger</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" s.s. hand auger</i>		8. HOLE LOCATION <i>SEE sketch for WB655-002</i>			
			9. SURFACE ELEVATION <i>NA</i>		
			10. DATE STARTED <i>07/31/94</i>		11. DATE COMPLETED <i>07/31/94</i>
12. OVERBURDEN THICKNESS <i>NA</i>			15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>		
13. DEPTH DRILLED INTO ROCK <i>NA</i>			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>		
14. TOTAL DEPTH OF HOLE <i>2.0 ft BGS</i>			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>		
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See Sample Log</i>		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE <i>Abandoned</i>		BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Bentonite</i>	21. TOTAL CORE RECOVERY <i>NA</i>
				23. SIGNATURE OF INSPECTOR <i>Matthew [Signature] signed for (Inspector) J. DeWagon</i>	
LOCATION SKETCH/COMMENTS <i>See WB655-002</i>			SCALE: <i>NA</i>		
<p><i>SEE log for WB655-002 for sketch show WB655-002 location</i></p>					
PROJECT <i>RVAAT</i>				HOLE NO. <i>WB655-002</i>	

HTRW DRILLING LOG

HOLE NUMBER
WBS655-002
 SHEET
20/2

PROJECT
RVAAP

INSPECTOR
J. DeVaughn

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOCHEM. SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		dk. brown silty clay, some sand, soft.				Oppm Headspace Oppm background
	1.0	dk. brown silty clay, more silt, some grey mottling firm.	dry			
	2.0					
			<div style="font-size: 2em; font-family: cursive;">J. DeVaughn</div>	<div style="font-size: 2em; font-family: cursive;">7/31/96</div>		

PROJECT
RVAAP

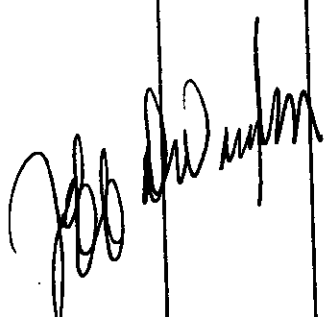
HOLE NO.
WBS655-002

HTRW DRILLING LOG		DISTRICT		HOLE NUMBER	
1. COMPANY NAME SAIC		NASHVILLE		WB655-003	
PROJECT RVAAP		2. DRILL SUBCONTRACTOR NCR		SHEET SHEETS 1 of 2	
5. NAME OF DRILLER NA		4. LOCATION WB655-003		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION see WB655-003 sketch		9. SURFACE ELEVATION NA	
12. OVERBURDEN THICKNESS NA		10. DATE STARTED 07/31/90		11. DATE COMPLETED 07/31/94	
13. DEPTH DRILLED INTO ROCK NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 2.0 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		19. TOTAL NUMBER OF CORE BOXES NA	
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	
NA		NA		NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC		METALS	
See Sample COL		NA		NA	
22. DISPOSITION OF HOLE		BACKFILLED		MONITORING WELL	
Abandoned		NA		NA	
21. TOTAL CORE RECOVERY		OTHER (SPECIFY)		OTHER (SPECIFY)	
NA		Bentonite		Methusel signing for inspector J. Delvaughn	
LOCATION SKETCH/COMMENTS		SCALE:		N/A	
see WB655-003					
SEE WB655-003 for sketch					
showing location of WB655-003.					
PROJECT RVAAP		HOLE NO. WB655-003		(Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NUMBER **WISBSS-003**
SHEET **2 of 2**

PROJECT **RVAAP** INSPECTOR **J. DeWitt**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Dk. brown sandy silt, some gravel, soft				Oppm Headspace and background
	1.0	Mottled silty clay, reddish brown and grey, firm.	dry			
	2.0					
				7/3/96		

PROJECT **RVAAP**

HOLE NO. **WISBSS-003**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WB655-004	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION WB655-004		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS hand auger		8. HOLE LOCATION See sketch for WB655-000			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 07/30/90		11. DATE COMPLETED 07/30/90	
12. OVERBURDEN THICKNESS NA		13. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.8 ft + BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR [Signature] signed for ("Inspector") M. O'Key	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	
LOCATION SKETCH/COMMENTS See WB655-000			SCALE: NA		
<p>SEE LOG FOR WB655-000 FOR SKETCH SHOWING WB655-004 LOCATION:</p>					
PROJECT RVAAP		HOLE NO. WB655-004			

HTRW DRILLING LOG

HOLE NUMBER **WB6-004**

PROJECT **RVAAP**

INSPECTOR **M. O'Hara**

SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	.8 1.0	Gravel w/ sand (6.9) 4.1' Brn coarse gravel and F.C. sand. Dry. kermed @ .75'			WB6-004	Headspace = 2 PPM Boring Hole = 1 PPM
		TD = 0.8' (due to cobbles/gravel)				
		<i>[Signature]</i>			7/30/94	

PROJECT **RVAAP**

HOLE NO **WB6-004**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WB655-005	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP		4. LOCATION WB655-005 / WB66 / RVAAP			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand case			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand case		8. HOLE LOCATION See Sketch for WB655-008			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 07/30/96		11. DATE COMPLETED 07/30/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2-0ft 365		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY NA	
NA		VOC NA		METALS NA	
See Sample CDC		OTHER (SPECIFY) Carbonite		OTHER (SPECIFY) Other (Specify)	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
23. SIGNATURE OF INSPECTOR Matthew Van signing for (Inspector) M. O'Boyle		OTHER (SPECIFY) Carbonite		OTHER (SPECIFY) Other (Specify)	
LOCATION SKETCH/COMMENTS See WB655-008		SCALE: NA			
<p>See log for WB655-008 for sketch locating WB655-005</p>					
PROJECT RVAAP				HOLE NO. WB655-005	

HTRW DRILLING LOG

HOLE NUMBER
W18455-005
SHEET 2 of 2

PROJECT *RVAAP*

INSPECTOR *H. O'bley*

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	<div style="text-align: center;">1.0</div> <div style="text-align: center;">2.0</div>	<p><i>Yellow brown sandy silt, 10% gravel ary</i></p>				<p><i>Open breakspace and work area</i></p>
<p style="font-size: 2em;"><i>John W. Douglas 7/30/96</i></p>						

PROJECT *RVAAP*

HOLE NO. *W18455-005*

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WB655-006	
1. COMPANY NAME JAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAAP			4. LOCATION WB655-006/WB6/RVAAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2" S.S. hand auger		8. HOLE LOCATION SEE SKETCH FOR WB655-006			
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 07/30/96		11. DATE COMPLETED 07/30/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NO			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 2.0 ft BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
See Sample CAC					
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY NA
LOCATION SKETCH/COMMENTS See WB655-006				SCALE: NA	
<p>SEE log for WB655-006 for SKETCH S. HONING. WB655-006 LOCATION.</p>					
PROJECT RVAAAP				HOLE NO. WB655-006	

HTRW DRILLING LOG

HOLE NUMBER: **WB655-0016**
 SHEET: **2 of 2**

PROJECT: **RVAAP** INSPECTOR: **M. O'Hara**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	<div style="text-align: center;">1.0</div> <div style="text-align: center;">2.0</div>	<p>Yellowish brown silty clay, trace gravel. Also mottled with grey silty clay. More clay in lower 0.5' dry</p> <hr style="border: 1px solid black;"/>				<p>Headspace of ppm</p>
		<p><i>M. O'Hara</i></p>		<p>7/30/96</p>		

PROJECT: **RVAAP**

HOLE NO.: **WB655-0016**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WB655-007	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
PROJECT RVAAP			4. LOCATION WB655-007 / WB6 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH FOR WB655-008.			
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 11/30/96		11. DATE COMPLETED 12/30/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 2.0 ft BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
See Sample COC ←					
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR Matthew Vent signing for ("Inspector") M. Okoye
LOCATION SKETCH/COMMENTS See WB655-008 for sketch			SCALE: NA		
SEE WB655-008 FOR SKETCH OF WB6 S.S. - 007					
PROJECT RVAAP				HOLE NO. WB655-007	

HTRW DRILLING LOG

HOLE NUMBER
WB655-007
SHEET
2 of 2

PROJECT
RV300

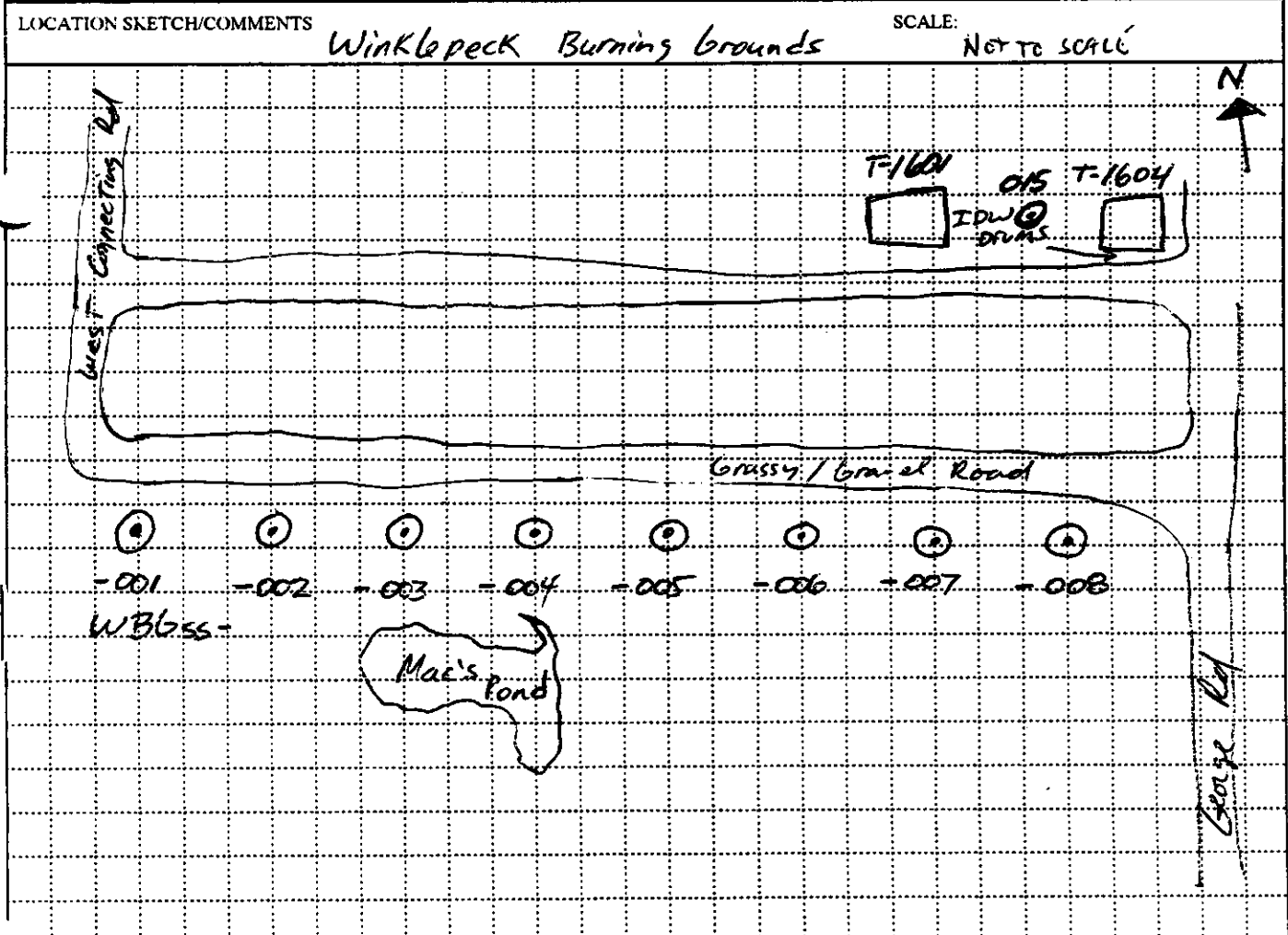
INSPECTOR
M. Obley

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	<div style="text-align: center;">1.0</div> <div style="text-align: center;">2.0</div>	yellowish brown sandy silty (clay free) trace gravel dry				Oppm Headspace and BZ work area
<p style="font-size: 2em; transform: rotate(-15deg);">John DeAngelis 7/30/06</p>						

PROJECT
RV300

HOLE NO.
WB655-007

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WB655-008	
1. COMPANY NAME SATC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2	
PROJECT Ravena Army Ammunition Plant			4. LOCATION WB655-008 / through ^{through} total ^{total} RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW			
9. SURFACE ELEVATION NA			10. DATE STARTED 8/31/96		
11. DATE COMPLETED 8/31/96			12. OVERBURDEN THICKNESS NA		
13. DEPTH DRILLED INTO ROCK NA			14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
15. DEPTH GROUND WATER ENCOUNTERED NO GW			16. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR Matthew West signing for ("inspector") M. O'Byrne
22. DISPOSITION OF HOLE Abandoned		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA



PROJECT RVAAP	HOLE NO. 008 WB655-008
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HTRW DRILLING LOG

HOLE NUMBER
WB655-0268

PROJECT
RVAAP

INSPECTOR
M. O'Boyle

SHEET
2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.3	Black gravel and sand				Some gravel (looks like coal)
	1	Yellowish brown sandy silt to silty sand, trace gravel	dry			
	1.8 2	Greyish brown, more silt TD = 2'				Open in hole. Headspace SS ppm could be decon fluid

John De Vanghe 7/30/96

PROJECT
RVAAP

HOLE NO.
WB655-0268

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WB655-009 thru 013 & 015	
1. COMPANY NAME SATC		2. DRILL SUBCONTRACTOR		SHEET 1 OF 2	
PROJECT RVAAP			4. LOCATION WB655-009 thru WB655-013 and WB655-015		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss. hand auger		8. HOLE LOCATION SEE sketch Below			
		9. SURFACE ELEVATION NA SEA			
		10. DATE STARTED 08/05/96		11. DATE COMPLETED 08/05/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE See Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY NA	
VOC NA		METALS NA		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) See Sample COE		OTHER (SPECIFY) Restoration		23. SIGNATURE OF INSPECTOR Handwritten Signature for Matt O'Leary (Inspector)	
LOCATION SKETCH/COMMENTS			SCALE: None		
<p>Note: locations are located in Clearings w/ Pink Rhodod w/ Flagging Marking locations.</p>					
PROJECT RVAAP			HOLE NO. 013 & 015 WB655-009 thru 015		

HTRW DRILLING LOG

HOLE NUMBER
WB655-009 thru 015

DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
1	Yell. Brn silty sand (S ₁) Dry, loose.	0.0 ppm Headspace		WB655-015	
2					
0					
1	Yell Brn silty sand Dry, loose.	0.0 ppm Headspace		WB655-013	
2					
0					
1	Yell Brn silt w/ clay Dry, soft.	0.0 ppm Headspace		WB655-012	
2				WB655-011	
0					
1	Yell Brn silt w/ clay and sand Dry, loose.	0.0 ppm Headspace		WB655-011	
2					
0					
1	Yell Brn silt w/ clay and sand Dry and loose. Some orange mottling	0.0 ppm Headspace		WB655-010	
2					
0					
1	Yell Brn sand and silt w/ gravel Dry and loose	0.0 ppm Headspace		WB655-009	
2					

John W. Dwyer
8/5/96

PROJECT **RVAAP**

HOLE NO. **WB655-009 thru 013 and 015**
Page 28 JD 8/5/96

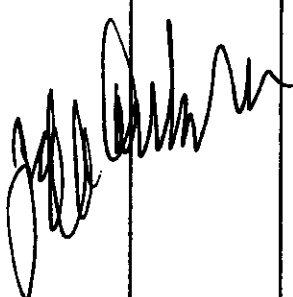
HTRW DRILLING LOG		DISTRICT <i>NASHVILLE</i>		HOLE NUMBER <i>WB655-014</i>	
1. COMPANY NAME <i>SAC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET <i>1</i> OF <i>2</i> SHEETS	
PROJECT <i>RVAAP</i>			4. LOCATION <i>WB6/RVAAP</i>		
5. NAME OF DRILLER <i>NA</i>			6. MANUFACTURERS DESIGNATION OF DRILL <i>hand auger</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S.S. hand auger</i>		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>			
			9. SURFACE ELEVATION <i>NA</i>		
			10. DATE STARTED <i>8/8/96</i>		11. DATE COMPLETED <i>8/8/96</i>
12. OVERBURDEN THICKNESS <i>NA</i>			15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>		
13. DEPTH DRILLED INTO ROCK <i>NA</i>			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>		
14. TOTAL DEPTH OF HOLE <i>~1.5 ft BGS</i>			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>		
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
<i>NA</i>		<i>NA</i>	<i>NA</i>	<i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
<i>See Sample CBK</i>					
22. DISPOSITION OF HOLE <i>As a bonded</i>		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. SIGNATURE OF INSPECTOR <i>Matthew [unclear] signing for J. DeVaugh (Inspector)</i>
		<i>NA</i>	<i>NA</i>	<i>Benjamin [unclear]</i>	
LOCATION SKETCH/COMMENTS <i>See sketch for locations 009-015</i> SCALE: <i>N/A</i>					

SEE SKETCH FOR ^{BORINGS} LOCATIONS
WB655-009 - 013 & 015 FOR
 LOCATION OF *WB655-014*

PROJECT <i>RVAAP</i>	HOLE NO. <i>WB655-014</i>
(Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NUMBER
WB 05 014
SHEET
2072

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Sandy silt and gravel, cobbles. Dry, loose, soft. Refusal at 1.5'			WB 055-014	Borehole @ ppm Headspace @ ppm
	1.0					
	1.5					
					8/8/96	

PROJECT

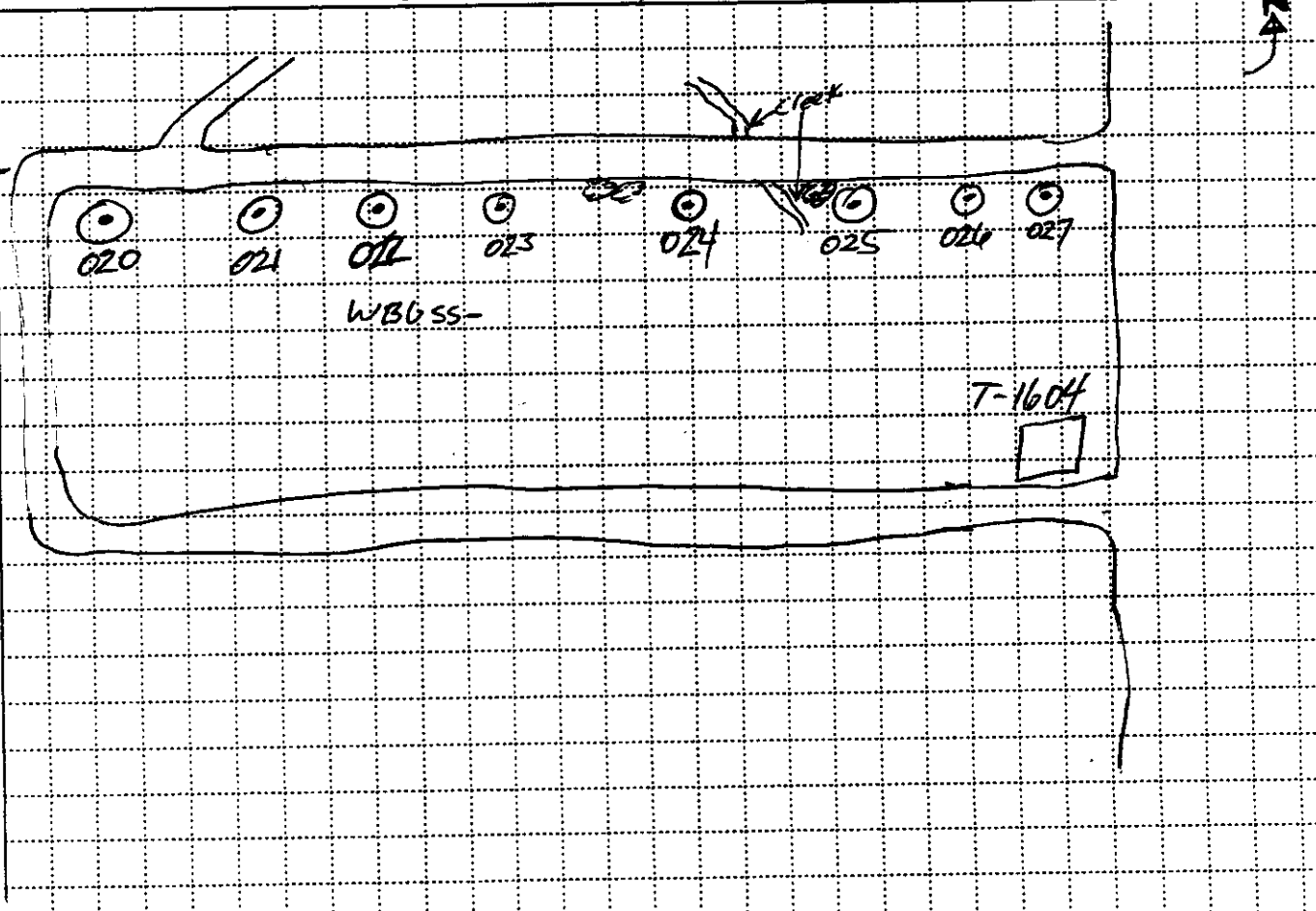
RVAAP

HOLE NO.

WB 055-014

HTRW DRILLING LOG		DISTRICT <i>Nashville COE</i>		HOLE NUMBER <i>WB655</i>	
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS OF	
PROJECT <i>RVAAP</i>		4. LOCATION <i>WBG / RVAAP</i>		<i>STEP</i>	
5. NAME OF DRILLER <i>NA</i>		6. MANUFACTURER'S DESIGNATION OF DRILL <i>hand auger</i>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S. Hand auger</i>		8. HOLE LOCATION <i>See Sketch Below</i>			
		9. SURFACE ELEVATION <i>NA</i>			
		10. DATE STARTED <i>08/05/94</i>		11. DATE COMPLETED <i>08/05/94</i>	
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>			
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>			
14. TOTAL DEPTH OF HOLE <i>See Page 2 of 2</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>			
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>		UNDISTURBED <i>NA</i>	
19. TOTAL NUMBER OF CORE BOXES <i>NA</i>					
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See Sample COC</i>		VOC <i>NA</i>		METALS <i>NA</i>	
		OTHER (SPECIFY) <i>NA</i>		OTHER (SPECIFY) <i>NA</i>	
21. TOTAL CORE RECOVERY <i>NA</i>					
22. DISPOSITION OF HOLE <i>Abandoned</i>		BACKFILLED <i>NA</i>		MONITORING WELL <i>NO</i>	
		OTHER (SPECIFY) <i>Restored</i>		23. SIGNATURE OF INSPECTOR <i>Math [Signature]</i>	
				<i>signing for M. Obloy ("Inspector")</i>	

LOCATION SKETCH/COMMENTS *Winklepeck Burning Grounds* SCALE: *None*



PROJECT <i>RVAAP</i>	HOLE NO. <i>WB655-020 thru 025</i>
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HTRW DRILLING LOG

HOLE NUMBER
WB 61-020 thru 025

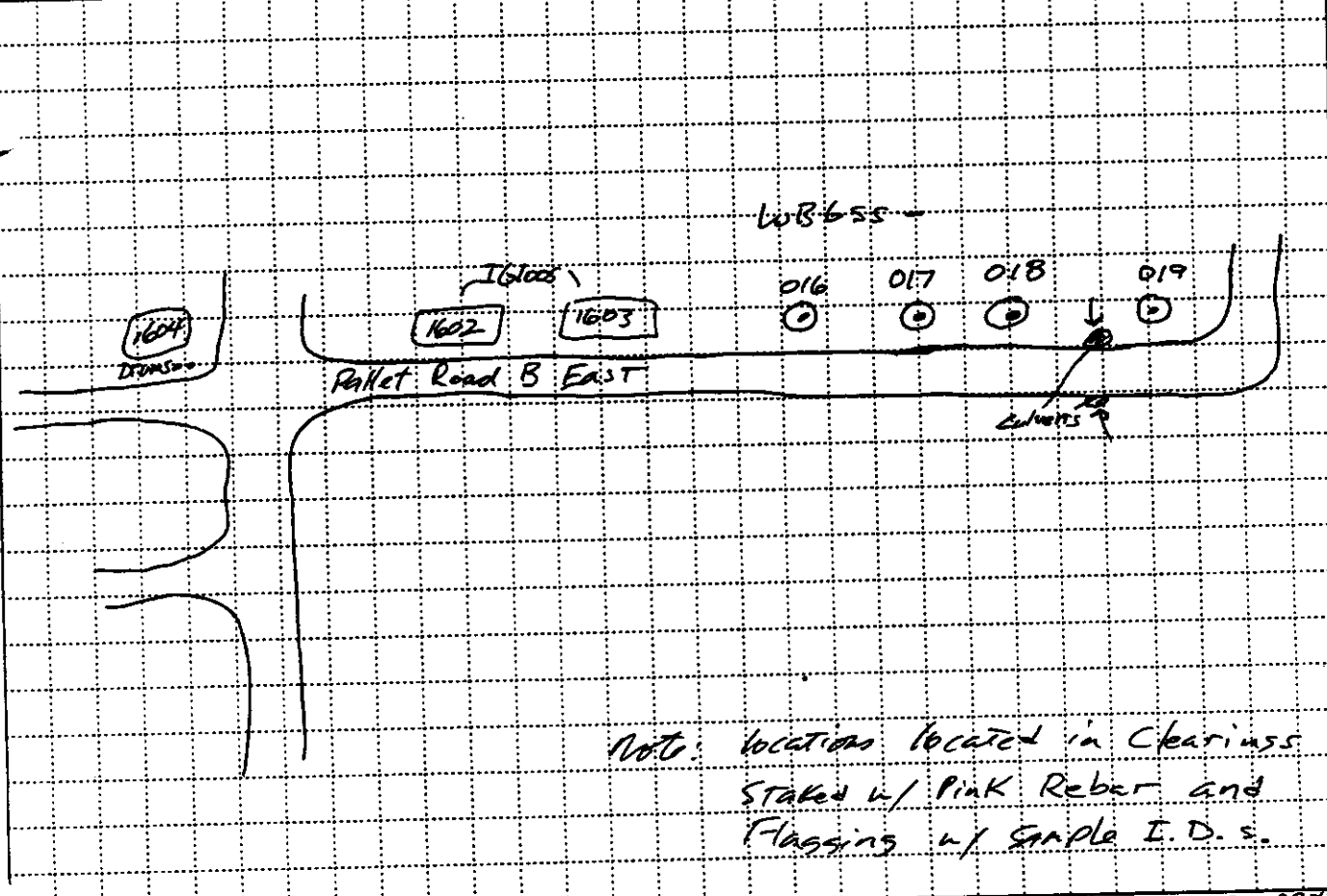
PROJECT RVAAP INSPECTOR M. Ohl SHEET 2 of 2

DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	CERTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
1	Brn sand and silt dry, loose. F.U.F. sand.	Headspace 0.0 ppm		WB655-020	
0					
1	Yell Brn silt w/ clay and sand; soft. Mottled w/ gray.	Headspace 0.0 ppm		WB655-021	
2					
0					
1	0-1.5' Bln Brn silt and sand; dry, loose. 1.5' - 2.0' silty clay DK yell Brn w/ spon mottling, moist.	Headspace 0.0 ppm		WB655-022	
2					
0					
1	DK yell Brn sandy silt (ML): dry and soft.	Headspace 0.0 ppm		WB655-023	
2					
0					
1	DK yell Brn sandy silt (ML): slight moist, soft.	Headspace 0.0 ppm		WB655-024	
2					
0					
1	0-0.5' gravel and sand DK Brn. Dry and loose. Refined @ .5'			WB655-025	
2					
<p><i>M. Ohl</i></p>			<p>8/5/96</p>		

PROJECT RVAAP

HOLE NO. WB655-020 thru 025
34

HTRW DRILLING LOG		DISTRICT <u>Nashville COE</u>		HOLE NUMBERS <u>016-019</u>	
1. COMPANY NAME <u>SAIC</u>		2. DRILL SUBCONTRACTOR <u>NA</u>		SHEET <u>1</u> OF <u>2</u>	
3. SUBJECT <u>RVAAP</u>		4. LOCATION <u>WB655-016 thru 019 of WB655-026, 027, 028</u>			
5. NAME OF DRILLER <u>Oblay / DeVaughn</u>		6. MANUFACTURERS DESIGNATION OF DRILL <u>HAND AUGER</u>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <u>3" S.S. hand auger</u>		8. HOLE LOCATION <u>SEE SKETCH BELOW</u>			
		9. SURFACE ELEVATION <u>NA</u>			
		10. DATE STARTED <u>8/6/96</u>		11. DATE COMPLETED <u>8/7/96</u>	
12. OVERBURDEN THICKNESS <u>NA</u>		13. DEPTH DRILLED INTO ROCK <u>NA</u>			
14. TOTAL DEPTH OF HOLE <u>SEE PAGE 2 of 2</u>		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <u>NA</u>			
16. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <u>NA</u>		17. TOTAL NUMBER OF CORE BOXES <u>NA</u>			
18. GEOTECHNICAL SAMPLES		DISTURBED <u>NA</u>		UNDISTURBED <u>NA</u>	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC <u>NA</u>	METALS <u>NA</u>	OTHER (SPECIFY) <u>NA</u>	OTHER (SPECIFY) <u>NA</u>
21. TOTAL CORE RECOVERY <u>NA</u>		22. DISPOSITION OF HOLE <u>Abandoned</u>			
		BACKFILLED <u>NA</u>	MONITORING WELL <u>NA</u>	OTHER (SPECIFY) <u>Bentonite</u>	23. SIGNATURE OF INSPECTOR <u>W. J. DeVaughn</u>
LOCATION SKETCH/COMMENTS <u>Winkpeck Burning Grounds (WB6)</u>		SCALE: <u>None</u>			



PROJECT <u>RVAAP</u>	HOLE NO. <u>WB655-26, 27, 28 & 016 thru 019</u>
ENG FORM 5056-R, AUG 94	
(Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NUMBER WB65-16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29
SHEET 20/22

PROJECT

RVAAP

INSPECTOR

M. Ohay & J. DeLough

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0	Brown sandy silt, rounded gravel to cobbles, dry, soft, loose. Refusal at 1.5'	dry		WB65-017	Headspace 0 ppm PID 0 ppm
	1.0					
	1.5				WB65-018	8/6/96
	0	Brown sandy silt, gravel and cobbles, refusal at 0.5'	dry		WB65-018	PID 0 ppm Headspace 0 ppm
	0.5					
	0	Brown sandy silt, soft, dry, some gravel	dry		WB65-017	PID 0 ppm Headspace 0 ppm
	1'	Mottled silty clay (Brown w/ grey) mod. plastic, firm.				
	2'					
	0	silty sand and gravel, brown, soft, loose.	dry		WB65-016	PID 0 ppm Headspace 0 ppm
	1.0	silty clay, mottled grey and brown, stiff, dry				
	2.0					
	0	Sandy silty clay, dk. brown, mod. stiff, not plastic, dry	refused on cobble at 0.5'		WB65-027	Headspace 0 ppm PID 0 ppm
	0.5					
	0	dk. brown gravelly silty sand loose, soft, dry.	refused on cobble at 1.3'		WB65-020	Headspace 0 ppm PID 0 ppm
	1.0					
	1.3	silty clay, stiff, mottled H. brown and grey, dry				
	0	Yell. Brn silt and sand dry loose	Headspace 0.0 ppm		WB65-028	
	1					
	2	silt w/ clay soft no. grey				

50
elev. ft.

PROJECT

RVAAP

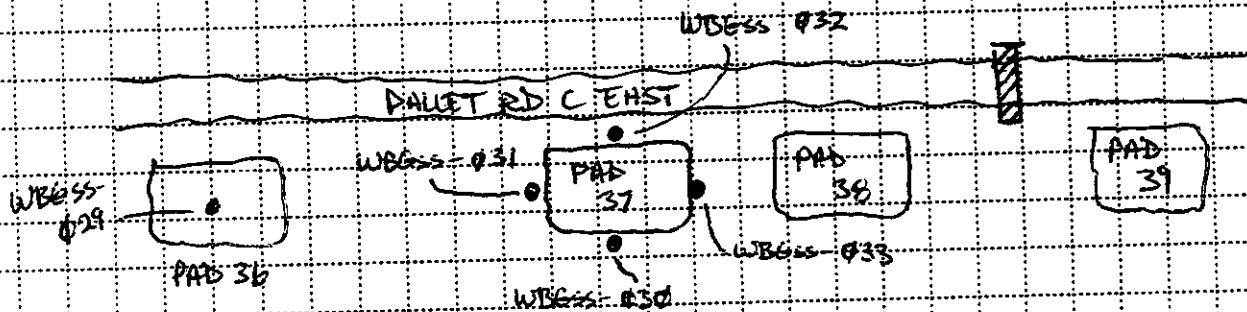
[Signature] 8/6/96
C-96

HOLE NO. WB65-16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28.

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER WB655-029 thru 034
1. COMPANY NAME SAIL		2. DRILL SUBCONTRACTOR NA	SHEET 1 OF 2
3. PROJECT RVAAP		4. LOCATION WB655-034 Home	WB6/RVAAP
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/6/96	11. DATE COMPLETED 8/2/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY	
VOC NA		METALS NA	
OTHER (SPECIFY) NA		OTHER (SPECIFY) NA	
OTHER (SPECIFY) NA		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR M. O'Blay	
BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) NA		OTHER (SPECIFY) NA	

LOCATION SKETCH/COMMENTS

SCALE: NOT TO SCALE



Note: PAD-37 was determined to be the KCPA Waste burning area, not PAD 36 as indicated in SAP work plan.

PROJECT

RVAAP

WB655-033 thru 029

HOLE NO.

WB655-029 thru 034

HTRW DRILLING LOG

HOLE NUMBER
WB655-034 thru 029
SHEET 2 of 2

DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (H)
0	slag, gravel, dry			WB655-034	PID of 10m Headspace of 10m
0.5	lt. brown silty clay, firm, dry, refusal at 1.0.				See previous location sketch
0	Yell brn silty sand dry and loose.	Headspace 0.0 ppm		WB655-033	
0	DK gray sand and gravel - Gravel sized @ .5'	Headspace 0.0 ppm		WB655-032	
0	DK gray sand and gravel	Headspace 0.0 ppm		WB655-031	
0	Yell brn silt and sand dry, soft.	Headspace 0.0 ppm		WB655-030	
0	Sand and gravel top 1/2'	Headspace 0.0 ppm		WB655-029	
0	Yell brn silt and sand trace gravel dry, loose.	Headspace 0.0 ppm		WB655-029	
0	Silt w/ clay, soft				

@ 12/96

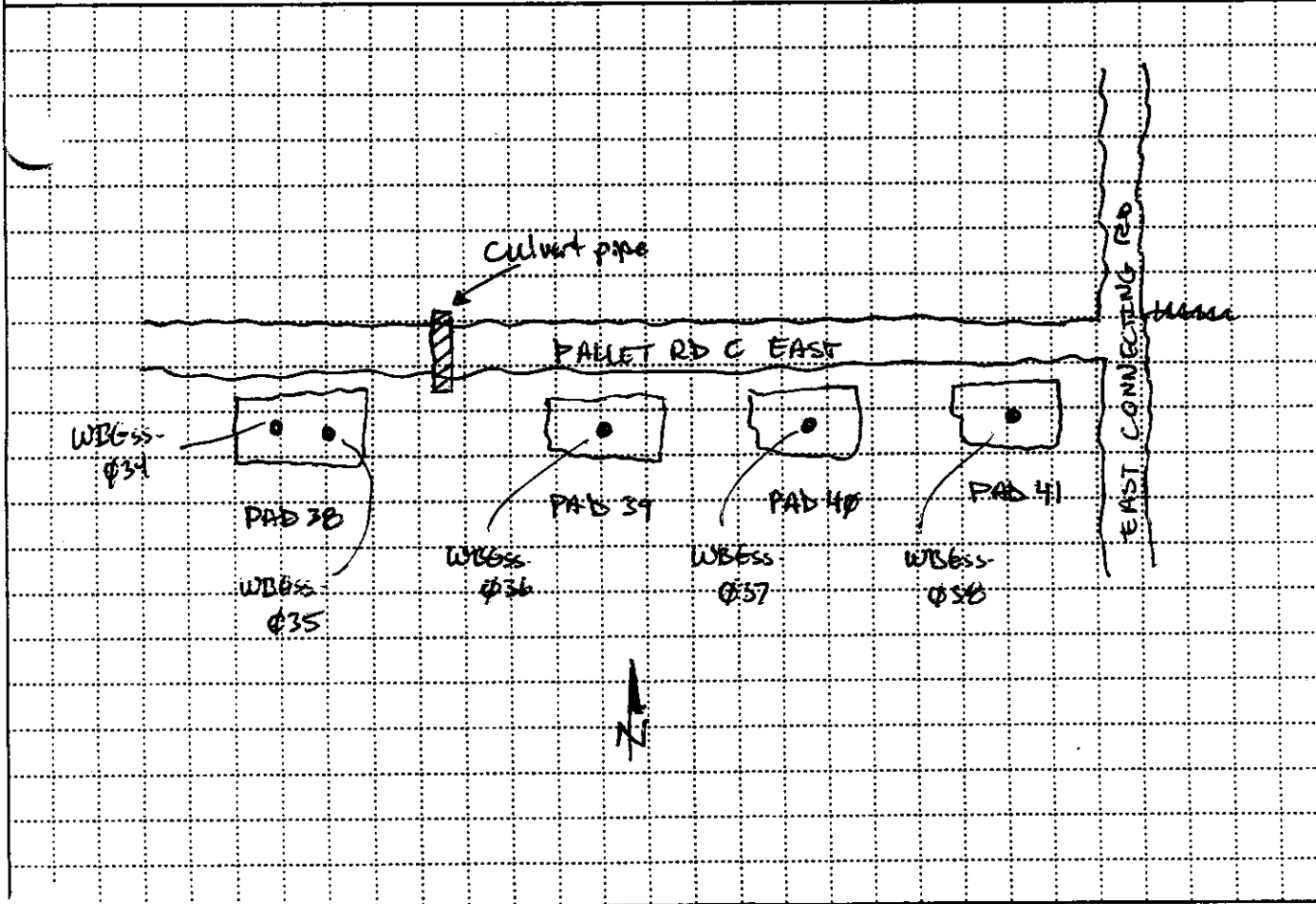
PROJECT RVAAP

HOLE NO. WB655-029 thru 034

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER WBGS 035 thru 038
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA	SHEET 1 OF 2 SHEETS
PROJECT RVAAP		4. LOCATION WBGS. 038 thru 035 034	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL HAND HELD	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE COMPLETED 8/6/96	11. DATE COMPLETED 8/6/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE SEE PAGE 2 OF 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample Col	VOC	METALS	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite
			23. SIGNATURE OF INSPECTOR [Signature] J. DeVoughan

LOCATION SKETCH/COMMENTS

SCALE: NOT TO SCALE



PROJECT RVAAP	HOLE NO. 035 WBGS 035 thru 038
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HTRW DRILLING LOG

HOLE NUMBER: **WB65-035 thru 038**
 SHEET: **2 of 2**

DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
0.5	Black slag gravel, sandy, silty, loose, dry			WB655 038	PID 0ppm Headspace 0ppm
1.0	Brown silty clay, mod. firm, gravel, dry.				
1.7	Lt. grey silty clay, fine sand, soft, moist				
2.0					
0	Brown topsoil, silty, sandy, loose, dry, slag gravel.			WB655. 037	PID 0ppm Headspace 0ppm
1.0	Lt brown mottled w/ grey silty clay, firm, some gravel, dry				
2.0					
0	Brown silty clay, some gravel, firm, dry			WB655. 036	PID 0ppm Headspace 0ppm
1.0					
2.0					
0	Gravel, slag			WB655. 035	PID 0ppm Headspace 0ppm
0.5	Silty sandy clay, brown dry, loose				
1.0					
2.0	silty clay, soft, moist, greyish brown.				
2.0					

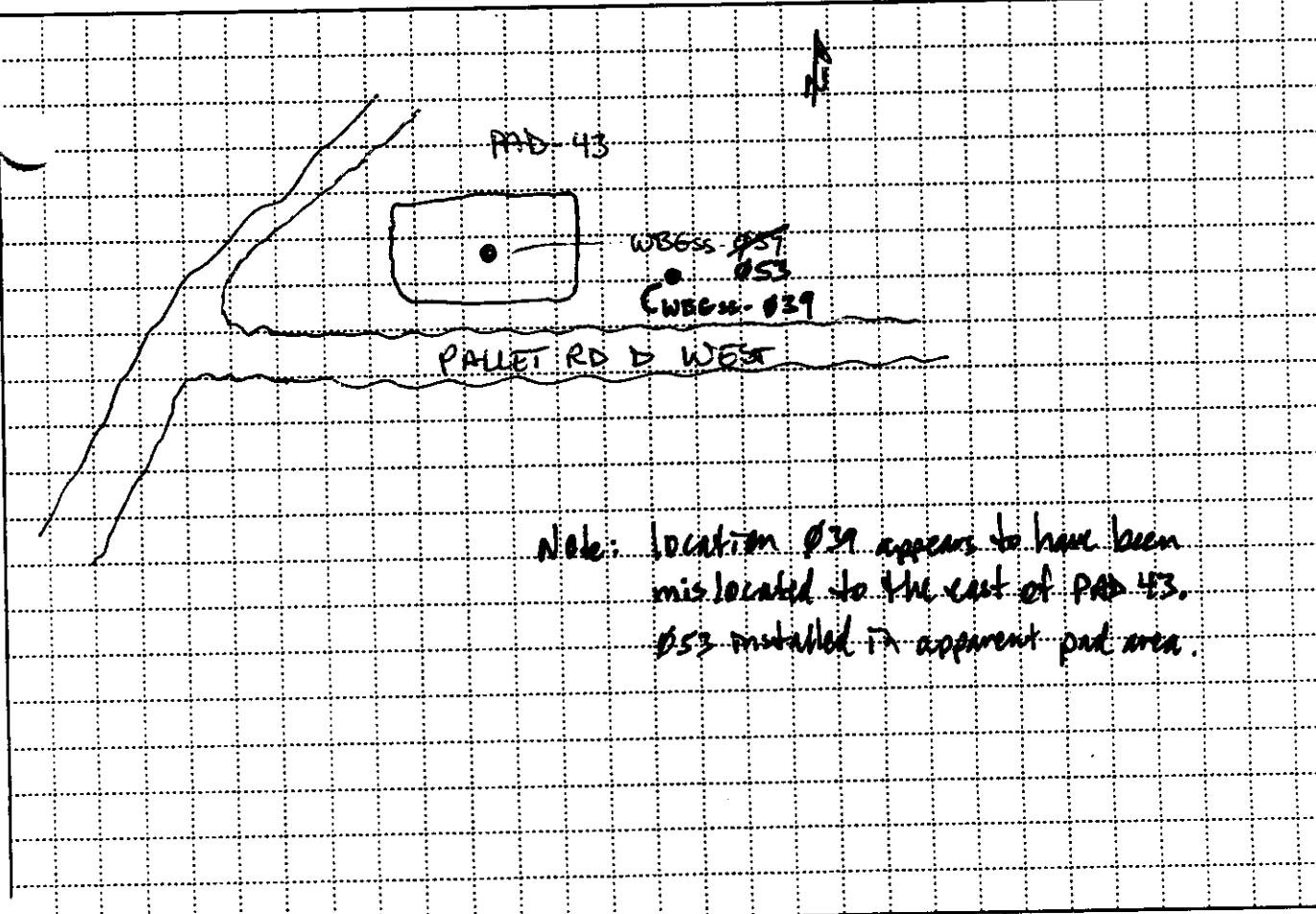
07/22/96

PROJECT: **RVAPP**

HOLE NO.: **WB655-035 thru 038**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WBGSS-039 8053	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
CT RVAAP		4. LOCATION WBG / RVAAP			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3/4" hand auger, stainless steel (S.S.)		8. HOLE LOCATION SEE SKETCH BELOW			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 08/11/96		11. DATE COMPLETED 08/13/96	
12. OVERBURDEN THICKNESS NA		13. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE SEE PAGE 2 OF 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	
NA		NA		NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY NA	
		VOC		METALS	
		OTHER (SPECIFY)		OTHER (SPECIFY)	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
		OTHER (SPECIFY) Bestbrite		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	

LOCATION SKETCH/COMMENTS SCALE: NOT TO SCALE



PROJECT RVAAP	HOLE NO. WBGSS-039853
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HTRW DRILLING LOG

HOLE NUMBER: **WB655-039 8653**
 SHEET: **2 of 2**

PROJECT: **RVAAP** INSPECTOR: **M. Deacon**

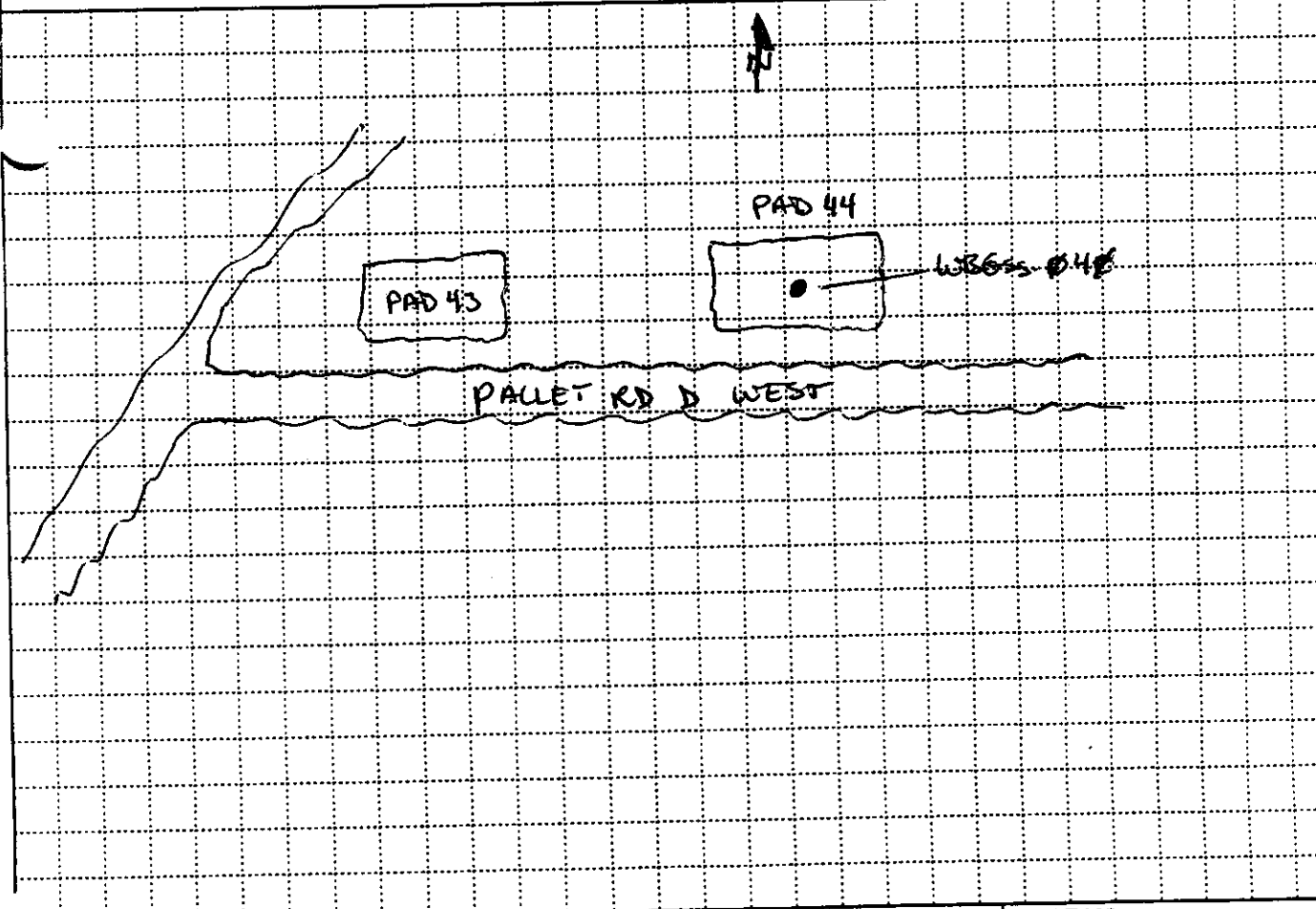
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Brown topsoil silt/sand			WB655- 039	
	2.4'	ϕ				
	ϕ	silty clay, mottled brown and grey, firm, dry.			WB655- 053	
	2.9'					Note that 053 was used at PAD 43 as a TBD. Relocated from PAD 57 which couldn't be found.
			<i>[Signature]</i> 8/22/06			

PROJECT: **RVAAP**

HOLE NO. **053 &
WB655-039**

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER WB655-040
1. COMPANY NAME SARC		2. DRILL SUBCONTRACTOR NT	SHEET SHEETS 1 OF 2
3. LOCATION RVAAP		4. LOCATION WB6 / RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL HARD AUGER	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/21/94	11. DATE COMPLETED 8/31/94
12. OVERBURDEN THICKNESS NA		10. DEPTH TO WATER ENCOUNTERED NA (NO GW)	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 2 ft 8 in		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY %	
VOC NA		METALS NA	
OTHER (SPECIFY) See Sample CDR		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) See Sample CDR		OTHER (SPECIFY) See Sample CDR	

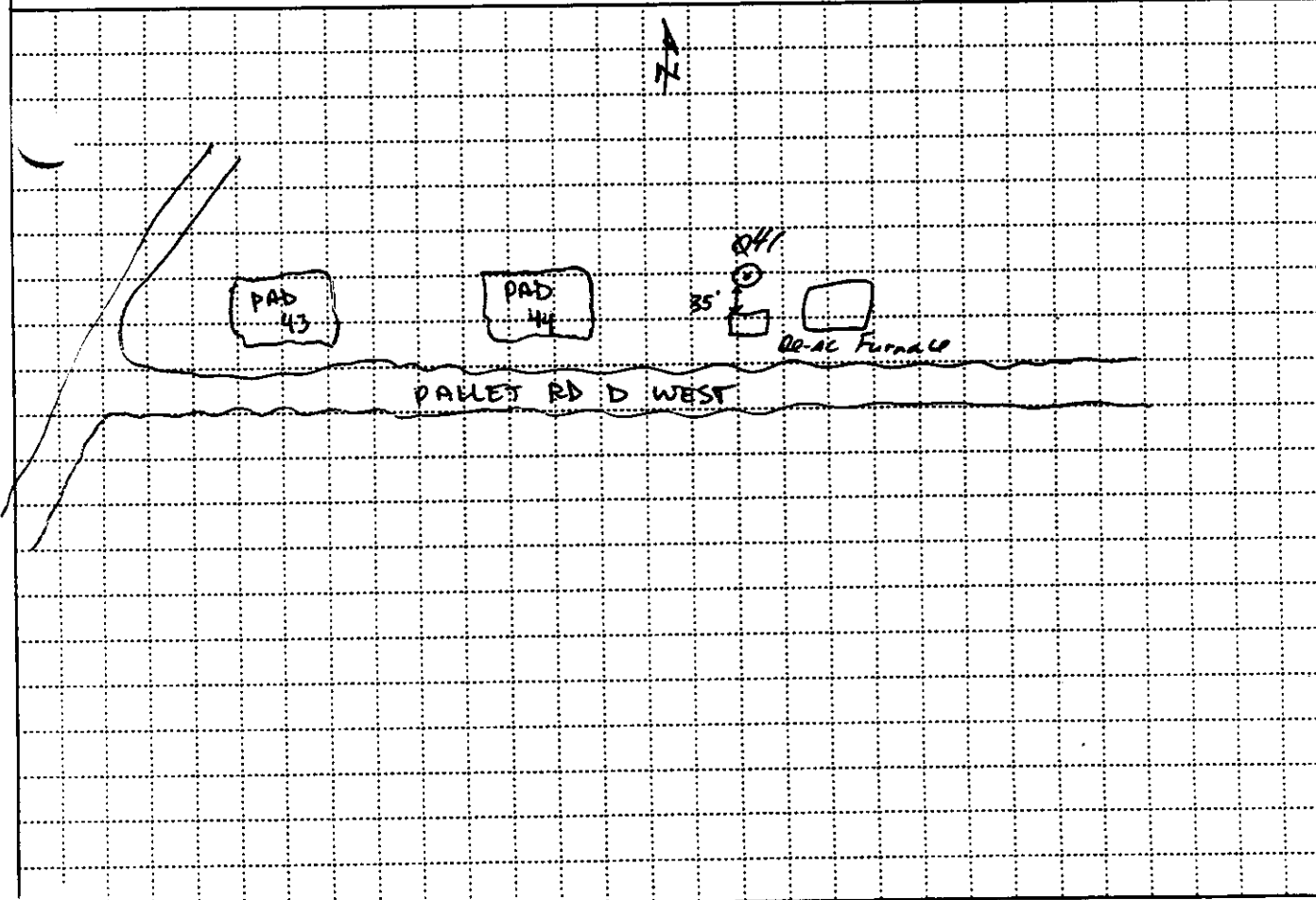
LOCATION SKETCH/COMMENTS SCALE: **NA (NOT TO SCALE)**



PROJECT RVAAP	HOLE NO. WB655-040 (Proponent: CECW-EG)
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HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WBG-041	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. LOCATION RVAAP		4. LOCATION WBG/RVAAP			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/31/96		11. DATE COMPLETED 7/31/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 6" BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE LOG		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY % NA
				23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	

LOCATION SKETCH/COMMENTS SCALE: **N/A (NOT TO SCALE)**



PROJECT RVAAP		HOLE NO. WBG-041
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HTRW DRILLING LOG

HOLE NUMBER
WB655-42 & 47
SHEET 2 of 2

PROJECT RVAAD INSPECTOR M. O'Brien

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GERTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Yell Brn Silt and Sand Dry, loose	Headspace 0.0ppm		WB655-042	
	2	Silt and Clay Soft, moist No. 1000 Gray				
	0	Yell Brn Silt, Sand and Gravel Dry, loose	Headspace 0.0ppm		WB655-043	
	1	Yell Brn Sand, silt to Silty Sand Dry to Moist, Soft.	Headspace 0.0ppm		WB655-044	
	2					
	0	Yell Brn Sand Silt Dry, Soft	Headspace 0.0ppm		WB655-045	
	1	Rebound @ 1.0' Due to Cables				
	2					
	0	Silty Sand to Sandy Silty Loose, Dry. Fine Gravel.	Headspace 0.0ppm		WB655-046	
	1					
	2					
	0	Same as #046 Above	Headspace 0.0ppm		WB655-047	
	1					
	2					

[Signature] 8/22/06

PROJECT RVAAD

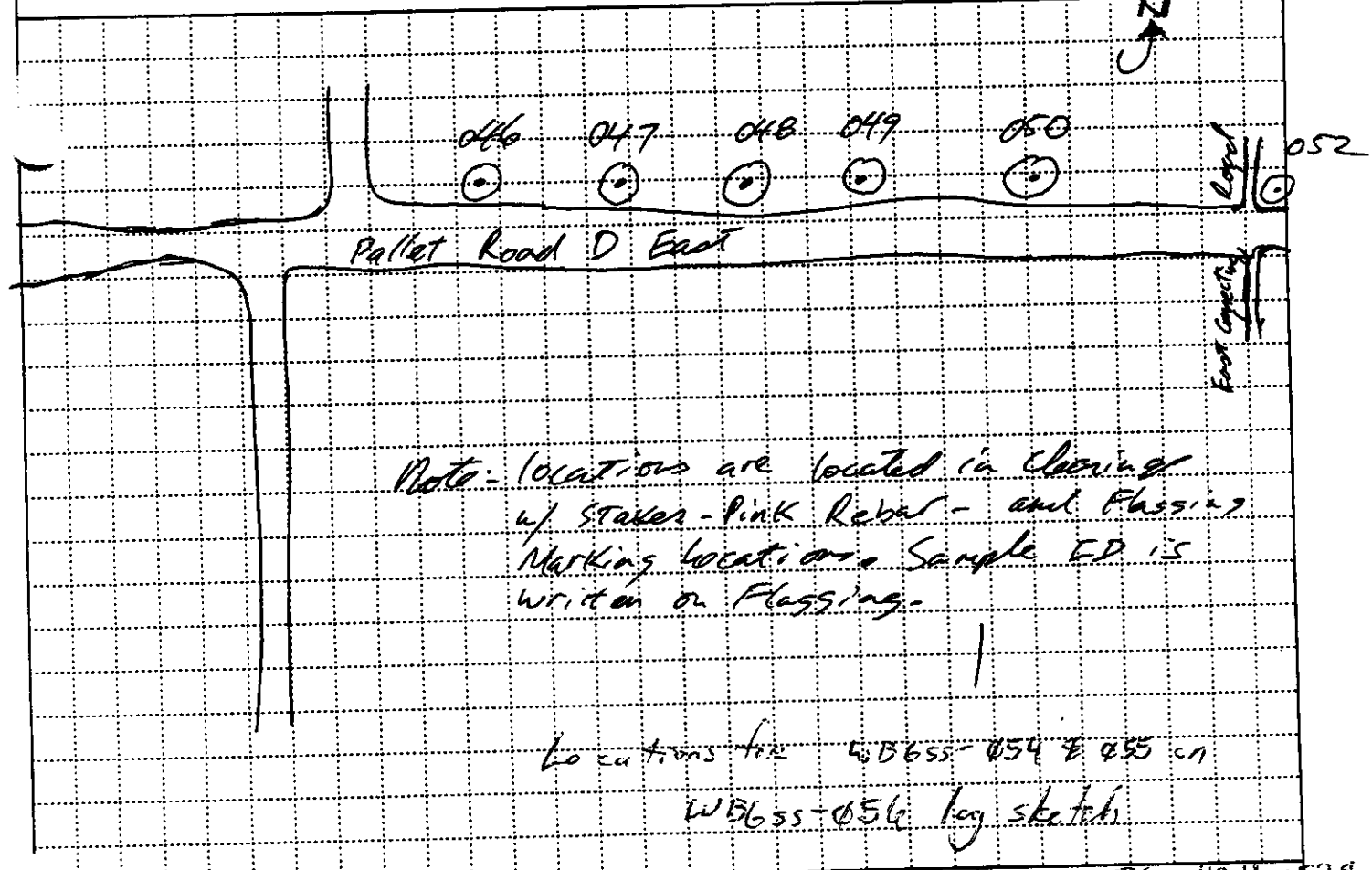
HOLE NO. WB655-042 thru 047

WB655-48 to 52 5455

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER 046-052
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET OF 1 OF 2
3. PROJECT RVAAP		4. LOCATION WBG / RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/7/94	11. DATE COMPLETED 8/8/94
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE See Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	

18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED		19. TOTAL NUMBER OF CORE BOXES	
NA		NA		NA		NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
See Sample log		NA	NA	NA	NA	NA	NA
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR		
Abandoned		NA	NA	Sanitary	Matt [Signature]		

LOCATION SKETCH/COMMENTS SCALE: **None**



PROJECT RVAAP	HOLE NO. WB655-48 thru 52 046-052
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HTRW DRILLING LOG

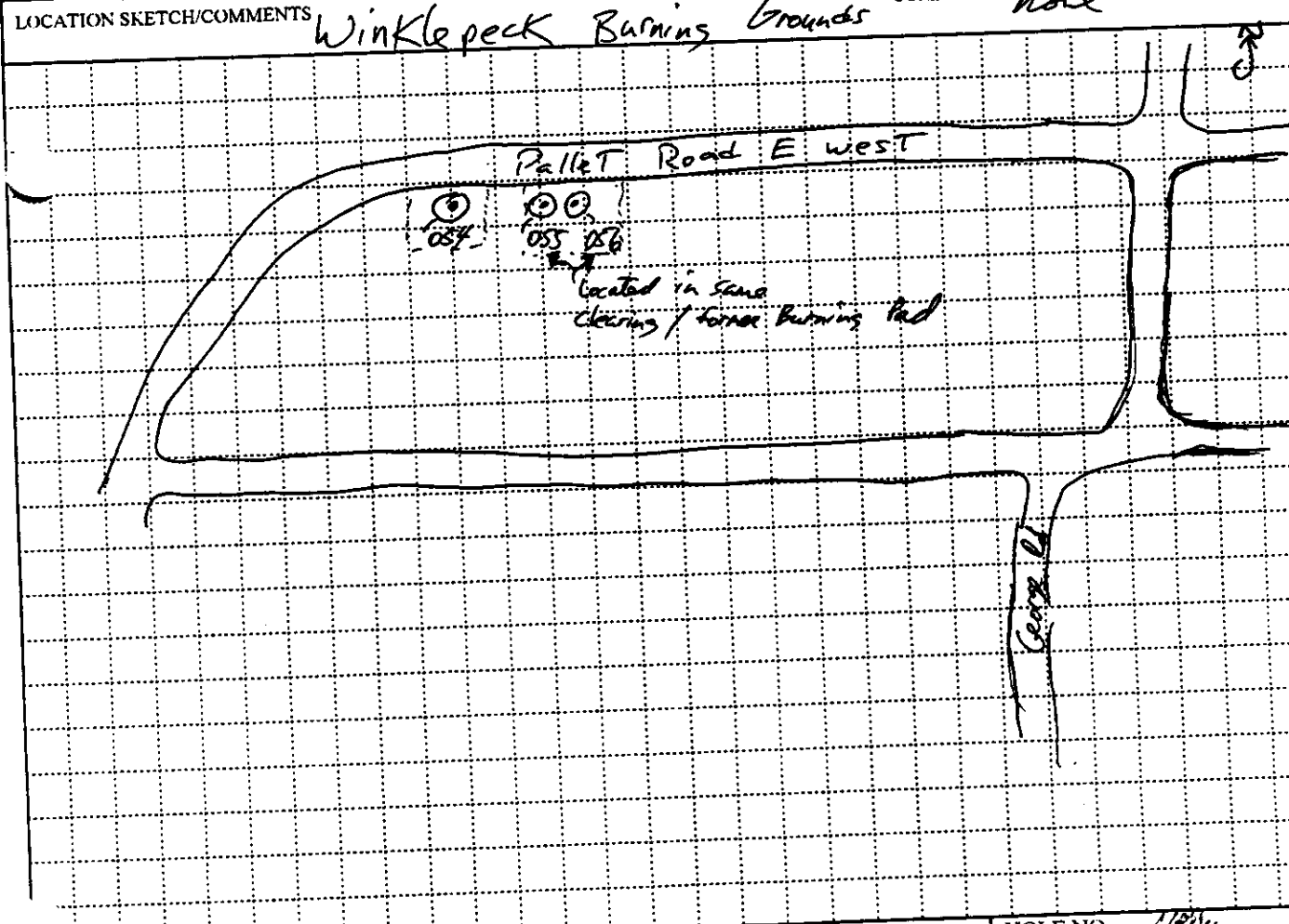
HOLE NUMBER
WB655-48 to 52 854 & 55
SHEET

DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
0 1 2	Yell. Brn Sandy Silt Dry loose, trace cl. vel. mottled gray	Headspace 0.0ppm	WB655- 048		
0 1 2	Yell Brn Sandy Silt Trace clay, trace sand dry, silt.	Headspace 0.0 ppm	WB655- 049		
0 1 2	Silt. dk gray, moist, soft				
0 1 2	Yell Brn Sandy Silt w/ clasts, dry, loose Trace gravel	Headspace 0.0 ppm	WB655- 050		
	Refract @ 1.0' Due to loose cobbles				
0 1 2	Yell Brn. Sandy Silt Trace Gravel Dry Loose	Headspace 0.0 ppm	WB655- 052		
	Silt, sand and clay soft, moist				
1.0 1.8 2.0	Silty sandy topsoil, dry, soft, brown.		WB655- 051		Headspace 0 ppm Borehole 0 ppm
	Silty clay, mottled gray/brown, soft, moist				
0.5	Sandy, silty, topsoil, gravel and cobbles. Refracted at 0.5'	dry	WB655- 054		Headspace 0 ppm Borehole 0 ppm
1.0 1.8 2.0	Brown silty sandy clay, some gravel, dry.		WB655- 055		0 ppm Borehole Headspace
	Burned, black, gravelly silt				

PROJECT **RVAAP**

HOLE NO.
WB655-048 thru 052
and 054, 055

HTRW DRILLING LOG		DISTRICT <i>Nashville COE</i>		HOLE NUMBER <i>WB655-054, 055, 056</i>	
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET <i>1</i> OF <i>2</i> SHEETS	
3. NAME OF DRILLER <i>RVAPP</i> <i>Devaughn / Obloy</i>		4. LOCATION <i>WB6/RVAPP</i>			
5. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>Hand Auger (3"SS)</i>		6. MANUFACTURERS DESIGNATION OF DRILL <i>HAND AUGER</i>			
		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>			
		9. SURFACE ELEVATION <i>NA</i>			
		10. DATE STARTED <i>8/8/94</i>		11. DATE COMPLETED <i>8/8/94</i>	
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUND WATER ENCOUNTERED <i>NO GW</i>			
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>			
14. TOTAL DEPTH OF HOLE <i>SEE PAGE 2 of 2</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>			
18. GEOTECHNICAL SAMPLES		UNDISTURBED <i>NA</i>		19. TOTAL NUMBER OF CORE BOXES <i>NR</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS		DISTURBED <i>NA</i>		21. TOTAL CORE RECOVERY <i>NA</i>	
<i>See Source Code</i>		VOC <i>NA</i>		OTHER (SPECIFY) <i>NA</i>	
22. DISPOSITION OF HOLE <i>Abandoned</i>		METALS <i>NA</i>		OTHER (SPECIFY) <i>NA</i>	
		OTHER (SPECIFY) <i>Bentonite</i>		23. SIGNATURE OF INSPECTOR <i>Walter West (Signature)</i>	
LOCATION SKETCH/COMMENTS <i>Winklepeck Burnings Grounds</i>		SCALE: <i>None</i>			



PROJECT <i>RVAPP</i>	HOLE NO. <i>WB655-054 thru 056</i>
(Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NUMBER
WB655-056, 057, 058
SHEET 2 of 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0	Brown sandy silty clay firm, dry.			WB655-056, 057, 058	Borehole Ø ppm Headspace Ø ppm
	1.0					
	1.8	<u>Black, burned, silty material, dry.</u>				
	2.0					

J. DeLuca
8/22/96

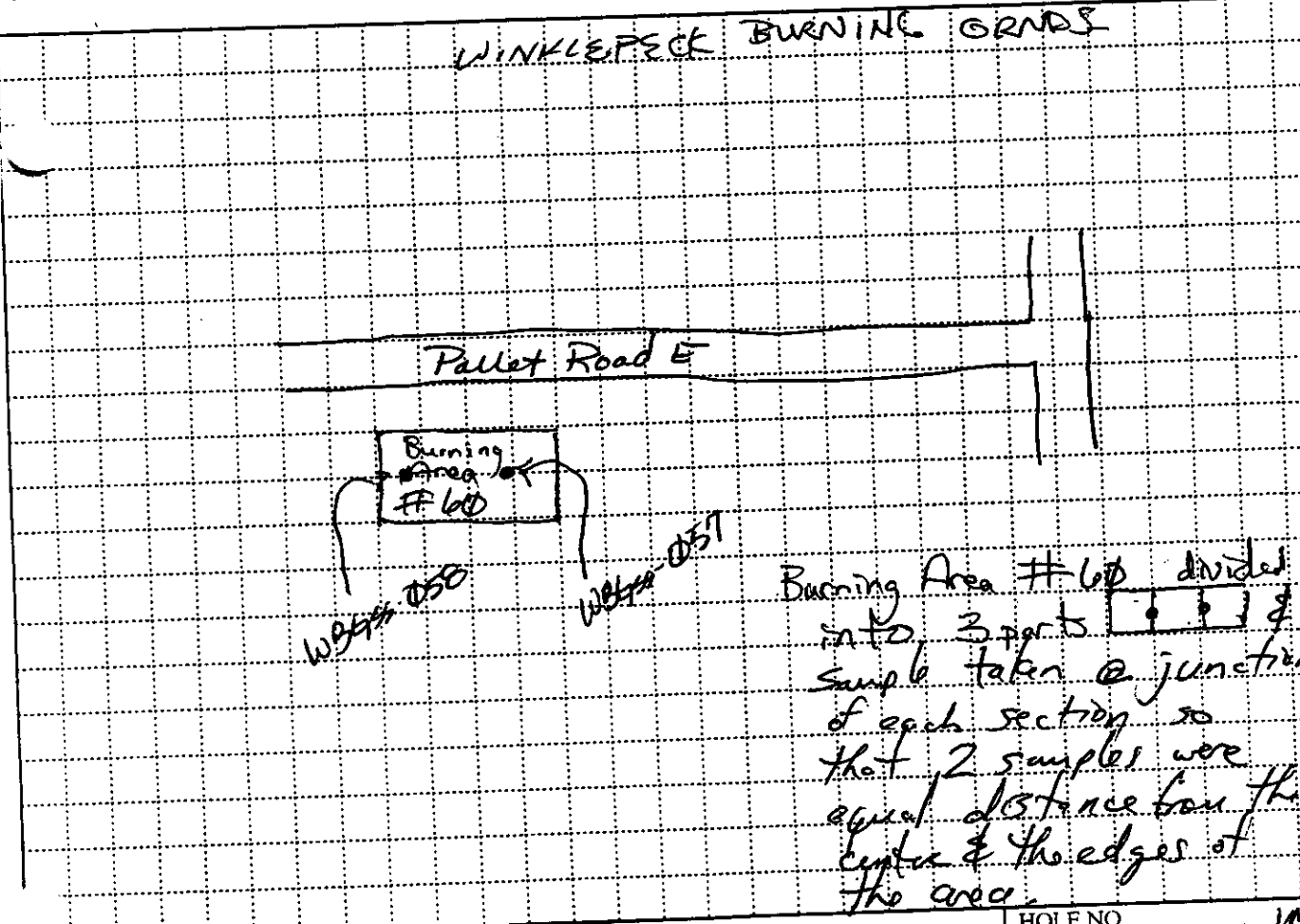
PROJECT **RVAAP**

HOLE NO. **WB655-056, 057, 058**

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER WB455-057
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. NAME OF DRILLER RVAAP		4. LOCATION Winklespeck Burning Grounds	
5. NAME OF DRILLER U Vist		6. MANUFACTURERS DESIGNATION OF DRILL NA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand auger SS bowls & spoons		8. HOLE LOCATION Pallet Road E, Pad #59	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7 AUG 90	11. DATE COMPLETED 7 AUG 90
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 2.0 FEET		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	

18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS 1	VOC NA	METALS 1	OTHER (SPECIFY) EXP-1
22. DISPOSITION OF HOLE HOLE PLUGGED	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) HOLE PLUG
			21. TOTAL CORE RECOVERY NA %
			23. SIGNATURE OF INSPECTOR <i>J M Menden</i>

LOCATION SKETCH/COMMENTS SCALE: Not to Scale



PROJECT RVAAP	HOLE NO. WB455-057
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HTRW DRILLING LOG

HOLE NUMBER
WB655-057
SHEET
2 of 2

PROJECT **RVAAP** INSPECTOR **L. Morrison**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		clayey silt, brown	Head spec. 11.0ppm	NA	WB655-057 0-2'	
		1.5				
		clayey silt dark brown nail, metal band glass, smells like gasoline 2.0				2.0
		Note: bottom tenth silty clay				

PROJECT **RVAAP**

HOLE NO. **WB655-057**

HTRW DRILLING LOG		DISTRICT <u>Nashville</u>		HOLE NUMBER <u>WB655-058</u>	
1. COMPANY NAME <u>SALP</u>		2. DRILL SUBCONTRACTOR <u>NA</u>		SHEET <u>1</u> OF <u>2</u> SHEETS	
PROJECT <u>RVAAD</u>		4. LOCATION <u>Winkelpack Bowling Grounds.</u>			
5. NAME OF DRILLER <u>M. Vost</u>		6. MANUFACTURERS DESIGNATION OF DRILL <u>NA</u>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <u>3" S.S. hand auger, SS bowl & SS separator. (SS = stainless steel)</u>		8. HOLE LOCATION <u>Pallet RD. E, Pad #59</u>			
		9. SURFACE ELEVATION <u>NA</u>			
		10. DATE STARTED <u>8/7/96 (7th Aug 96)</u>		11. DATE COMPLETED <u>8/7/96 (7th Aug 96)</u>	
12. OVERBURDEN THICKNESS <u>NA</u>		15. DEPTH GROUNDWATER ENCOUNTERED <u>NA</u>			
13. DEPTH DRILLED INTO ROCK <u>NA</u>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <u>NA</u>			
14. TOTAL DEPTH OF HOLE <u>1.4 FEET</u>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <u>NA</u>			
18. GEOTECHNICAL SAMPLES <u>NA</u>		DISTURBED <u>NA</u>	UNDISTURBED <u>NA</u>	19. TOTAL NUMBER OF CORE BOXES <u>NA</u>	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
<u>1</u>		<u>NA</u>	<u>1</u>	<u>(Explosives)</u>	<u>NA</u>
22. DISPOSITION OF HOLE <u>Hole plug</u>		BACKFILLED <u>NA</u>	MONITORING WELL <u>NA</u>	OTHER (SPECIFY) <u>Hole plug</u>	21. TOTAL CORE RECOVERY <u>NA</u> %
LOCATION SKETCH/COMMENTS <u>See sketch for borehole -</u>				23. SIGNATURE OF INSPECTOR <u>[Signature]</u>	
				SCALE: <u>NA</u>	

SEE LOCATION SKETCH
for borehole at WB655-057, Pad #60

PROJECT <u>RVAAD</u>	HOLE NO. <u>WB655-058</u>
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HTRW DRILLING LOG

HOLE NUMBER
WB644-058

SHEET
2 of 2

PROJECT

RVAAT

INSPECTOR

M. Vest

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Clayey silt brown	HEADSPACE 0.0 ppm	NA	WB644-058	
1.0	1.0	Clayey silt - dark brown				metal at bottom of hole
	1.4	1.0 LMM 8.1.90 Refusal				
	2.0					

PROJECT

RVAAT

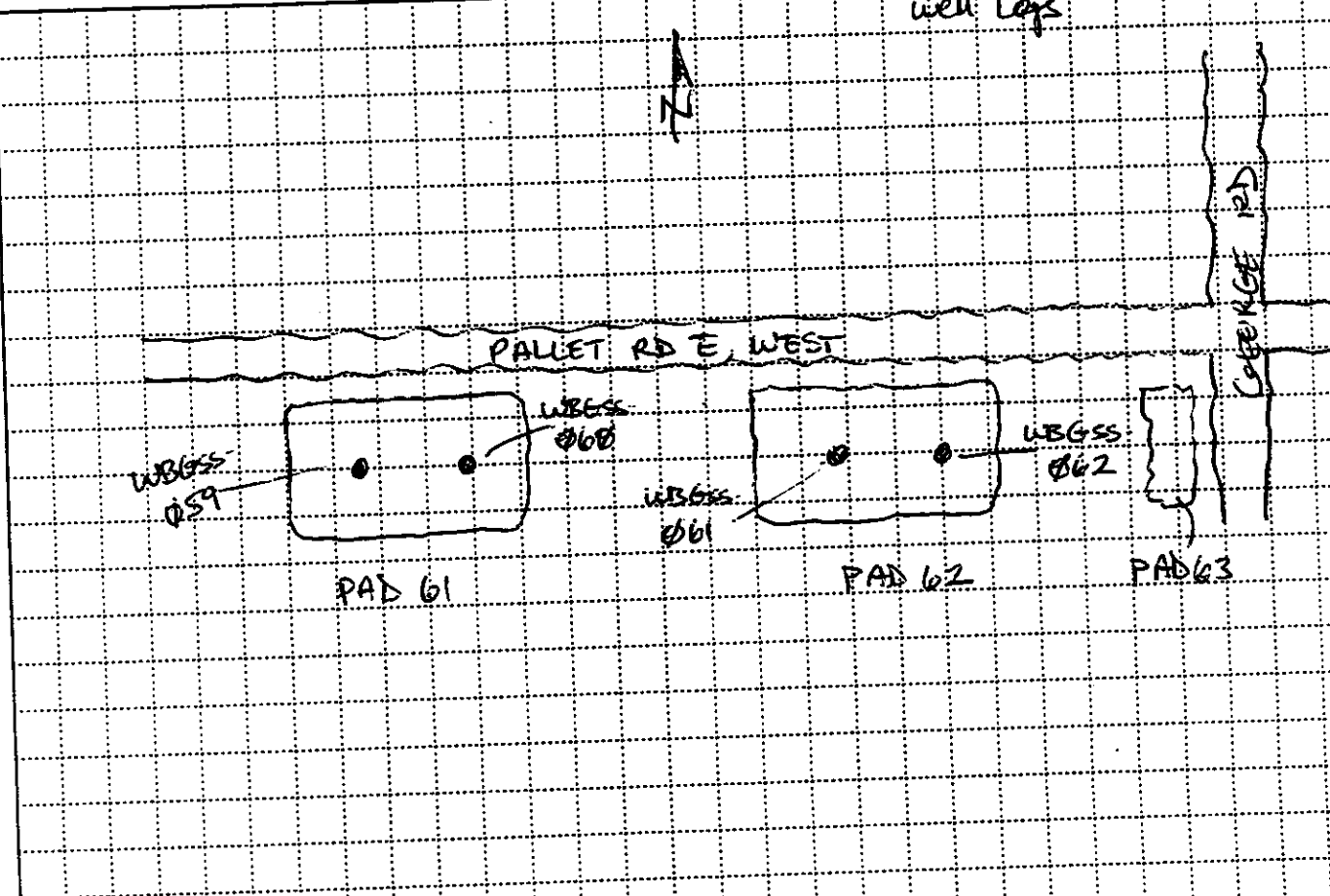
HOLE NO.

WB644-058

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WB665-063, 64, 65, 59	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 3	
3. PROJECT RVAAP		4. LOCATION Winklepeck Burning Grounds			
5. NAME OF DRILLER N. Vest		6. MANUFACTURERS DESIGNATION OF DRILL NA			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss auger SS bowl & spoon		8. HOLE LOCATION Pallet Road E, Pad # 63			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7 AUG 96		11. DATE COMPLETED 7 AUG 96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 FEET		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY NA	
		VOC NA		METALS NA	
		OTHER (SPECIFY) EXPLOSIVES		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE HOLE PLUGGED		BACKFILLED NA		MONITORING WELL NA	
		OTHER (SPECIFY) HOLE RUG		23. SIGNATURE OF INSPECTOR L. Moulton	
LOCATION SKETCH/COMMENTS ALSO SEE SKETCH PAGE 2 of 3.				SCALE: NONE	
Winklepeck Burning Grounds					
Pallet Road E					
<p>Burning Area #63 divided into 3 parts & sample taken at junction so that 2 samples were equidistant from the center and the edges of the area.</p>					
PROJECT RVAAP				HOLE NO. WB665-063, 64, 65, 59	

HTRW DRILLING LOG		DISTRICT		HOLE NUMBER	
1. COMPANY NAME		2. DRILL SUBCONTRACTOR		SHEET 2 OF 3 SHEETS 3	
3. PROJECT		4. LOCATION			
5. NAME OF DRILLER		6. MANUFACTURERS DESIGNATION OF DRILL			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION			
		9. SURFACE ELEVATION			
		10. DATE STARTED		11. DATE COMPLETED	
12. OVERBURDEN THICKNESS		15. DEPTH GROUNDWATER ENCOUNTERED			
13. DEPTH DRILLED INTO ROCK		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED			
14. TOTAL DEPTH OF HOLE		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)			
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES					
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. TOTAL CORE RECOVERY					
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR

LOCATION SKETCH/COMMENTS *WB655-Ø59 thru Ø62* SCALE: *N/A* 3 of 3
See previous page for well logs



PROJECT	RVAAP	HOLE NO. SKETCH FOR	<i>WB655-Ø59 thru Ø63</i>
		(Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NUMBER: **WB655-06359/60, 61, 62**
 SHEET: **2 OF 3**
 DATE: **12/15/94**

DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	(G)
1.0	Silt, some clay brown	HEADSPACE ØØØØ	NA	WB655-063	
2.0	↓ See following page for location sketches ↓				
Ø	Brown, silty clay, gravel, dry.			WB655-059	Headspace Ø ppm Borehole Ø ppm
Ø.8	Black burned silty soil. Refusal at 1.0. dry				
1.0				WB655-060	Headspace Ø ppm Borehole Ø ppm
Ø	Silty, sandy clay, gravel, cobbles, dry. Refusal at 1.0				
1.0					
Ø	Brown, silty, sandy, clay, gravel, dry.			WB655-061	Headspace Ø ppm Borehole Ø ppm
1.0					
1.5					
2.0	silty clay, mottled brown/grey, soft, moist.				
Ø					
Ø	Brown silty sandy clay, some gravel, dry			WB655-062	Headspace Ø ppm Borehole Ø ppm
1.0					
2.0					

JOB
W.D. Dwyer
8/22/94

PROJECT: **RVAAP**

HOLE NO: **WB655-063, 59, 60, 61, 62**

HTRW DRILLING LOG		DISTRICT NASHVILLE E			HOLE NUMBER WB644-06A	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA			SHEET 1 OF 2 SHEETS	
3. PROJECT RVAAP			4. LOCATION WINKLEPECK BURNING GRNDS.			
5. NAME OF DRILLER M. Vest			6. MANUFACTURERS DESIGNATION OF DRILL NA			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS auger SS bowl & spoon		8. HOLE LOCATION Palmetto Rd E, Pad # 63				
		9. SURFACE ELEVATION NA				
		10. DATE STARTED 07 Aug 96		11. DATE COMPLETED 07 Aug 96		
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUND WATER ENCOUNTERED NA				
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA				
14. TOTAL DEPTH OF HOLE 2.0 FEET		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA				
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA		
20. SAMPLES FOR CHEMICAL ANALYSIS 1		VOC NA	METALS 1	OTHER (SPECIFY) 1 Explosives	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA %		22. DISPOSITION OF HOLE hole plug 630	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Hole plug	23. SIGNATURE OF INSPECTOR J. Morison
LOCATION SKETCH/COMMENTS				SCALE:		
<p>See location sketch for borehole at Pad #63, WB644-063</p>						
PROJECT RVAAP					HOLE NO. WB644-06A	

HTRW DRILLING LOG

HOLE NUMBER
WB655-06A
SHEET
Z 0 of Z

PROJECT
RVAAP

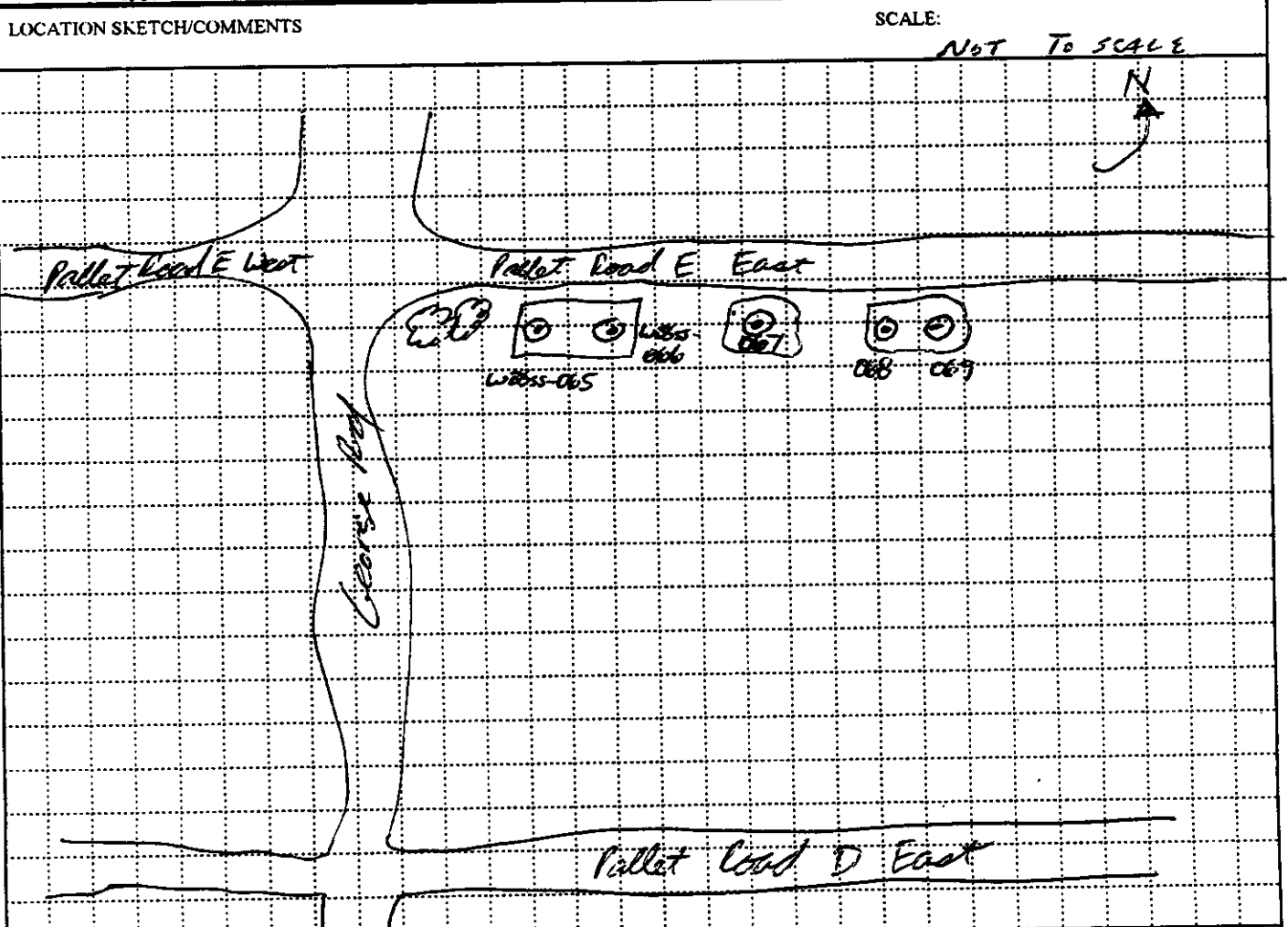
INSPECTOR
L. MORRISON

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1.0	silt, some clay brown	HEADSPACE Φ.Φppm	NA	WB655- 06A	
	2.0					

PROJECT
RVAAP

HOLE NO.
WB655-06A

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER WB65-065-070	
1. COMPANY NAME SATC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION WB6/RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/9/96		11. DATE COMPLETED 8/9/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE SEE PAGE 2 & 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY NA	
SEE SAMPLE COC		VOC NA		METALS NA	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
		OTHER (SPECIFY) Bentonite		23. SIGNATURE OF INSPECTOR <i>Matthew B. West</i> Signing for Matt West (as requested) 8/9/96	



PROJECT RVAAP	HOLE NO. WB65-065-070
ENG FORM 5056-R, AUG 94	
(Proponent: CECW-EG)	

HTRW DRILLING LOG

PROJECT

RVAAP

INSPECTOR

Math C. 'h'ley & Steven G. ...

HOLE NUMBER

WB655-065 thru 070

SHEET

2 of 2

DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
0	Top 3" Black Topsoil	Headspace		WB655-065	
1	3"-20" Yellow Sandy silt - soft, moist	0.0 ppm			
2					
0	Same as #065 Above	Headspace		WB655-066	
1		0.0 ppm			
2					
0	Yellow Brown silt w/ sand and clay. Tr. gravel soft, moist	Headspace		WB655-067	
1		0.0 ppm			
2	Top 2" Black Topsoil w/ Rusty nail				
0	Yellow Brown silt w/ clay and sand, soft - moist	Headspace		WB655-068	
1		0.0 ppm			
2					
0	Black silt w/ sand metal FRASS. moist	Headspace		WB655-069	
1		0.0 ppm			
2	1.5' Yellow Brown silt and clay				
φ	Black, sandy silt, metal fragments, moist, soft.			WB655-070	φ ppm Bonehole
φ.5	Silty clay, mottled brown and grey, firm, moist				φ ppm Headspace
2.φ					

Handwritten signature/initials

PROJECT

RVAAP

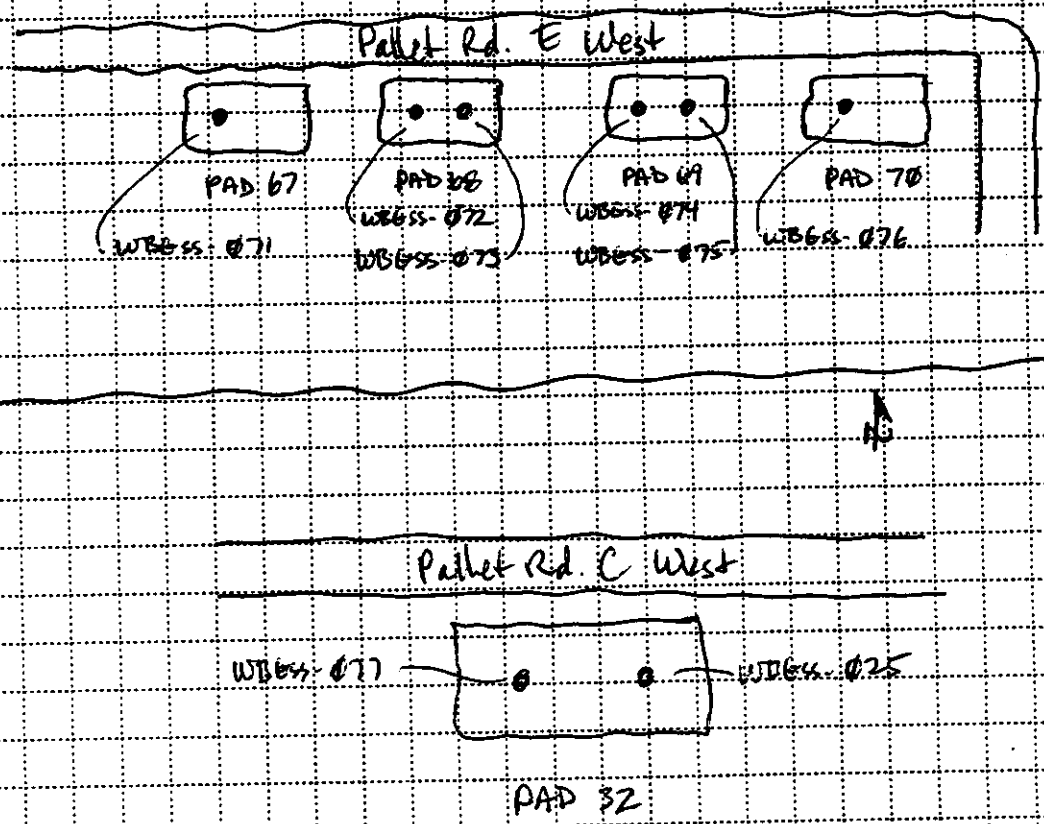
HOLE NO.

WB655-065 thru 070

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER WB655-71E77
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT RUAAP		4. LOCATION SEE WB6/RUAAP	
5. NAME OF DRILLER NT		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
9. SURFACE ELEVATION NA		10. DATE STARTED 8/1/94	
11. DATE COMPLETED 8/13/94		12. OVERBURDEN THICKNESS NA	
13. DEPTH DRILLED INTO ROCK NA		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
15. GEOTECHNICAL SAMPLES NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		18. DEPTH GROUNDWATER ENCOUNTERED NO GW	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS	
DISTURBED NA		UNDISTURBED NA	
VOC		METALS	
OTHER (SPECIFY)		OTHER (SPECIFY)	
OTHER (SPECIFY)		OTHER (SPECIFY)	
21. TOTAL CORE RECOVERY NA		22. DISPOSITION OF HOLE Abandoned	
BACKFILLED		MONITORING WELL	
OTHER (SPECIFY)		OTHER (SPECIFY)	
23. SIGNATURE OF INSPECTOR <i>Walt Van</i>		23. SIGNATURE OF INSPECTOR <i>Walt Van signing for J. DeBouche</i>	

LOCATION SKETCH/COMMENTS

SCALE: NOT TO SCALE



PROJECT
RUAAP

HOLE NO.
WB655-071 thru 077

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
WB655-071
SHEET **2-2**

PROJECT **RVAPP** INSPECTOR **J DeVanna**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Silty clay, moist, brown, some gravel. Found plastic object in hole, will have WKO person try to identify it. Not going deeper.			WB655-071	Borehole ϕ ppm Headspace ϕ ppm
	1.0					
	0	Silty clay, gravel, brown, moist, soft.			WB655-072	Borehole ϕ ppm Headspace ϕ ppm
	2.0					
	0	Black sandy gravel, moist.			WB655-073	Borehole ϕ ppm Headspace ϕ ppm
	0.5	Silty clay, soft, moist, brown				
	2.0					
	0	Silty clay, gravel, brown, moist. Top 0.2 black topsoil. Refusal at 0.5.			WB655-074	Borehole ϕ ppm Headspace ϕ ppm
	0.5					
	0	Silty clay, gravel, brown topsoil upper 0.3. moist Refusal at 1.0.			WB655-075	Borehole ϕ ppm Headspace ϕ ppm
	1.0					
	0	Silty sandy clay, gravel, brown, moist.			WB655-076	Borehole ϕ ppm Headspace ϕ ppm
	1.0					
	2.0	sandy silt, gravel, cobbles. Dry, soft			WB655-077	Borehole ϕ ppm Headspace ϕ ppm
	0.8	refusal at 0.8.				

Note: moved to PAD 32

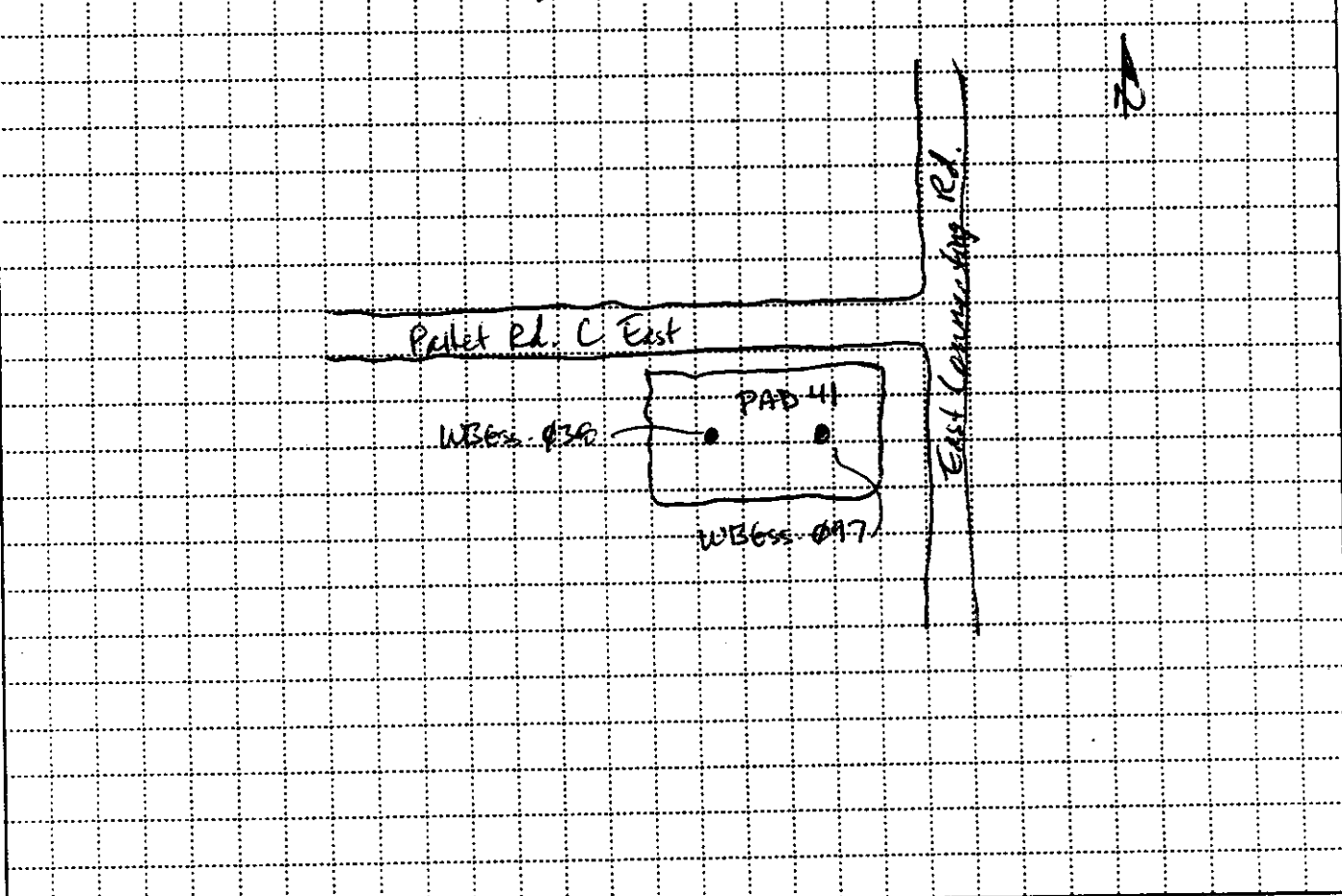
PROJECT **RVAPP**

J DeVanna 02/22/06
C-125

HOLE NO. **WB655-071** thru **077**

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER WB655-097-098
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 3
3. PROJECT RVAAP		4. LOCATION WB6/RV4AP	
5. NAME OF DRILLER		6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. Hand Auger.		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/13/96	11. DATE COMPLETED 8/14/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE SEE PAGE 2 OF 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE COC	VOC NA	METALS NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL N/A	OTHER (SPECIFY) Benignite
23. SIGNATURE OF INSPECTOR Matthew Vest signing for ("Inspector") J. DeVaughn			

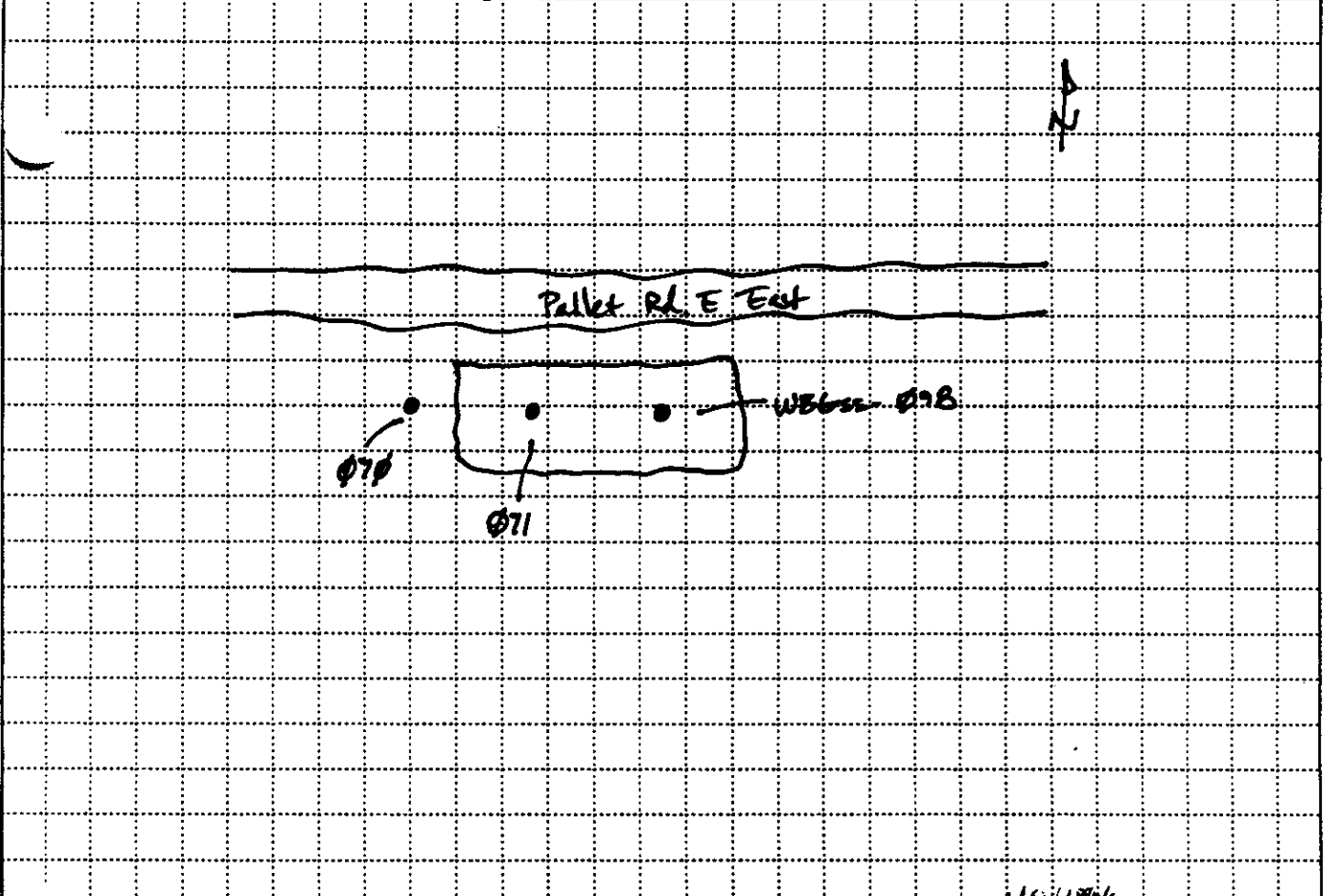
LOCATION SKETCH/COMMENTS **Sketch for WB6-097. (WB6 55-098 sketch on page 2 of 3.)** SCALE: **NOT TO SCALE**



PROJECT RVAAP	HOLE NO. WB655-097-098
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HTRW DRILLING LOG		DISTRICT		Location Sketch for WBG 55-098	
1. COMPANY NAME		3. DRILL SUBCONTRACTOR		SHEET SHEETS 12 OF 3	
PROJECT		4. LOCATION			
5. NAME OF DRILLER		6. MANUFACTURERS DESIGNATION OF DRILL			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION			
		9. SURFACE ELEVATION			
		10. DATE STARTED		11. DATE COMPLETED	
12. OVERBURDEN THICKNESS		15. DEPTH GROUNDWATER ENCOUNTERED			
13. DEPTH DRILLED INTO ROCK		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED			
14. TOTAL DEPTH OF HOLE		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)			
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES					
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
					21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR

LOCATION SKETCH/COMMENTS *Map Showing WBG 55-098* SCALE: *NOT TO SCALE*



PROJECT *RVAAP* HOLE NO. *MAP FOR WBG 55-098*

HTRW DRILLING LOG

HOLE NUMBER
WB055-097 & 098
SHEET **3 of 3**

PROJECT	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
AVAMP	0	sandy silty gravel, black, loose, dry.			WB055 097	Note: this sample is a TBD located in PAD 41. Borehole @ ppm Headspace @ ppm
	0.5	silty clay, brown, some gravel, firm, dry.				
	1.5	silty clay, grey, soft, moist				
	2.0					
	0	silty clay, some gravel, dry, firm.	See next page for location sketch		WB055 098	Borehole @ ppm Headspace @ ppm
	2.0					

J. Deloughlin
 8/2/96

PROJECT **AVAMP**

HOLE NO. **WB055-097, 098**

WINKLEPECK BURNING GROUNDS

**DRAINAGE SEDIMENT LOGS
LOGBOOK #22**

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

DATE COLLECTED (mm/dd/yy):

8/11/96

SAMPLE LOCATION:

TIME COLLECTED (hh:mm):

0911

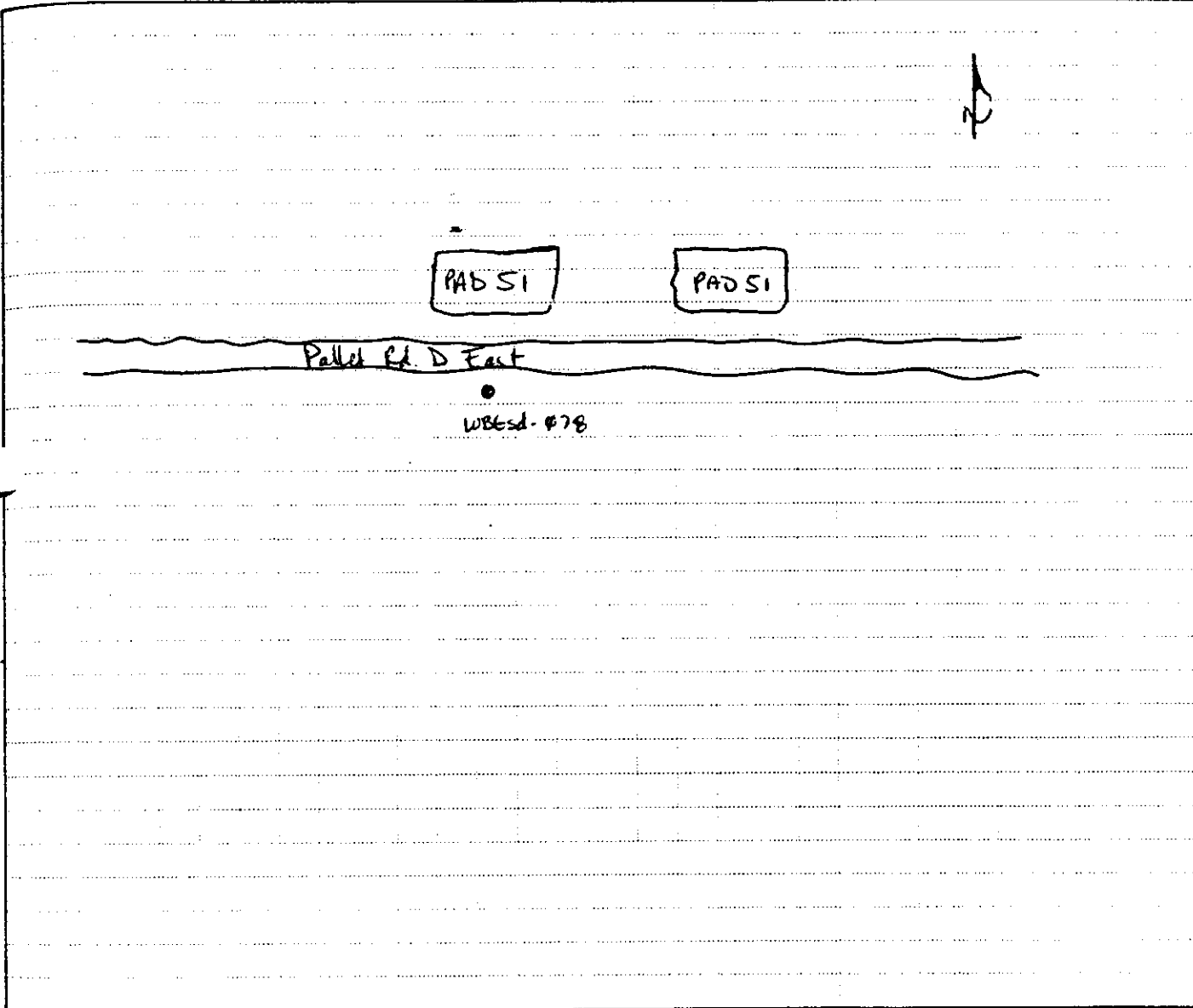
WB6sd - 078

SAMPLING POINT:

DEPTH:

N/A

1.5'



COMMENTS:

RECORDED BY:

J. C. [Signature]

DATE

8/11/96

QA CHECK BY:

[Signature]

DATE

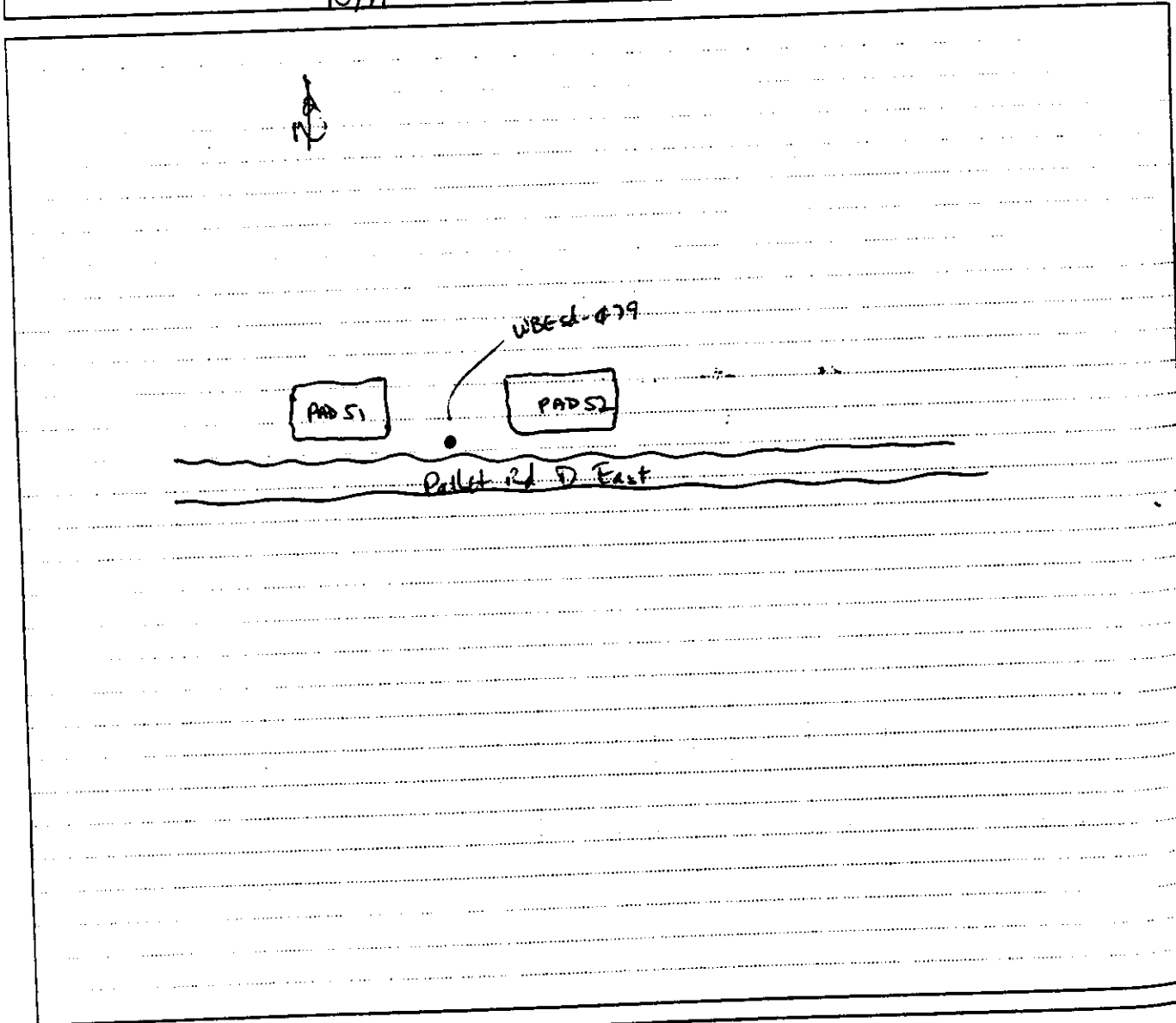
8-11-96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: _____	DATE COLLECTED (mm/dd/yy): 8/11/96
SAMPLE LOCATION: WBlock-079	TIME COLLECTED (hh:mm): 0933
SAMPLING POINT: N/A	DEPTH: 2'



COMMENTS:

RECORDED BY:

J. P. Taylor

DATE

8/11/96

QA CHECK BY:

[Signature]

DATE

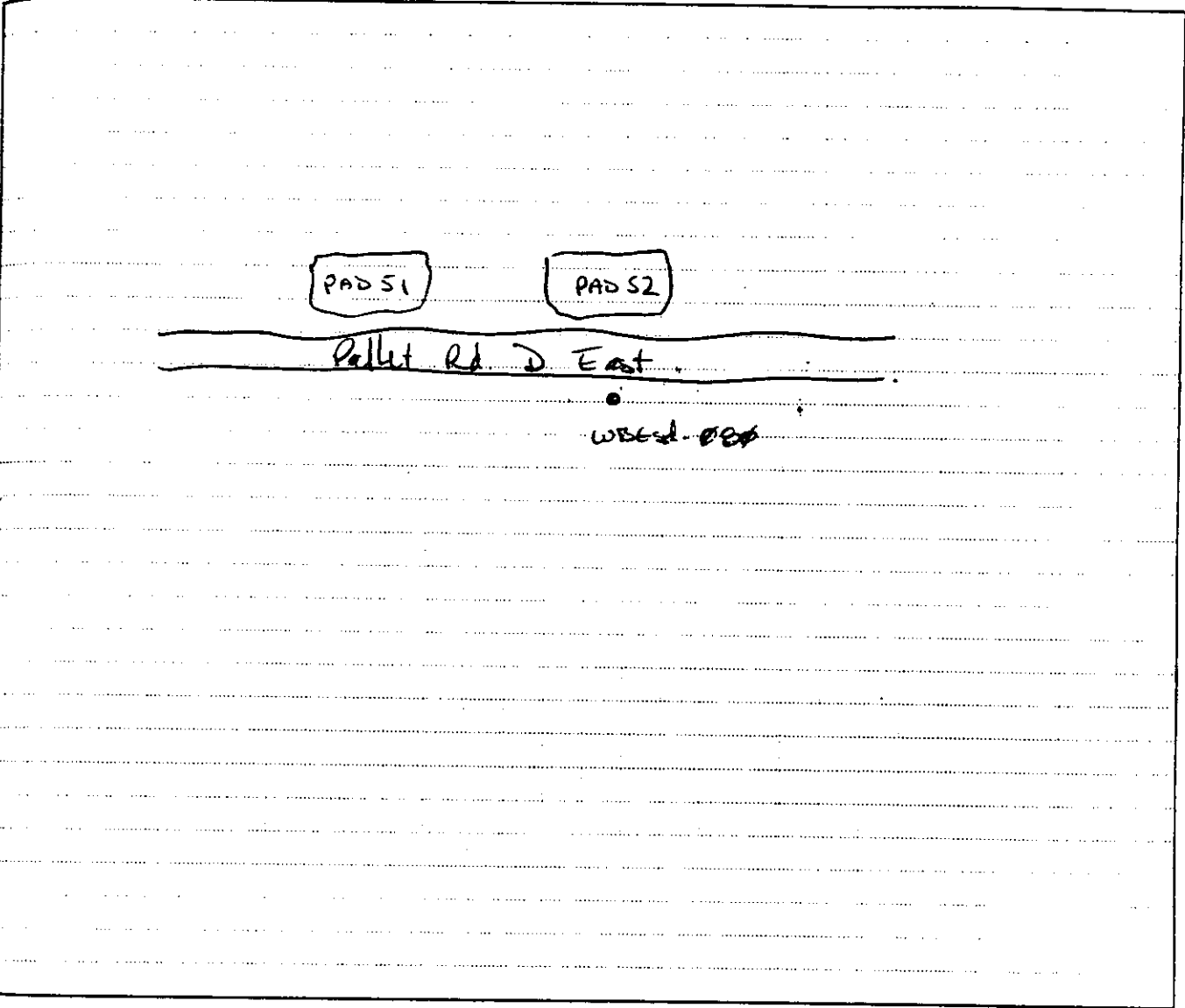
8-22-96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:	DATE COLLECTED (mm/dd/yy):
SAMPLE LOCATION: WBlock- 060	TIME COLLECTED (hh:mm): 8/11/96 0952
SAMPLING POINT: N/A	DEPTH: 2'



COMMENTS:

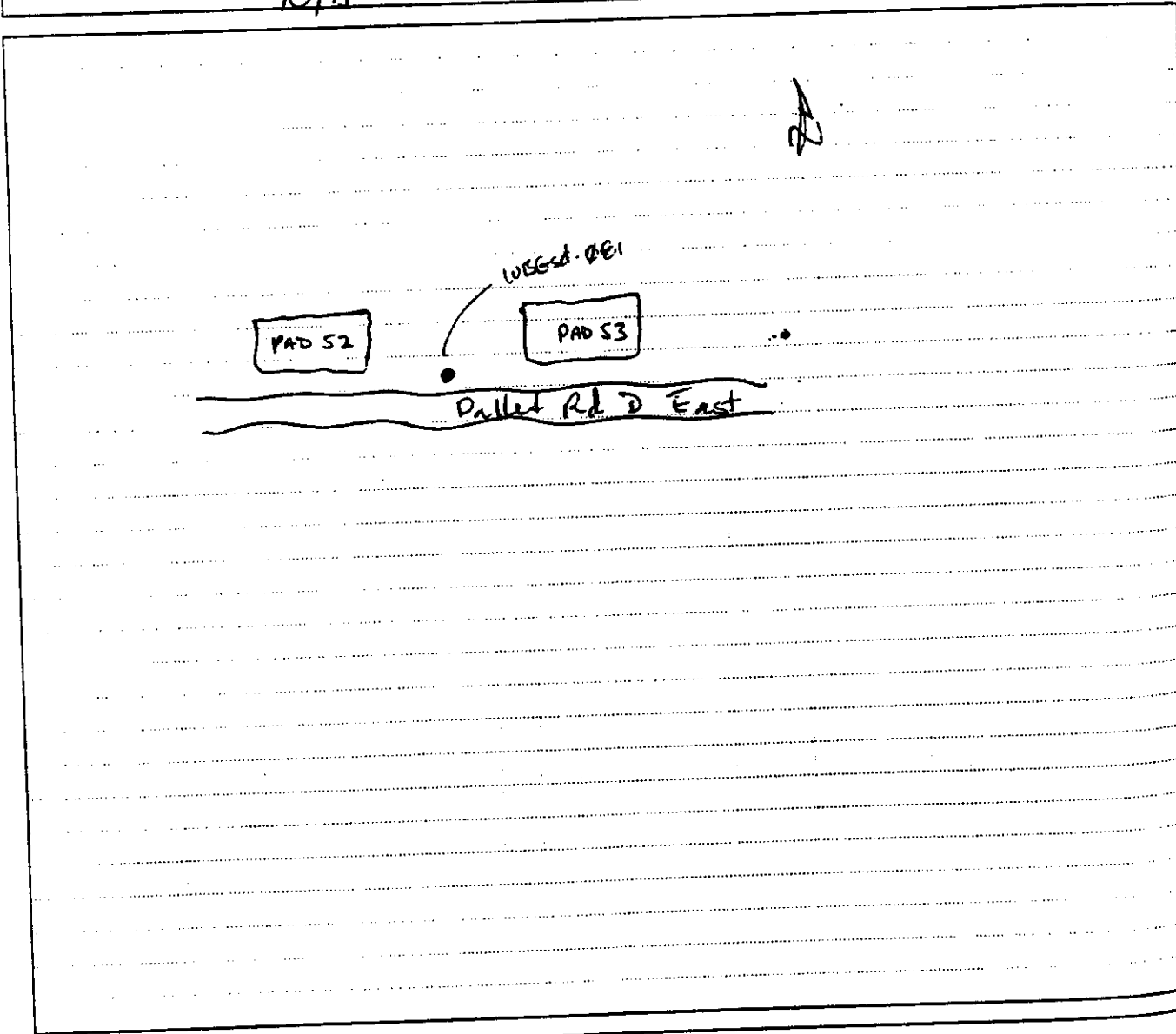
RECORDED BY: <i>J. DeWain</i>	DATE: 8/11/96	QA CHECK BY: <i>[Signature]</i>	DATE: 8-22-96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: _____	DATE COLLECTED (mm/dd/yy): 8/11/96
SAMPLE LOCATION: WBGSD-081	TIME COLLECTED (hh:mm): 1915
SAMPLING POINT: N/A	DEPTH: 1.0'



COMMENTS:

RECORDED BY: <i>J. DeWright</i>	DATE: 8/11/96	QA CHECK BY: <i>W. J. DeWright</i>	DATE: 8-22-96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

DATE COLLECTED (mm/dd/yy):

8/11/96

SAMPLE LOCATION:

TIME COLLECTED (hh:mm):

1350

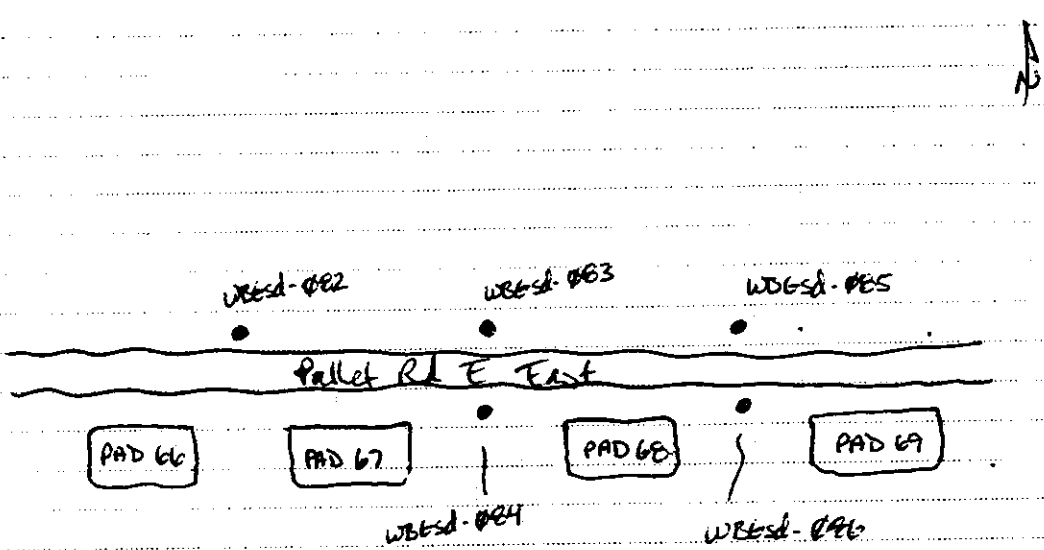
WBGsd - 082, 083, 084, 085, 086

SAMPLING POINT:

DEPTH:

2'

N/A



COMMENTS:

RECORDED BY:

J. DeYoung

DATE

8/11/96

QA CHECK BY:

[Signature]

DATE

8-27-96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

DATE COLLECTED (mm/dd/yy):

8/14/96

SAMPLE LOCATION:

TIME COLLECTED (hh:mm):

1435

SAMPLING POINT:

DMA

DEPTH:

1.0'

Pallet Rd E East

Pallet Rd D East

East Community Rd

WB6 sd - DEE

also collected duplicate



COMMENTS:

TE 76

RECORDED BY:

J. D. Ray

DATE

8/14/96

QA CHECK BY:

M. J. [Signature]

DATE

8-21-96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

DATE COLLECTED (mm/dd/yy):

8/11/96

SAMPLE LOCATION:

TIME COLLECTED (hh:mm):

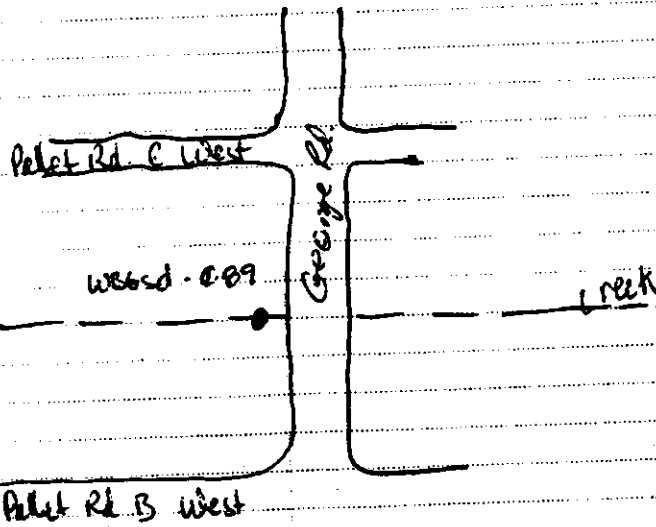
1527

WBG-2 - 089

SAMPLING POINT:

DEPTH:

1'



COMMENTS:

RECORDED BY:

J. W. Taylor

DATE

8/11/96

QA CHECK BY:

[Signature]

DATE

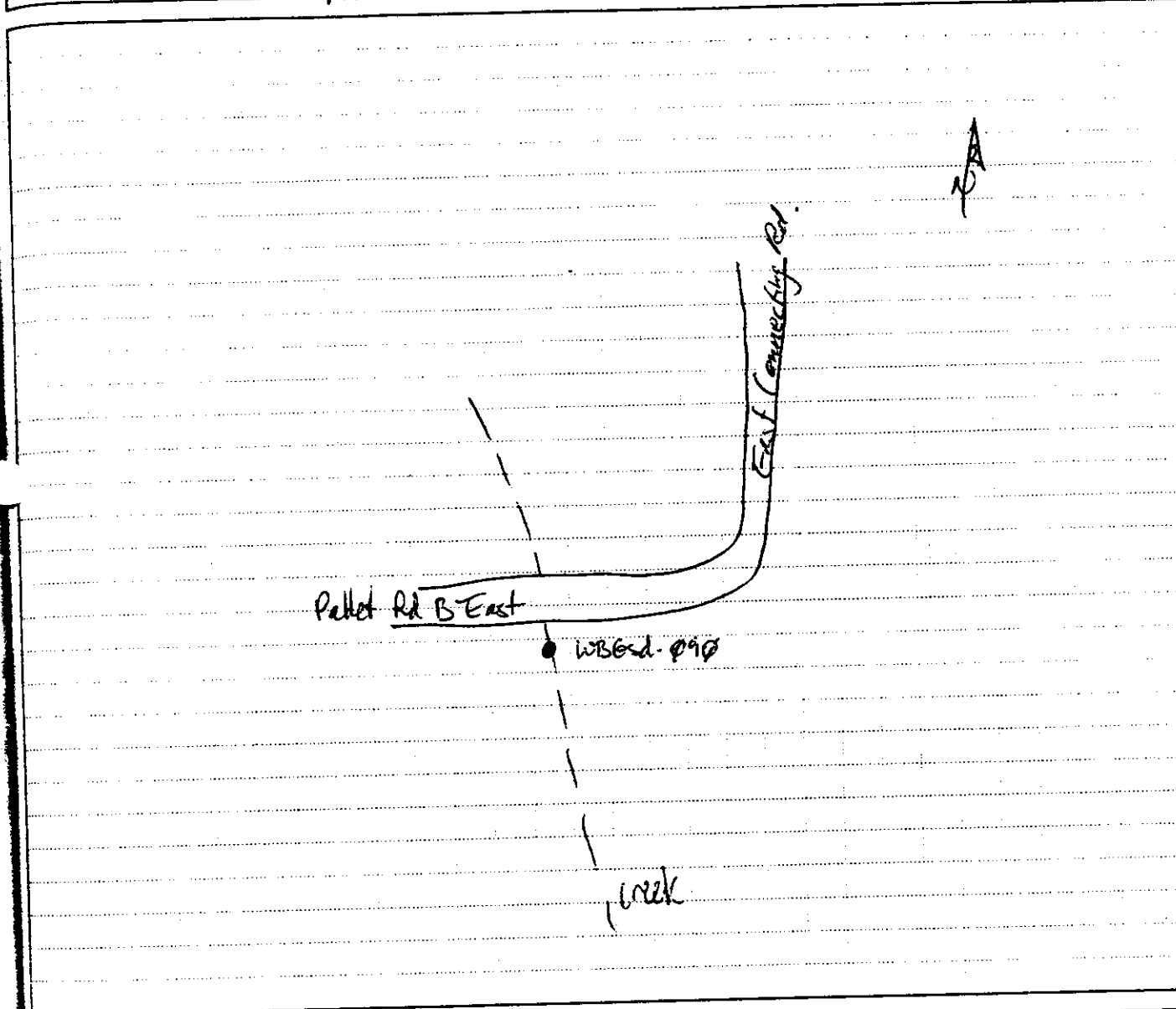
8-11-96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: _____	DATE COLLECTED (mm/dd/yy): 8/11/96
SAMPLE LOCATION: WB6sd - 090	TIME COLLECTED (hh:mm): 1505
SAMPLING POINT: NA	DEPTH: 1'



COMMENTS:

DATE 8-96	RECORDED BY: <i>J. [Signature]</i>	DATE 8/11/96	QA CHECK BY: <i>[Signature]</i>	DATE 8-26-96
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SAMPLE LOCATION MAPS, SOIL AND WELL POINT BORING LOGS
Load Line 1

Soil Samples:

LL1-ss-001, 002, 007, 006, 008
LL1-ss-009, 010, 005, 004, 003
LL1-ss-012
LL1-ss-013, 075
LL1-ss-017, 018, 019, 021
LL1-ss-020, 022
LL1-ss-023, 039
LL1-ss-025, 026, 027
LL1-ss-029, 030, 016, 014, 015, 011
LL1-ss-031, 032, 033, 034, 035, 036, 037
LL1-ss-038, 040
LL1-ss-041(b)
LL1-ss-043(b), 042(b)
LL1-ss-044
LL1-ss-045
LL1-ss-068
LL1-ss-069
LL1-ss-071
LL1-ss-072
LL1-ss-072
LL1-ss-073
LL1-ss-074

Drainage Sediment Samples:

LL1-sd-024(d)
LL1-sd-028(d)
LL1-sd-046(d)
LL1-sd-047(d)
LL1-sd-048(d)
LL1-sd-049(d)
LL1-sd-050(d)
LL1-sd-051(d)
LL1-sd-052(d)
LL1-sd-070(d)
LL1-sd-076(d), -077(d)

Surface Water, Pond, and Stream Sediment:

LL1-sd-053(p), -054(p), -055(p)
LL1-sd-056(p), -057(p)
LL1-sd-058(p), -059(p), -060(p)
LL1-sd-061(p), -062(p)

Well Points:

LL1-wp-067
LL1-wp-068
LL1-wp-069(no boring log)

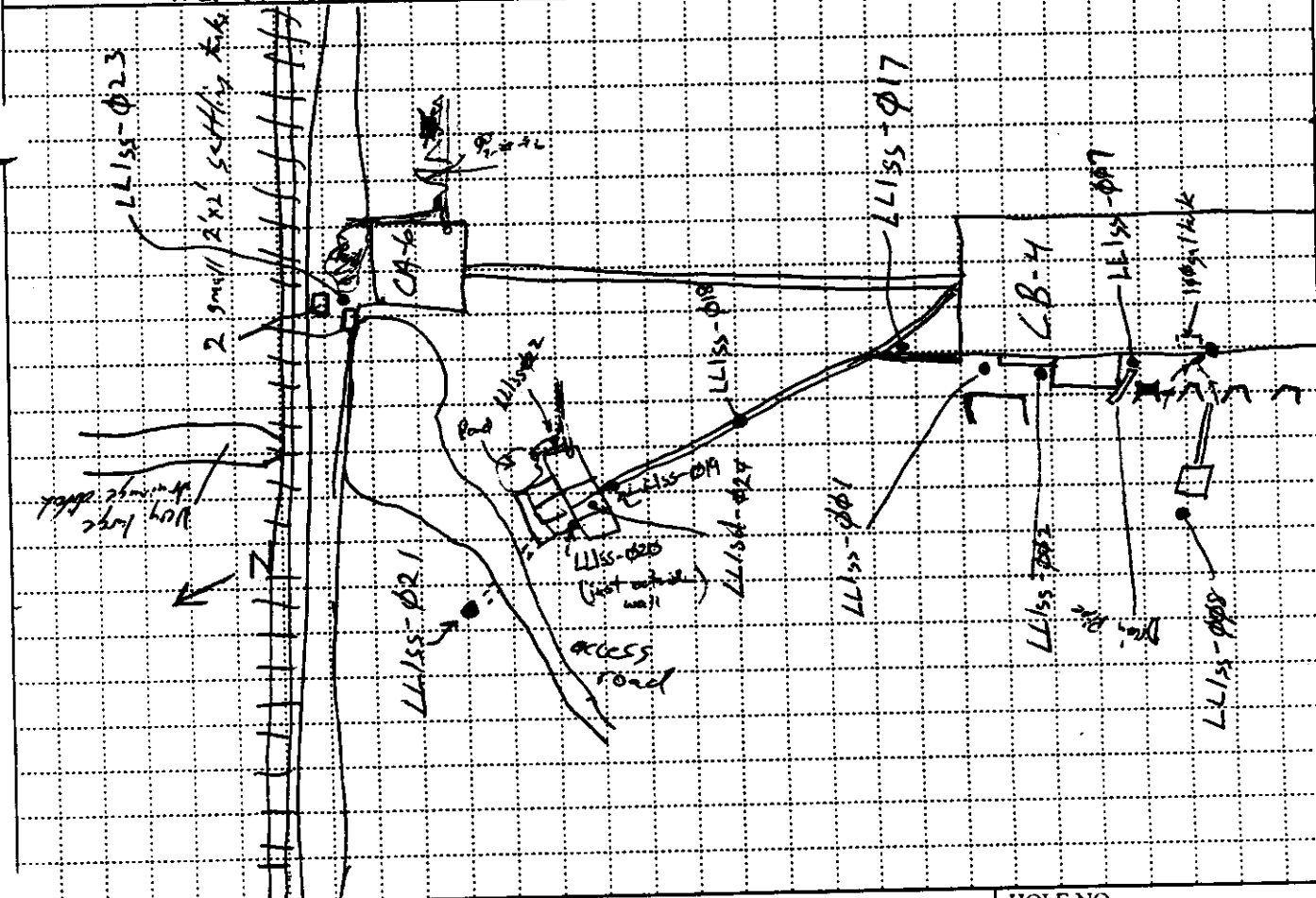
LOAD LINE 1
SOIL BORING LOGS
LOGBOOKS #35 AND #36

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL155-001, 002, 003, 006, 008
1. COMPANY NAME smc		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
PROJECT RVAAP		4. LOCATION RVAAP, LL1	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL HAND ANNEA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/20/96	11. DATE COMPLETED 7/29/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO G.W.	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample COC	VOC NA	METALS NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned	BACK-FILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite
			21. TOTAL CORE RECOVERY NA
			23. SIGNATURE OF INSPECTOR <i>[Signature]</i>

SCALE: 1" = 100'

LOCATION SKETCH/COMMENTS

CB-4 Area Surface Soil Locations



PROJECT RVAAP	HOLE NO. LL155-001, 002, 003, 006, 008
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HTRW DRILLING LOG

HOLE NUMBER **LL155-001, 2, 7, 6, 8**

PROJECT **RVAAP** INSPECTOR **K. S. SWANN** SHEET **2 of 7**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0					LL155-001
	5	Tan gray silt w/ small rock fragments				
	10	Sharp contact w/ reddish-brown sandy silt. wet				
	15	Same as above w/ gravel	Refusal on gravel			
	20					LL155-002
	0	Organic-rich topsoil				
	5	Tan sand w/ gravel				
	10	Reddish-brown silt w/ abundant gravel - scattered yellow paint chips				
	15		Refusal @ 19 in			
	0	Organic-rich topsoil				LL155-007
	5	Tan silt w/ abundant large gravel				
	10					LL155-006
	0	Reddish-brown stained silty sand w/ rock (shard)				
	5	Yellow-brown sandy silt w/ large rock gravel				
	10		Refusal @ 14 inches			
	0	Yellow-brown silt w/ large rock frags, very dry				LL155-008
	5		Refusal @ 8 inches			
	10					
	15					

PROJECT **RVAAP**

HOLE NO **LL155-001, 2, 7, 6, 8**
32

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL155- 009, 010, 005, 004, 003	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP		4. LOCATION LL1 / RVAAP			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss hand auger		8. HOLE LOCATION			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/29/96		11. DATE COMPLETED 7/29/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUND WATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE SEE DRILLING LOG Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE COC		VOC ←	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. TOTAL CORE RECOVERY NA		OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR [Signature]
LOCATION SKETCH/COMMENTS				SCALE: NA	
<p>SEE SKETCH FOR LL155-001, 002, 007, 006, & 008, IT HAS LOCATIONS OF 001, 002, 007, 006, & 008</p> <p>SEE SKETCH FOR LL155-003 & 009, IT CONTAINS LOCATIONS FOR LL155-009, 00, 005, 004, & 003</p>					
PROJECT RVAAP				HOLE NO. LL155-009, 010, 005, 004, 003	

HTRW DRILLING LOG

HOLE NUMBER LL155-009,
010, 004, 003
SHEET 2 of 2

PROJECT		INSPECTOR		ANALYTICAL SAMPLE NO		REMARKS (G)
RVAAP		Kip Swain, Joe Wilson				
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0"	0-10" LOOSE gray sand				LL155-009 Refract @ 5" bys on concrete
	5"	yellow-brown silty-sand				
	0"	Yellow-brown silty-sand				LL155-010
	5"					
	10"	Brown-Red stained rock fragments				Refract @ 13" bys on large rock fragments
	15"					
	0"	Tan silty-silty sand				LL155-012, 005
	0"	SAA w/ large rock fragments and some blue crystalline material				Refract @ 8" bys on large rock fragment
	10"					
	0"	Tan silty-sand				LL155-004
	10"	SAA w/ large rock fragments				
	15"	SAA wet				Refract @ 15"
	0"	gravelly-sand very stained red-brown				LL155-003 Refract at 3" bys on rip-rope
	5"					

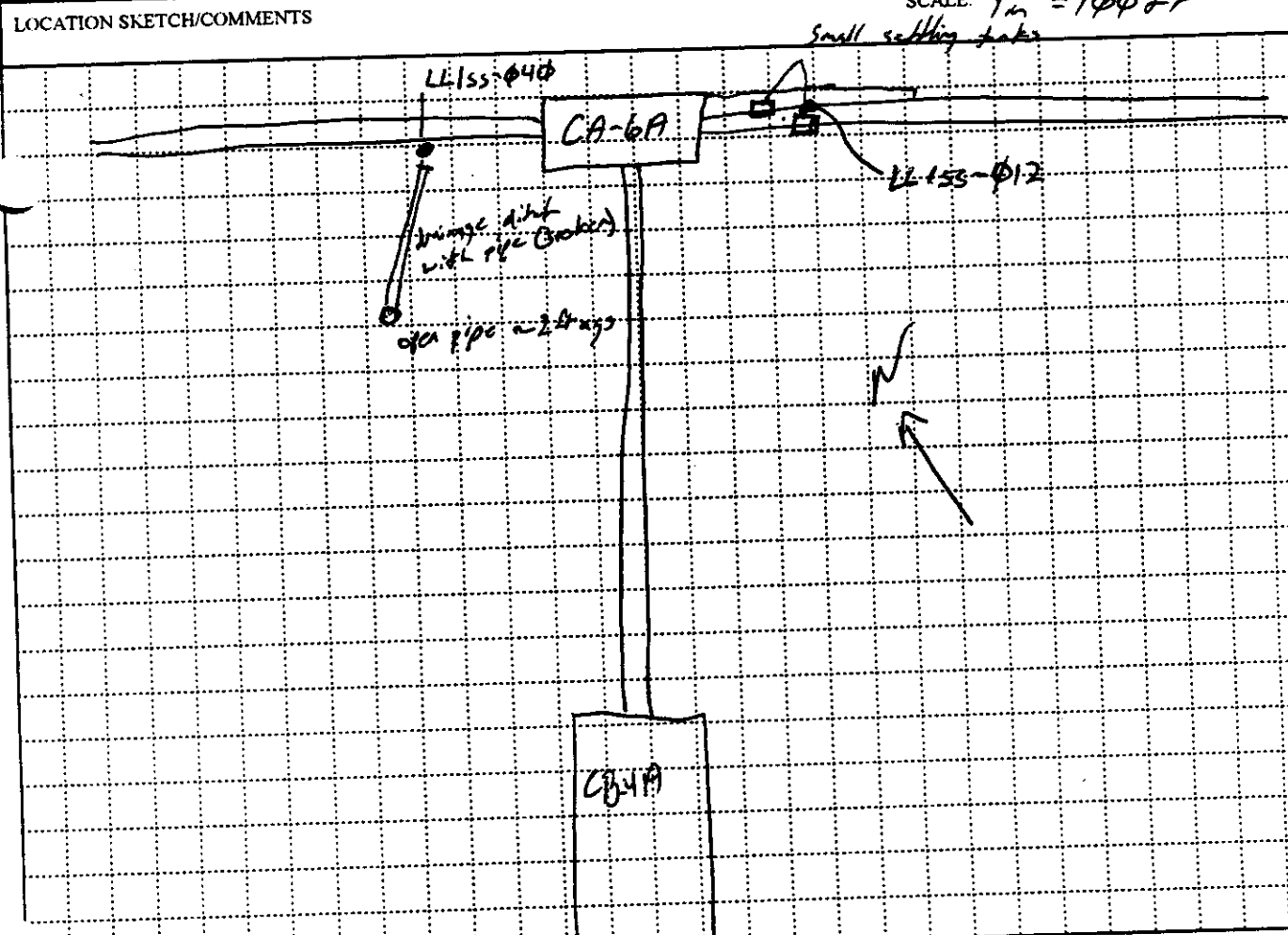
PROJECT RVAAP

HOLE NO. LL155-009, 010, 005, 004, 003

36

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL155-012
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
PROJECT RVAAP		4. LOCATION LL1/RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/30/96	11. DATE COMPLETED 7/30/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE See Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	

18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA		
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample CEC	VOC NA	METALS NA	OTHER (SPECIFY) Bentonite	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR <i>Joseph J. White</i>	

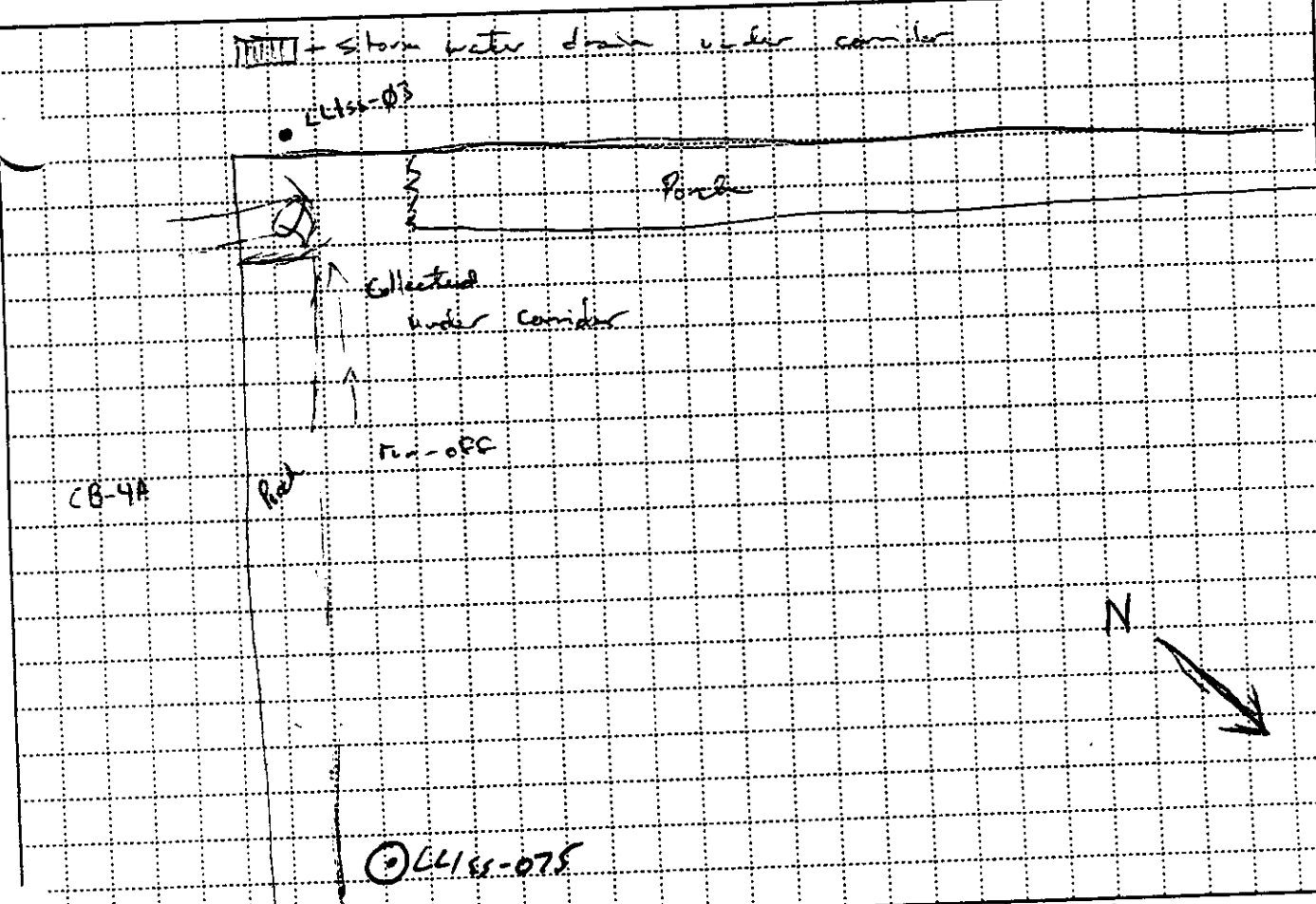


PROJECT RVAAP	HOLE NO. LL155-012
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HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL155-Ø13, 075	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. NAME OF DRILLER RUAAP		4. LOCATION LL1 / RVAAP			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 08/14/94		11. DATE COMPLETED 08/24/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE SEE BOREHOLE LOG PAGE 2 OF 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY NA	
22. DISPOSITION OF HOLE Abandoned		VOC NA		METALS NA	
		OTHER (SPECIFY) ENTERITE		OTHER (SPECIFY)	
		MONITORING WELL NA		OTHER (SPECIFY)	
		BACKFILLED NA		23. SIGNATURE OF INSPECTOR <i>Gregory J. Wilson</i>	

LOCATION SKETCH/COMMENTS

SCALE: 1" = 410 FT



PROJECT **RVAAP** HOLE NO. **LL155-Ø13 and 075**
(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
LL155-013 & 075

PROJECT **RVAAP**

INSPECTOR **Joe Wilson**

SHEET **2 of 2**

DEPTH (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	6"	gravel mixed w/ red-brown sand	0.1 gm	NA		LL155-013 ↓ Total depth 18" Re Gravel
	12"	↓				
	18"					
	0	silt and sand w/ Gravel, yellow			LL155-075	
	1					
	2					
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> JW 08/10/96 </div>						

PROJECT **RVAAP**

HOLE NO. **LL155-013 & 075**

40

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL155-017, 018, 019, & 021	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2	
PROJECT RVAAP		4. LOCATION RVAAP LLI			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS. hand auger		8. HOLE LOCATION SEE SKETCH FOR LL155-017			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/29/96		11. DATE COMPLETED 7/29/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE SEE BORING LOG PAGE 2 OF 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY NA	
SEE SAMPLE LOG		VOC		OTHER (SPECIFY)	
		METALS		OTHER (SPECIFY)	
		OTHER (SPECIFY)		OTHER (SPECIFY)	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
		OTHER (SPECIFY) Berthing		23. SIGNATURE OF INSPECTOR 	
LOCATION SKETCH/COMMENTS				SCALE:	
<p>SEE SKETCH FOR LL155-001, 002, 007, 006, & 008, IT HAS LOCATIONS OF LL155-017, 018, 019, & 021.</p>					
PROJECT RVAAP				HOLE NO. LL155-017, 018, 019, & 021	

HTRW DRILLING LOG

HOLE NUMBER: LL155-Ø17, Ø18, Ø19, Ø21
 SHEET: 2 of 2

PROJECT: RVAAP

INSPECTOR: K. SWAIN

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Tan/brown silt w/ abundant gravel				LL155-Ø17
	5					
	10		Refusal @ 10 inches			
	0	Yellow brown silt w/ abundant gravel. Refused on large rocks, removed and continued.				LL155-Ø18
	5					
	10					
	15		Refusal @ 18.5 inches			
	0	Tan gray silt w/ sparse rock frags (small) very dry.				LL155-Ø19
	5					
	10					
	15					
	20					
	25					
	0	Organics (leaf like) rootlets				LL155-Ø21
	5	Yellow brown silt w/ rootlets				
	10		Refusal @ 12 inches			

PROJECT: RVAAP

HOLE NO: LL155-Ø17, Ø18, Ø19, Ø21

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HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL155-0208 022	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP		4. LOCATION LL1 / RVAAP			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger.		8. HOLE LOCATION SEE SKETCH FOR LL155-0201			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/29/96		11. DATE COMPLETED 7/29/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE SEE DRILLING LOG PAGE 2 OF 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE COC		VOC NA	METALS NA	OTHER (SPECIFY) Bentonite	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY % NA
23. SIGNATURE OF INSPECTOR <i>[Signature]</i>					
LOCATION SKETCH/COMMENTS		SCALE:			
<p>SEE SKETCH FOR LL155-0201, 0202, 0207, 0206, & 0208. IT HAS LOCATIONS OF LL155-0208 & 0202.</p>					
PROJECT RVAAP		HOLE NO. LL155-0208 & 0202			

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL155-0208 022	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2	
3. OBJECT RVAAP		4. LOCATION LL1/RVAAP			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger.		8. HOLE LOCATION SEE SKETCH FOR LL155-001			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/29/96		11. DATE COMPLETED 7/29/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE SEE DRILLING LOG PAGE 2 OF 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE COE		VOC NA	METALS NA	OTHER (SPECIFY) Bentonite	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA		OTHER (SPECIFY)	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA		
LOCATION SKETCH/COMMENTS				SCALE:	
<p>SEE SKETCH FOR LL155-001, 002, 007, 006, & 008. IT HAS LOCATIONS OF LL155-0208 & 022.</p>					
OBJECT RVAAP		HOLE NO. LL155-0208 & 022			

HTRW DRILLING LOG

HOLE NO. **LL135-028 & 022**

PROJECT **RVAAP**

INSPECTOR **Joe Wilson**

SHEET **2 of 2**

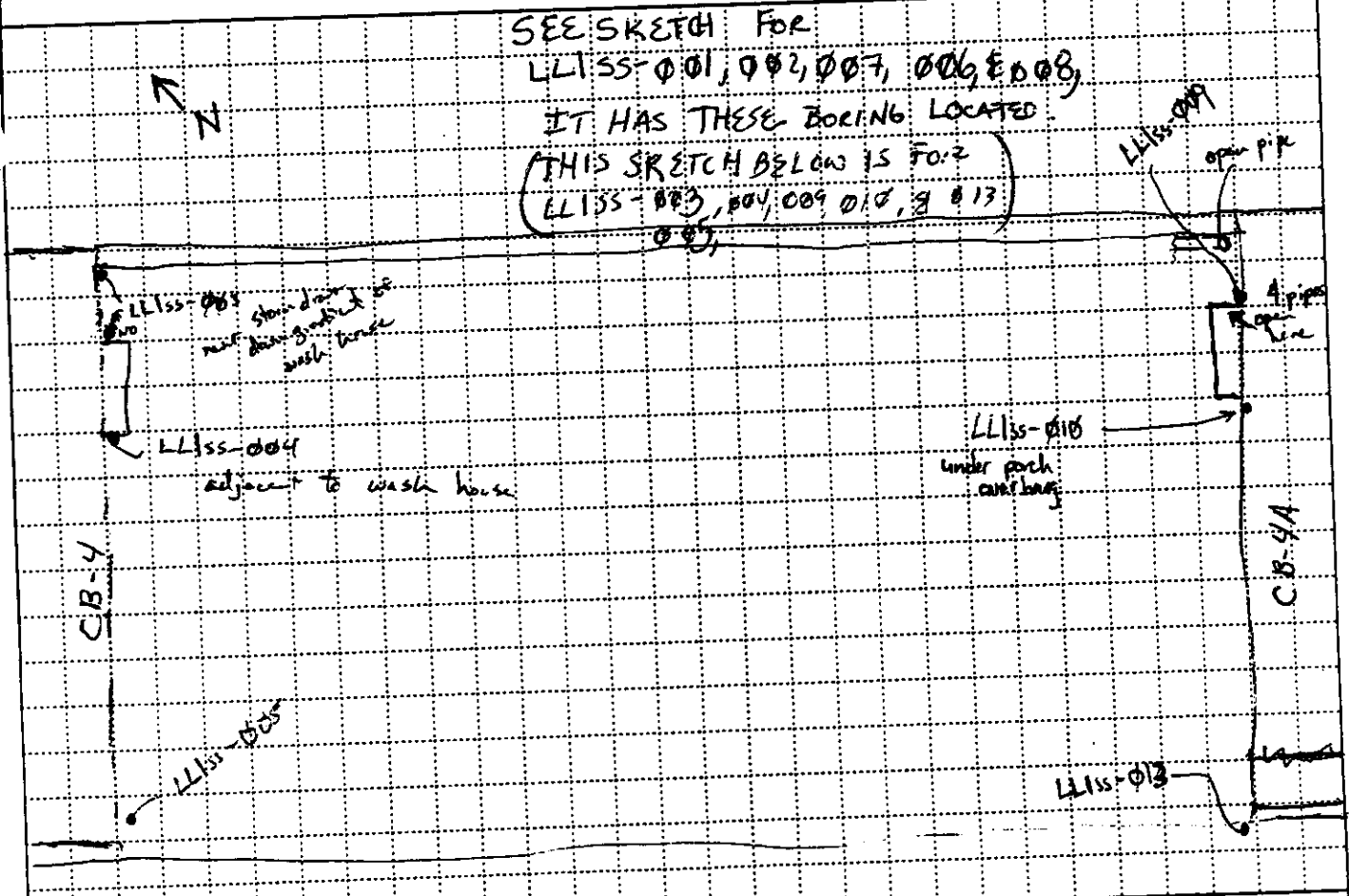
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0"	Topsoil				LL135 - 020
	10"	yellow-brown clay silt small rocky				↓ Refused @ 10' bgs
	6'	gray silt				LL135 - 022
	10"	gray silt w/ yellow-brown mottling				↓
	26"					Total depth = 24" bgs

PROJECT **RVAAP**

HOLE NO. **LL135-028 & 022**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL155-0238	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET 039 OF 2	
PROJECT RVAAP			4. LOCATION LL1 / RVAAP		
5. NAME OF DRILLER RVAAP			6. MANUFACTURERS DESIGNATION OF DRILL Hund Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger.		8. HOLE LOCATION SEE SKETCH FOR LL155-001			
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 7/30/96		11. DATE COMPLETED 7/30/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE See Page 2 of 2			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>			
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	

SCALE: 1/4" = -17.5 FT (1" = -70 FT)



PROJECT RVAAP	HOLE NO. LL155-0238 039
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HTRW DRILLING LOG

HOLE NUMBER
LL155-023 & 039
SHEET
2 of 2

PROJECT **RVAAP**

INSPECTOR **Joe Wilson**

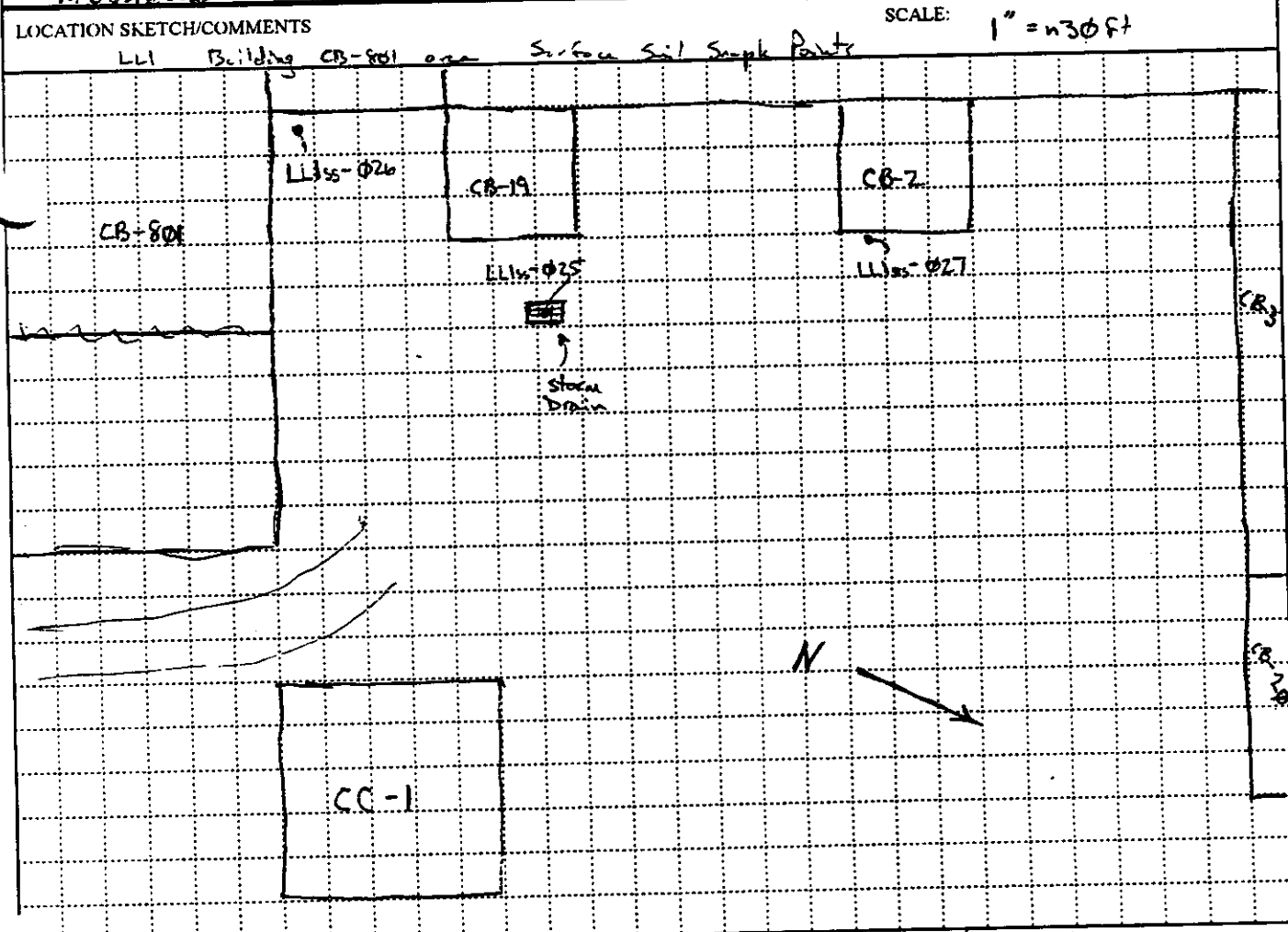
ELF# (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX N° (E)	ANALYTICAL SAMPLE N° (F)	REMARKS (G)
	0	Tan silt w/ sparse orange silt zones and abundant rocks				6/130/96 LL155-023 see map in LL169
	5					
	10					
	0	organics w/ stems				LL155-039
	5	Tanish brown sandy silt w/ rock frags				
	10	same as above Wet				
	15					
	20		Refract @ 18 inches			
	25					

PROJECT **RVAAP**

HOLE NO
LL155-023 & 039

17

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL155-025, 026, 027
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
PROJECT RVAAP		4. LOCATION LL1 / RVAAP	
5. NAME OF DRILLER		6. MANUFACTURER'S DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/28/96	11. DATE COMPLETED 7/28/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY	
NA		NA	
VOC		METALS	
NA		NA	
OTHER (SPECIFY)		OTHER (SPECIFY)	
SEE Sample COC ←		NA	
22. DISPOSITION OF HOLE		23. SIGNATURE OF INSPECTOR	
Abandoned		Paul J. Williams	
BACKFILLED		MONITORING WELL	
NA		NA	
OTHER (SPECIFY)		OTHER (SPECIFY)	
Restoration		NA	



PROJECT RVAAP	HOLE NO. LL 155 - 025, 026, & 027
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HTRW DRILLING LOG

HOLE NUMBER **LL15-026, 027, 025**
 SHEET **7052**

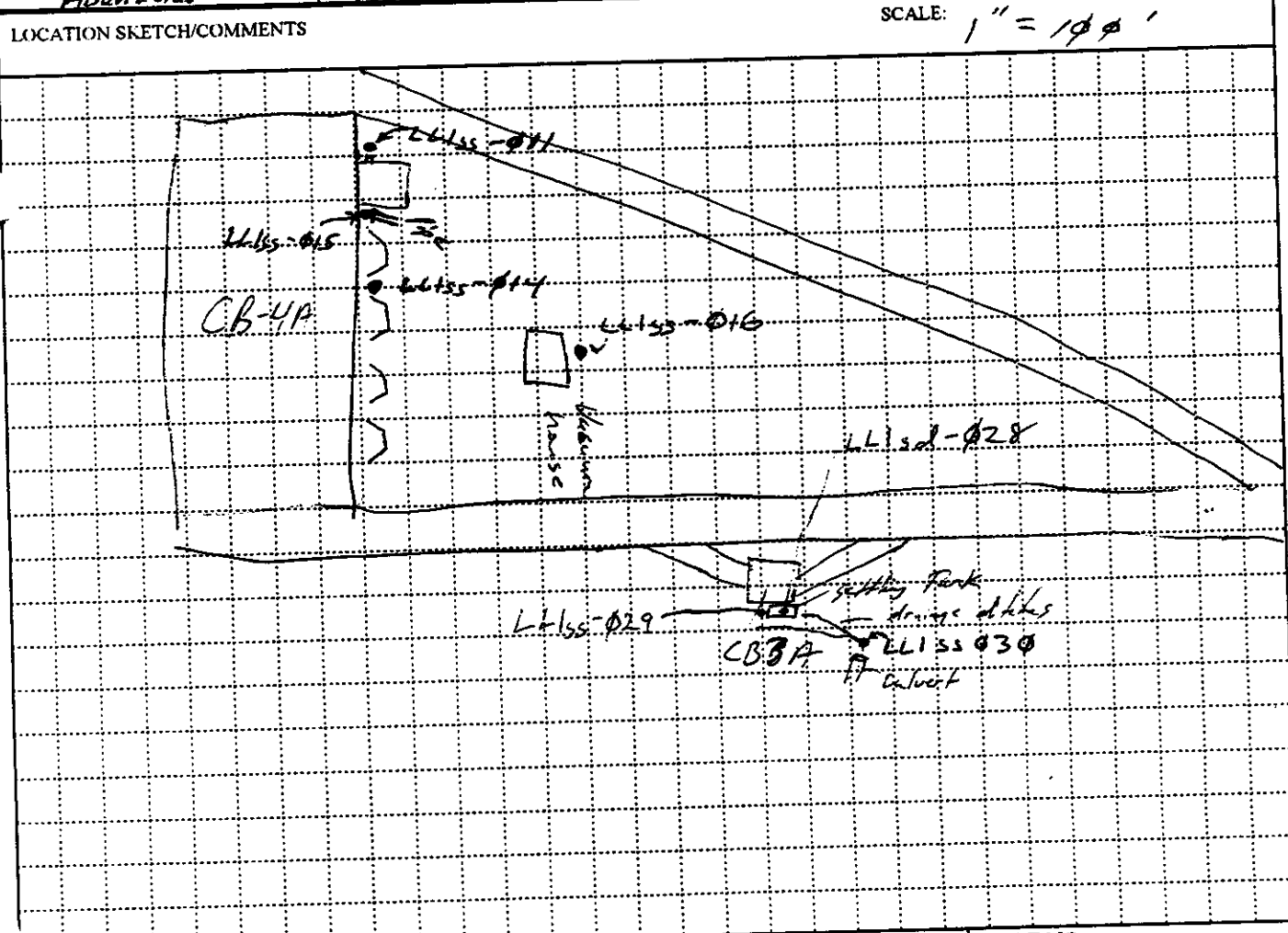
PROJECT **RVAAP** INSPECTOR **Joe Wilson**

LEA (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0"	Orange-tan silt w/ rock fragments				LL15-026
	24"		Total depth = 24 inches			
	0"	Arens, organic rich silts w/ few rocks				LL15-025 Recol @ 4" logs
	5"					
	0"	Organic Rich topsoil w/ rock fragments				LL15-027
	5"					Recol @ 5" logs
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PROJECT **RVAAP**

HOLE NO. **LL15-025, 026, 027**

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL155-029, 030, 016, 014, 015, 011
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET 1 OF SHEETS 2
PROJECT RVAAP		4. LOCATION LL1/RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. Hand Auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 07/31/96	11. DATE COMPLETED 07/31/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE See Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES NA	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE LOG		VOC NA	21. TOTAL CORE RECOVERY NA
22. DISPOSITION OF HOLE Abandoned		METALS NA	OTHER (SPECIFY) Protonite
BACKFILLED NA		MONITORING WELL NA	OTHER (SPECIFY) Protonite
		23. SIGNATURE OF INSPECTOR Empt. P. W.	



PROJECT RVAAP	HOLE NO. LL155-029, 030, 016, 014, 015, 011
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HTRW DRILLING LOG

HOLE NUMBER **LL155-029, 030, 031**
 SHEET **2 of 2**

PROJECT **RVAAP**

INSPECTOR **Joe Wilson**

DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
0-5	yellow-brown silt w/ large rock frags				LL155-029
5-10		Refusal @ 8 inches			
0-5	sandy silt yellow brown. Refusal @ 4 inches on bedrock - (exposed adjacent to sample location)				LL155-030
5-10					
0-5	yellow brown silt w/ abundant roots	Refusal @ 4 in.			LL155-016
5-10					
0-5	yellow brown silt w/ abundant gravel	Refusal @ 6 in bgs			LL155-014
5-10					
0-5	Coarse sand Organic layer				LL155-015
5-10	Strong tan clayey silt				
10-15		Refusal @ 12 inches bgs			
0-5	reddish brown silt				LL155-011
5-10	Tan silt - no rock frags				
10-15		stopped augering due to compressibility using expansion			

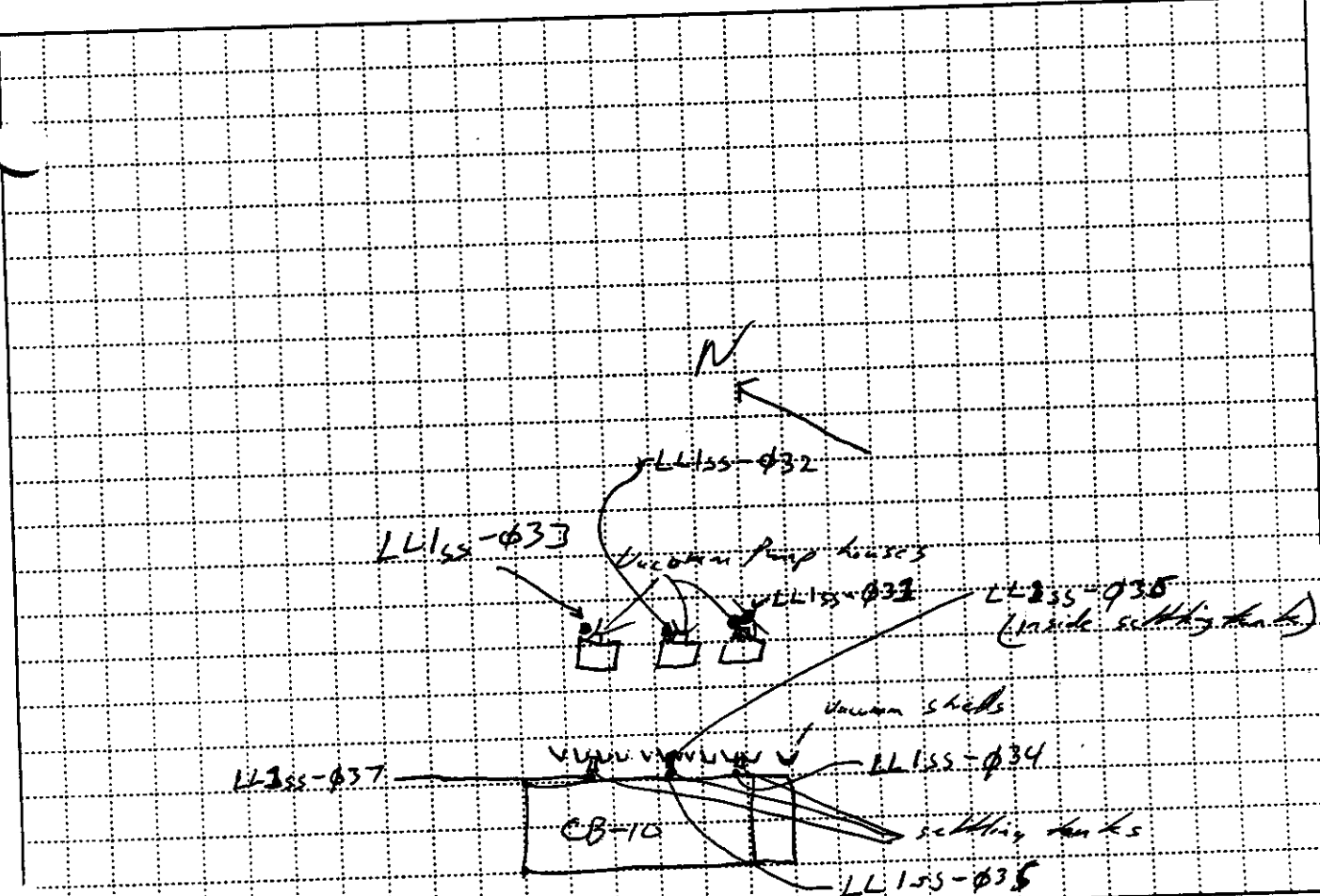
PROJECT **RVAAP**

HOLE NO. **LL155-029, 030, 016, 014, 015, 011.**

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LLSS-031 to 037
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET 1 OF 2 SHEETS
3. LOCATION RVAAP		4. LOCATION LL1/RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/28/96	11. DATE COMPLETED 2/28/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY	
NA		NA	
22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	

LOCATION SKETCH/COMMENTS

SCALE: 1" = 20'



PROJECT RVAAP	HOLE NO. LLSS-031 to 037
(Proponent: CECW-EG)	

HTRW DRILLING LOG						HOLE NUMBER LL 55-031 to 037
PROJECT RVAAP		INSPECTOR JOP. LA. LAM		SHEET 2 of 2		
DEPTH (A) Feet	DEPTH (B) Feet	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	very organic rich top soil				LL 55-037
	5	Tan to yellow clayey silt w/ rock frags				
	10					
	15	Brown yellow silt				
	20	wet				Refusal @ 20 inches
	0	Organic rich compost w/ blue crystalline substance	refusal on base of tank @ 3 inches bgs			LL 55-036
	5					
	6	organic rich topsoil Blue crystalline material (not included in sample - scattered throughout sample through orange flakes Tan sandy silt				LL 55-035
	0	organic rich topsoil tan silty sand	Refusal @ 3 inches			LL 55-034
	5					
	0	Tan gray silt w/ very large abundant rock frags	Refusal @ 6 inches			LL 55-031
	0	Tan gray silt w/ abundant large rock frags	Refusal @ 6 inches			LL 55-032
	5					
	0	dark brown topsoil				LL 55-033
	5	yellow brown clay with yellow nodding 2 1/2%				
	10					
	15	Refusal (brick frag in sample)				

PROJECT RVAAP

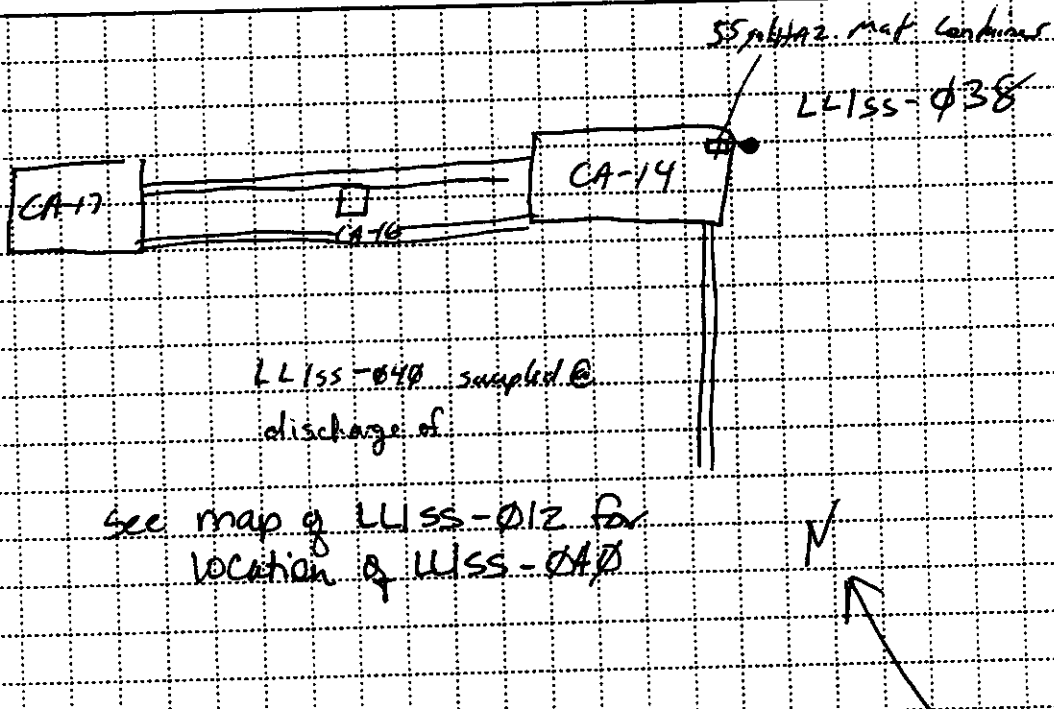
HOLE NO. LL 55-031 to 037

15

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL1-038 & 040	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
PROJECT RVAAP			4. LOCATION LL1 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/30/96		11. DATE COMPLETED 7/30/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA	21. TOTAL CORE RECOVERY NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR <i>Paul J. W...</i>

LOCATION SKETCH/COMMENTS

SCALE: **NA**



PROJECT RVAAP		HOLE NO. LL1-038 & LL1-040	
		SS	

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
LL155-038 Ø40
SHEET 2 of 2

PROJECT	INSPECTOR	HOLE NUMBER			
RYAAD	Joe Wilson	LL155-038 Ø40			
DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
0	Organics w/ large shells				LL155-038
5	Tan brown silt w/ large rock frags.				
10					
15					
Ø	Brown silt				LL155-Ø40
5	Tanish brown silt w/ Rock frags and a nail				

PROJECT RYAAD

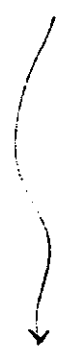

HOLE NO. LL155-038 Ø40

HTRW DRILLING LOG		DISTRICT NASH		HOLE NUMBER LL155-041 (b)	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 2	
3. PROJECT RVAAP		4. LOCATION LL1 / RVAAP			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS hand auger		8. HOLE LOCATION SEE SKETCH BELOW			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/30/96		11. DATE COMPLETED 7/30/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE See Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample COC ←		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. TOTAL CORE RECOVERY NA					
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Restoration	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>
LOCATION SKETCH/COMMENTS LL1 Surface Soil Background		SCALE: 1" = 100' ±			
PROJECT RVAAP		HOLE NO. LL155 041 (b)			

HTRW DRILLING LOG

HOLE NUMBER **LL155-041(b)**
 SHEET **2 of 2**

PROJECT **RVAAP** INSPECTOR **Joe Wilson**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0" 10" 20"	Tan-Brown silt 				LL155-041(b)  Total depth = 24" log

PROJECT **RVAAP**

HOLE NO. **LL155-041(b)**

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HTRW DRILLING LOG

HOLE NUMBER
LL155-043 & 042

PROJECT

RVAAP

INSPECTOR

~~Matthew West~~

Joe Wilson

SHEET

2 of 2

DEPTH (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH HANDLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0"	Brown Topsoil				LL155-043 (b)
	125"	Yellow brown silt				↓ Refr @ 18" bgs
	225"					
	0"	Tan-brown silt				LL155-042 (b)
	10"					↓ Refr @ 10" bgs
<p style="font-size: 2em; opacity: 0.5;">End 07-30-96</p>						

PROJECT RVAAP

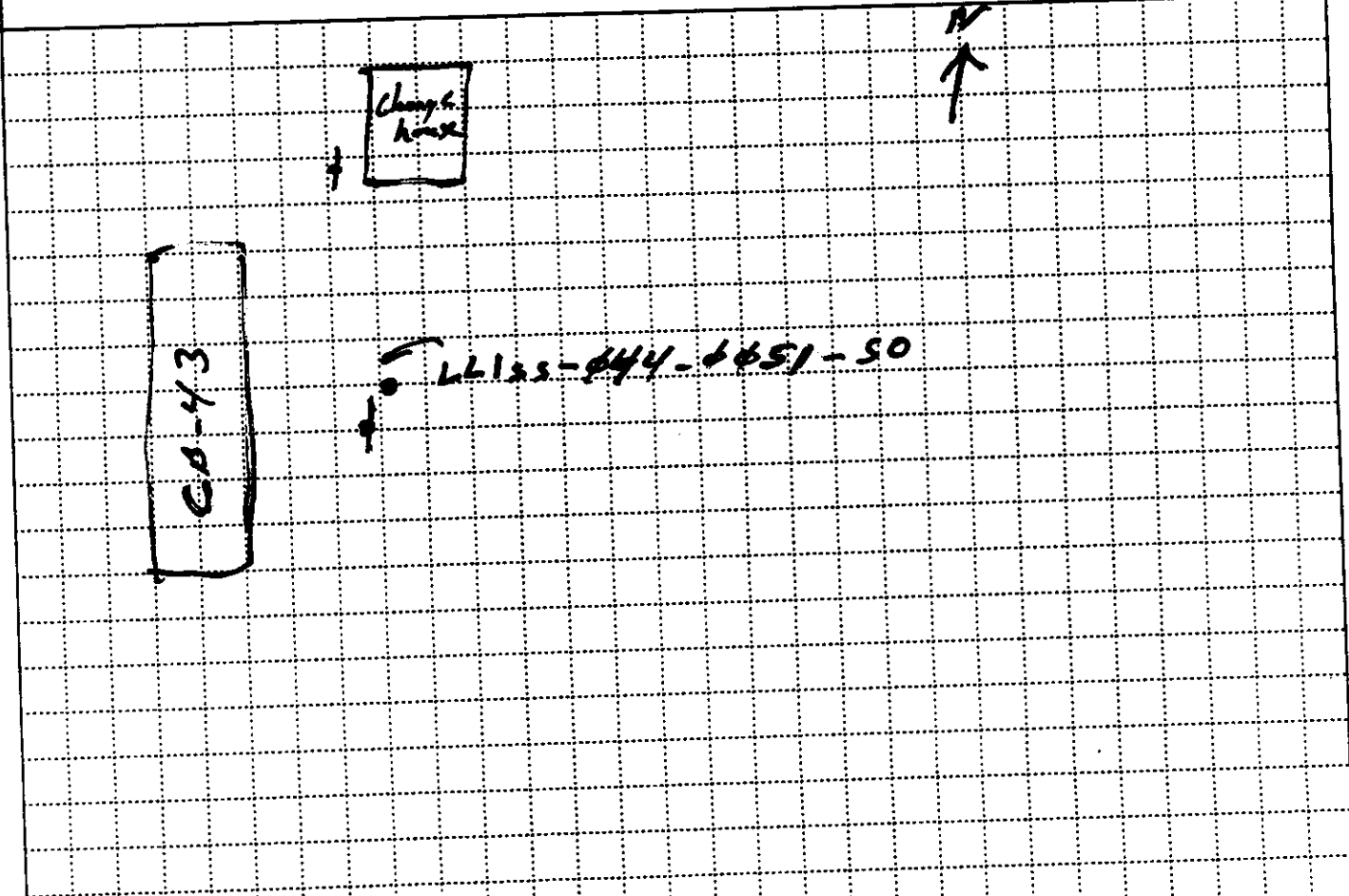
HOLE NO. LL155-043 & 042

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HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL155-044	
1. COMPANY NAME SATC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION LL1 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURER'S DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3/16 S. hand auger		8. HOLE LOCATION			
		9. SURFACE ELEVATION SEE SKETCH BELOW			
		10. DATE STARTED 8/8/96		11. DATE COMPLETED 8/8/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW.			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 14 inches.		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. TOTAL CORE RECOVERY % NA					
22. DISPOSITION OF HOLE See Sample COCK Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR

LOCATION SKETCH/COMMENTS

SCALE: 1" = 100'



PROJECT RVAAP	HOLE NO. LL155-044
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HTRW DRILLING LOG

HOLE NUMBER **LL158-044**

PROJECT **RVAAP**

INSPECTOR **Ken Smith**

SHEET **2 of 2**

DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
0	Ten silt w/ orange nodding				LL158-044
10					
15					Revised @ 14 inches

PROJECT **RVAAP**

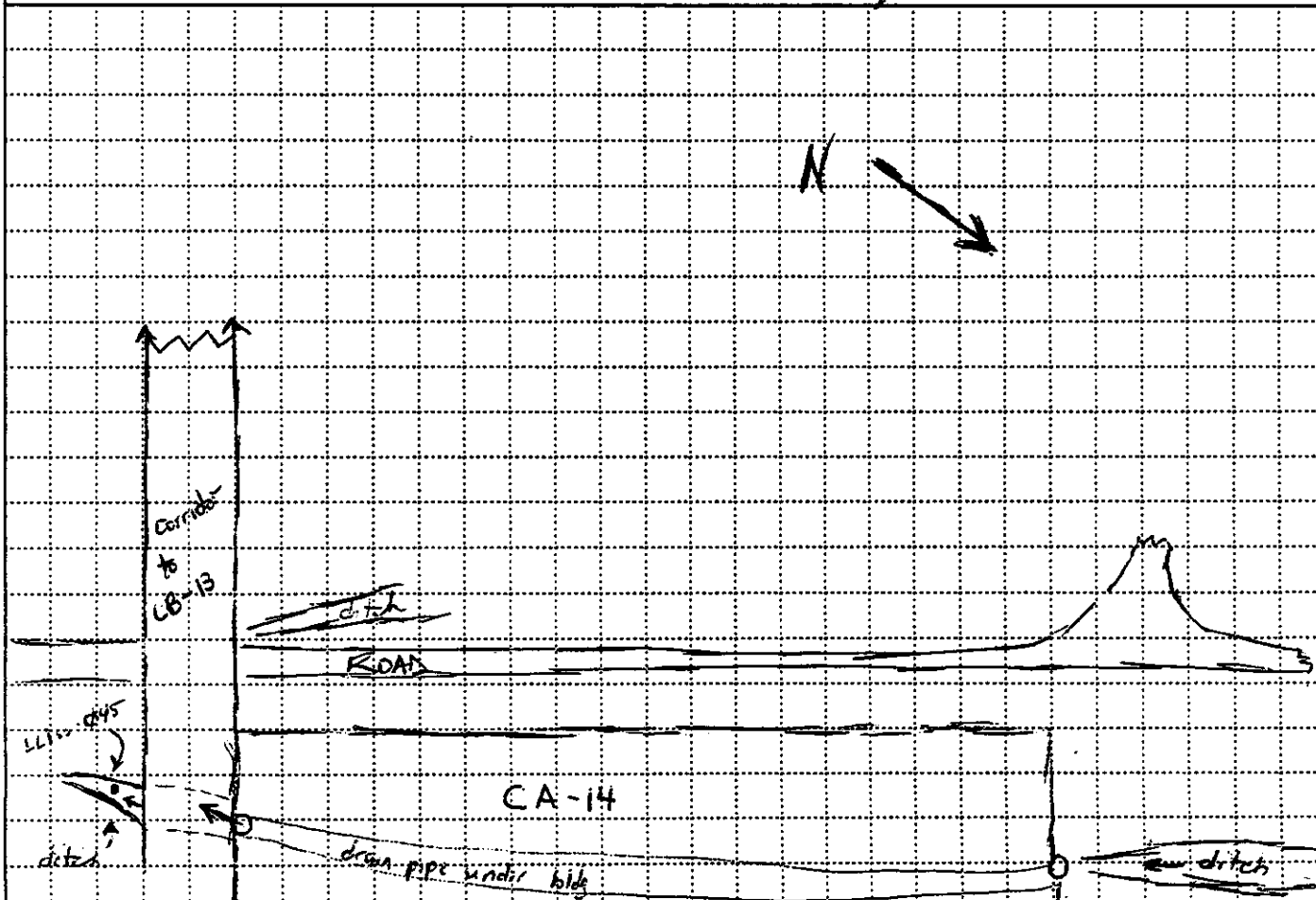
HOLE NO. **LL158-044**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL155-045	
1. COMPANY NAME SATC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 1	
3. PROJECT RUAAP			4. LOCATION LL1/RVAAP		
5. NAME OF DRILLER			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. HAND AUGER		8. HOLE LOCATION SEE SKETCH BELOW			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 08/18/96		11. DATE COMPLETED 08/18/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE CDC		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Restoration	21. TOTAL CORE RECOVERY % NA
				23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	

LOCATION SKETCH/COMMENTS

LL155-045 TBD Surface Soil Boring

SCALE: 1" = 100ft



PROJECT RUAAP	HOLE NO. LL155-045
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HTRW DRILLING LOG

HOLE NUMBER
LL155-045

SHEET 2 of 2

PROJECT RVAAP

INSPECTOR T. G. J. J. S. W.

DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
0	organic rich topsoil	3 ppm HCB			LL155-045
15	Block out of brick fragments				RESIDUAL 10' 2 1/2"
100					
150					
200					
250					
300					
350					
400					
450					
500					
550					
600					
650					
700					
750					
800					
850					
900					
950					
1000					

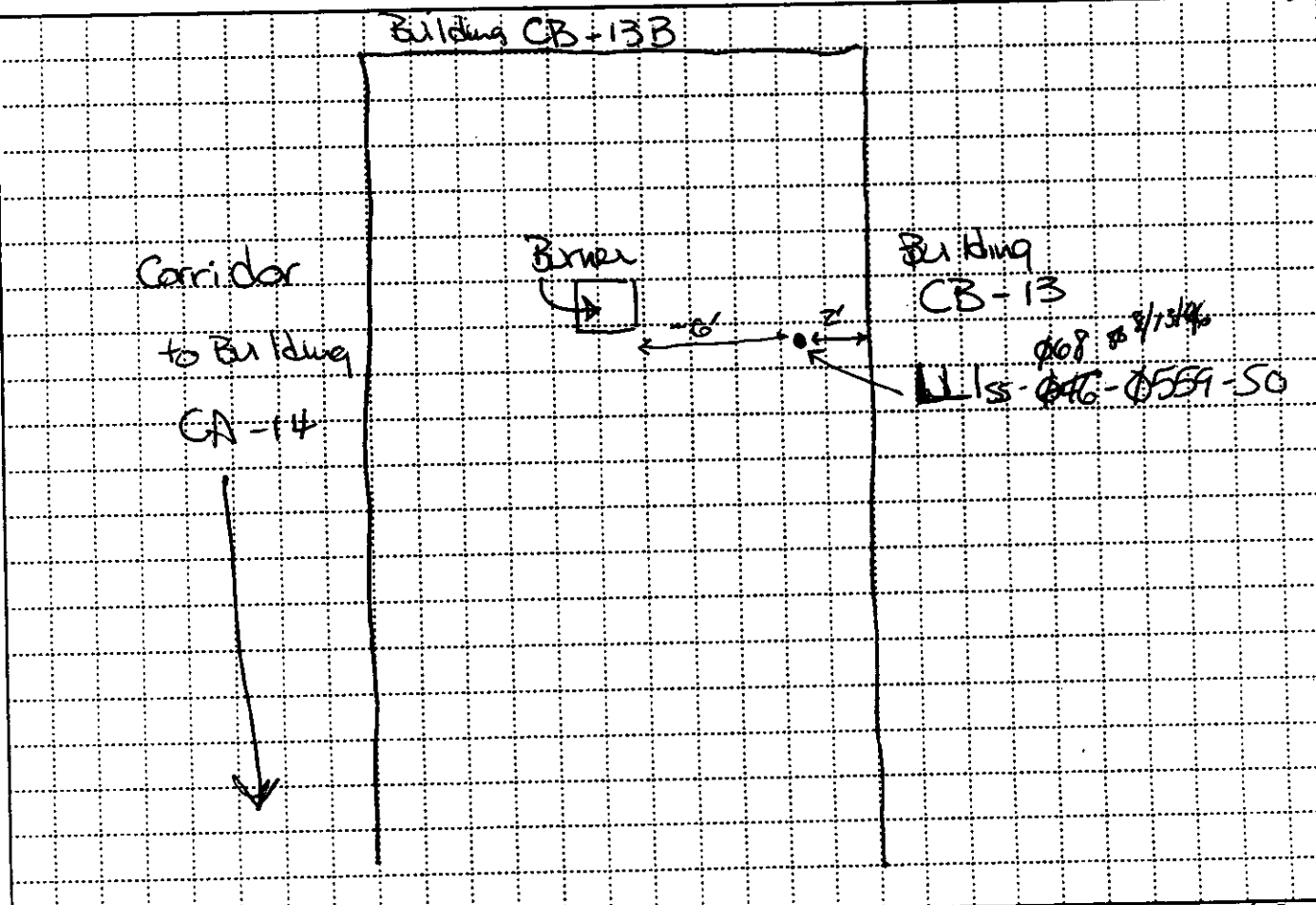
20
08-10-96

PROJECT RVAAP

HOLE NO LL155-045

HTRW DRILLING LOG		DISTRICT <i>Nashville Co</i>		HOLE NUMBER <i>068</i> <i>LL155-046</i>	
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1 OF 2</i>	
3. PROJECT <i>RVAAP</i>			4. LOCATION <i>Rueena OH</i>		
5. NAME OF DRILLER <i>NA</i>			6. MANUFACTURERS DESIGNATION OF DRILL <i>Hard Apex</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" SS Hard Apex</i>		8. HOLE LOCATION <i>Burien Adjacent to CB-13</i>			
		9. SURFACE ELEVATION <i>NA</i>			
		10. DATE STARTED <i>8/14/96</i>		11. DATE COMPLETED <i>8/16/96</i>	
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH-GROUNDWATER ENCOUNTERED <i>NO GW</i>			
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>			
14. TOTAL DEPTH OF HOLE <i>2.0 ft</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>			
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See Sample Log in Log Book #41</i>		VOC <i>NA</i>	METALS <i>NA</i>	OTHER (SPECIFY) <i>Bentonite</i>	OTHER (SPECIFY) <i>NA</i>
21. TOTAL CORE RECOVERY <i>NA</i>		22. DISPOSITION OF HOLE <i>Abandoned</i>			
		BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	23. SIGNATURE OF INSPECTOR <i>Biden</i>	

LOCATION SKETCH/COMMENTS SCALE: *N/A* (NOT TO SCALE)



PROJECT <i>RVAAP</i>	HOLE NO. <i>068</i> <i>LL155-046</i>
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HTRW DRILLING LOG

HOLE NUMBER: **LL155-~~446~~ 068**
 SHEET: **2 of 2**
 DATE: **8/13/96**

PROJECT: **RVAAP**

INSPECTOR: **S. B. [unclear]**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	DEPTH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1.0	Yellow Brown silt Feeds little gravel 6-18" yellow silt with some gravel	30 ppm	NA	LL155- 446 068 0559- 50	Many of the rocks in the sample have a black stain on them.
	2.0	15-2ft Brown clay silt moist	24 ppm			
			Head post 4 ppm			

PROJECT: **RVAAP**

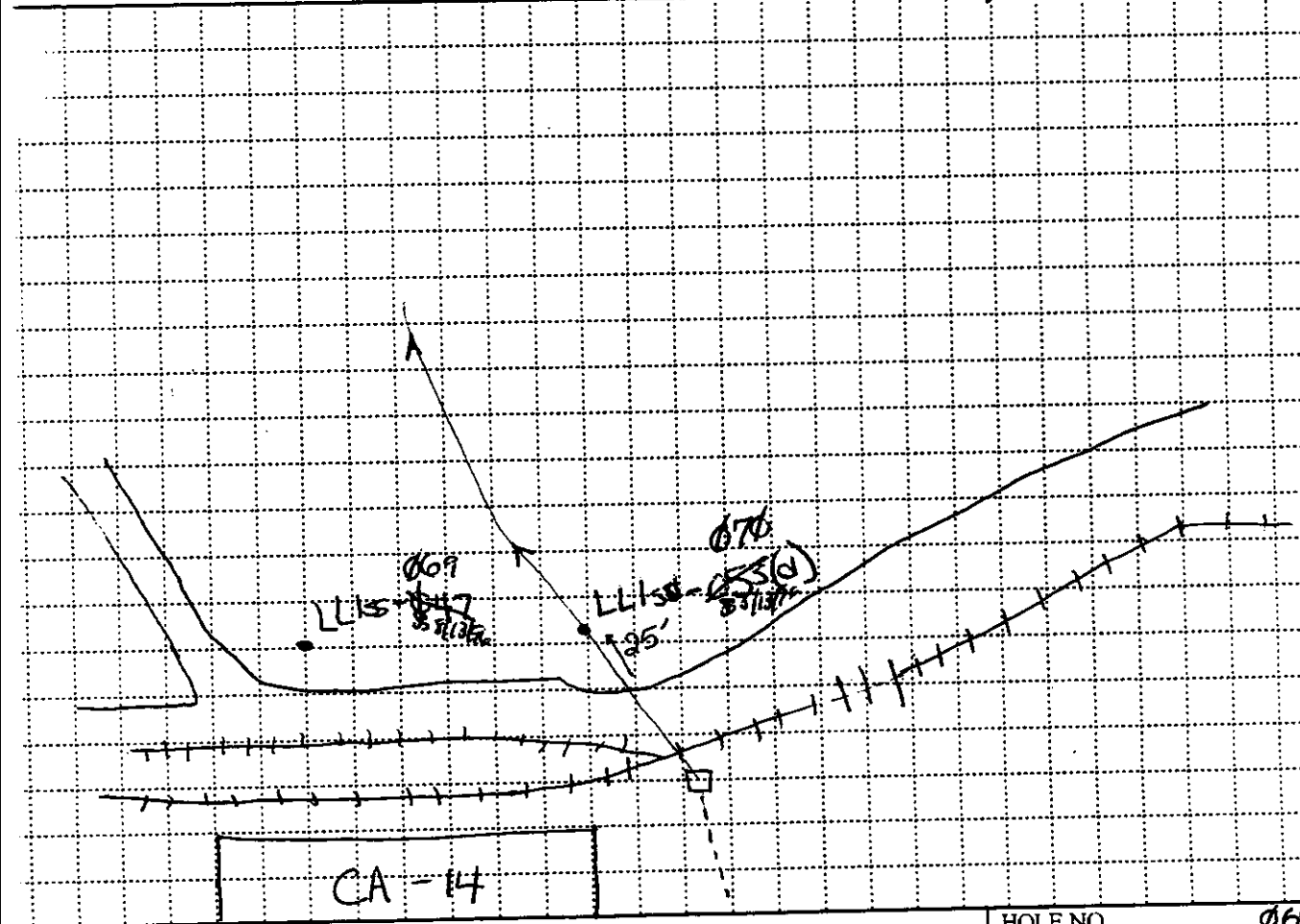
HOLE NO.: **LL155-~~446~~ 068**
 DATE: **8/13/96**

Page 33

TRW DRILLING LOG		DISTRICT Nashville COE	HOLE NUMBER 069 LL155-047
COMPANY NAME SAIC		DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
VECT RVAAP	4. LOCATION Lawrence OH		
NAME OF DRILLER NA	6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
DRILLING AND TYPES OF DRILLING SAMPLING EQUIPMENT 3" SS Hand Auger	8. HOLE LOCATION East of CA14 adjacent to 55-gal drum		
	9. SURFACE ELEVATION NA		
	10. DATE STARTED 8/10/96	11. DATE COMPLETED 8/10/96	
UNSATURATED THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
TOTAL DEPTH OF HOLE 2.0 ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		

18. TECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
SAMPLES FOR CHEMICAL ANALYSIS See logbook # 41	VOC NA	METALS Sample Col	OTHER (SPECIFY) NA
DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Ben Enrie
20. SIGNATURE OF INSPECTOR [Signature]			21. TOTAL CORE RECOVERY NA %

LOCATION SKETCH/COMMENTS
SCALE: NAT TO SCALE



PROJECT RVAAP	HOLE NO. 069 LL155-047
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HTRW DRILLING LOG

HOLE NUMBER: LL155-047 069
 DATE: 8/13/56

PROJECT: RVAMP		INSPECTOR: Sidney			SHEET: 2 of 2	
ELFA (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1.0	Brown Sandy Silt	φ.φ ppm	NA	LL15 -	
	2.0	Grey orange mottled silt	Head space 30 ppm		047-069 0502 50	8/13/56

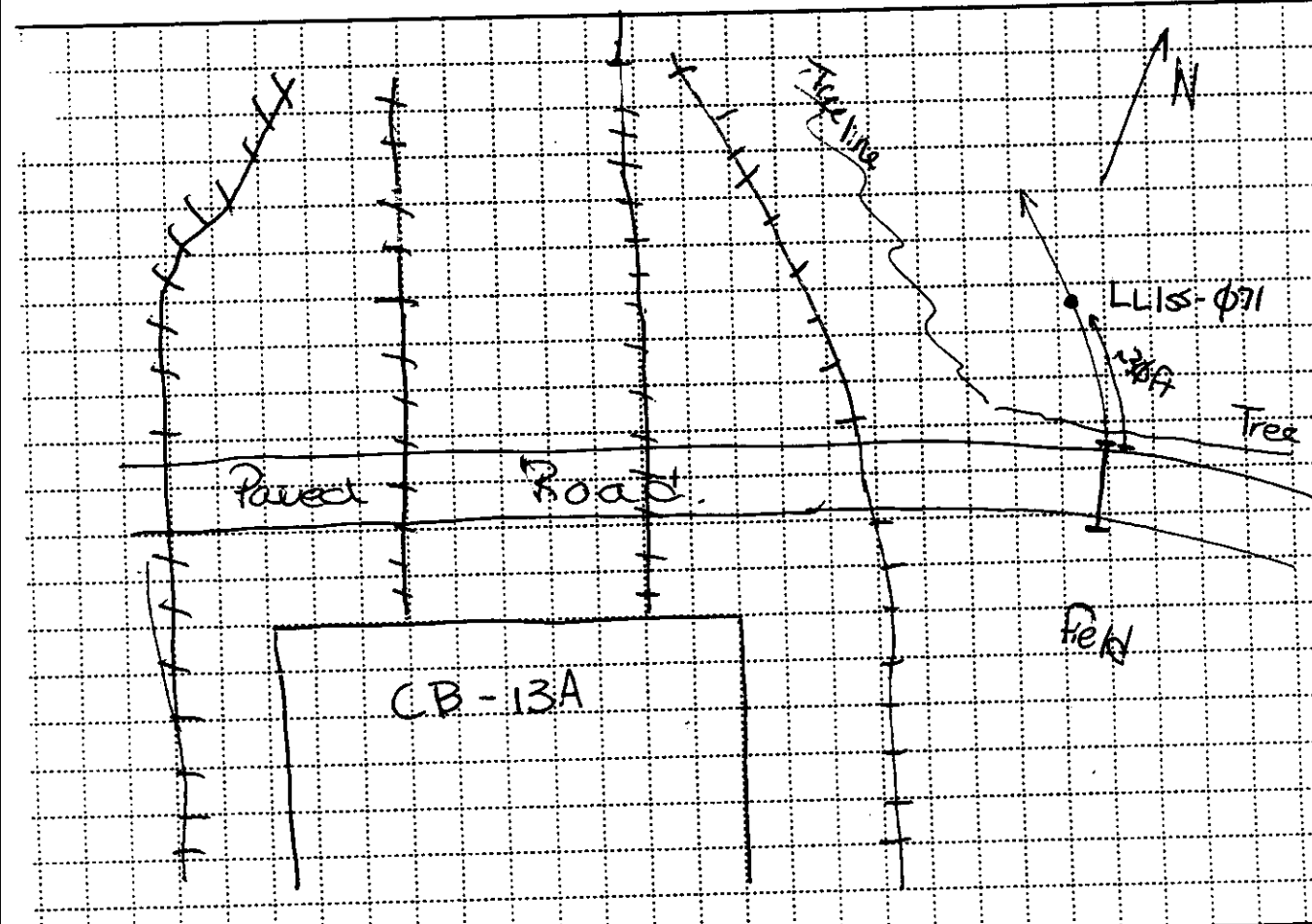
PROJECT: RVAMP

HOLE NO.: LL155-047 069
 8/13/56

RW DRILLING LOG		DISTRICT Nardinville CEX	HOLE NUMBER LL15-071
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT RVAMP		4. LOCATION Ravenna OH	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Name Access	
7. SIZES AND TYPES OF DRILLING SAMPLING EQUIPMENT 3" SS Hand Auger + Geotest		8. HOLE LOCATION Drainage ditch N of CB13 Ed RR spur.	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/29/96	11. DATE COMPLETED 8/29/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED N/GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 2-0 FT bsp		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	

18. TECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample Logbook #41	VOC	METALS	OTHER (SPECIFY)
21. TOTAL CORE RECOVERY NA	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Blended
			23. SIGNATURE OF INSPECTOR Budman

LOCATION SKETCH/COMMENTS SCALE: Not to Scale



24. PROJECT RVAMP	HOLE NO. LL15-071
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Page 36 A

HTRW DRILLING LOG

HOLE NUMBER **LLISS - ϕ 71**
SHEET **2 of 7**

PROJECT **RVAAP** INSPECTOR **SB [unreadable]**

ELFV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	2.0	Brown and Tan Silty Clay Mottled Root zone waste 4' top	27 ppm Headpace 156 ppm	NA	LLISS - ϕ 71 - ϕ 558 - 50	

PROJECT **RVAAP**

HOLE NO. **LLISS - ϕ 71**

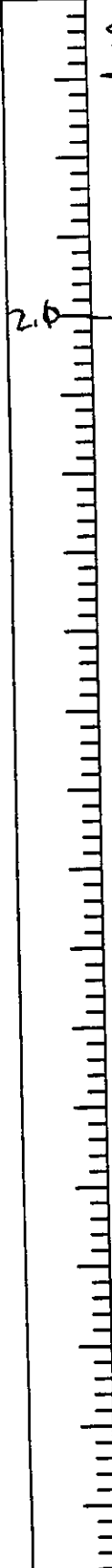
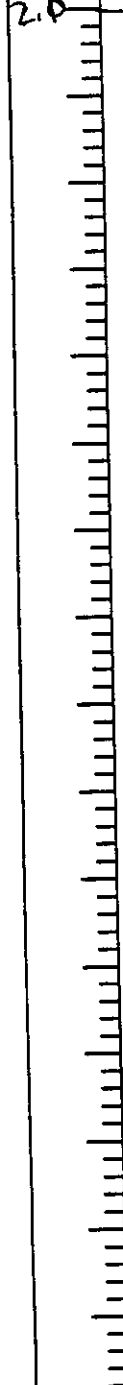
Page **36B**

HTRW DRILLING LOG		DISTRICT Nashville Co		HOLE NUMBER LL15-072	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
3. PROJECT RVAAP		4. LOCATION Ravenna OH			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Auger		8. HOLE LOCATION 50 ft SE of telephone pole LL1 102 under wires			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/12/96		11. DATE COMPLETED 8/12/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUND WATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA		22. DISPOSITION OF HOLE Abandoned			
		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR S. [Signature]
LOCATION SKETCH/COMMENTS				SCALE: None	
PROJECT RVAAP				HOLE NO. LL15-072 (Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NUMBER **LL155-072**
SHEET **2 of 2**

PROJECT **RV AAP** INSPECTOR **Budmer**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		<p>Silty clay tan-grey mottling</p>	<p>17.5 ppm Headpace</p>	<p>NA</p>	<p>LL155-072-0500-50</p>	
	<p>2.0</p> 					

PROJECT **RV AAP**

HOLE NO **LL155-072 30**

HTRW DRILLING LOG		DISTRICT Nashville COX		HOLE NUMBER 8/12/96 LL15-073	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP		4. LOCATION Rueann OH			
5. NAME OF DRILLER NA		6. MANUFACTURER'S DESIGNATION OF DRILL Hand Auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Auger		8. HOLE LOCATION NE of Building CA-15 NE side of Fence ~ 5ft from fence			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/12/96		11. DATE COMPLETED 8/12/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH/GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 Ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
See Sample Log Log # 41		NA	NA	NA	NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR Saudrey
LOCATION SKETCH/COMMENTS		SCALE: NOT TO SCALE			
PROJECT RVAAP				HOLE NO. LL15-073	

HTRW DRILLING LOG

HOLE NUMBER **LL155-073**

PROJECT

RVAAP

INSPECTOR

Stedman

SHEET

2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	2.0	Brown w/ grey Moulding Silty clay	6 ppm Kiesel paste 344 ppm	NA	LL155- 073- 0563- SC	

PROJECT

RVAAP

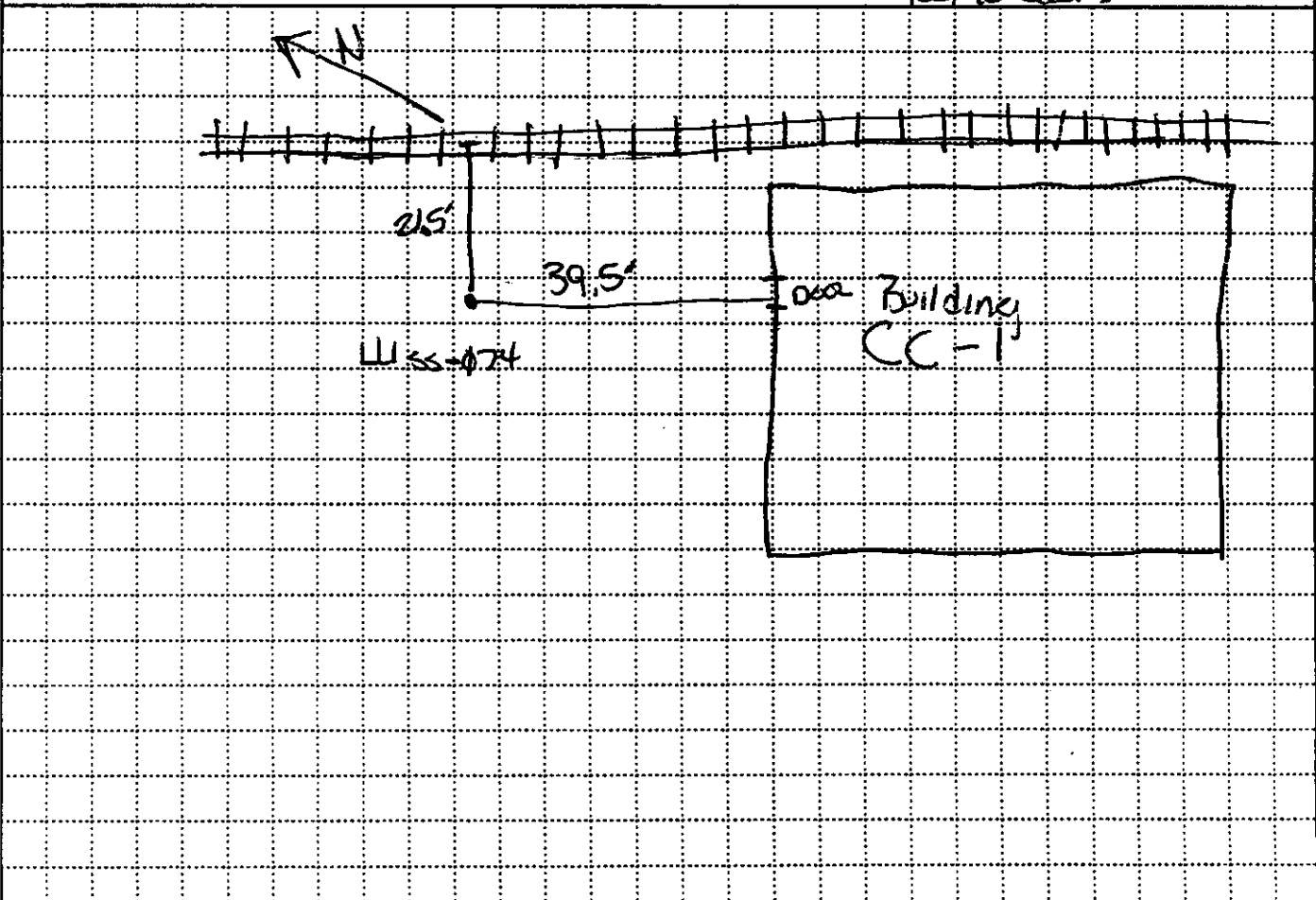
HOLE NO.

LL155-073

40

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL155-074	
1. COMPANY NAME JAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Reverna OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION 39.5 ft NW of building CC-1 from door, 21.5' to center of RR tracks			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/13/96		11. DATE COMPLETED 8/13/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample Log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY NA
				23. SIGNATURE OF INSPECTOR Sidney	

LOCATION SKETCH/COMMENTS SCALE:
Not to Scale



PROJECT RVAAP	HOLE NO. LL155-074
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HTRW DRILLING LOG

HOLE NUMBER **LL15-074**

PROJECT **RVAAP**

INSPECTOR **S. Bowen**

SHEET **2 of 2**

DEPTH (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOCHEMICAL SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		<p>Light brown silty clay</p>	<p>12 ppm Headpiece 250 ppm</p>	<p>NA</p>	<p>LL15-074 0395 0671 50</p>	
	<p>2.0</p>					

PROJECT

RVAAP

HOLE NO.

LL15-074

LOAD LINE 1
DRAINAGE SEDIMENT LOGS
LOGBOOK #34

LL1 sd - $\phi 28$ - ~~AAASAA~~

Location ^{shown} on sketch for

LL1 ss - $\phi 29$, - $\phi 30$, - $\phi 16$, - $\phi 14$, - $\phi 15$, & - $\phi 11$.

LL1 sd - $\phi 24$ - ~~AAASAA~~

Location ^{shown} on sketch for

LL1 ss - $\phi \phi 1$, - $\phi \phi 2$, - $\phi \phi 7$, - $\phi \phi 6$, & - $\phi \phi 8$.

LL1 sd - $\phi 70$

location shown on sketch for

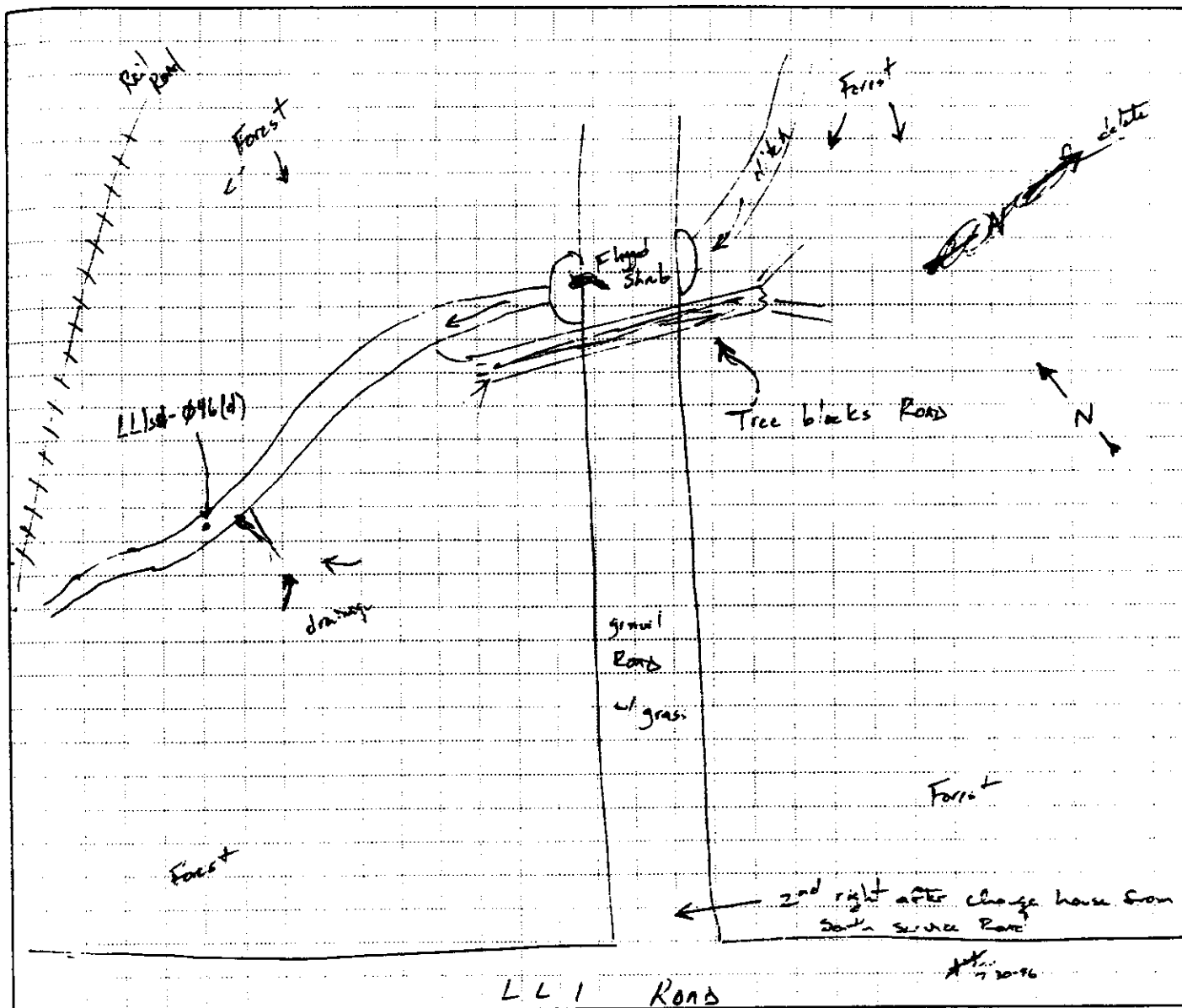
LL1 ss - $\phi 69$

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: <i>LL1 sd - 046 (d)</i>	DATE COLLECTED (mm/dd/yy): <i>07-30-96</i>
SAMPLE LOCATION: <i>LL1 - 01</i>	TIME COLLECTED (hh:mm): <i>1553</i>
SAMPLING POINT:	DEPTH: <i>6" bgs</i>



COMMENTS:

Approx 50 ft from rail road and approx 400 ft from downed tree on road

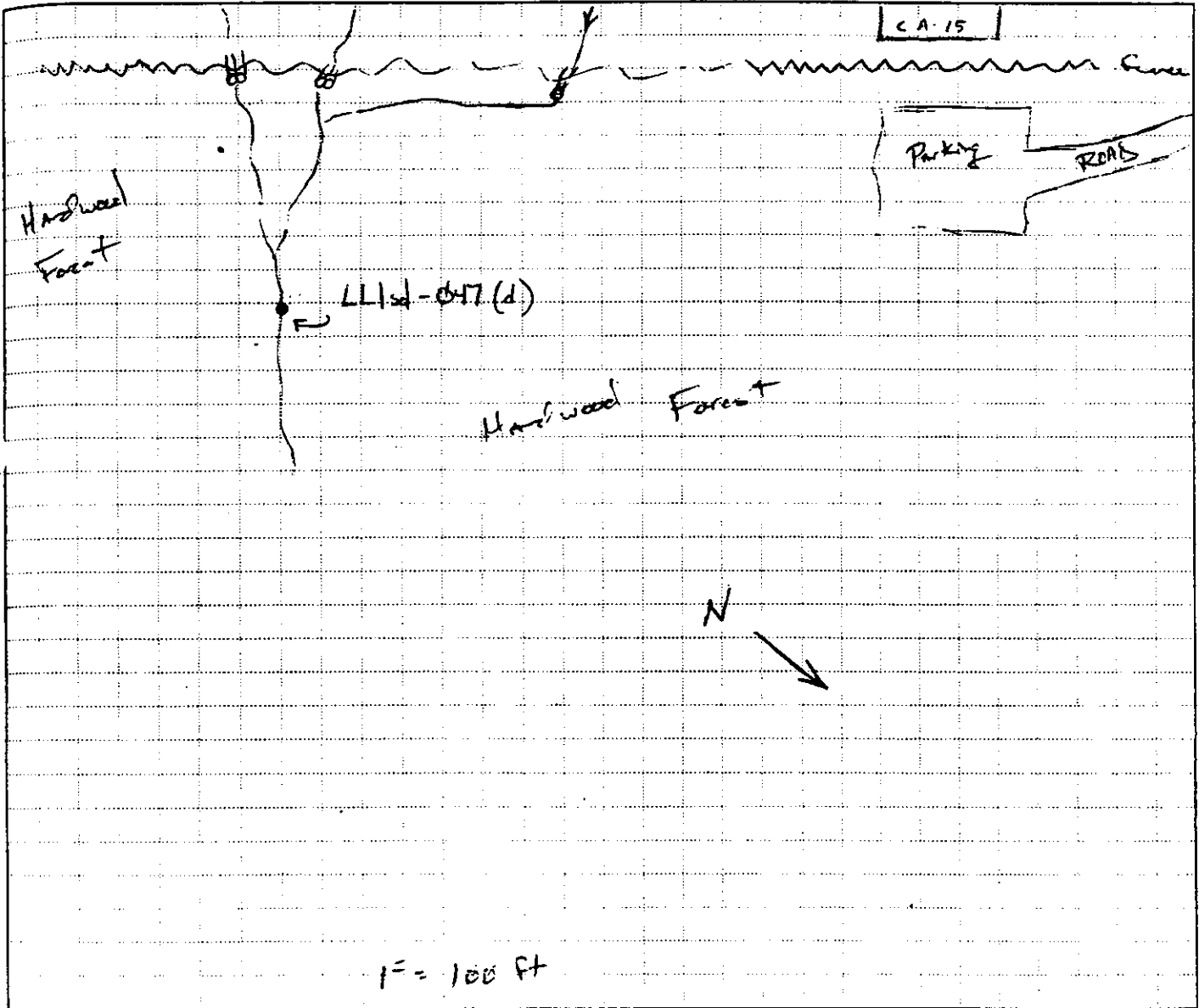
RECORDED BY: <i>Joseph J. Wilson</i>	DATE <i>07-30-96</i>	QA CHECK BY: <i>[Signature]</i>	DATE <i>8/22/96</i>
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL1sd - 047(d)	DATE COLLECTED (mm/dd/yy): 08-09-96
SAMPLE LOCATION: Drain C-02	TIME COLLECTED (hh:mm): 1650
SAMPLING POINT:	DEPTH: 6"



COMMENTS:
LL1

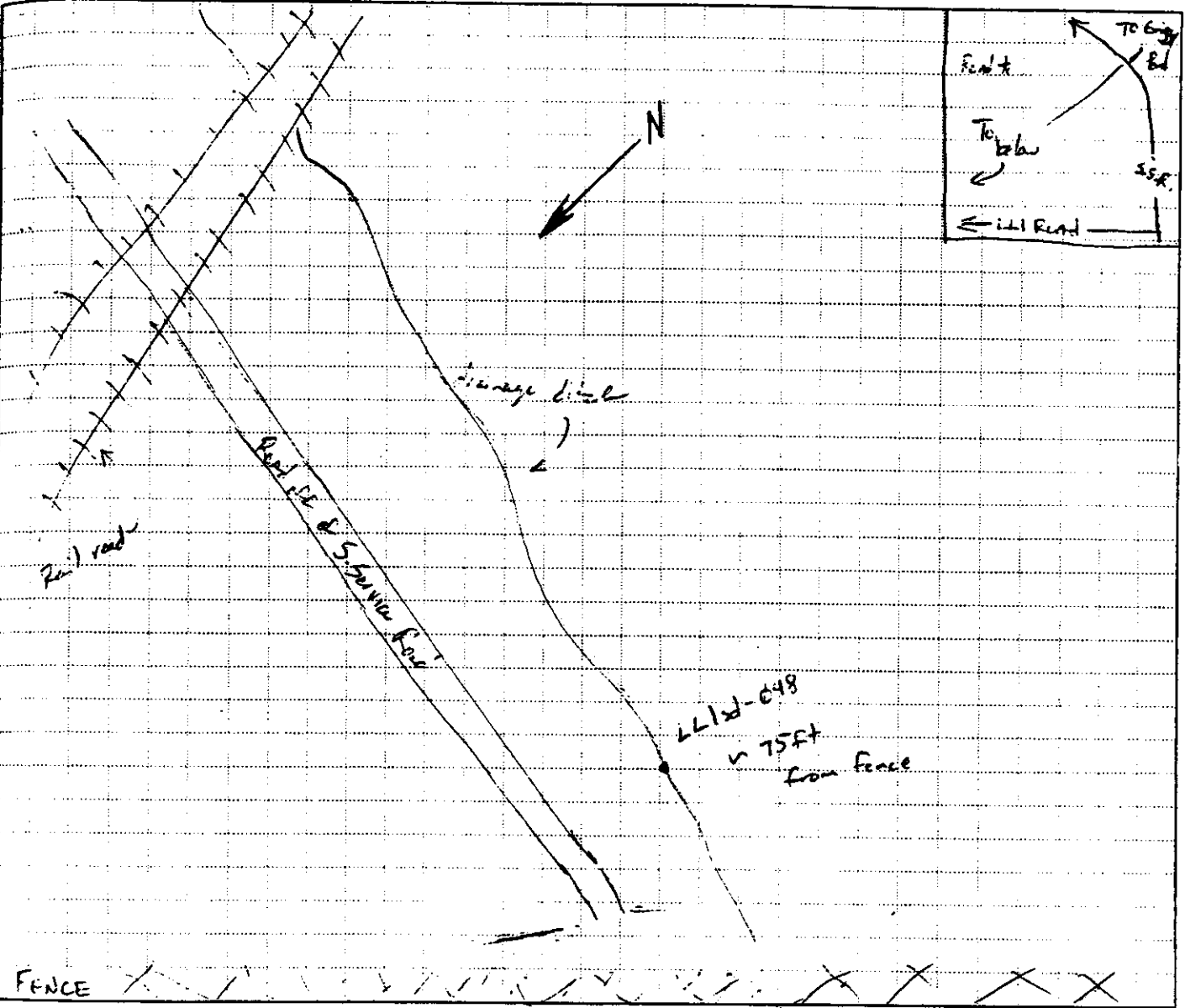
RECORDED BY: Joseph G. Wilson	DATE 08-09-96	QA CHECK BY: [Signature]	DATE 8/22/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL1 58 - 0482	DATE COLLECTED (mm/dd/yy): 05-09-96
SAMPLE LOCATION: Train C - 03	TIME COLLECTED (hh:mm): 1430
SAMPLING POINT:	DEPTH: 6"



COMMENTS:

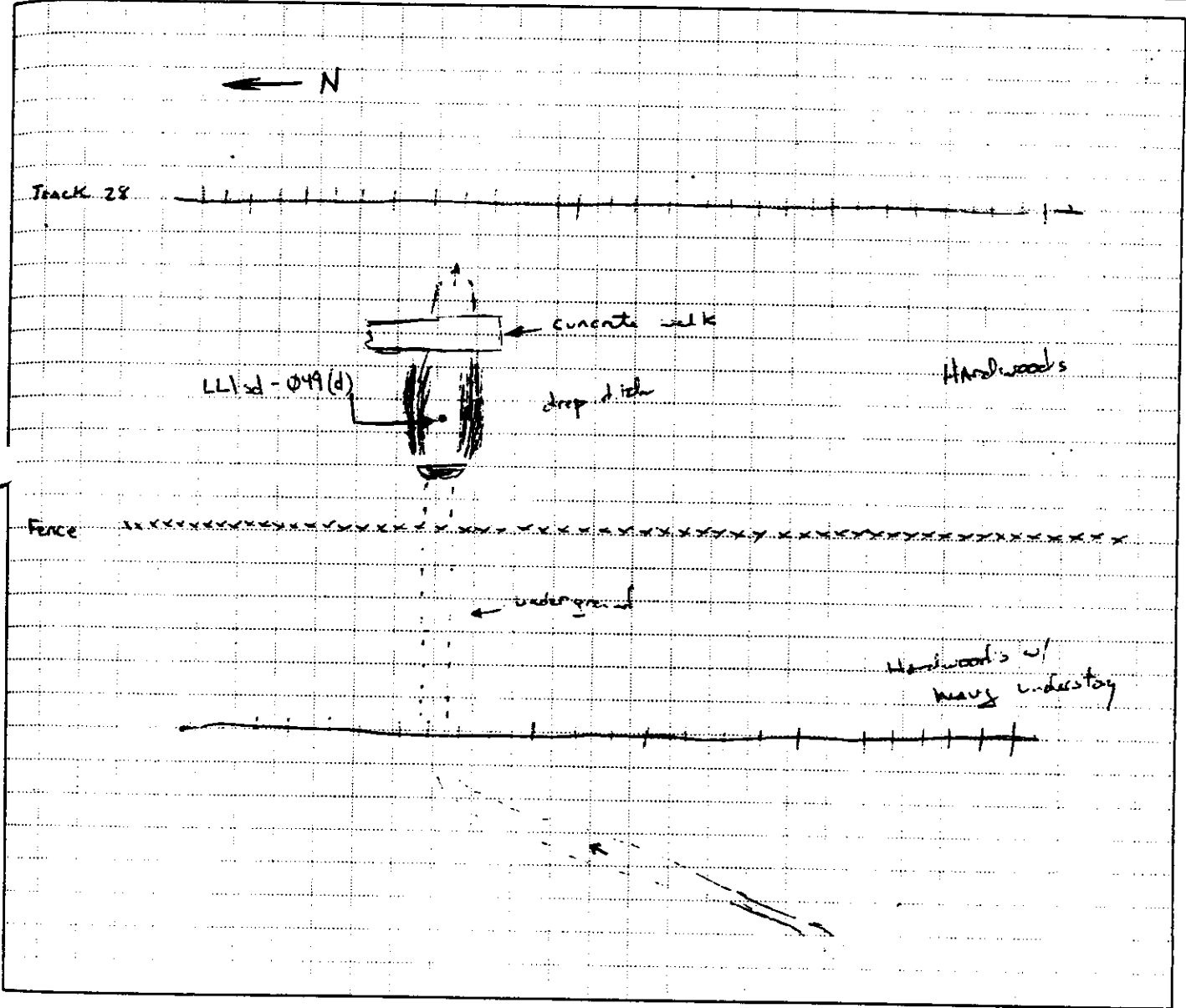
RECORDED BY: <i>[Signature]</i>	DATE: 05-09-96	QA CHECK BY: <i>[Signature]</i>	DATE: 8/22/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL13d - 049 (d)	DATE COLLECTED (mm/dd/yy): 59-12-9
SAMPLE LOCATION: Drain C-24	TIME COLLECTED (hh:mm): 11:5
SAMPLING POINT: See sketch	DEPTH:



COMMENTS:

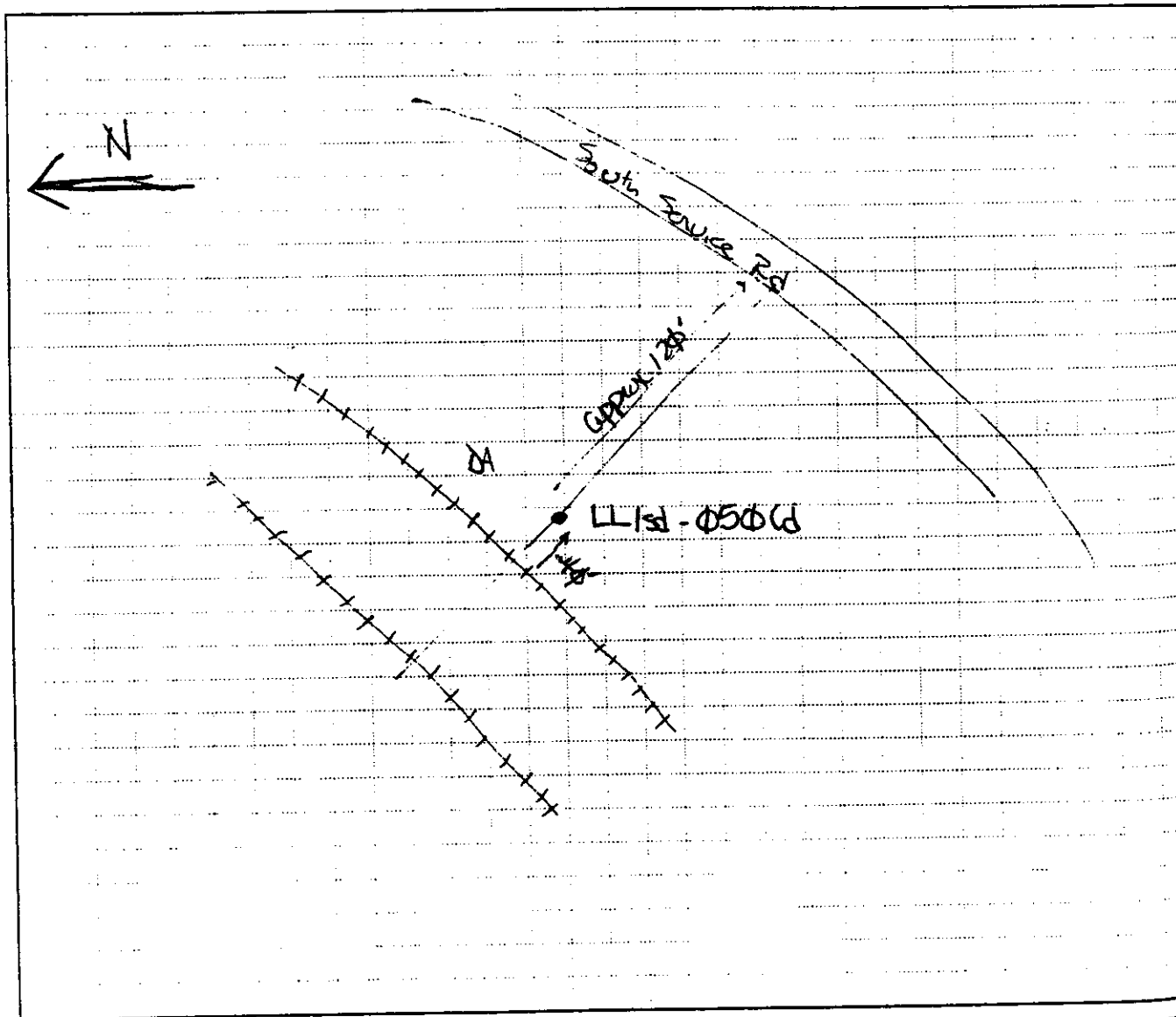
RECORDED BY: <i>[Signature]</i>	DATE 08-12-96	QA CHECK BY: <i>[Signature]</i>	DATE 5/22/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL1sd - 0500(d) - 0158 - SD	DATE COLLECTED (mm/dd/yy): 8/10/96
SAMPLE LOCATION: Drain C - 45 south side of LL1	TIME COLLECTED (hh:mm): 05.43
SAMPLING POINT:	DEPTH: 8 inches



COMMENTS: Approx 40 ft off the RR tracks and 120 ft to South Sewing Rd.

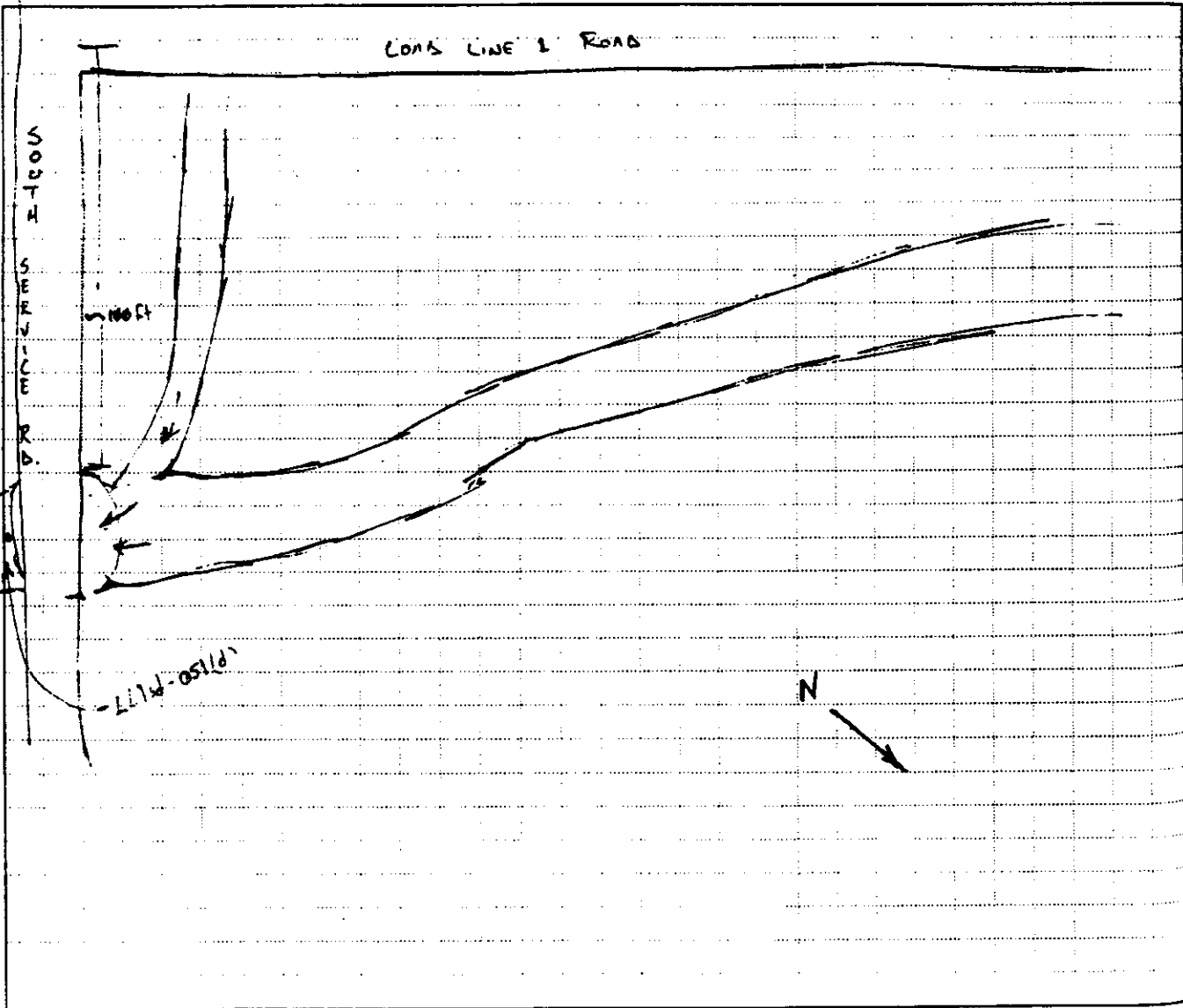
RECORDED BY: Sidney	DATE 8/10/96	QA CHECK BY: [Signature]	DATE 8/22/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL150-051(6)	DATE COLLECTED (mm/dd/yy): 07-30-96
SAMPLE LOCATION: Dig. C-06	TIME COLLECTED (hh:mm): 1030
SAMPLING POINT:	DEPTH: 6"



COMMENTS:

Point moved to other side South Service Rd. I have planned to accommodate a subsist. from other drainage ditch.

FIELDED BY: G. M. [Signature]	DATE: 07-30-96	QA CHECK BY: [Signature]	DATE: 8/2/96
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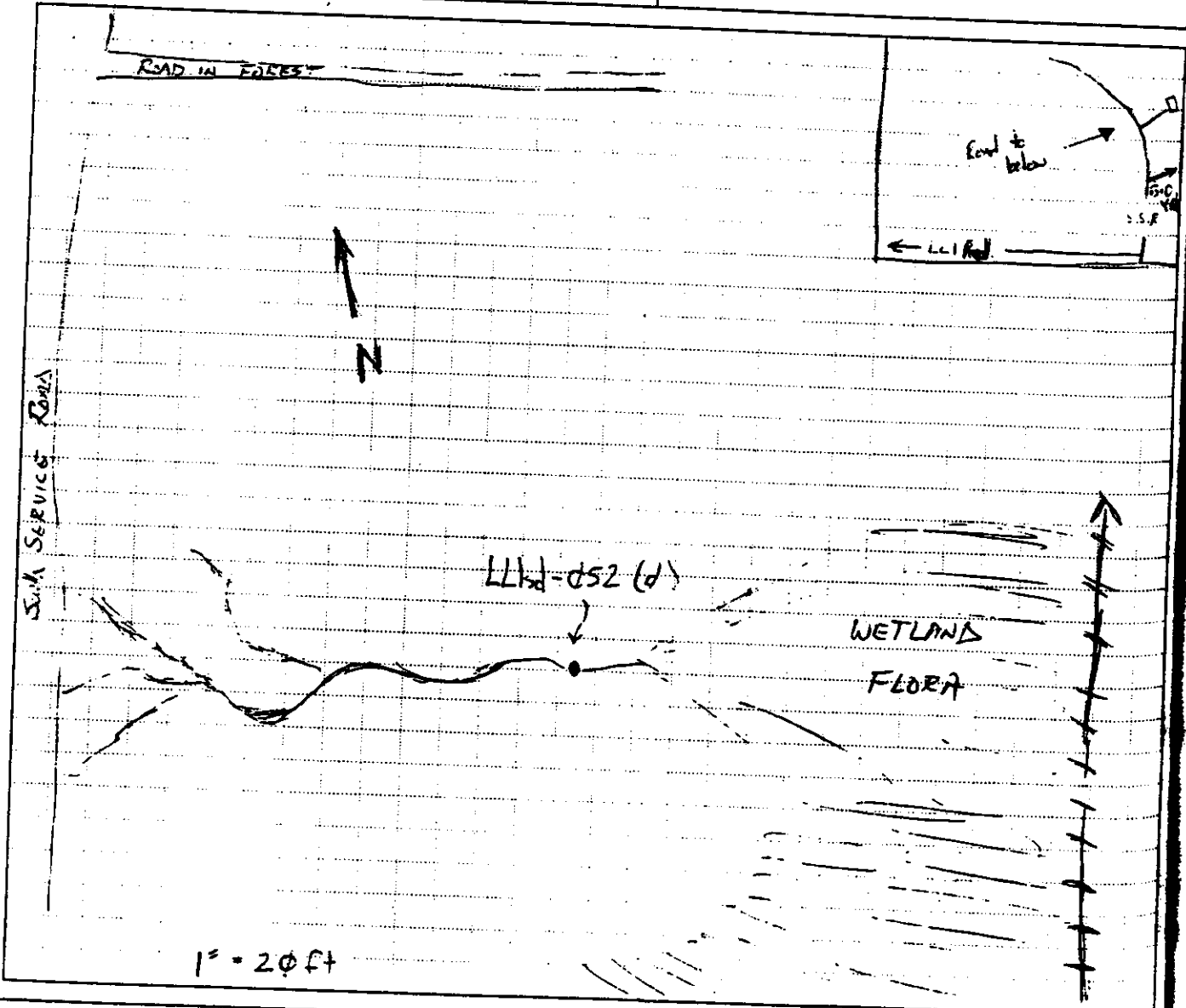
PROJECT NO: RVAAP

LOCATION SKETCH

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL1d-052 (d)	DATE COLLECTED (mm/dd/yy): 08-09-96
SAMPLE LOCATION: Pm-A C-04	TIME COLLECTED (hh:mm): 1600
SAMPLING POINT:	DEPTH:

SAM
SAM
SAM



H
F

COMMENTS:

COMMENT

RECORDED BY: <i>[Signature]</i>	DATE 08-09-96	QA CHECK BY: <i>[Signature]</i>	DATE 8/22/96
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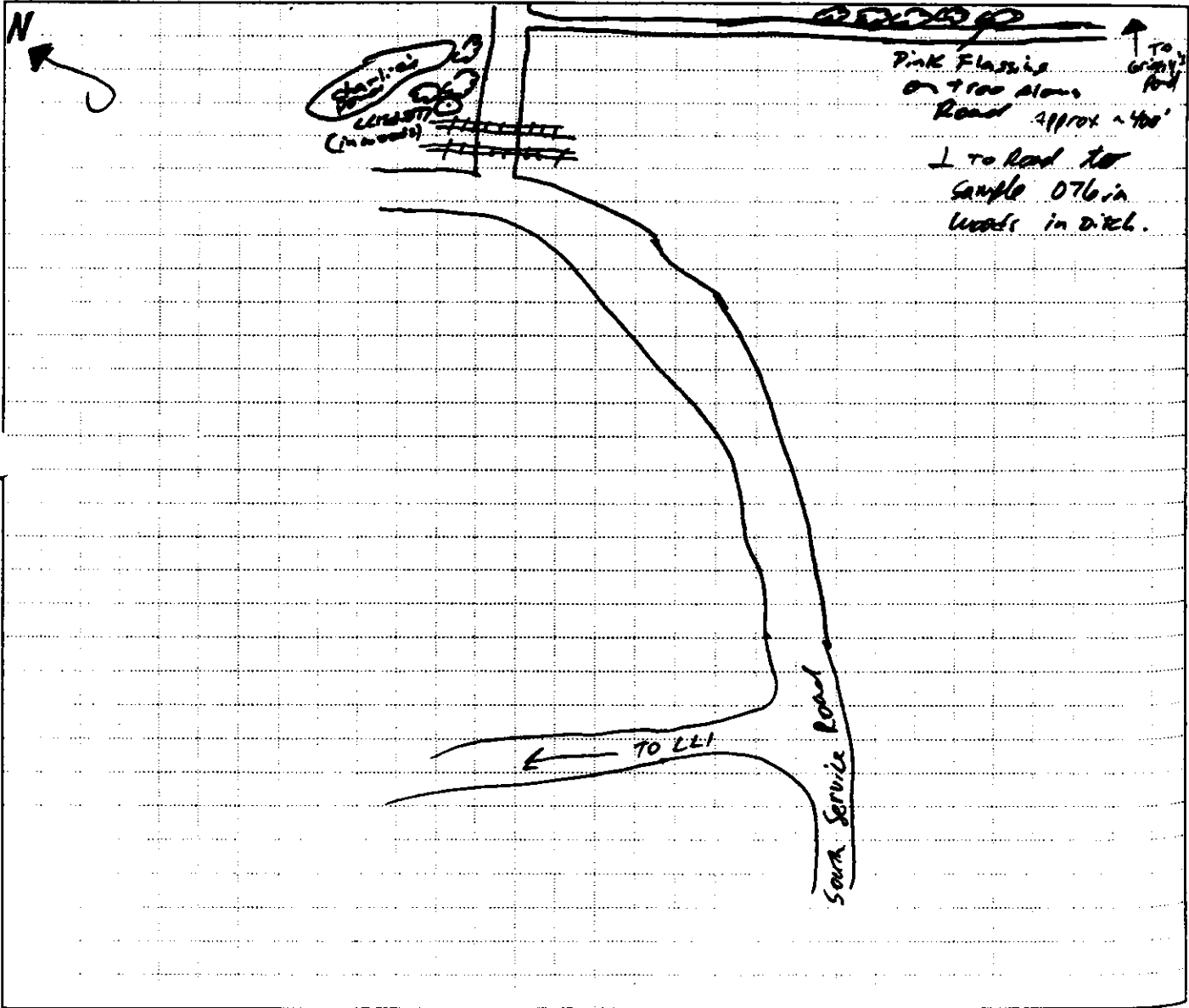
RECORDED &
[Signature]

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: <i>LL1sd-076 and 077</i>	DATE COLLECTED (mm/dd/yy): <i>8-21-96</i>
SAMPLE LOCATION: <i>LL1</i>	TIME COLLECTED (hh:mm): <i>09:30 / 10:00</i>
SAMPLING POINT:	DEPTH: <i>2'</i>



COMMENTS:

RECORDED BY: <i>Matt Deby</i>	DATE: <i>8-21-96</i>	QA CHECK BY: <i>[Signature]</i>	DATE: <i>8/22/96</i>
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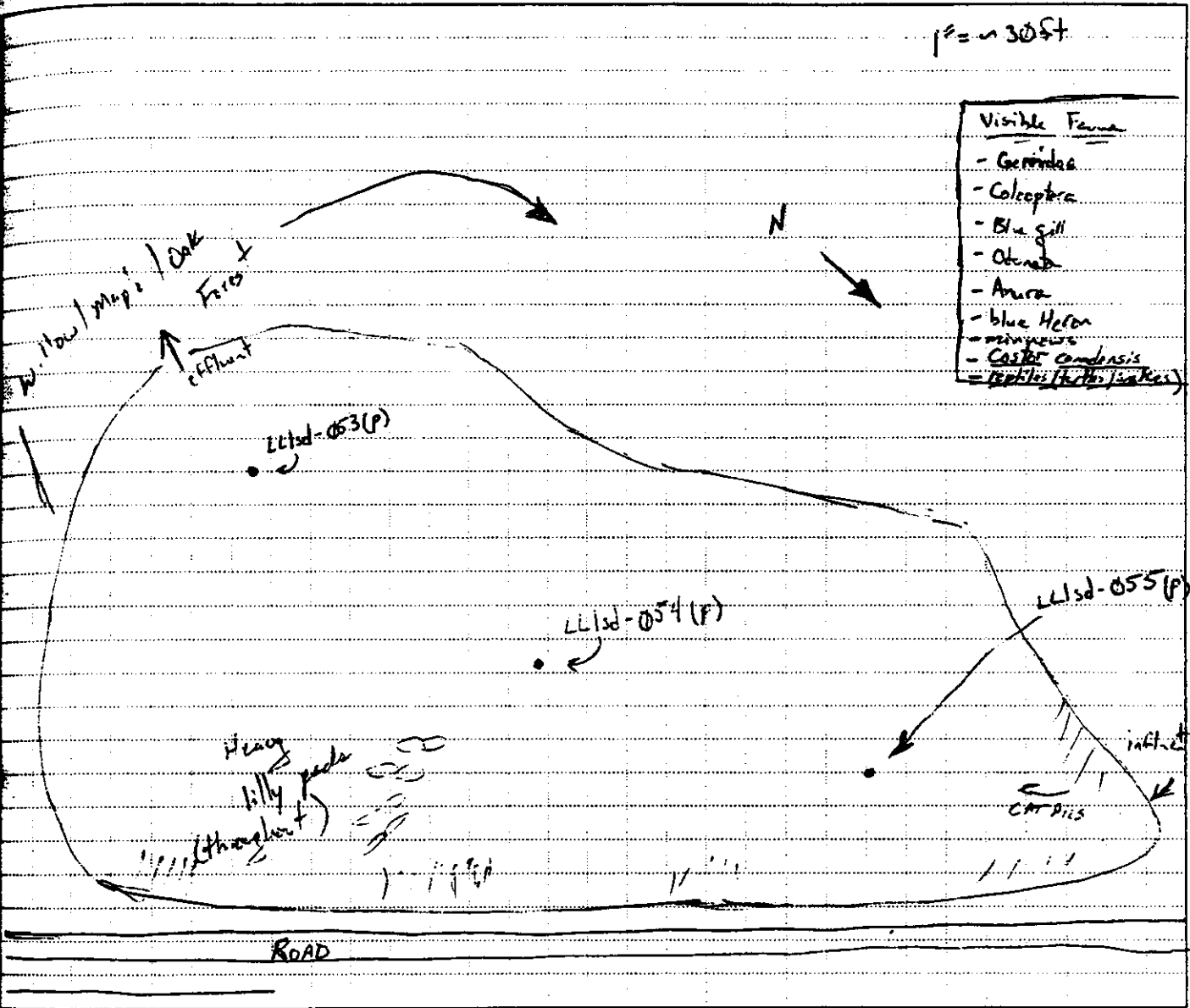
LOAD LINE 1
SURFACE WATER, POND, AND STREAM SEDIMENT
LOGBOOK #17

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL1sd-053(p), -054(p), -055(p)	DATE COLLECTED (mm/dd/yy): 08-11-96
SAMPLE LOCATION: Grigsey Pond	TIME COLLECTED (hh:mm): see sample log
SAMPLING POINT: see sketch	DEPTH: ↓



COMMENTS: ~ 20% is free water, the other 80% is covered w/ an aquatic macrophyte most prevalent as lillies (~90%), 2nd most prevalent cattails. *Eelodea* spp. present sub-surface throughout the pond. No large an influent or effluent. Lots of Duckweed also. 2 to 3 ft water column.

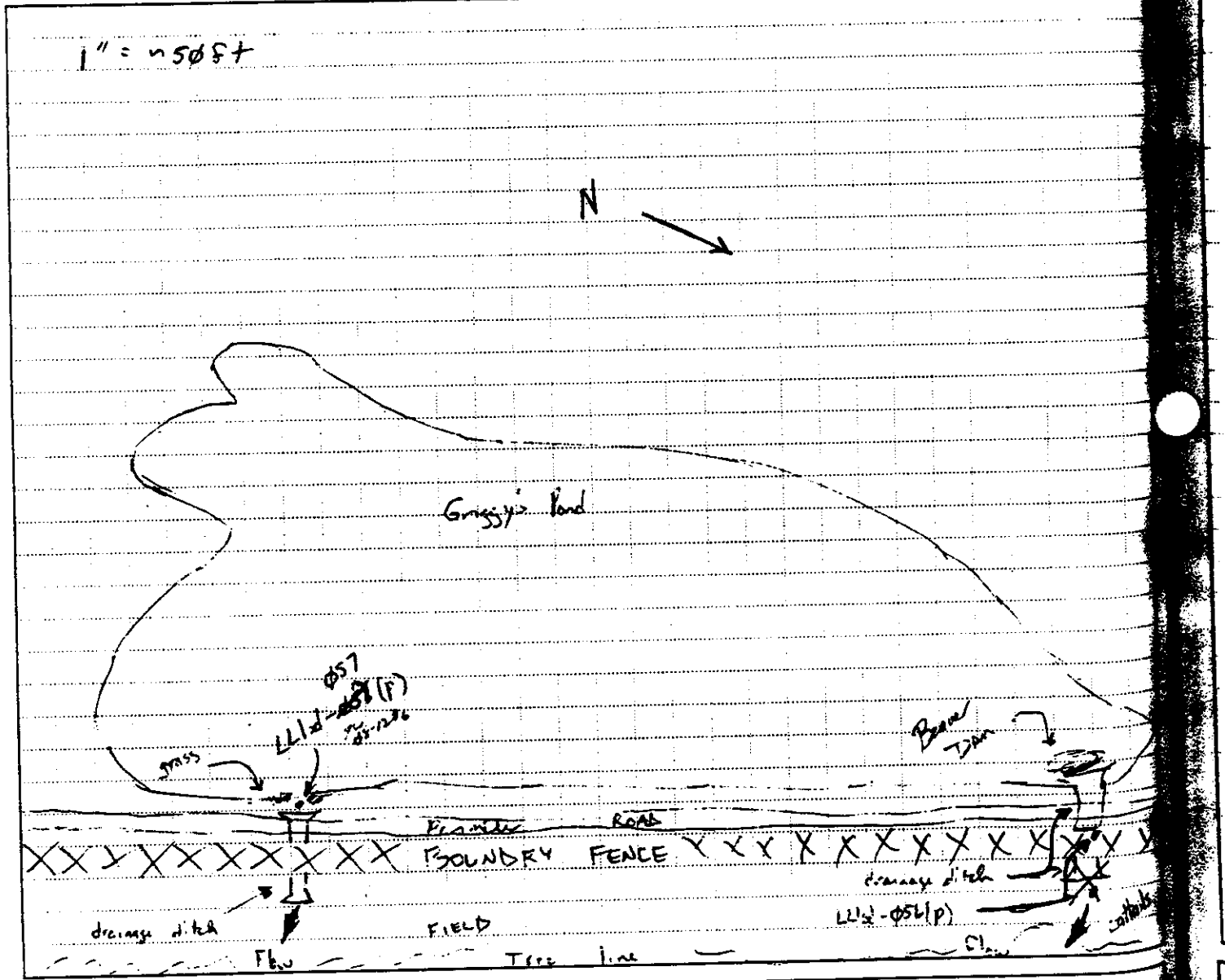
RECORDED BY: Cynthia Wilson	DATE 08-11-96	QA CHECK BY: MCC	DATE 9/22/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL12- ⁰⁵⁷ 055 (P) ; - 056 (P)	DATE COLLECTED (mm/dd/yy): 08-12-96	SA
SAMPLE LOCATION: Briggys Pond	TIME COLLECTED (hh:mm): see sample log	SA
SAMPLING POINT: see sketch	DEPTH: ↓	SA



COMMENTS:

RECORDED BY: *Joseph A. Widen* DATE: 08-12-96 QA CHECK BY: *Mac* DATE: 8/22/96

7

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

LL1sd-058-059-060

DATE COLLECTED (mm/dd/yy):

08-11-96

SAMPLE LOCATION:

Charles Pond

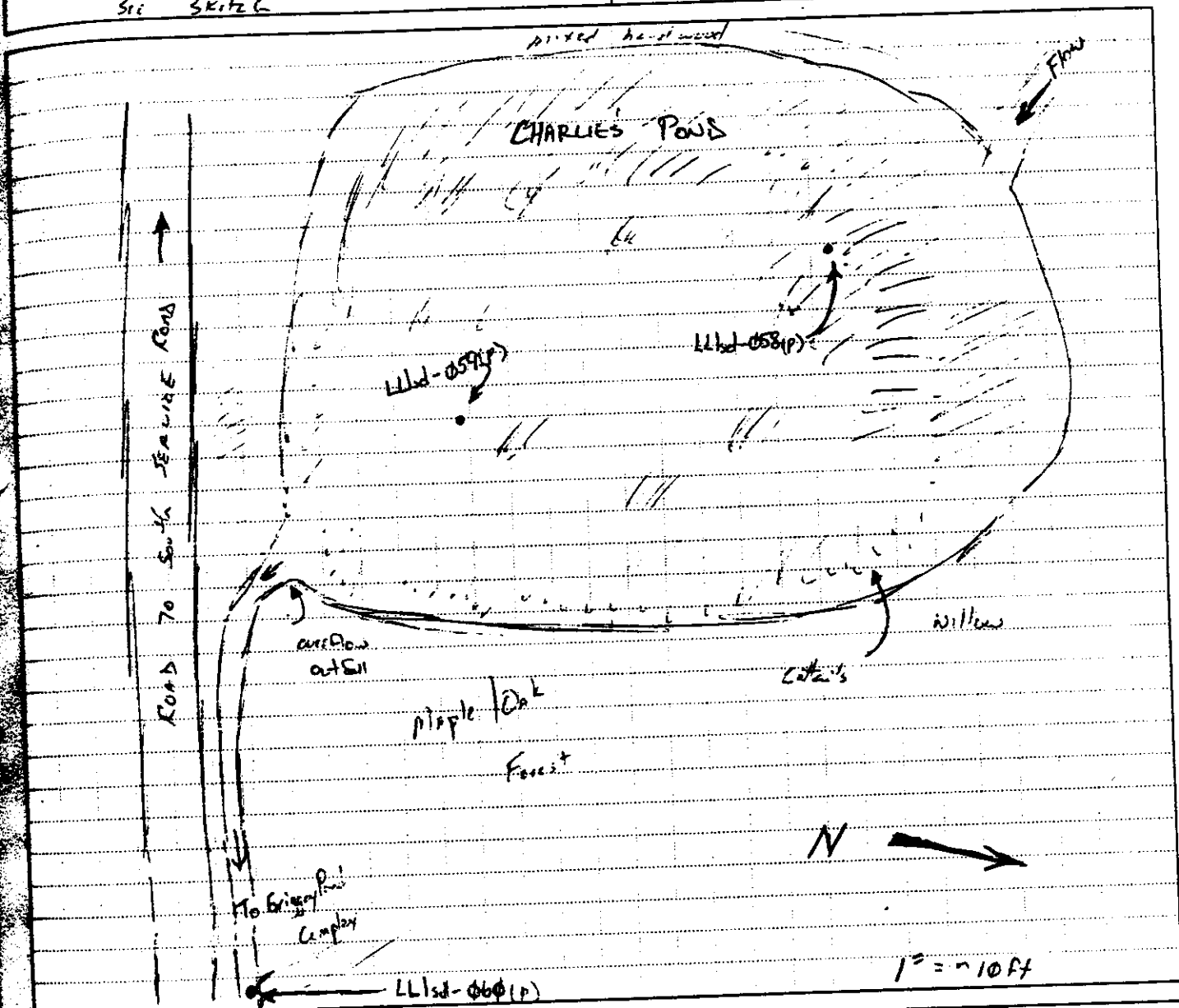
TIME COLLECTED (hh:mm):

See sample log sheet

SAMPLING POINT:

See sketch

DEPTH:



COMMENTS:

Pond covered in Buckweed and Cattails. Approx 2" water on top of ~2 ft organic detritus. Heavy 1° succession at influent end (Charles Pond)

RECORDED BY:

Inch 2 wire

DATE

08-11-96

QA CHECK BY:

MTC

DATE

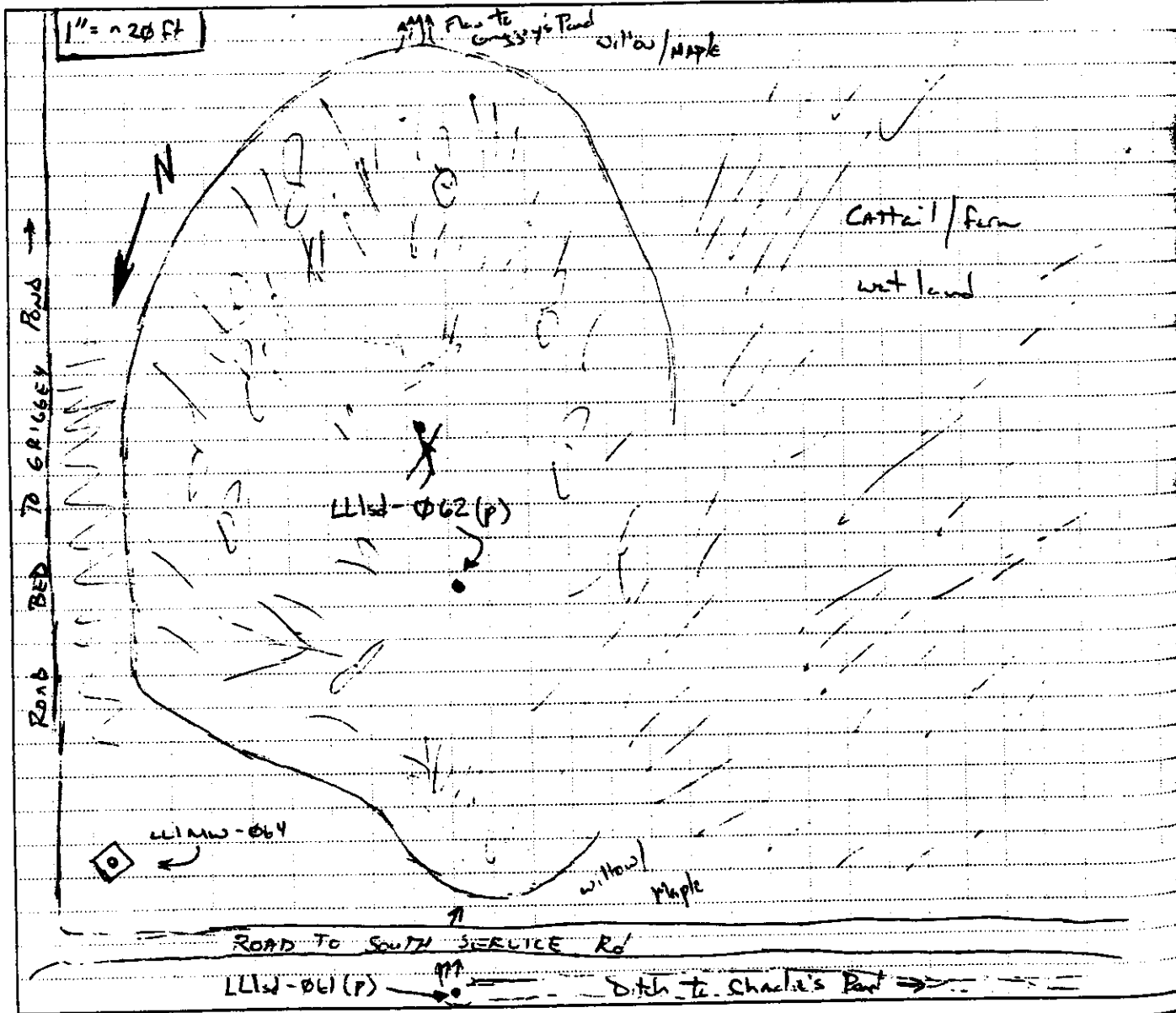
8/22/96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL12 - 061(P), -062(P)	DATE COLLECTED (mm/dd/yy): 08-11-96
SAMPLE LOCATION: North Griggey Pond	TIME COLLECTED (hh:mm): see sample logs
SAMPLING POINT: see sketches	DEPTH: ↓



COMMENTS: North Griggey Pond sediment locations. Pond contains a lot of lily pads and cattails. Good Hairy spgs. 1-2" of water on top of sediment. Heavy invasion of grasses on southern end.

RECORDED BY: Sample 7 W.S. Sun	DATE 08-11-96	QA CHECK BY: Mat C	DATE 8/22/96
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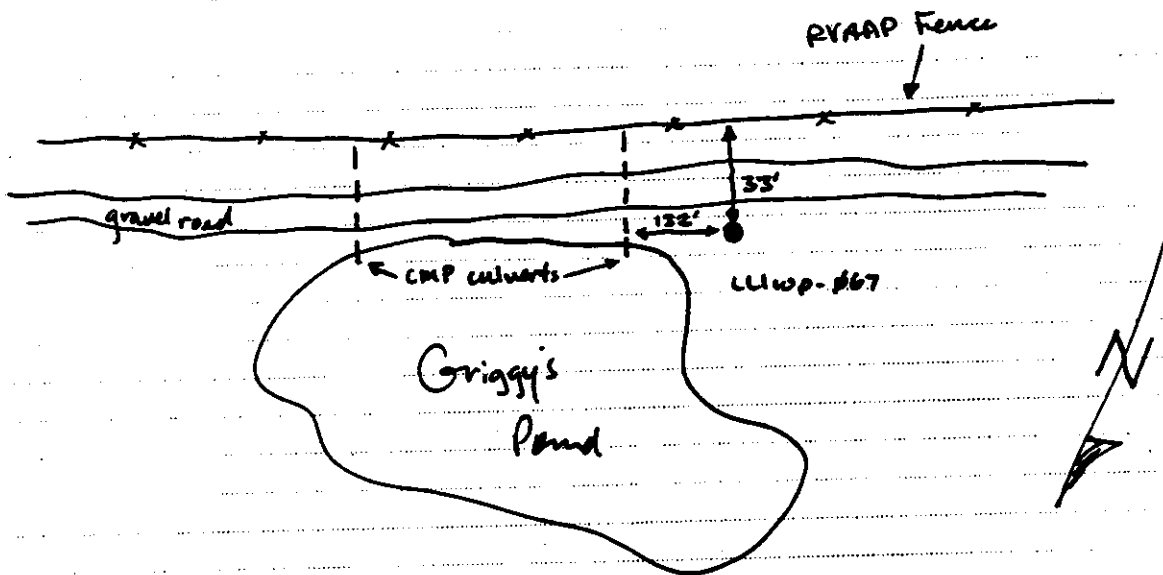
LOAD LINE 1
WELL POINTS/GROUNDWATER
LOGBOOK #21

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL1wp-067-0430-6W	DATE COLLECTED (mm/dd/yy): 7/29/96
SAMPLE LOCATION: LL1wp-067	TIME COLLECTED (hh:mm): 0830
SAMPLING POINT:	DEPTH: Top Well point 9' BGS.



Note: see next page for lithologic log

COMMENTS:

RECORDED BY:

[Handwritten signature]

DATE

7/29/96

QA CHECK BY:

[Handwritten signature]

DATE

8-22-96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:	DATE COLLECTED (mm/dd/yy):
SAMPLE LOCATION: <i>NITE</i>	TIME COLLECTED (hh:mm):
SAMPLING POINT:	DEPTH:

Geoprobe Macro core samples / lithologic log
for UZwp-067

Depth	Recovery	Description
4'	0-0.8' 0.8-4'	Topsoil, organics, 7.5YR 2.5/1 black, dry. Silty clay, some fine sand, firm, mod. plasticity, mottled of 7.5YR 6/1 gray and 7.5YR 5/6 strong brown, dry to moist near bottom, 5% rounded gravel to 1cm.
8'	0-4'	same as above except more clay near bottom, more plastic, very firm.
12'	0-2.5' 2.5-4.0'	same as above. Silty clay, 5% gravel rounded to 1cm, moist, firm, plastic, 7.5YR 5/1 gray.
14.5'	0-2.5'	same as above, weathered gray sandstone fragments from 1' to 1.1', wet on rock fragments, otherwise moist, less silt.
17.5'	0-3'	same as above, no silt, soft, plastic, moist, medium sand at bottom, saturated.

COMMENTS:

RECORDED BY:

[Signature]

DATE

7/26/96

QA CHECK BY:

[Signature]

DATE

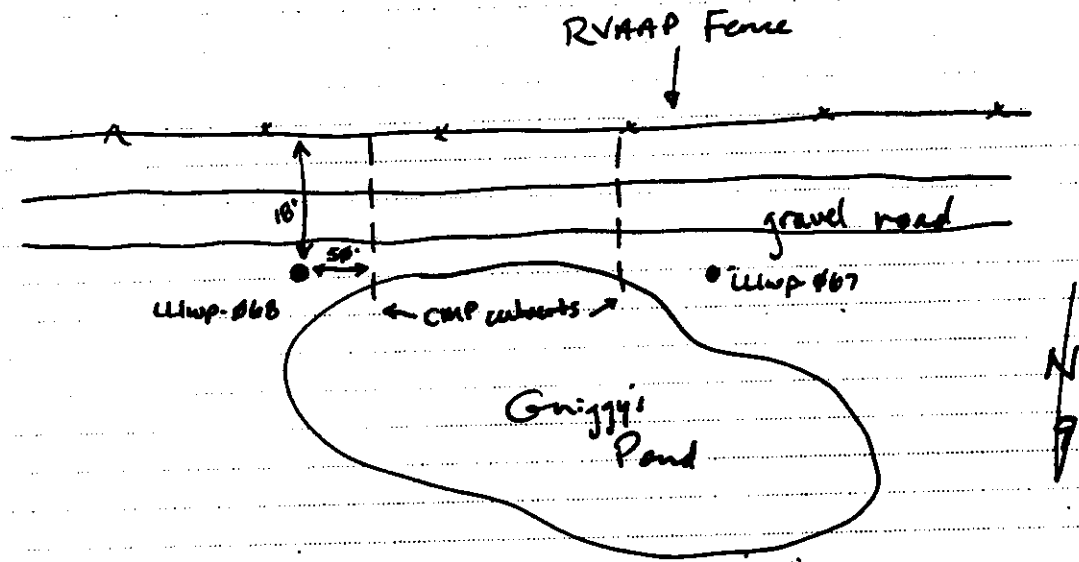
8-22-96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL1wp-068-0437-GW	DATE COLLECTED (mm/dd/yy): 7/29/96
SAMPLE LOCATION: LL1wp-068	TIME COLLECTED (hh:mm): 1620
SAMPLING POINT:	DEPTH: TD well point 0.5' BGS



Note: see next page for lithologic log.

COMMENTS:

RECORDED BY: <i>[Signature]</i>	DATE: 7/29/96	QA CHECK BY: <i>[Signature]</i>	DATE: 8-22-96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: N/A	DATE COLLECTED (mm/dd/yy):
SAMPLE LOCATION: LNWwp-019 through 022	TIME COLLECTED (hr:mn): N/A
SAMPLING POINT: N/A	DEPTH:

See page 12 of this log book. Well points located based on Geophysical survey grid due to lack of other landmarks.

LNWwp-068 lithologic log from Geoprobe macrocore samples

Depth	Recovery	Description
0'	0-1.5'	Topsoil, loose, gravel to 5cm, 7.5YR2.5/1 black, moist.
4'	1.5-4'	Mottled silty clay 2.5YR6/1 gray and 7.5YR5/6 strong brown, firm, some gravel to 2cm, moist, mod. plastic.
7'	0-3'	lost sample in hole, no recovery. Water in hole.

J. W. Dwyler 7/30/96

COMMENTS:

RECORDED BY J. W. Dwyler	DATE 7/31/96	QA CHECK BY Black 066	DA 0-22
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

LLwp-069-0441-GW

DATE COLLECTED (mm/dd/yy):

7/29/96

SAMPLE LOCATION:

LLwp-069

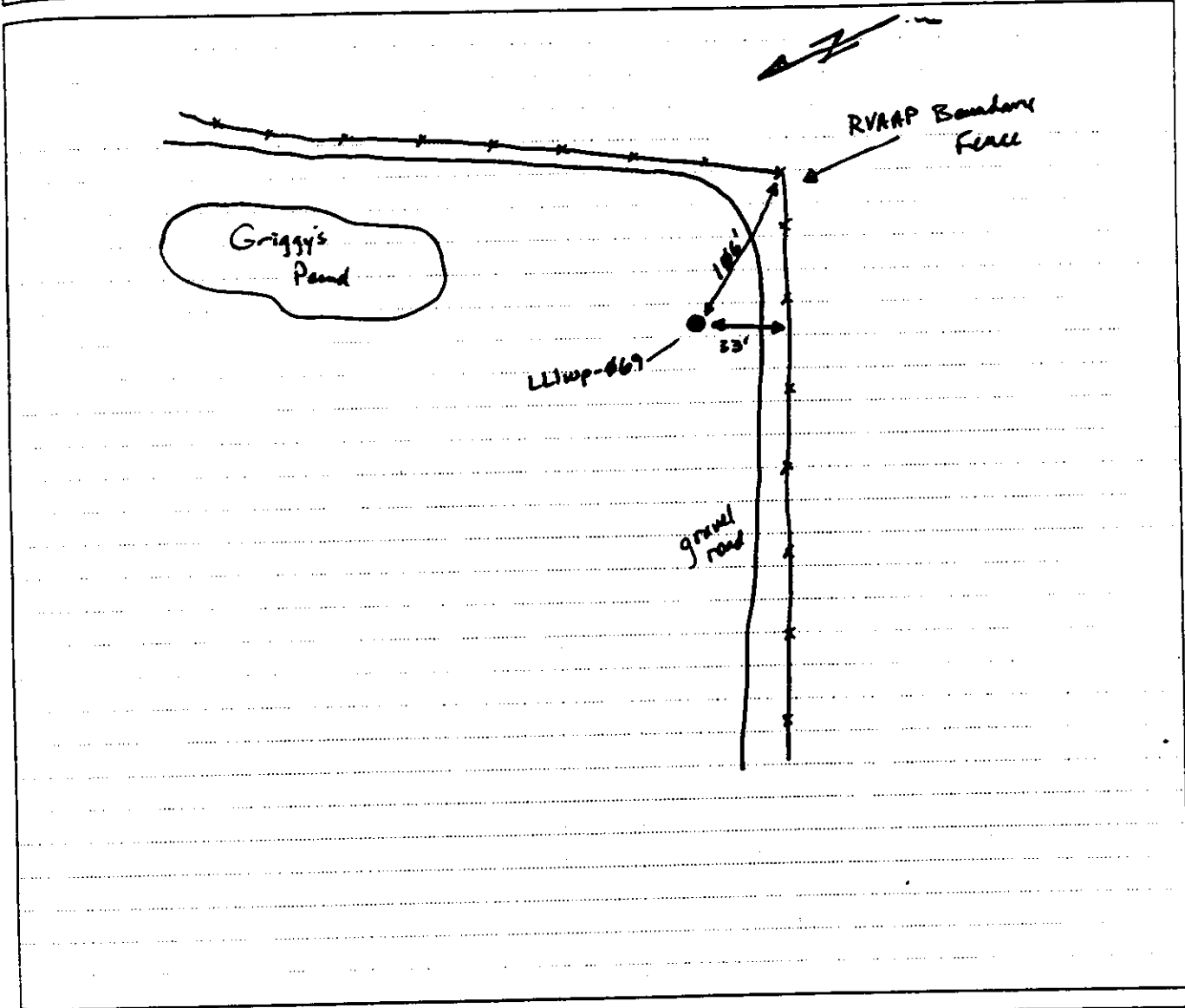
TIME COLLECTED (hh:mm):

0915

SAMPLING POINT:

DEPTH:

TD Wellpoint 17' BGS



COMMENTS:

RECORDED BY: <i>[Signature]</i>	DATE: 7/29/96	QA CHECK BY: <i>[Signature]</i>	DATE: 8/22/96
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SAMPLE LOCATION MAPS AND SOIL BORING LOGS
Load Line 2

Soil Samples:

LL2-ss-001
LL2-ss-002
LL2-ss-003, 008
LL2-ss-004, 005, 006
LL2-ss-007, 020, 021
LL2-ss-009, 011, 013, 014
LL2-ss-010, 012, 015, 061
LL2-ss-016
LL2-ss-017, 018, 019
LL2-ss-022
LL2-ss-023, 024
LL2-ss-025
LL2-ss-026
LL2-ss-027
LL2-ss-028, 029
LL2-ss-031, 032, 033, 034, 035, 036, 062, 063
LL2-ss-037
LL2-ss-038
LL2-ss-039
LL2-ss-040(b)
LL2-ss-041(b)
LL2-ss-042(b)
LL2-ss-043
LL2-ss-044(no map sketch)
LL2-ss-045(see LL2-ss-010)

Drainage Sediment Samples:

LL2-sd-030(d)
LL2-sd-046(d)
LL2-sd-047(d)
LL2-sd-048(d)
LL2-sd-049(d)
LL2-sd-050(d)
LL2-sd-051(d)

Surface Water, Pond, and Stream Sediment

LL2-sd-052(p), -053(p)
LL2-sd-054(p)
LL2-sd-055(p)

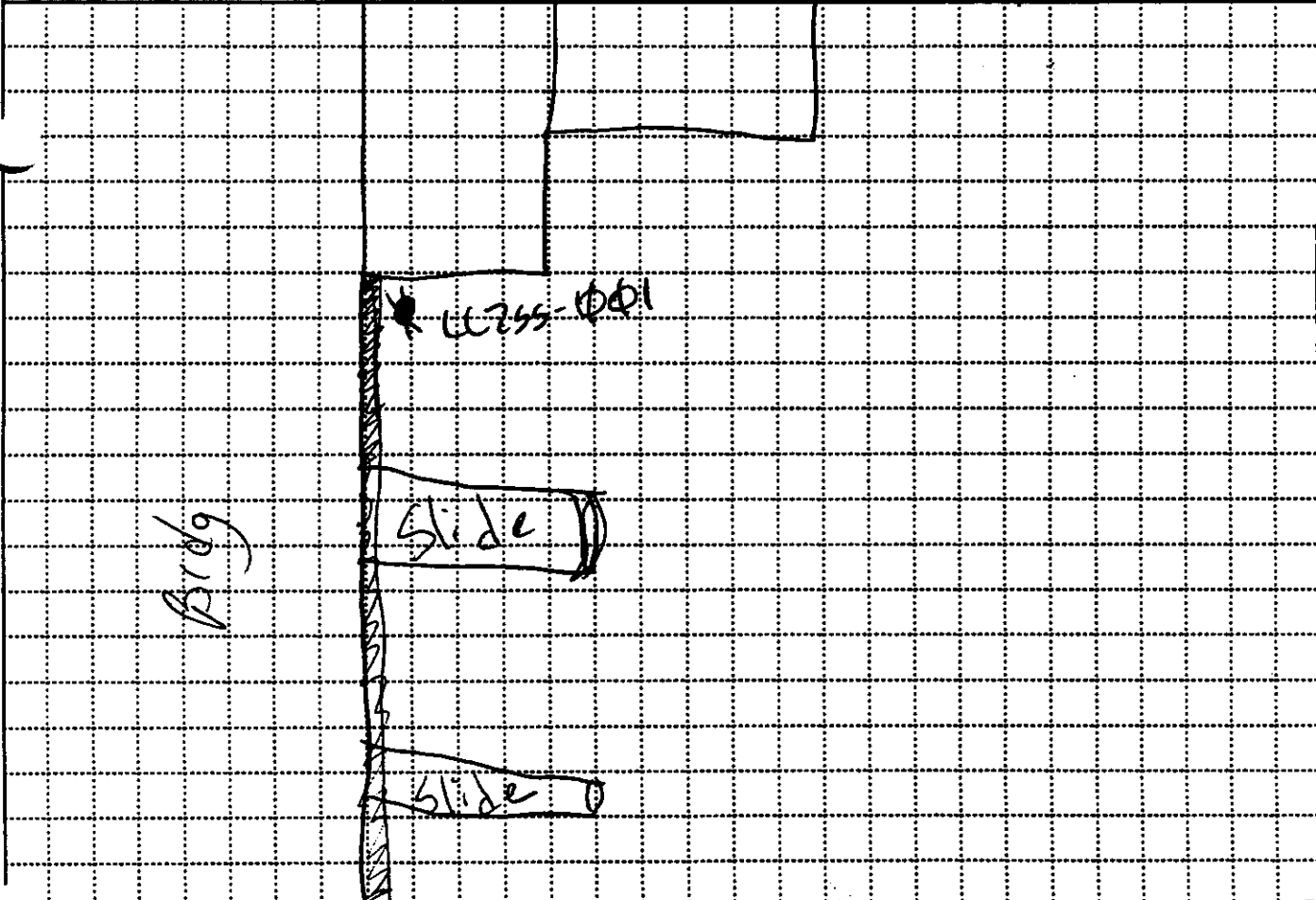
Well Points:

LL2-wp-056 (not sampled, dry hole)
LL2-wp-057 (not sampled, dry hole)
LL2-wp-058 (not sampled, dry hole)

LOAD LINE 2
SOIL BORING LOGS
LOGBOOKS #37 AND #38

HTRW DRILLING LOG		DISTRICT <i>NA SHUICE</i>	HOLE NUMBER <i>LL255-001</i>
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>	SHEET SHEETS <i>1 OF 2</i>
3. PROJECT <i>RUAAP Phase I RT</i>		4. LOCATION <i>LL2/RVAF</i>	
5. NAME OF DRILLER <i>NA</i>		6. MANUFACTURERS DESIGNATION OF DRILL <i>Hand Auger</i>	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S.S. Hand Auger</i>		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>	
		9. SURFACE ELEVATION <i>NA</i>	
		10. DATE STARTED <i>8/11/96</i>	11. DATE COMPLETED <i>8/11/96</i>
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NA</i>	
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>	
14. TOTAL DEPTH OF HOLE <i>0.5 ft BGS</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>	
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)
<i>SEE Sample Log</i>		<i>(2)</i>	<i>(2) Explosives</i>
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)
<i>Plug on demand</i>	<i>W/ Hole Plug</i>	<i>NA</i>	<i>NA</i>
23. SIGNATURE OF INSPECTOR <i>[Signature]</i>			21. TOTAL CORE RECOVERY % <i>NA</i>

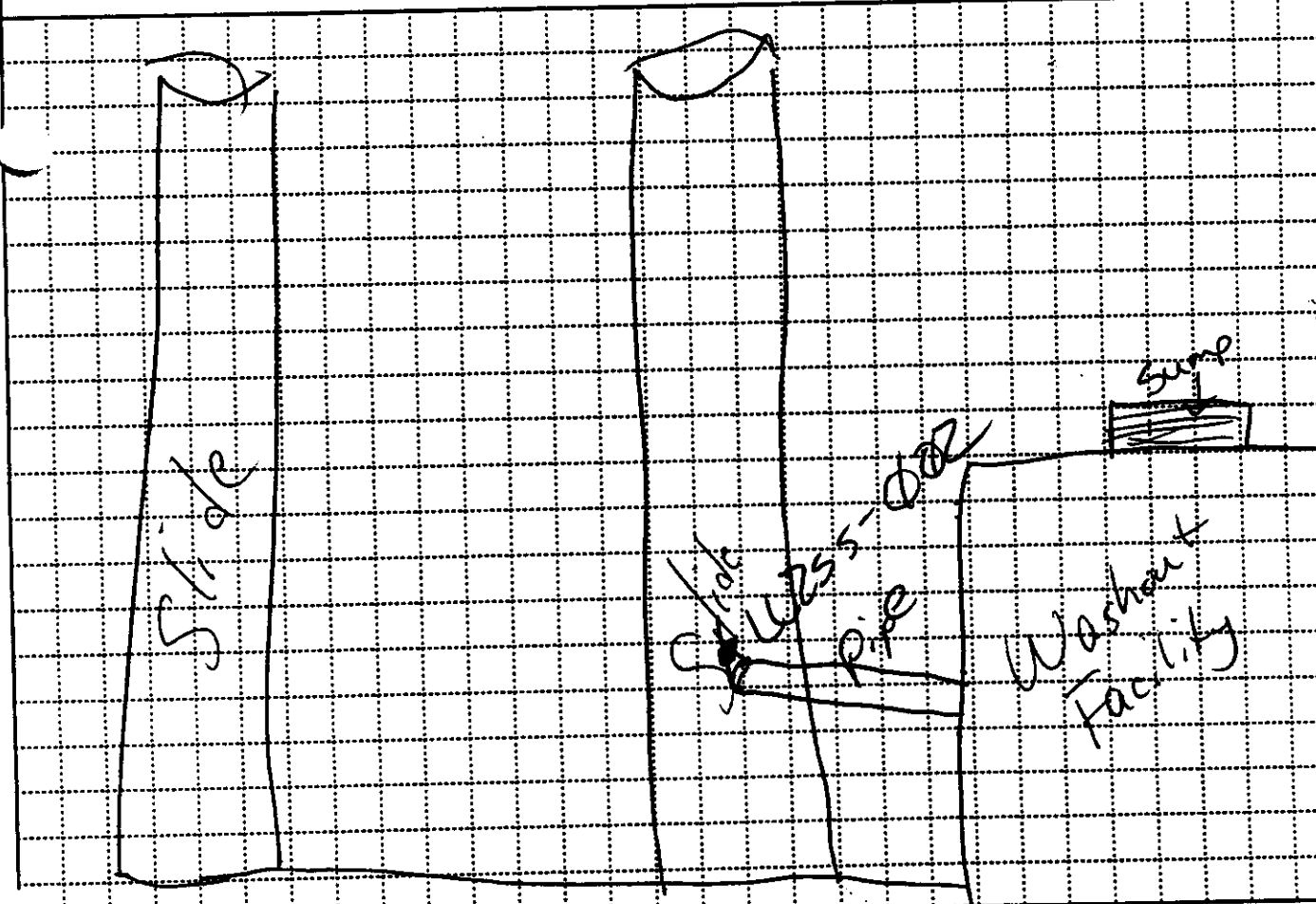
LOCATION SKETCH/COMMENTS (Bentonite) SCALE: *Not to Scale*



PROJECT <i>RUAAP Phase I RT</i>	HOLE NO. <i>LL255-001</i>
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HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL755-002
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 1
PROJECT RVAAP		4. LOCATION LL2 / RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger.	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS. hand auger.		8. HOLE LOCATION SEE SKETCH BELOW.	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/10/94	11. DATE COMPLETED 8/11/94
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 1.0 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES NA	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
VOC SEE SAMPLE CDC		OTHER (SPECIFY) 1	
METALS SEE SAMPLE CDC		OTHER (SPECIFY) 1	
OTHER (SPECIFY) SEE SAMPLE CDC		OTHER (SPECIFY) 1	
22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) Backfilled		OTHER (SPECIFY) Backfilled	

LOCATION SKETCH/COMMENTS SCALE: **NOT TO SCALE**



PROJECT RVAAP	HOLE NO. LL755-002
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HTRW DRILLING LOG

HOLE NUMBER LL255-002

PROJECT

RVAAP

INSPECTOR

MIKE DEAN

SHEET

Page 2 of 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1.0	Sandy Topsoil Brown to Lt. Brown Silty clay w/ Gravel				

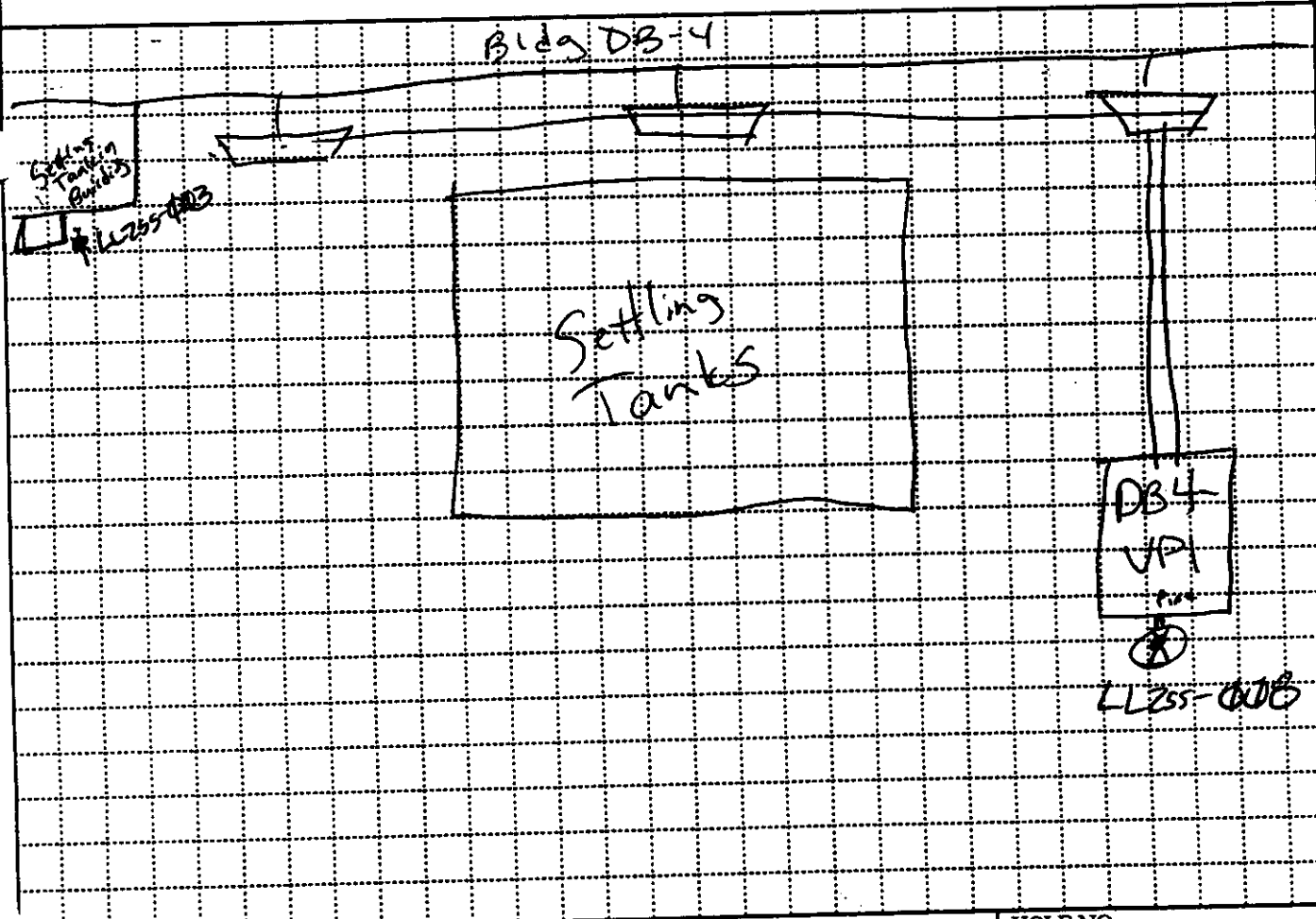
PROJECT

RVAAP

HOLE NO.

LL255-002

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL255-003 & 008	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
PROJECT RVAAP			4. LOCATION LL2/RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger			8. HOLE LOCATION SEE SKETCH BELOW		
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 8/10/96		11. DATE COMPLETED 8/10/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUND WATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE See Page 2 of 2			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
NA		NA	NA	NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
SEE SAMPLE COC ←					
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
Abandoned		in Hole Log (Bentonite)	NA	NA	NA
LOCATION SKETCH/COMMENTS (Bentonite)				SCALE: NOT TO SCALE	



PROJECT RVAAP Phase I RI		HOLE NO. LL255-003 & 008
ENG FORM 5056-R, AUG 94		

HTRW DRILLING LOG

HOLE NUMBER
LL255-008 & 03

SHEET
2 of 2

PROJECT
RVAAP

INSPECTOR
MIKE DEACON

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.0	LL255-008				
	0.5	Brown Silt and Sand Some clay				
	1.0	More Clay. Brown and Grey.				
	1.5	Refusal				
	0.0	LL255-003				
	0.5	Lt Brown Silty Sand, Some clay				
	1.0	Refusal on rock				

PROJECT

RVAAP

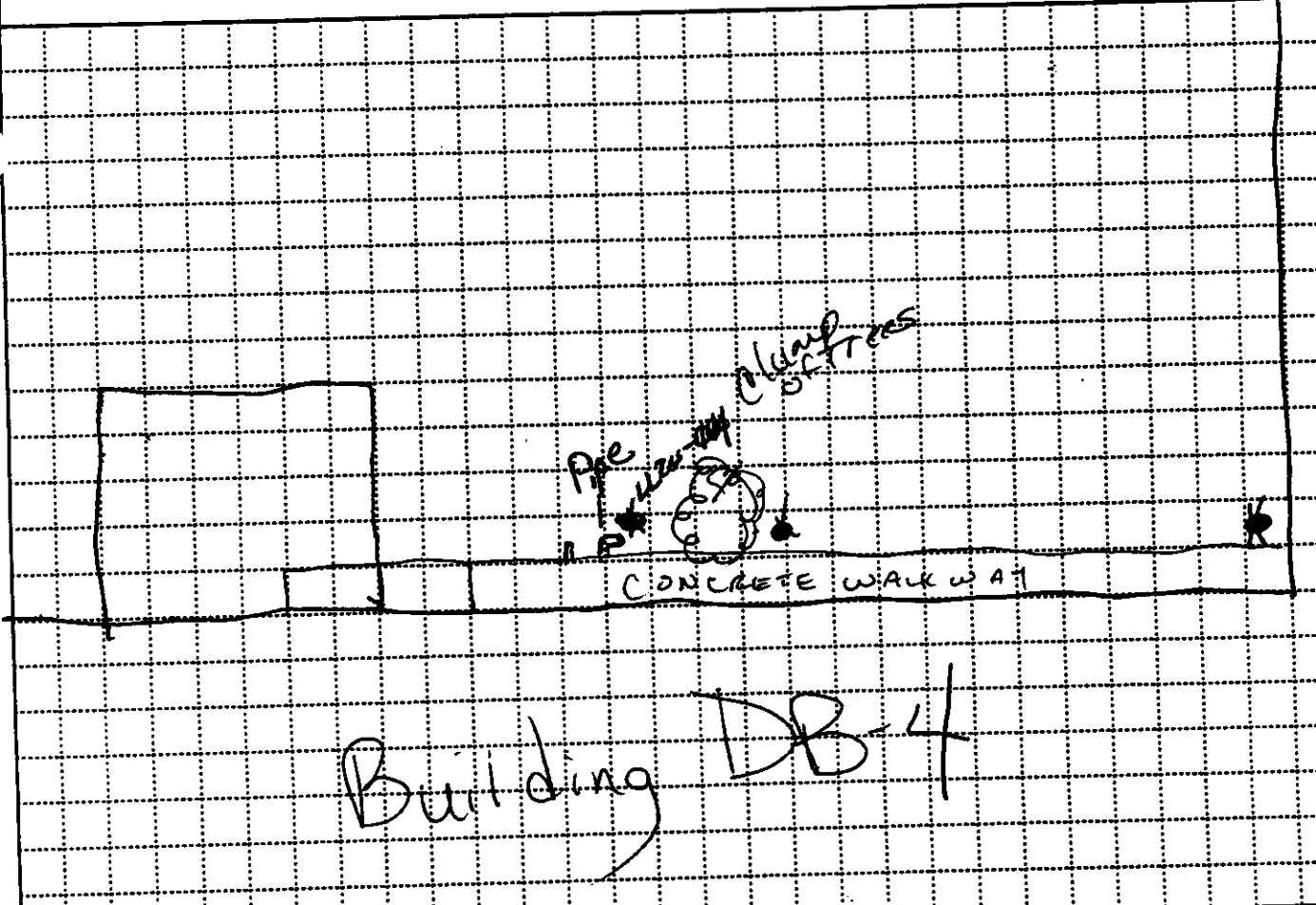
HOLE NO.
LL255-008 & 03

HTRW DRILLING LOG		DISTRICT <i>NASHVILLE</i>	HOLE NUMBER <i>LL255-004, 005, & 006</i>
1. COMPANY NAME <i>SAC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>	SHEET SHEETS <i>1 OF 2</i>

3. PROJECT <i>RVAAP</i>		4. LOCATION <i>LL2 / RVAAP</i>	
5. NAME OF DRILLER <i>NA</i>		6. MANUFACTURERS DESIGNATION OF DRILL <i>HAND AUGER</i>	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S.S. hand auger</i>		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>	
		9. SURFACE ELEVATION <i>NA</i>	
		10. DATE STARTED <i>08/11/96</i>	11. DATE COMPLETED <i>08/11/96</i>
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>	
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>	
14. TOTAL DEPTH OF HOLE <i>SEE PAGE 2 of 2</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES	
<i>NA</i>		<i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY	
<i>SEE SAMPLE COC</i>		<i>NA*</i>	
22. DEPOSITION OF HOLE		23. SIGNATURES OF INSPECTOR	
<i>Abandoned</i>		<i>[Signature]</i>	

SCALE: NOT TO SCALE

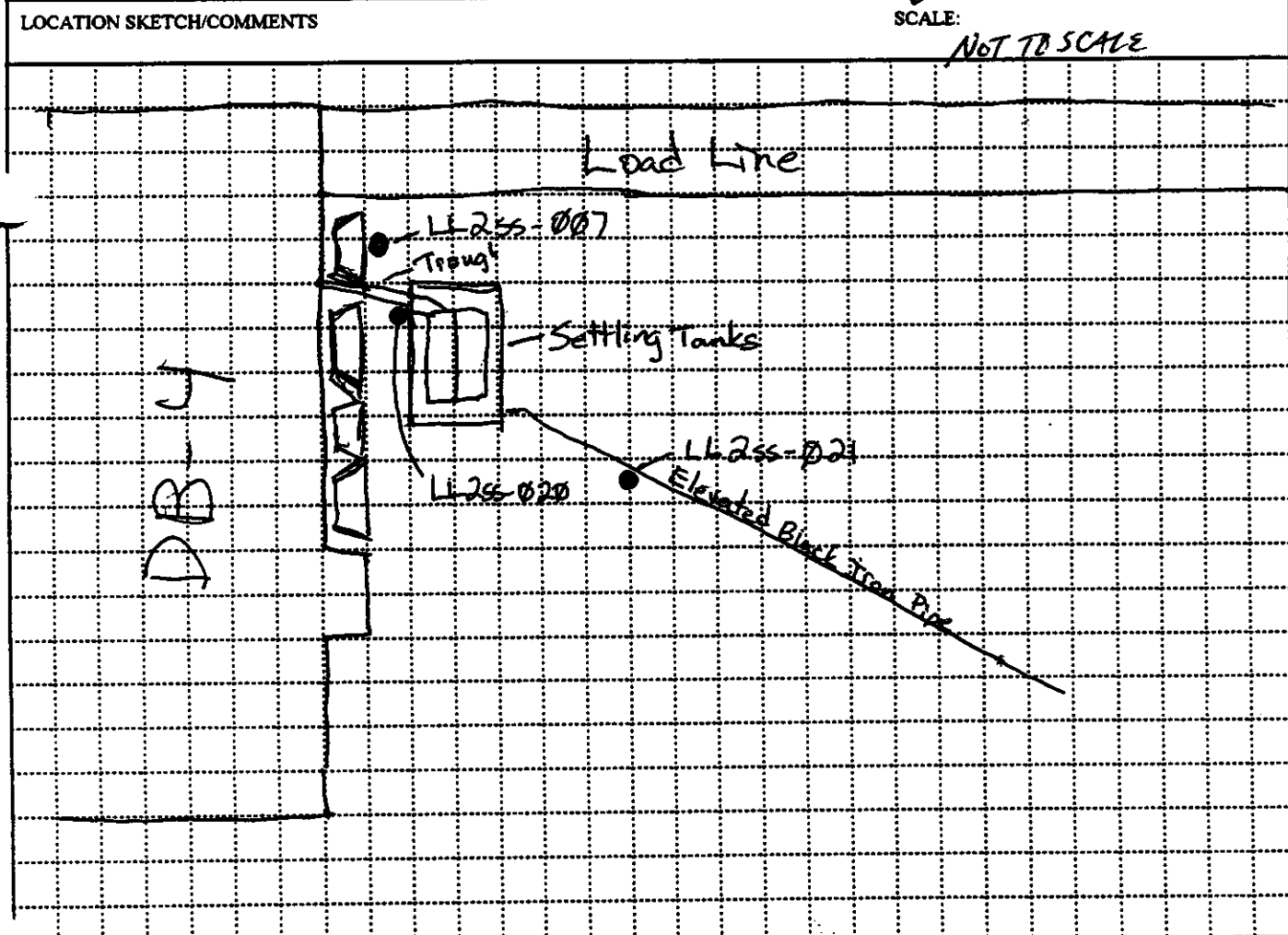
LOCATION SKETCH/COMMENTS



PROJECT <i>RVAAP</i>	HOLE NO. <i>LL255-004, 005, & 006</i>
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(Proponent: CECW-EG)

HTRW DRILLING LOG		DISTRICT <i>NASHVILLE</i>	HOLE NUMBER <i>LL255-007, 009</i>
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>	SHEET SHEETS <i>1 OF 2</i>
3. PROJECT <i>RVAAP</i>		4. LOCATION <i>LL2 / RVAAP</i>	
5. NAME OF DRILLER <i>NA</i>		6. MANUFACTURER'S DESIGNATION OF DRILL <i>hand auger</i>	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S.S. hand auger</i>		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>	
		9. SURFACE ELEVATION <i>NA</i>	
		10. DATE STARTED <i>08/11/96</i>	11. DATE COMPLETED <i>08/11/96</i>
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>	
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>	
14. TOTAL DEPTH OF HOLE <i>SEE PER 2 of 2</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>	
18. GEOTECHNICAL SAMPLES	DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)
<i>SEE Sample Log</i>			
22. DISPOSITION OF HOLE <i>Abandoned</i>	BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Baritone</i>
			23. SIGNATURE OF INSPECTOR <i>[Signature]</i>
21. TOTAL CORE RECOVERY % <i>NA</i>			



PROJECT <i>RVAAP</i>	HOLE NO. <i>007</i> <i>LL255-020 & 021</i>
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HTRW DRILLING LOG

HOLE NUMBER: **LL255-020, 021, 007**
 SHEET: **Page 2 of 2**

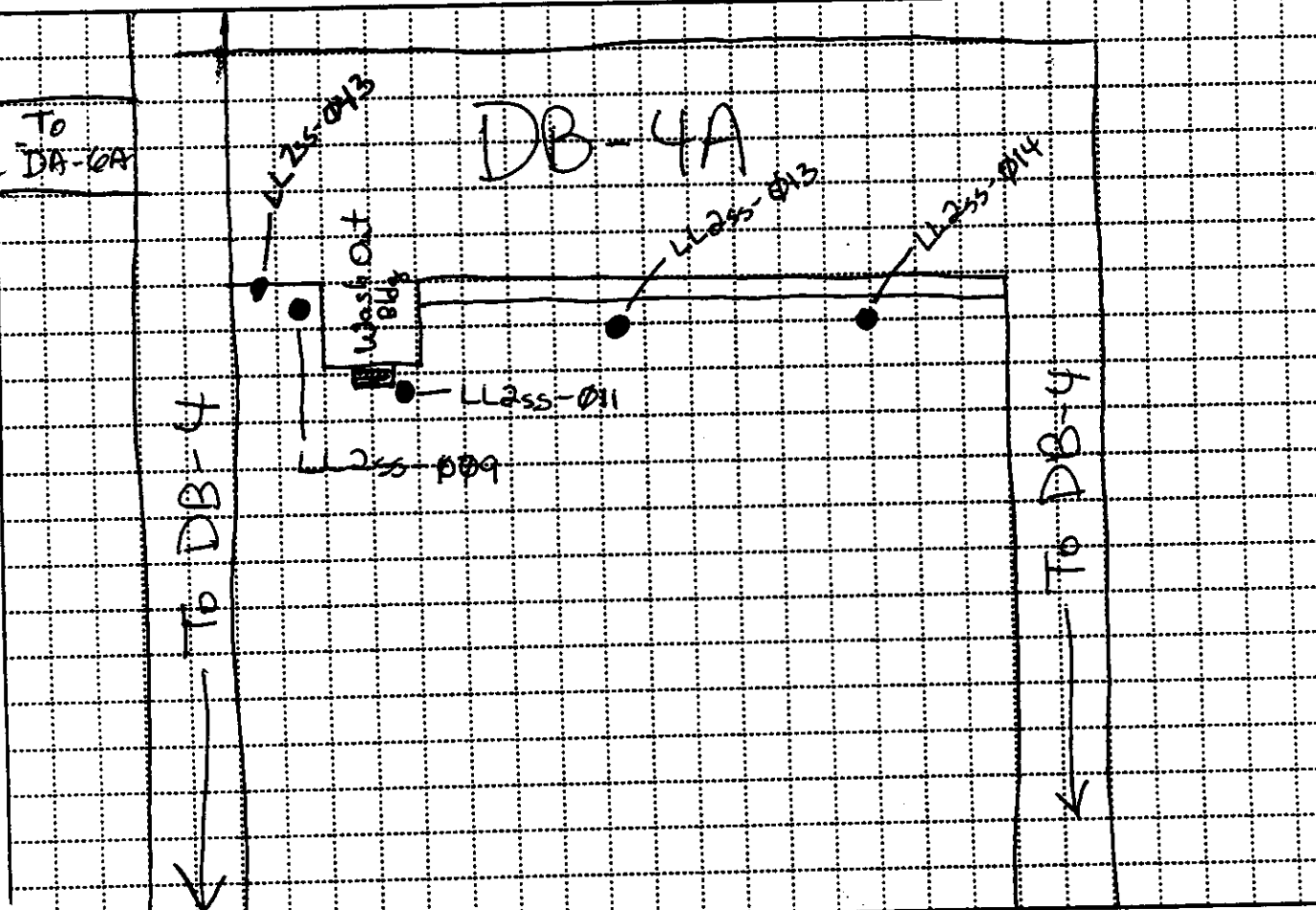
PROJECT	INSPECTOR	HOLE NUMBER	SHEET	ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
RVAAP	Mike Decon				0	LL255-020 Brown silty clay with sand and gravel fill.				
					0.9	LL255-021 Brown organic topsoil				
					0.3	Reddish-Grey Silty Clay				
					2.0	LL255-007 Lt. Brown/grey silty clay				
					0.0					
					2.0					

PROJECT: **RVAAP**

HOLE NO. **007**
LL255-020 & 021

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL25-009, 011, 013, 014
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
PROJECT RVAAP		4. LOCATION LL2/RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 08/12/96	11. DATE COMPLETED 08/12/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE SEE PAGE 2 OF 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE BOOK	VOC	METALS	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite
			23. SIGNATURE OF SUPERVISOR <i>[Signature]</i>

LOCATION SKETCH/COMMENTS SCALE: Not to Scale



PROJECT RVAAP	HOLE NO. LL255-009, 011, 013, 014.
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(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
LL255-09, 11, 13, 214

PROJECT

RVAAP

INSPECTOR

Mike Decon

SHEET

2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.0	LL255-014 Gravel fill and discolored sandy soil				
	0.5	LL255-013				
	0.0	Gravel fill and sandy brown top soil				
	0.5	LL255-011				
	0.0	Lt. Brown silty/sand with some clay & gravel				
	0.5	LL255-009				
	0.0	Brown/Grey sandy fill with some gravel				
	1.0					

PROJECT

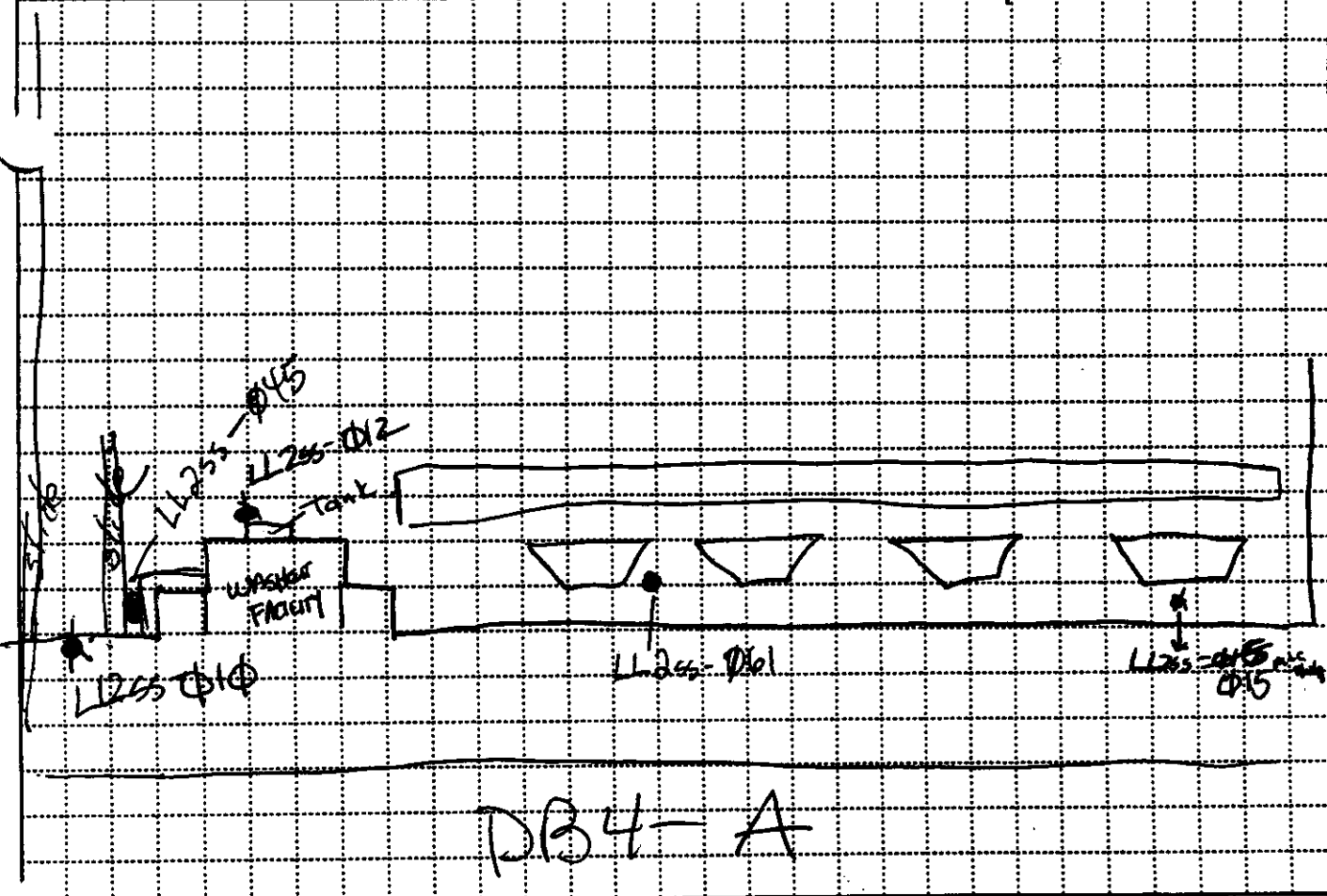
RVAAP

HOLE NO. *LL255-009, 011, 013, & 014*

HTRW DRILLING LOG		DISTRICT <i>NASHVILLE</i>	HOLE NUMBER <i>LL255-15, 12, 9, 101</i>
1. COMPANY NAME <i>SATC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>	SHEET SHEETS <i>1 of 2</i>
3. PROJECT <i>RVAAP</i>		4. LOCATION <i>LL2 / RVAAP</i>	
5. NAME OF DRILLER <i>NA</i>		6. MANUFACTURERS DESIGNATION OF DRILL <i>HAND AUGER</i>	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>5" S.S. hand auger</i>		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>	
		9. SURFACE ELEVATION <i>NA</i>	
		10. DATE STARTED <i>8/13/96</i>	11. DATE COMPLETED <i>8/13/96</i>
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>	
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>	
14. TOTAL DEPTH OF HOLE <i>NA</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>	
18. GEOTECHNICAL SAMPLES <i>NA</i>	DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>
20. SAMPLES FOR CHEMICAL ANALYSIS <i>SEE SKETCH SAMPLES</i>	VOC	METALS	OTHER (SPECIFY)
22. DISPOSITION OF HOLE <i>abandoned</i>	BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Restored</i>
			21. SIGNATURE OF INSPECTOR <i>[Signature]</i>
21. TOTAL CORE RECOVERY % <i>NA</i>			

LOCATION SKETCH/COMMENTS

SCALE: *Not to Scale*



PROJECT <i>RVAAP</i>	HOLE NO. <i>LL255-010, 012, 015, 016</i>
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HTRW DRILLING LOG

HOLE NUMBER
LL255-~~010~~, 012, 015, & 061

PROJECT **RVAAP**

INSPECTOR **W. E. Doreen**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.0	LL255- 010 ^{MIS/MT} 015				
	0.5	Greyish Brown Silty Clay w/ Gravel	Φppm	NA	LL255-015-0107-50	LL255-015-0103-FD
	0.9	LL255-012				
	0.5	Brown Silty Clay w/ Gravel. Rebar on Rebar/Pipe	Φppm	NT	LL255-012-0099-50	
	0.0	LL255-010				
	0.5	Brownish Red Silty Sand, w/ Gravel. Some clay	Φppm	NA	LL255-010-09750	
	0.0	LL255-061				
	1.0	Brown/grey silty Clay & gravel.				

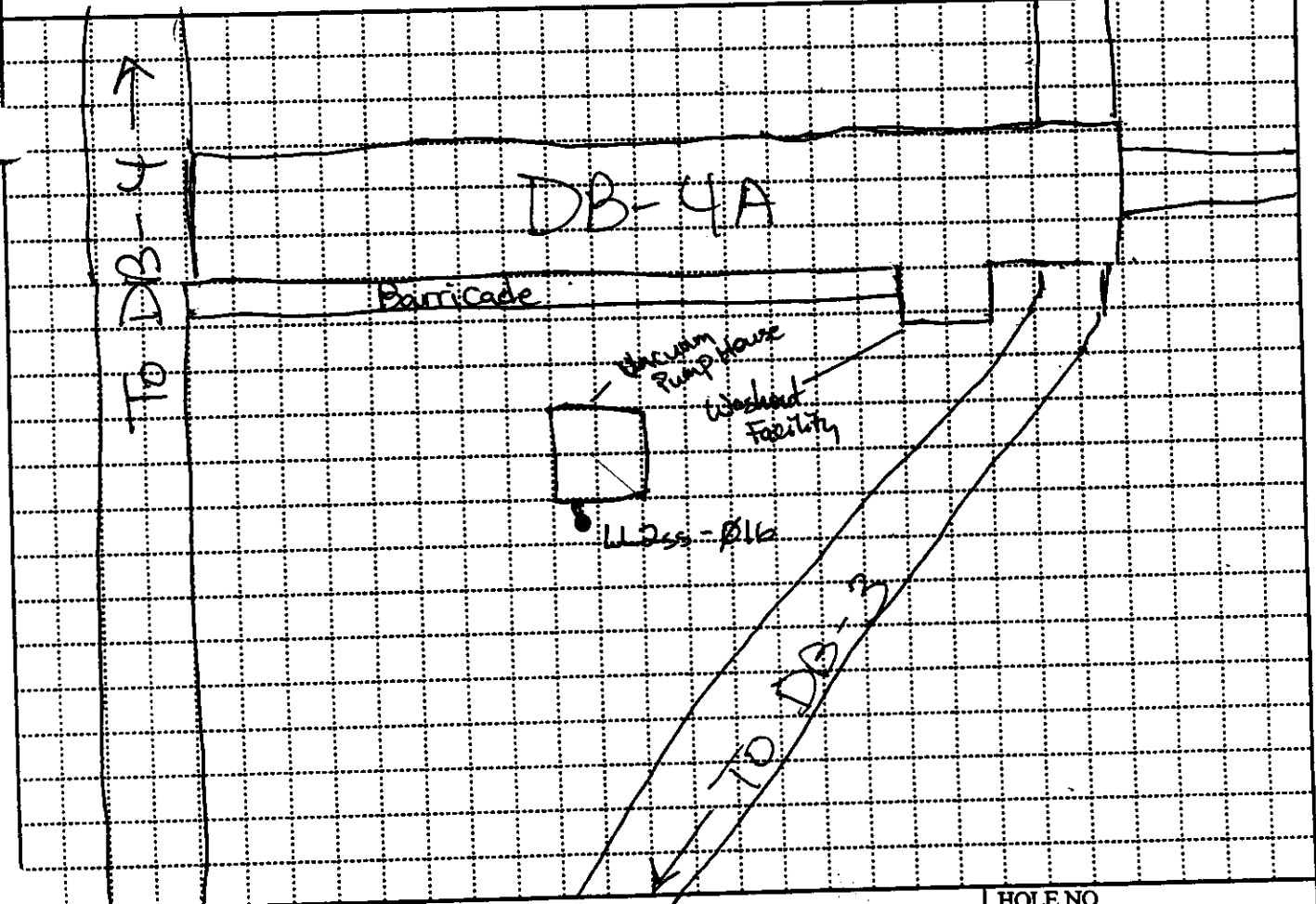
PROJECT **RVAAP**

HOLE NO. **061, 012, & 015**

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL255-016
1. COMPANY NAME SATC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. OBJECT RVAAP		4. LOCATION LL2 / RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. Hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 08/13/96	11. DATE COMPLETED 08/13/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 1.0 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	

18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA		
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE LOGS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bacteriologic	21. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
					21. TOTAL CORE RECOVERY % NA

LOCATION SKETCH/COMMENTS SCALE: **NOT TO SCALE**



PROJECT RVAAP	HOLE NO. LL255-016
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HTRW DRILLING LOG

HOLE NUMBER
LL255-016

PROJECT
RVAAP

INSPECTOR
M.S. Mike Degan

SHEET
2 of 2

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.0	grey/brown silty clay. Rock refusal				
	1.0					

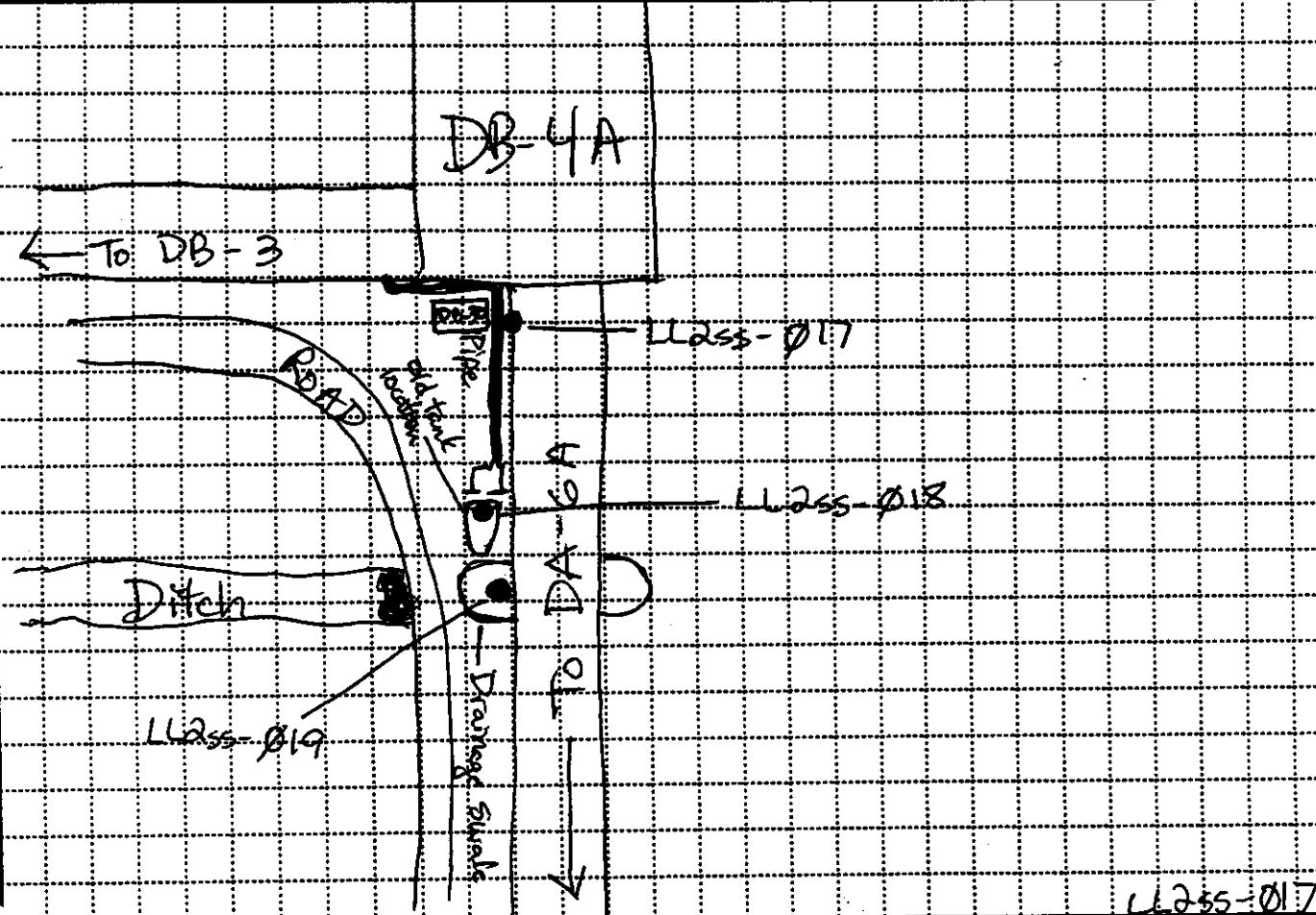
PROJECT
RVAAP

HOLE NO.
LL255-016

SP

HTRW DRILLING LOG		DISTRICT Nashville	HOLE NUMBER LL255-017, 018, 019
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT RVAAP Phase 1 RI		4. LOCATION LL2 / RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION SEE SEPTOR below ^{10/10/96} NA	
		10. DATE STARTED 08/10/96	11. DATE COMPLETED 08/10/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS see sample Col	VOC	METALS	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite
23. SIGNATURE OF INSPECTOR <i>[Signature]</i>			21. TOTAL CORE RECOVERY % NA

LOCATION SKETCH/COMMENTS SCALE: **Not to Scale**



PROJECT RVAAP	HOLE NO. LL255-018 LL255-019
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HTRW DRILLING LOG

HOLE NUMBER **LL255-017, 018, 019**
 SHEET **2 of 2**

PROJECT	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
RVAAP	0	LL255-018				
	1.0	Brown-grey mottled clay and gravel.				
	2.0	LL255-019				
	0.0	LL255-018				
	1.0	Lt. Brown/grey silty clay and gravel.				
	2.0	LL255-017				
	0.0	LL255-017				
	1.0	Dr. Brown/grey silty clay and gravel.				
	1.5	Refusal				

PROJECT **RVAAP**

HOLE NO. **LL255-017**
LL255-018
LL255-019 32

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL255-022	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION LL2 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION SEE SKETCH BELOW			
3" SS. HAND AUGER		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/12/96		11. DATE COMPLETED 8/12/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA (NO GW.)			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 FT BGS.		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
SEE SAMPLE LOG ←		VOC		METALS	
		(U)		(U) EXPOSURE	
22. DISPOSITION OF HOLE		23. SIGNATURE OF INSPECTOR			
BACKFILLED with Hand Aug		MONITORING WELL NA		OTHER (SPECIFY) Bentonite	
LOCATION SKETCH/COMMENTS			SCALE: NOT TO SCALE		
<p>The sketch shows a grid with a diagonal line representing a road. A vertical line represents a pipe. A point on the road is marked with a dot and labeled 'DB-4'. Another point further down the road is labeled 'LL255-022'. The road is labeled 'ROAD' and the pipe is labeled 'PIPE'.</p>					
PROJECT RVAAP			HOLE NO. LL255-022		

HTRW DRILLING LOG

HOLE NUMBER: **LL255-022**
 SHEET: **2 of 2**

PROJECT: **RVAAP**

INSPECTOR: **Mike Deacon**

ELE. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Brown Silty clay			LL255-022-0112-50	
	1.0	Brown with Grey Some Gravel				
	2.0					

PROJECT: **RVAAP**

HOLE NO. **LL255-022**

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL2-023
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2

PROJECT RUAAP Phase I RI	4. LOCATION LL2/RUAPP
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5. NAME OF DRILLER	6. MANUFACTURER'S DESIGNATION OF DRILL hand auger.
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7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	8. HOLE LOCATION SEE SKETCH BELOW
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SS Hand Auger w/ 5 foot extension	9. SURFACE ELEVATION NA
--	-----------------------------------

10. DATE STARTED 8/8/96	11. DATE COMPLETED 8/8/96
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12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED NA
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13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
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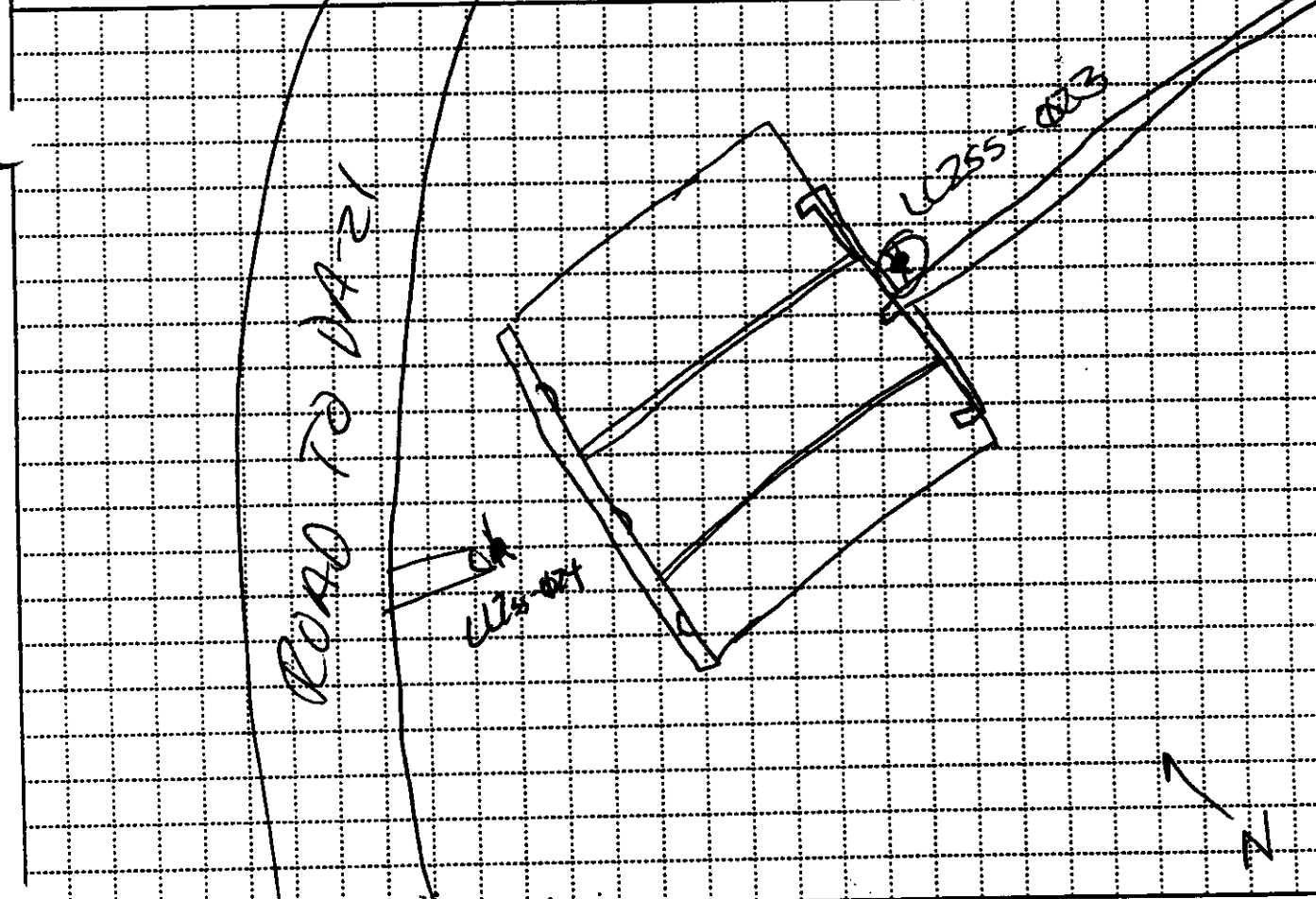
14. TOTAL DEPTH OF HOLE See Page 2 of 2	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA
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18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
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20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY NA
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22. DISPOSITION OF HOLE then closed.	BACKFILLED with hole plug	MONITORING WELL NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>
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LOCATION SKETCH/COMMENTS **(Centimeter)** SCALE: **Not to Scale**



PROJECT RUAAP Phase I RI	HOLE NO. LL255-023
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HTRW DRILLING LOG						HOLE NUMBER LL255-023
PROJECT RUAAP Phase I RT		INSPECTOR Mike Bacon		SHEET 2 of 2		
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.0	LL255-023				
	0.5	Sandy silt w/ Gravel	φ ppm		LL255-023-011-30	LL255-023-014-SP 15a split sample
	0.0	LL255-024				
	0.5	Black topsoil layer gravel				
	1.0	Silty sand gravel				
	1.5	Silty clay				
	1.5	Rock refusal				

PROJECT
RUAAP Phase I RT

HOLE NO.
LL255-023
024

ETRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL255-025	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP Phase I RT			4. LOCATION LL2 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURER'S DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss. hand auger		8. HOLE LOCATION SEE SKETCH BELOW			
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 8/8/94		11. DATE COMPLETED 8/8/94
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NA		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 0.5 ft BGS.			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE COR		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) NA	21. TOTAL CORE RECOVERY % NA
LOCATION SKETCH/COMMENTS Storm Drain				SCALE: Not to Scale	
PROJECT RVAAP Phase I RT				HOLE NO. LL255-025	

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER **LL255-025**

SHEET **2 of 2**

PROJECT

RVAAP Phase I RT

INSPECTOR

Mike Jackson

ELEV. (A)

DEPTH (B)

DESCRIPTION OF MATERIALS (C)

FIELD SCREENING RESULTS (D)

GEOTECH SAMPLE OR CORE BOX NO (E)

ANALYTICAL SAMPLE NO. (F)

REMARKS (G)

0.5

Reddish Brown
Silt and Sand
Lots of Gravel

0 ppm

LL255-
025-
0116-50

Mike Jackson 07/21/06

PROJECT

RVAAP Phase I RT

HOLE NO.

LL255-025

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL255-026
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 of 2
3. SUBJECT RVAAP Phase I RI		4. LOCATION LL 2 / RVAAP	
5. NAME OF DRILLER		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION SEE SKETCH BELOW	
SS Hand Auger w/ 5 foot extension		9. SURFACE ELEVATION NA	
12. OVERBURDEN THICKNESS NA		10. DATE STARTED 8/8/96	
13. DEPTH DRILLED INTO ROCK NA		11. DATE COMPLETED 8/8/96	
14. TOTAL DEPTH OF HOLE 0.5 ft (6)		15. DEPTH GROUNDWATER ENCOUNTERED NA (NO GW)	
18. GEOTECHNICAL SAMPLES NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
19. TOTAL NUMBER OF CORE BOXES NA		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF DIRECTOR <i>[Signature]</i>		
Abandoned	NA	NA	electronic			

LOCATION SKETCH/COMMENTS SCALE: **Not to Scale**



PROJECT RVAAP Phase I RI	HOLE NO. LL255-026
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HTRW DRILLING LOG

WELL NUMBER
LL255-026
SHEET
2 of 2

PROJECT
RUAAP Phase I RI

INSPECTOR
Mike Seucan

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Brown to Tan Silty Sand w/ Gravel	ϕppm			

Mike Seucan *8/22/06*

PROJECT
RUAAP Phase I RI

WELL NO.
LL255-026

HTRW DRILLING LOG		DISTRICT Nashville		HOLE NUMBER LL255-027	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP Phase 1 RI			4. LOCATION LL21 RVAAP		
5. NAME OF DRILLER			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT Hand Auger (3" s.s.)		8. HOLE LOCATION SEE SKETCH BELOW.			
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 8/8/96		11. DATE COMPLETED 8/9/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 0.5 Ft BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE LOG		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR <i>Mike [Signature]</i>
LOCATION SKETCH/COMMENTS				SCALE: NA	
PROJECT RVAAP				HOLE NO. LL255-027	

HTRW DRILLING LOG

HOLE NUMBER
LL 255-027

SHEET
2 of 2

PROJECT
RVAAP

INSPECTOR
Mike Peggeri

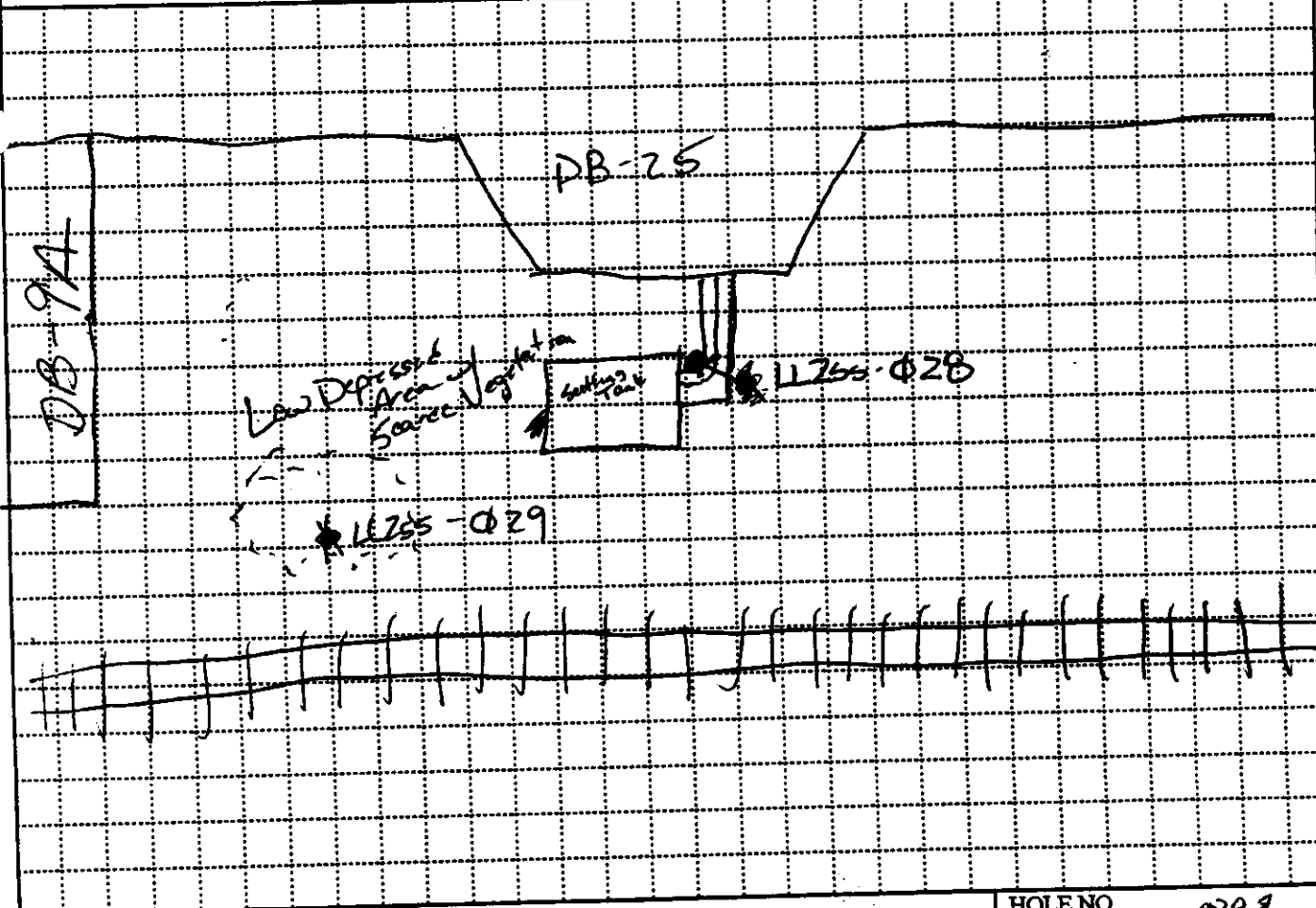
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5 ft.	Silty/sand/clay gravel lt. brown				

PROJECT
RVAAP

HOLE NO.
LL 255-027

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL255-028
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
PROJECT RVAAP		4. LOCATION LL2 / RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/9/96	11. DATE COMPLETED 8/9/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC NA	METALS NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite
23. SIGNATURE OF INSPECTOR <i>[Signature]</i>			

SCALE: **Not to Scale**



PROJECT RVAAP	HOLE NO. LL255-028 029
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(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
LL255-028-029

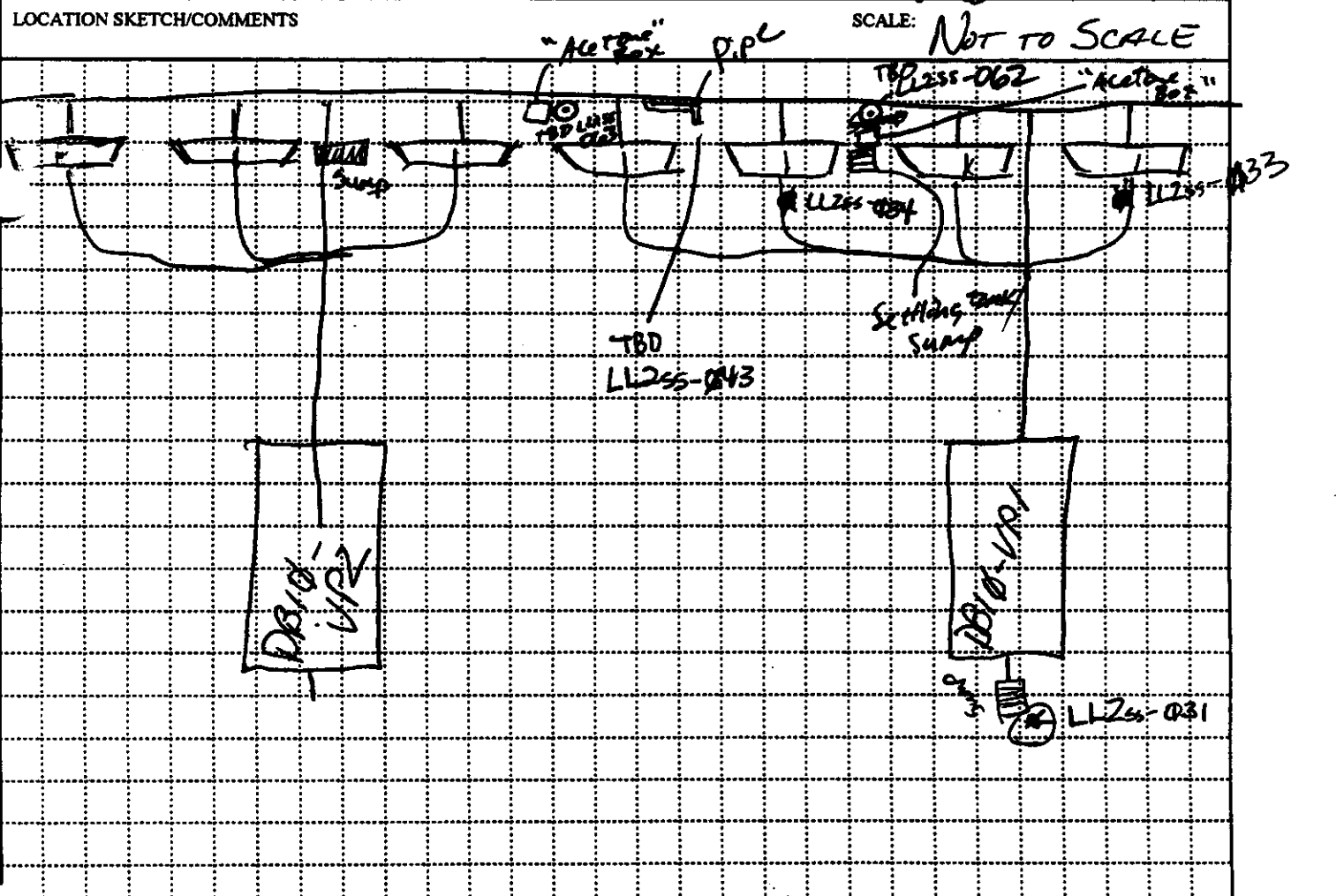
PROJECT **RVAAP** INSPECTOR **Mike Peterson** SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.0	LL255-028				
	0.5	Fine Sand			LL255-028-	LL255-028-020- FD is a field dup
	1.0	Brown to Reddish Brown			0119- 50	
	1.5	clay w/ Gravel Refusal				
	0.0	LL255-029				
		Clay				LL255-029
	1.5	Refusal				

PROJECT **RVAAP**

HOLE NO. **LL255-028-029**

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL25-33, 34, 35, 36, 62, 63
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT RVAAP Phasel RI		4. LOCATION LL2/ RVAAP	
5. NAME OF DRILLER		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger w/ 5 foot Extension		8. HOLE LOCATION Lead Line 2 (SEE SKETCH BELOW)	
12. OVERBURDEN THICKNESS NA		9. SURFACE ELEVATION NA	
13. DEPTH DRILLED INTO ROCK NA		10. DATE STARTED 8/9/96	
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		11. DATE COMPLETED 8/9/96	
15. DEPTH GROUNDWATER ENCOUNTERED NO GW		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		18. GEOTECHNICAL SAMPLES	
18. GEOTECHNICAL SAMPLES NA		19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	



PROJECT RVAAP Phasel RI	HOLE NO. 31, 33, 34, 35, 36, LL25-32, 62, 63
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PROJECT: RVAAP INSPECTOR: Mike Deacon

ELV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.0	LL255-031				
	0.5	Dark Brown Sand and Silt ~70% Gravel	0 ppm	NA	LL255-031-02350	
	0.0	LL255-033				
	0.0	Brown Silty Sand	0 ppm	NA	LL255-033-012550	
	1.0	Refusal on Gravel				
	0.0	LL255-034				
	0.0	DARK BROWN TOP SOIL TO SILTY CLAY TO SAND w/ 50% Gravel	0 ppm	NA	LL255-034-012650	LL255-034-0127-FD is a Field Rep.
	0.6	LL255-035	0 ppm	NA	LL255-035-012850	
	0.0	Lt. Brown Sandy Soil with gravel				
	0.5	LL255-036	0 ppm	NA	LL255-036-012950	
	0.0	Lt. Brown Sandy Soil with gravel fill.				
	0.5	LL255-032	0 ppm	NA	LL255-032-012450	
	0.5	Brown dirt with much gravel fill around sump.				
	0	Reddish Brown Sand + Gravel, some.	0 ppm		LL255-062	
	1	Refused @ 10"				
	0	Brown Sand			LL255-063	
	1	Refused @ .5'				

PROJECT: RVAAP

HOLE NO. 31, 33, 34, 35, 36, 32, 62, & 63.

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL25-037	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION LL2/		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss. hand auger.		8. HOLE LOCATION SEE SKETCH BELOW			
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 0.8 ft BGS.			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE Sample COC		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned.		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Backfilled	21. TOTAL CORE RECOVERY NA
LOCATION SKETCH/COMMENTS				SCALE: Not to Scale	
PROJECT RVAAP				HOLE NO. LL25-037	

HTRW DRILLING LOG

HOLE NUMBER
U255-037PROJECT
RVAPP

INSPECTOR

Mike DeCora

SHEET

2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.8	Brown Silty Sand w/ 40% Gravel	Open	NA	U255- 037- 013A-D	

PROJECT

RVAPP

HOLE NO.

U255-037

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL255-038	
1 COMPANY NAME SAC		2 DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
3 PROJECT RVAAP			4 LOCATION LL2/RVAAP		
5 NAME OF DRILLER NA			6 MANUFACTURERS DESIGNATION OF DRILL HAND AUGER		
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8 HOLE LOCATION SEE SKETCH BELOW			
		9 SURFACE ELEVATION NA			
		10 DATE STARTED 8/10/94		11 DATE COMPLETED 8/10/94	
12 OVERBURDEN THICKNESS NA		15 DEPTH GROUNDWATER ENCOUNTERED NO GW			
13 DEPTH DRILLED INTO ROCK NA		16 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14 TOTAL DEPTH OF HOLE		17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18 GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19 TOTAL NUMBER OF CORE BOXES NA	
20 SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE COR. ←		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22 DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21 TOTAL CORE RECOVERY % NA
23 SIGNATURE OF INSPECTOR <i>[Signature]</i>					
LOCATION SKETCH/COMMENTS				SCALE: Not to Scale	
PROJECT RVAAP				HOLE NO. LL255-038	

HTRW DRILLING LOG

HOLE NUMBER: **U245-038**
 SHEET: **2 of 2**

PROJECT: **RVAAP Phase I RT** INSPECTOR: **M. Deacon**

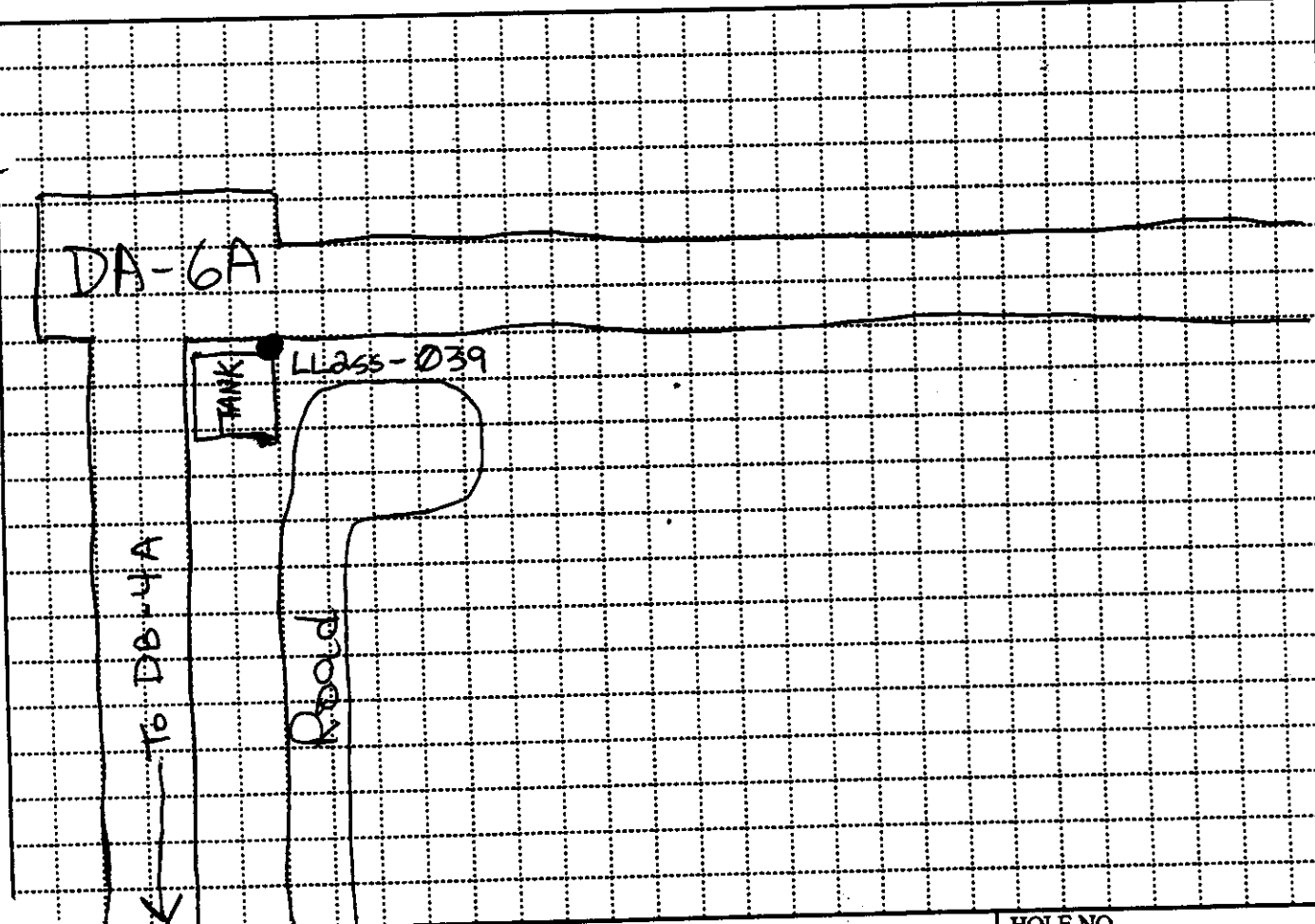
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	05 06	Reddish Brown Fine Sand silty clay Refusal at Pipe Gravel	Φ _{ppm}	NA	U245-038-0131-00	

PROJECT: **RVAAP**

HOLE NO.: **U245-038**

HTRW DRILLING LOG		DISTRICT Nashville		HOLE NUMBER LL255-039	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP Phase 1 RI			4. LOCATION LL2 / RVAAP		
5. NAME OF DRILLER			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. Hand Auger		8. HOLE LOCATION SEE SKETCH BELOW			
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 08/10/96		11. DATE COMPLETED 08/19/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 0.5 ft BGS -			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE LOG		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Restoration	21. TOTAL CORE RECOVERY % NA
LOCATION SKETCH/COMMENTS				23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	

SCALE: **NOT TO SCALE**



PROJECT RVAAP	HOLE NO. LL255-039
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HTRW DRILLING LOG

MOLE NUMBER

PROJECT

RVAAP

INSPECTOR

M. DeLeon

SHEET

2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	<p>Ø</p> <p>6in.</p>	<p>Lt. Brown sandy fill material</p> <hr/> <p>Refusal because of large gravel fill material</p>				

PROJECT

RVAAP

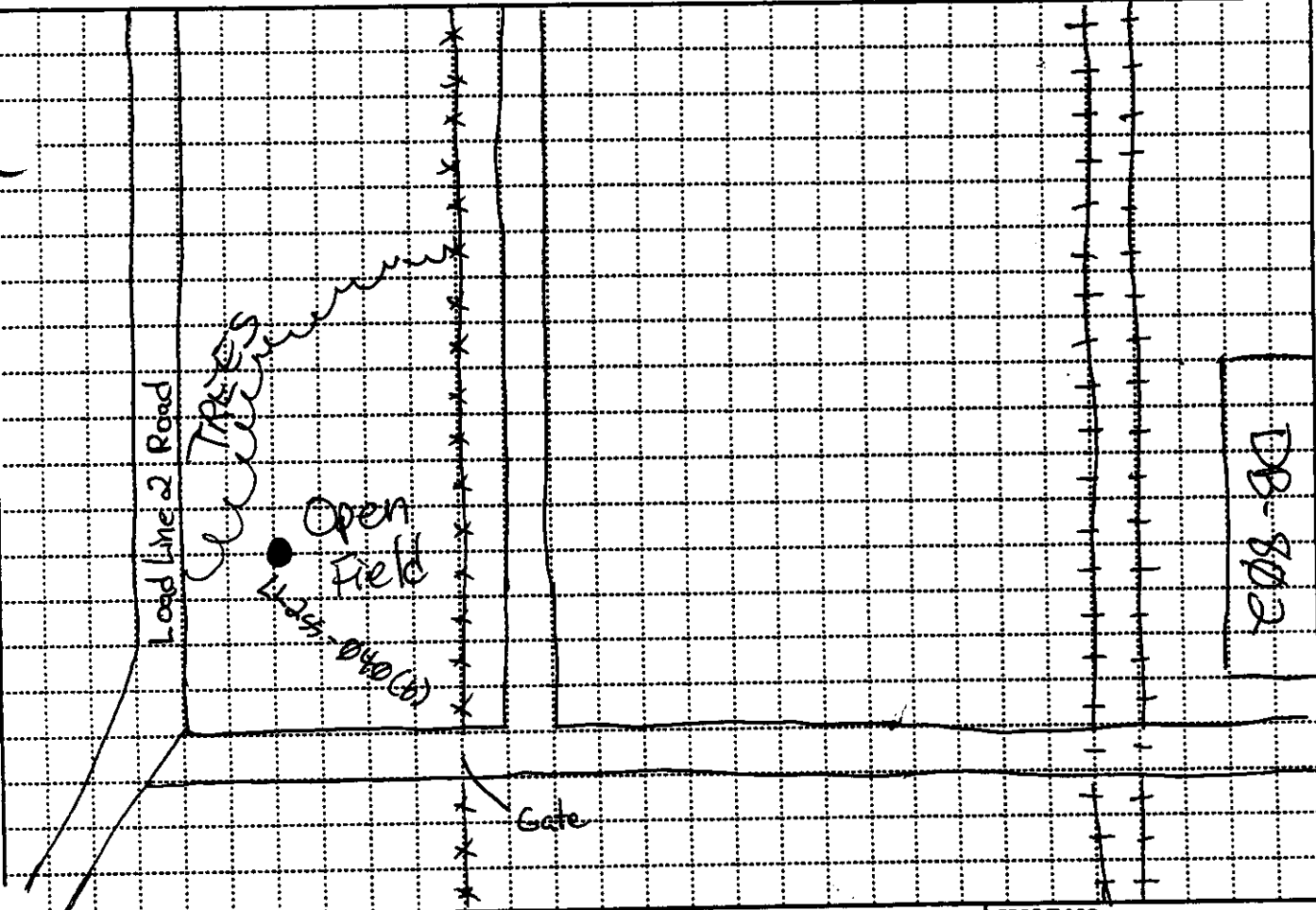
C-254

MOLE NO.

LL2ss - Ø39

HTRW DRILLING LOG		DISTRICT Nashville	HOLE NUMBER LL255-040 (b)
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
PROJECT RVAAP Phase I RT		4. LOCATION LL2 / RVAAP	
5. NAME OF DRILLER M. Cramer		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT Hand Auger 6in bucket		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 08/12/96	11. DATE COMPLETED 08/12/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE NA		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE LOG	VOC	METALS	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) contaminated
23. SIGNATURE OF INSPECTOR <i>[Signature]</i>			21. TOTAL CORE RECOVERY % NA

LOCATION SKETCH/COMMENTS SCALE: **NOT TO SCALE**



PROJECT RVAAP	HOLE NO. LL255-040 (b)
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HTRW DRILLING LOG

HOLE NUMBER
LL255-040(b)

SHEET
2 of 2

PROJECT
RVAAP

INSPECTOR
M. Deaton

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Reddish/Grey mottled Silty clay Shale				
	1.0	Refusal on large rocks				

PROJECT

RVAAP Phase 1 RI
C-256

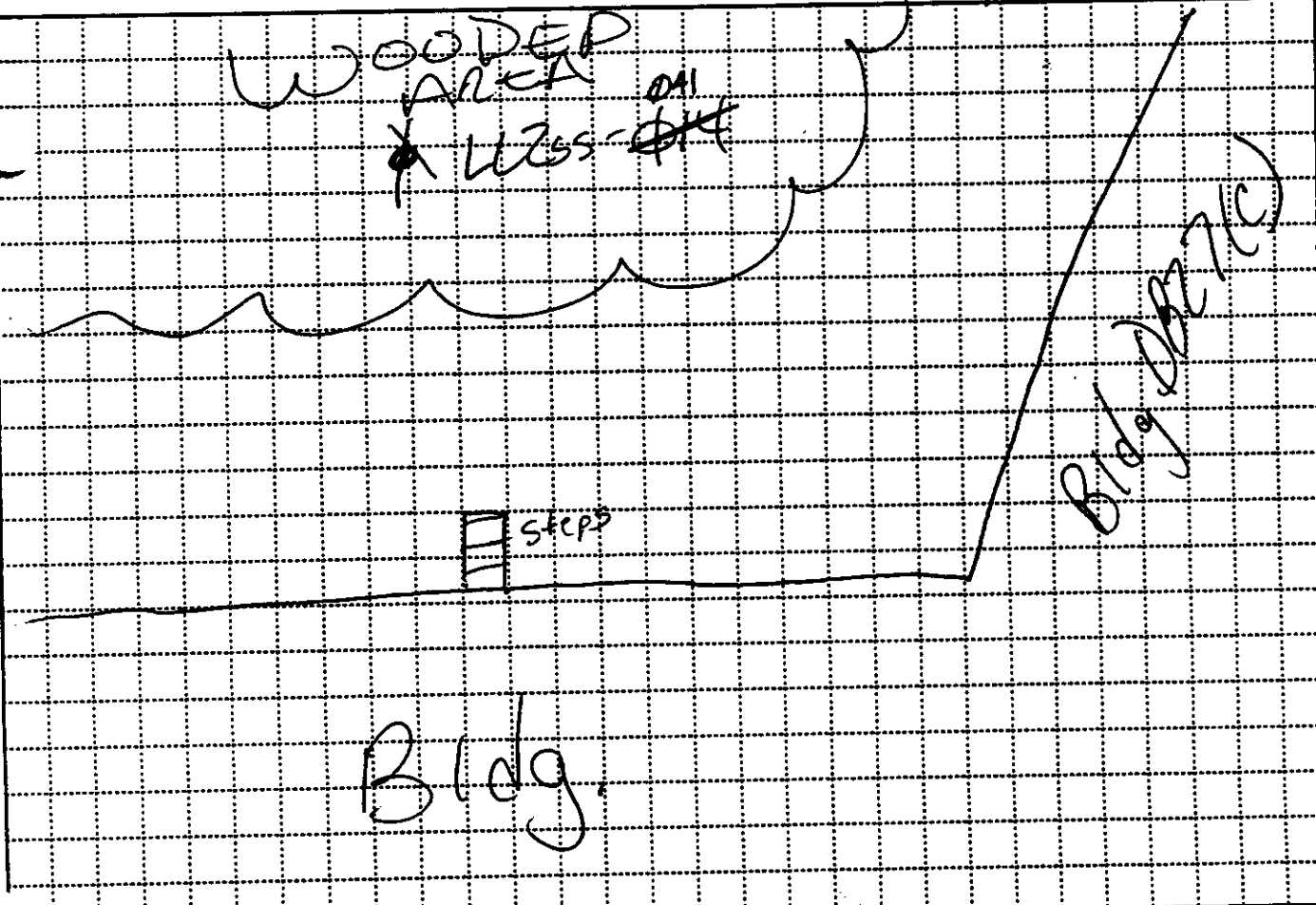
HOLE NO.

LL255-040(b)

HTRW DRILLING LOG		DISTRICT <i>NASHVILLE</i>		HOLE NUMBER <i>LL255-0411(b)</i>	
1. COMPANY NAME <i>SAC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1 OF 2</i>	
3. OBJECT <i>RVAAP</i>		4. LOCATION <i>LL2 / RVAAP</i>			
5. NAME OF DRILLER <i>NA</i>		6. MANUFACTURERS DESIGNATION OF DRILL <i>hand auger</i>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3 1/2 ss. hand auger</i>		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>			
		9. SURFACE ELEVATION <i>NA</i>			
		10. DATE STARTED <i>8/10/94</i>		11. DATE COMPLETED <i>8/10/94</i>	
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>			
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>			
14. TOTAL DEPTH OF HOLE <i>2.0 ft BGS.</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>			
18. GEOTECHNICAL SAMPLES		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC <i>NA</i>	METALS <i>NA</i>	OTHER (SPECIFY) <i>NA</i>	OTHER (SPECIFY) <i>NA</i>
21. TOTAL CORE RECOVERY % <i>NA</i>		22. DISPOSITION OF HOLE <i>Abandoned</i>			
		BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Benoni</i>	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>

LOCATION SKETCH/COMMENTS

SCALE: *Not to Scale*



PROJECT <i>RVAAP Phase I RI</i>	HOLE NO. <i>LL255-0411(b)</i>
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HTRW DRILLING LOG

HOLE NUMBER: **LL255-Ø41(W)**

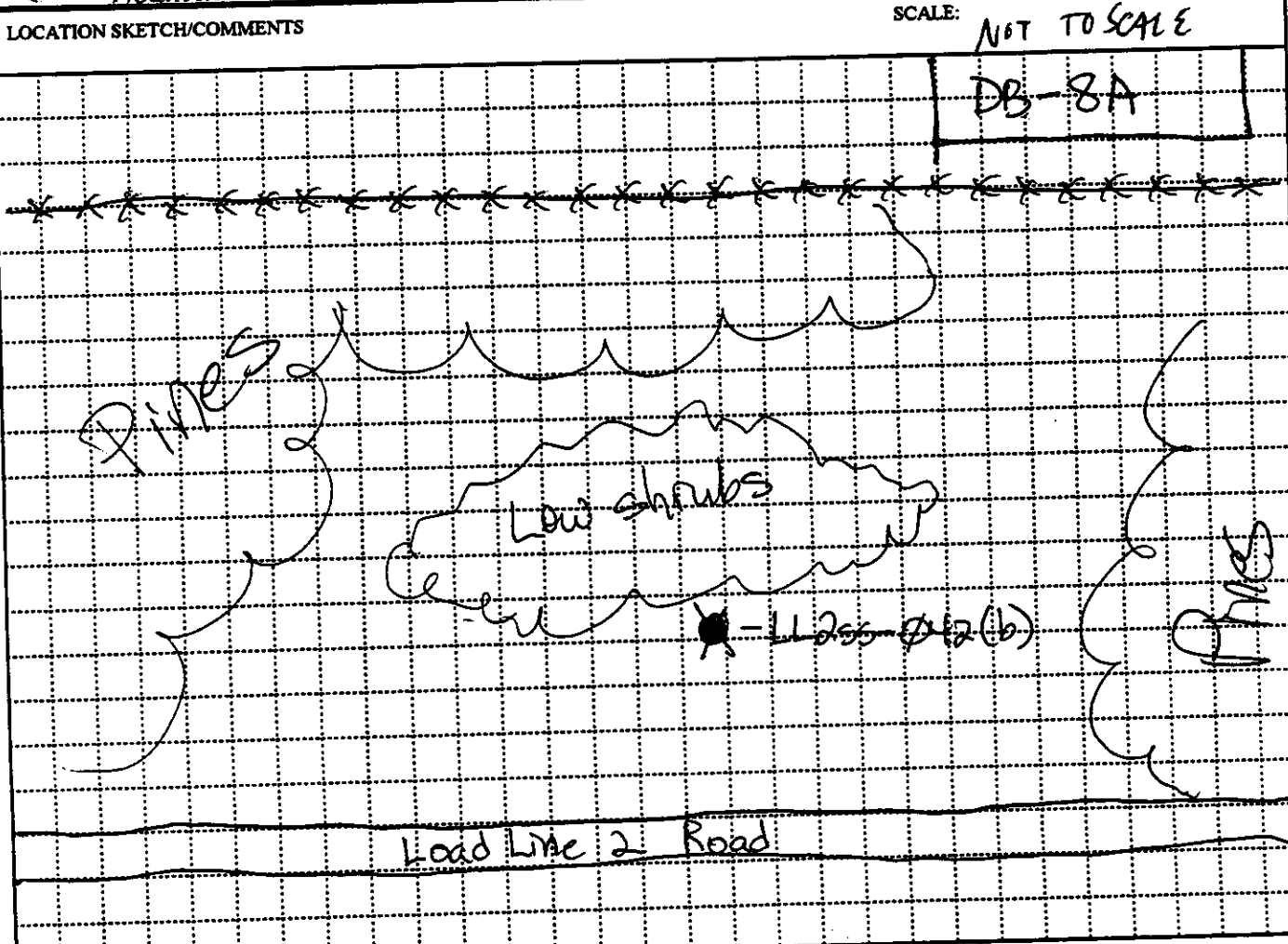
PROJECT: **RVAAP** INSPECTOR: **M. K. ...** SHEET: **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5 1.0 1.5 2.0	Brown topsoil Silt and Sand Color change to Tan/Lt. Brown Silty Sand Some clay Some Gravel		NA	LL255- Ø41(b) Ø135- 50	

PROJECT: **RVAAP**

HOLE NO.: **LL255-Ø41(b)**

HTRW DRILLING LOG		DISTRICT Nashville	HOLE NUMBER LL255-042(b)
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
PROJECT RVAAP Phase I RI		4. LOCATION LL2 / RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss hand augers		8. HOLE LOCATION See sketch below	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/9/94	11. DATE COMPLETED 8/9/94
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE ~2.0 ft + BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS 322 Sample CoC	VOC	METALS	OTHER (SPECIFY)
21. TOTAL CORE RECOVERY % NA	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Continuity
23. SIGNATURE OF DIRECTOR <i>[Signature]</i>			



PROJECT RVAAP	HOLE NO. LL255-042(b)
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HTRW DRILLING LOG

HOLE NUMBER
LL255-042(b)
SHEET
2 of 2

PROJECT RVAAP INSPECTOR Mike Deacon

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.0	Brown silty/sand to soil				
	1.5	Brown/grey silty clay with gravel				

PROJECT RVAAP

HOLE NO. LL255-042(b)

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL255-043	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 of 2	
3. PROJECT RVAAP			4. LOCATION LL2 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. Hand auger		8. HOLE LOCATION SEE PLAN NA			
9. SURFACE ELEVATION NA					
10. DATE STARTED 08/10/96			11. DATE COMPLETED 08/10/96		
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 0.5 ft + BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
SEE SAMPLE LOG					
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) benzene	21. TOTAL CORE RECOVERY % NA
LOCATION SKETCH/COMMENTS				SCALE:	

See drilling log for other samples around DB-10 (LL255-009, 011, 013 and 014)

PROJECT

RVAAP

HOLE NO.

LL255-043

HTRW DRILLING LOG

HOLE NUMBER: LL55-043

PROJECT: RVAAP

INSPECTOR: Mike Deacon

SHEET: 2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.0	Reddish Brown silty/sand fill	φ			
	0.5	Refusal at 6 in. due to gravel fill				

PROJECT

RVAAP

HOLE NO.

LL55-043

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL255-014	
1 COMPANY NAME SAIC		2 DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION RVAAP / LL2		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW			
9. SURFACE ELEVATION NA			10. DATE STARTED 8/12/96		
11. DATE COMPLETED 8/12/96			12. OVERBURDEN THICKNESS NA		
13. DEPTH DRILLED INTO ROCK NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
14. TOTAL DEPTH OF HOLE Ø.5 ft BGS			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			18. GEOTECHNICAL SAMPLES		
DISTURBED NA		UNDISTURBED NA		19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC		21. TOTAL CORE RECOVERY % NA	
METALS		OTHER (SPECIFY)		OTHER (SPECIFY)	
OTHER (SPECIFY)		OTHER (SPECIFY)		OTHER (SPECIFY)	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) Backfill		OTHER (SPECIFY)		23. SIGNATURE OF DISTRICT ENGINEER <i>[Signature]</i>	
LOCATION SKETCH/COMMENTS			SCALE: NA		
<p>SEE MAD</p> <p>LL255-009</p> <p>Book # 1</p> <p>(#37)</p>					
PROJECT RVAAP				HOLE NO. LL255-014	

HTRW DRILLING LOG

HOLE NUMBER: **U255-044**

SHEET: **2 of 2**

PROJECT: **RVAPP**

INSPECTOR: **M. Deacon**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	<div style="position: relative; height: 100px;"> 4.5 </div>	Brownish Red Silty Sand w/ Gravel	Φ _{ppm}		U255- 044- 013850	

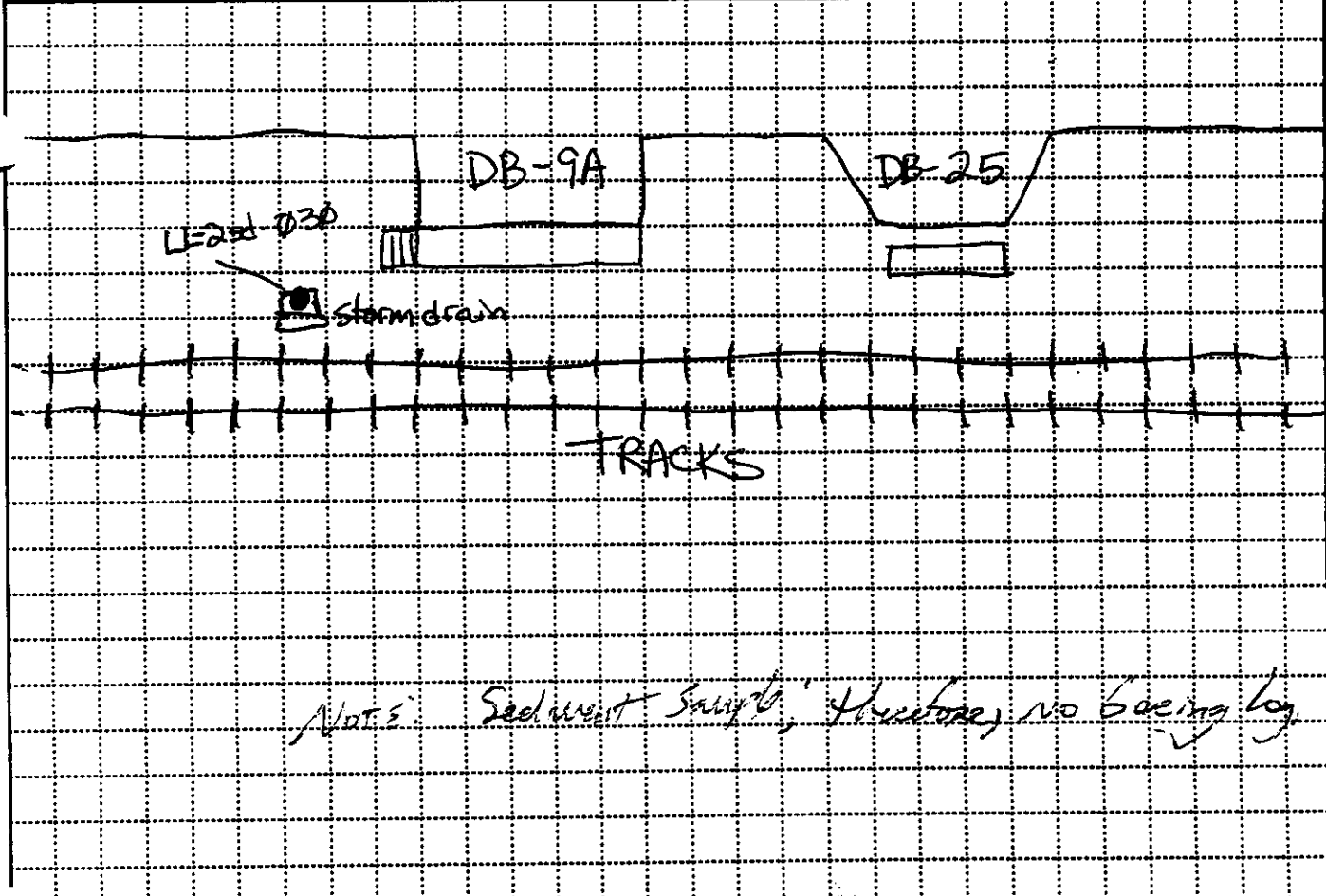
PROJECT: **RVAPP**

HOLE NO.: **U255-044**

LOAD LINE 2
DRAINAGE SEDIMENT LOGS
LOGBOOK #27

HTRW DRILLING LOG		DISTRICT Nashville		HOLE NUMBER	
1 COMPANY NAME SAIC		2 DRILL SUBCONTRACTOR NA		SHEET 1 OF 1 SHEETS	
3 PROJECT RVAAP Phase 1 RI			4 LOCATION LL2 / RVAAP		
5 NAME OF DRILLER			6 MANUFACTURER'S DESIGNATION OF DRILL HAND AUGER		
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS. hand auger		8 HOLE LOCATION SEE SKETCH BELOW			
			9 SURFACE ELEVATION NA		
			10 DATE STARTED 3/25/03		11 DATE COMPLETED
12 OVERBURDEN THICKNESS NA			13 DEPTH GROUNDWATER ENCOUNTERED NO GW		
13 DEPTH DRILLED INTO ROCK NA		14 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14 TOTAL DEPTH OF HOLE			17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18 GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19 TOTAL NUMBER OF CORE BOXES NA	
20 SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
See Sample Log					
22 DEPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bottom	21. TOTAL CORE RECOVERY NA %
23. SIGNATURE OF INSPECTOR <i>[Signature]</i>					

LOCATION SKETCH/COMMENTS **SEDIMENT SAMPLE, NO BORING LOG SCALE: Not to scale**



NOTE: Sediment Sample; therefore, no boring log

PROJECT RVAAP	HOLE NO. LL2sd-Ø30
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

LL2sd-Φ46(6d)-Φ46SD

DATE COLLECTED (mm/dd/yy):

8/20/94

SAMPLE LOCATION:

DRAIN CØ1

TIME COLLECTED (hh:mm):

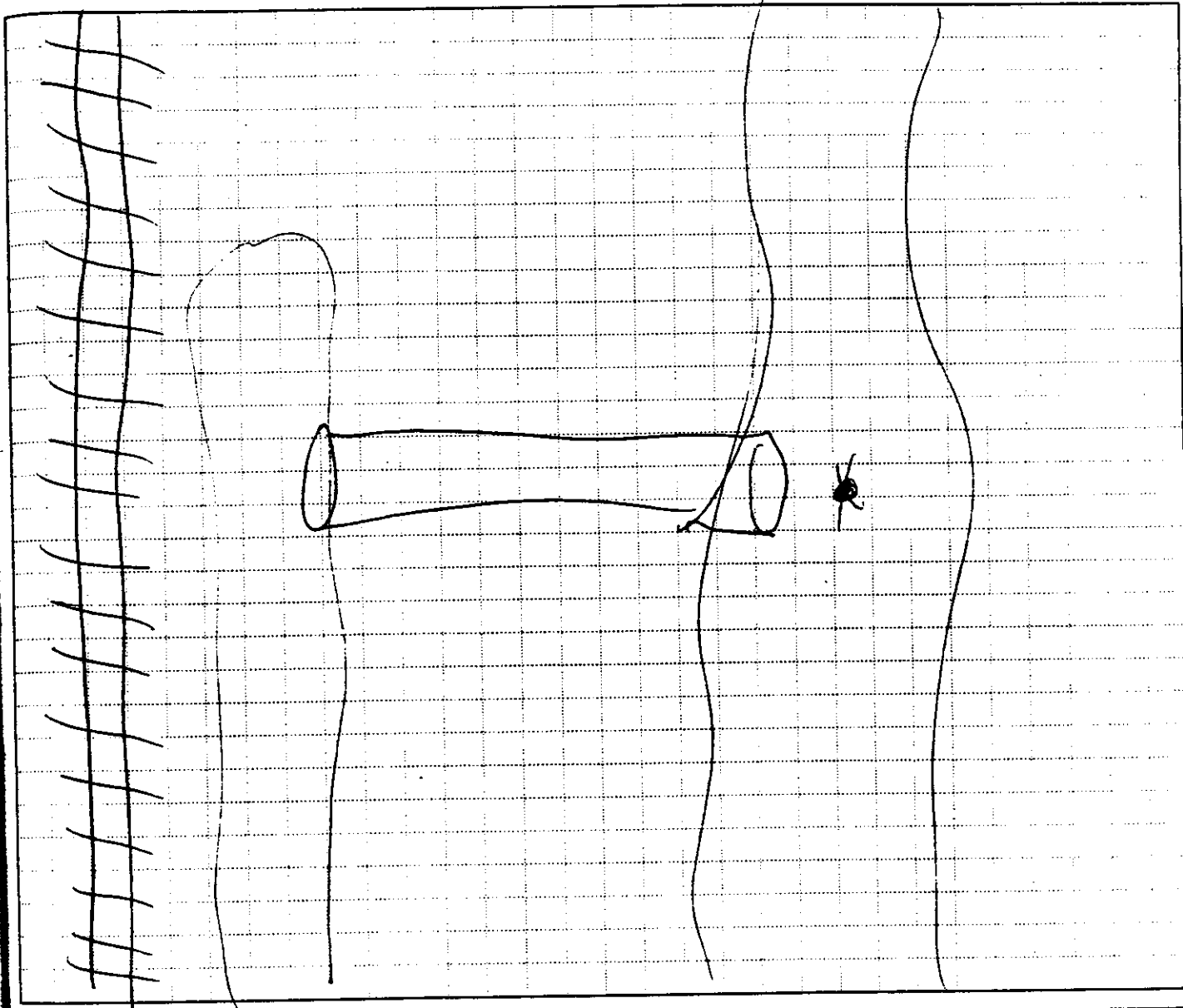
141Ø

SAMPLING POINT:

LL2sd-Φ46

DEPTH:

2 ft.



COMMENTS:

RECORDED BY:

Malce

DATE:

8/20/94

QA CHECK BY:

[Signature]

DATE:

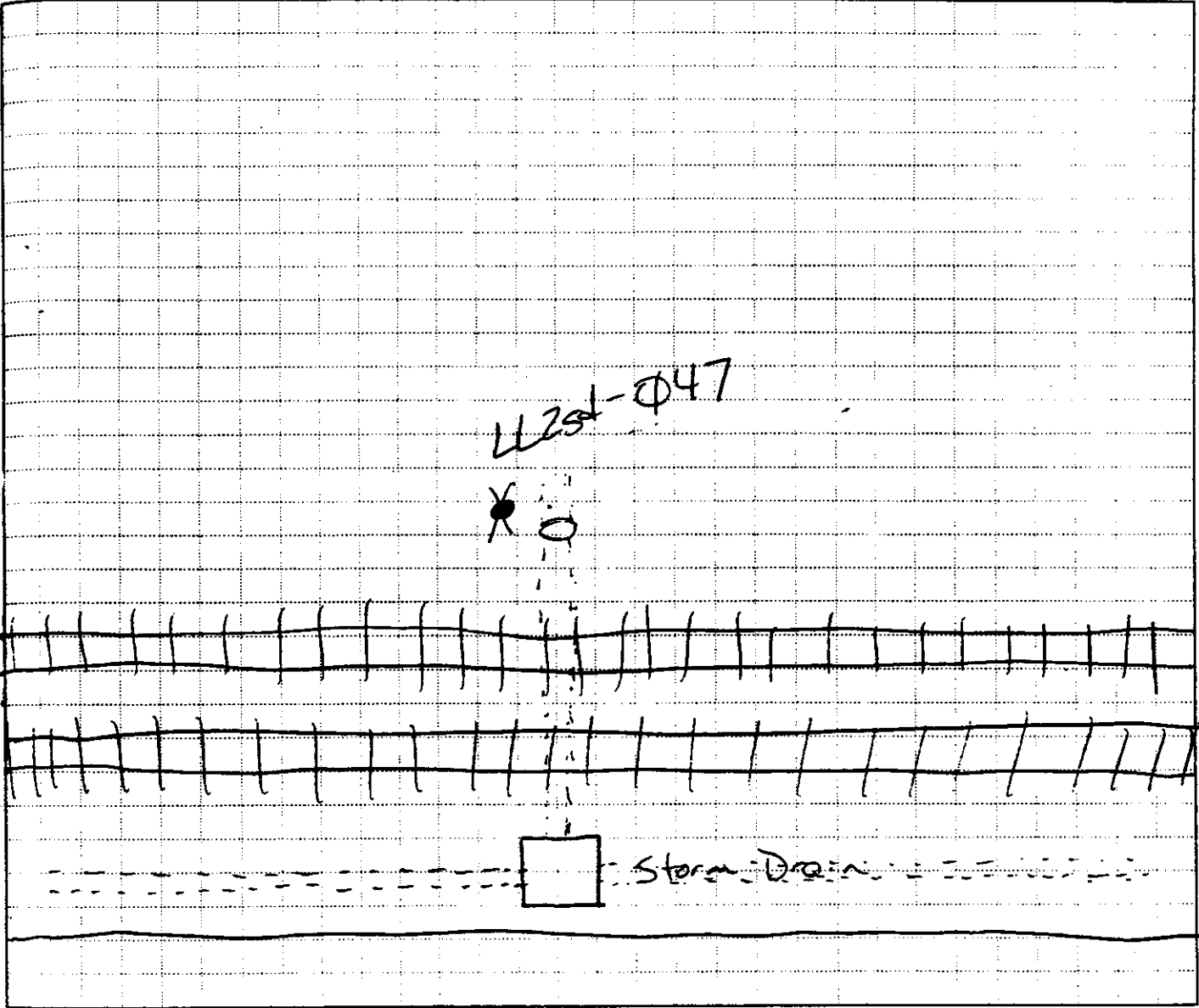
8/20/94

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL2sd-Ø47(Ø)-Ø141	DATE COLLECTED (mm/dd/yy): 8/20/96
SAMPLE LOCATION: DRAIN-Ø2	TIME COLLECTED (hh:mm): 1115
SAMPLING POINT: LL2sd-Ø47(Ø)	DEPTH: 27665



COMMENTS:
Sample taken at cutfall pipe of storm drain.

RECORDED BY: <i>Mac L Co</i>	DATE: 8/20/96	QA CHECK BY: <i>[Signature]</i>	DATE: 8/20/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

LL2sd- ϕ 48(d)- ϕ 142-SD

DATE COLLECTED (mm/dd/yy):

8/20/96

SAMPLE LOCATION:

DRAIN C- ϕ 3

TIME COLLECTED (hh:mm):

ϕ 957

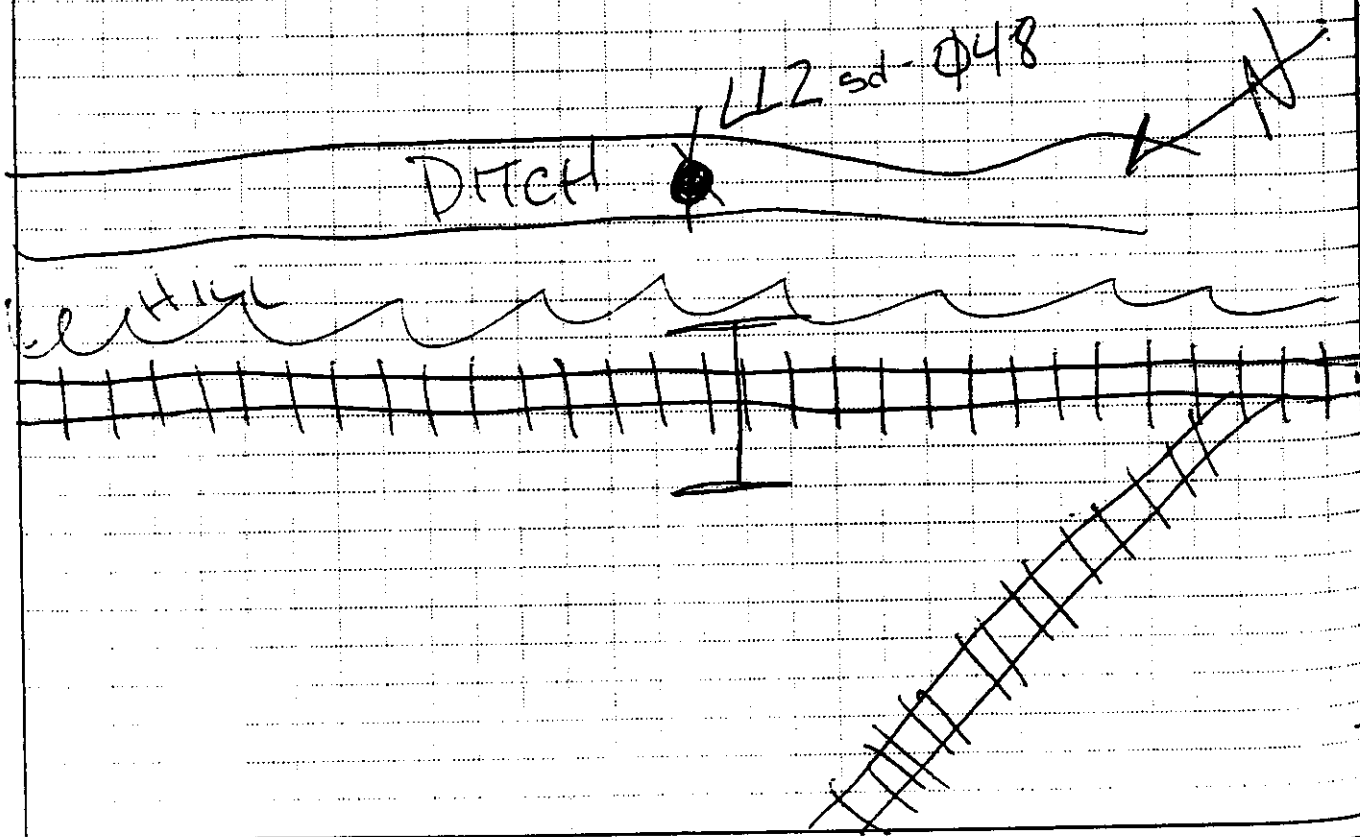
SAMPLING POINT:

LL2sd- ϕ 48(d)

DEPTH:

2 ft.

OVERGROWN AREA



COMMENTS:

RECORDED BY:

Mat Cee

DATE:

8/20/96

QA CHECK BY:

John E. Eyster

DATE:

8/20/96

PRC
SAMP
SAMP
SAMP

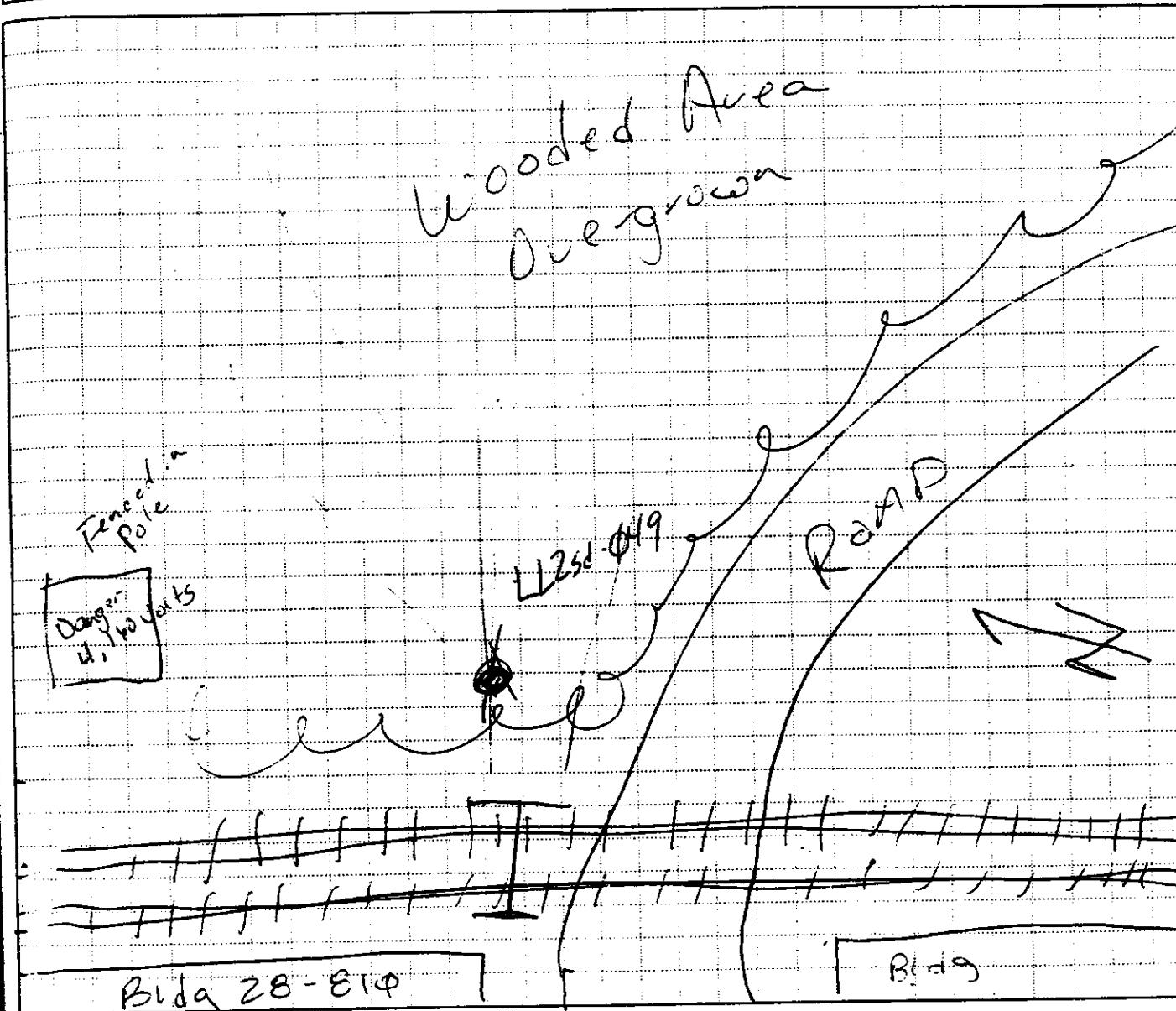
COM

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL2sd- ϕ 49(d)- ϕ 144-SD	DATE COLLECTED (mm/dd/yy): 8/20/96
SAMPLE LOCATION: DRAIN- ϕ 4	TIME COLLECTED (hh:mm): ϕ 925
SAMPLING POINT: LL2sd- ϕ 49(d)	DEPTH: 1.4 ft



COMMENTS:
Taken where 2 ditches come together.

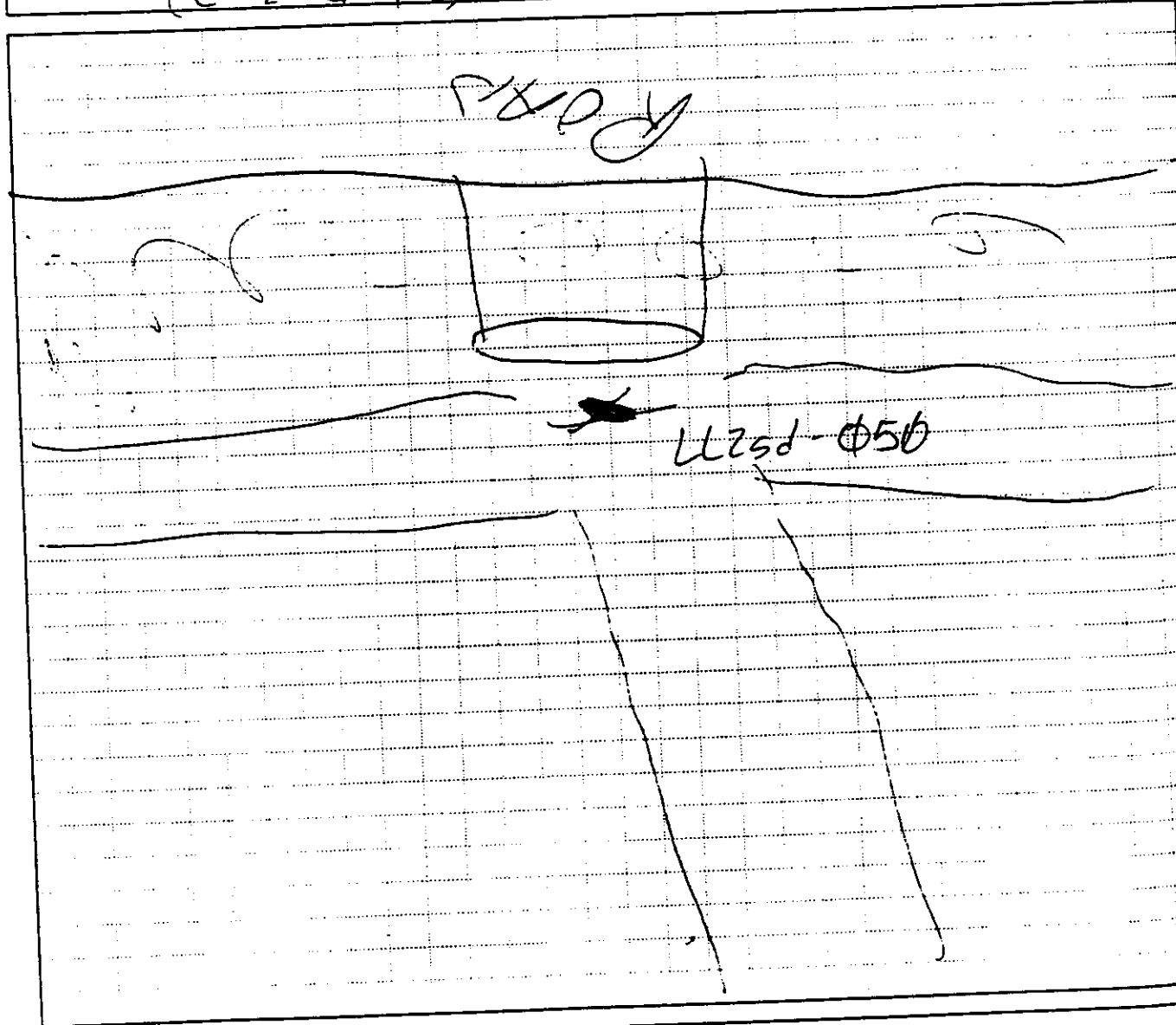
RECORDED BY: <i>Mat Cox</i>	DATE: 8/20/96	QA CHECK BY: <i>[Signature]</i>	DATE: 8/20/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL2sd-φ5φ(L)-145-SD	DATE COLLECTED (mm/dd/yy): 8/20/94
SAMPLE LOCATION: DRAIN C-φ5	TIME COLLECTED (hh:mm): 1147
SAMPLING POINT: (L2sd-φ5φ(L))	DEPTH: 1.25 ft.



COMMENTS:

RECORDED BY: *Mort Cox* DATE: *8/20/94* QA CHECK BY: *[Signature]* DATE: *8/20/94*

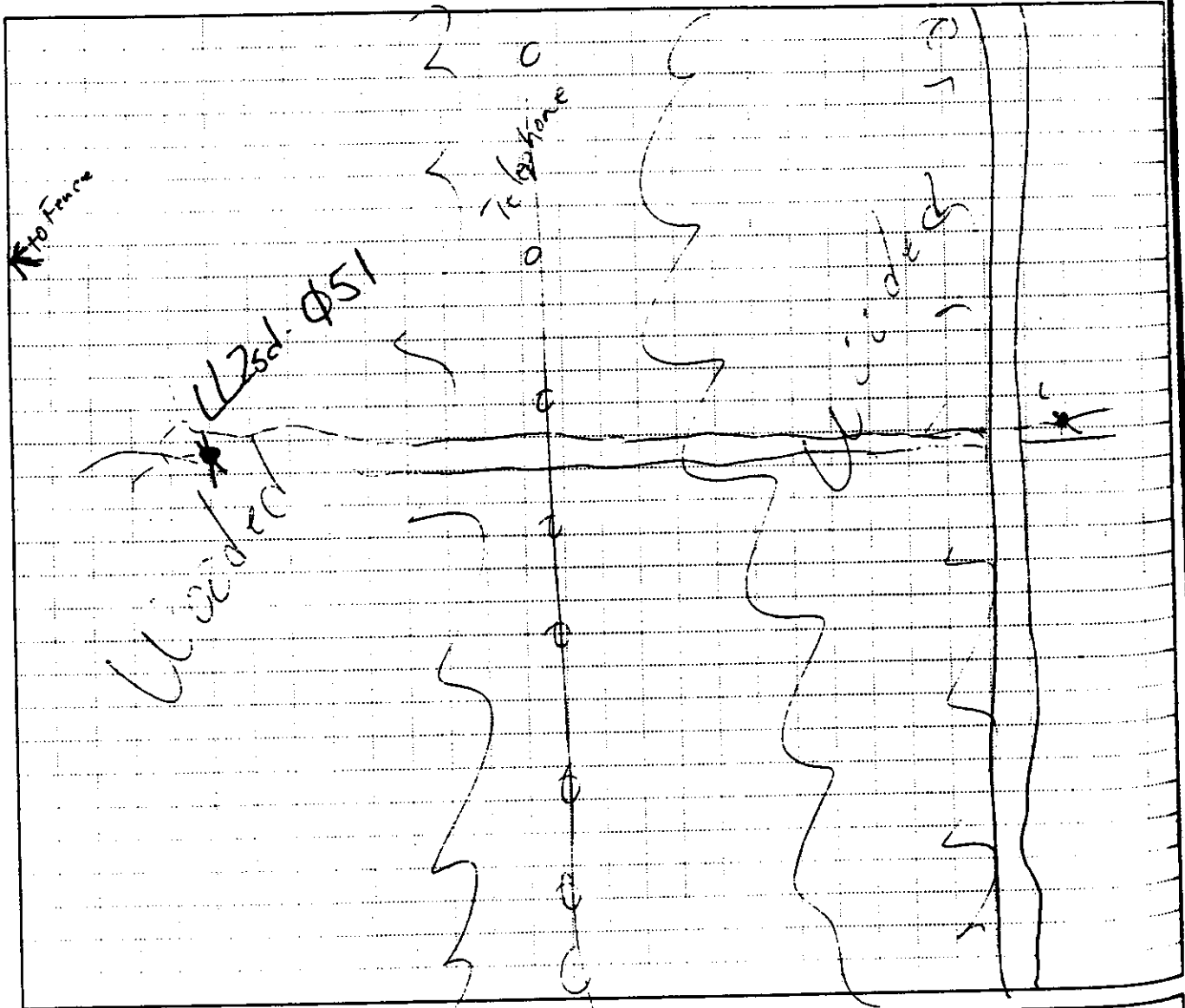
4

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL2sd-051(d)-0146-SD	DATE COLLECTED (mm/dd/yy): 8/20/96
SAMPLE LOCATION: DRAIN C-04	TIME COLLECTED (hh:mm): 1510
SAMPLING POINT: LL2sd-051(d)	DEPTH: 2 ft



COMMENTS:

Ditch does not flow through to fence as indicated on map Rather opens up and floods area

RECORDED BY: Moz Cue	DATE: 8/20/96	QA CHECK BY: [Signature]	DATE: 8/20/96
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LOAD LINE 2
SURFACE WATER, POND, AND STREAM SEDIMENT
LOGBOOK #15

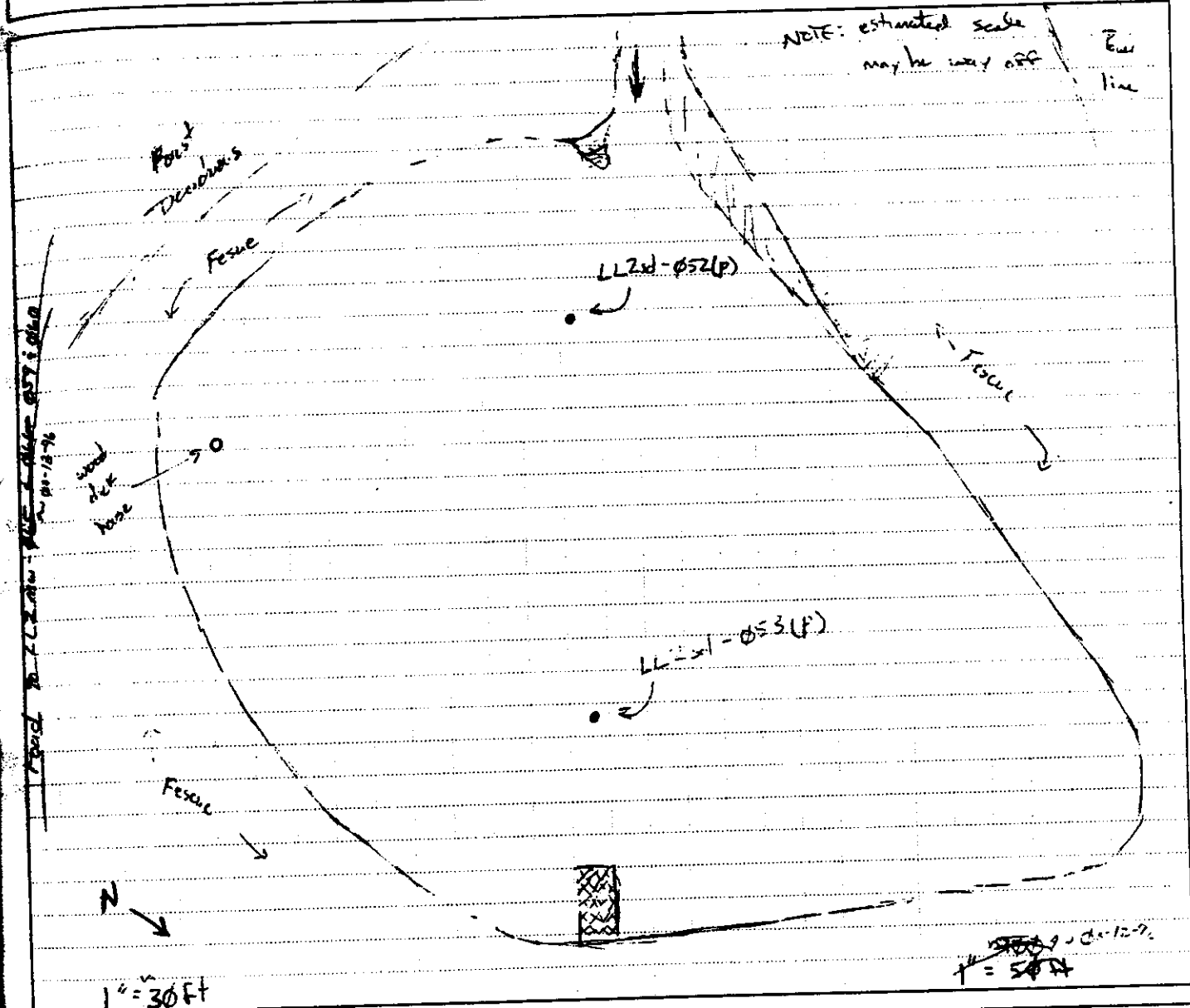
LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL2d-052(F) - 053(F)	DATE COLLECTED (mm/dd/yy): 08-12-96
SAMPLE LOCATION: Kelly's Pond	TIME COLLECTED (hh:mm): 1435 - 1455
SAMPLING POINT: See sketch	DEPTH: 20 sample bags

NOTE: estimated scale may be way off
Elev line



COMMENTS: Observed fauna: Corp, Tric, Hemiptera, Coleoptera
 No Aquatic Macrophytes

RECORDED BY: [Signature]	DATE 08-12-96	QA CHECK BY: [Signature]	DATE 8/22/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

LL2-d-054 (P)

DATE COLLECTED (mm/dd/yy):

03-12-96

SAMPLE LOCATION:

Kelly's Pond

TIME COLLECTED (hh:mm):

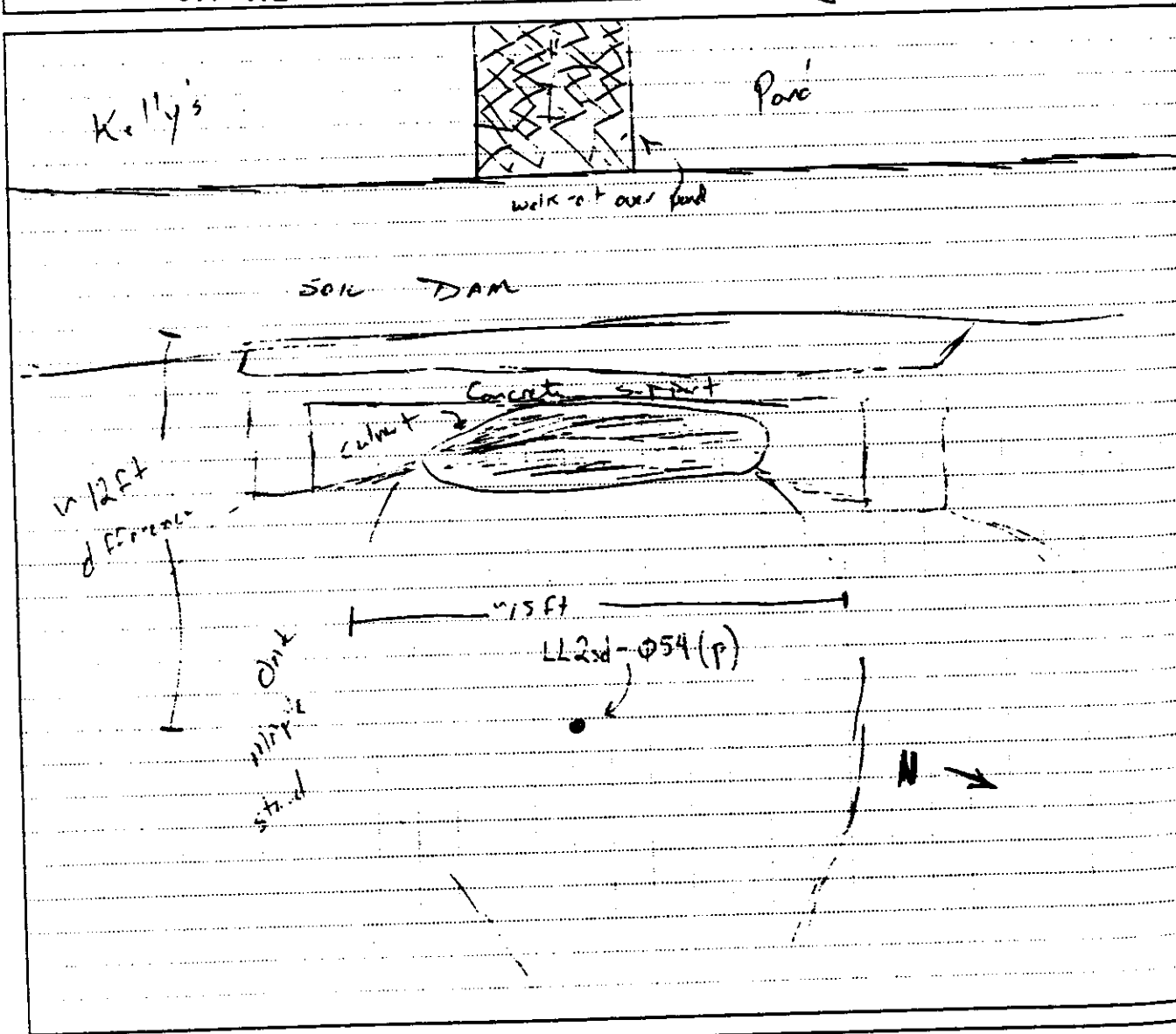
1550

SAMPLING POINT:

ess loc. t

DEPTH:

1 ft by



COMMENTS:

Pool of water about 3/4 - 1 ft deep, rocky

RECORDED BY:

Joseph J. Wilson

DATE

03-12-96

QA CHECK BY:

Mat C...

DATE

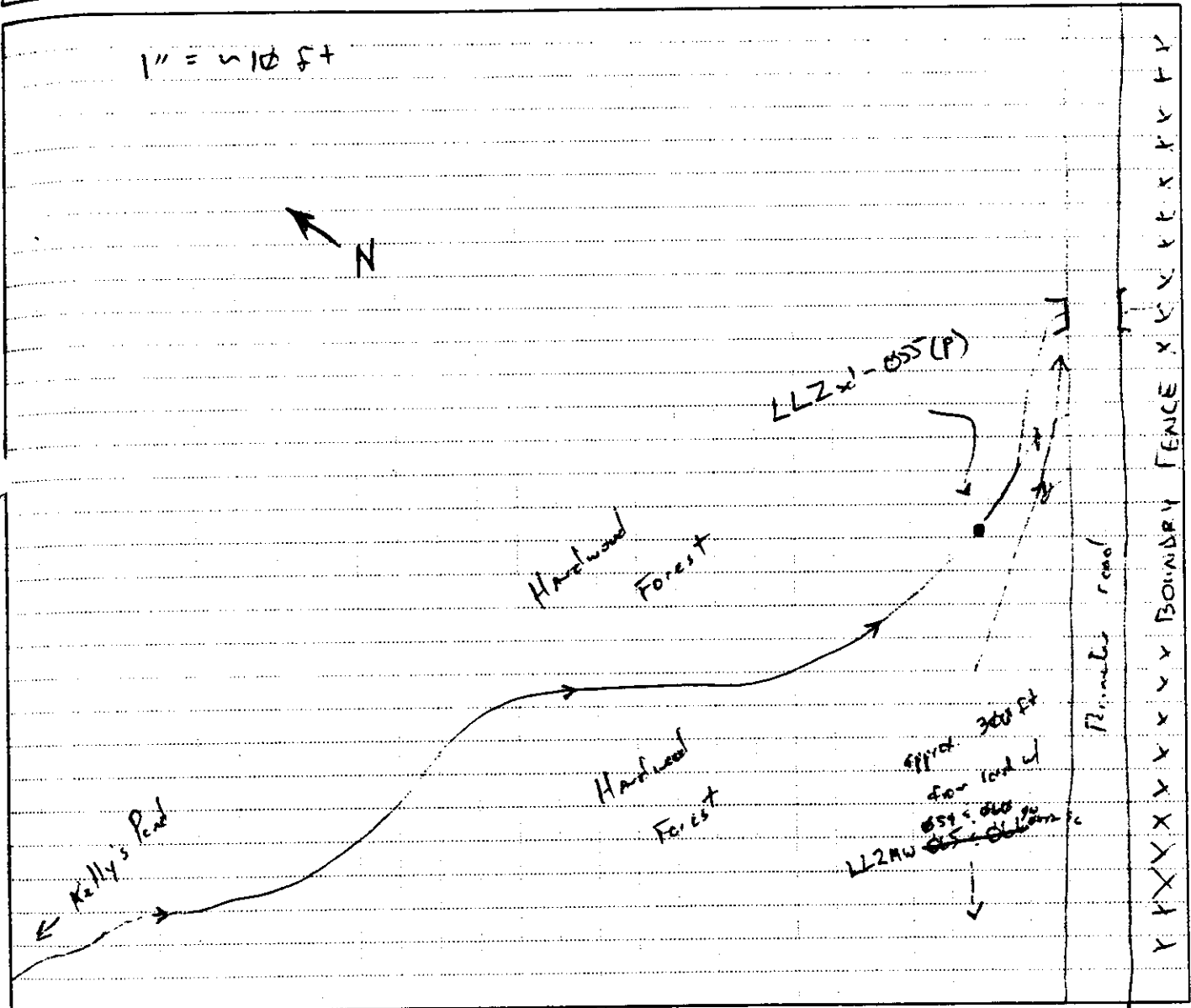
3/26/96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL2st - 055(P)	DATE COLLECTED (mm/dd/yy): 08-12-94
SAMPLE LOCATION: Kelly's Pond Drainage Point	TIME COLLECTED (hh:mm): 0845
SAMPLING POINT: see sketch	DEPTH: 6" bgs



COMMENTS: Sediment contained large amount of macro-organisms

RECORDED BY: Travis G. Wilson	DATE: 08-12-94	QA CHECK BY: MTC	DATE: 8/22/94
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LOAD LINE 2
WELL POINTS/GROUNDWATER
LOGBOOK #16

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

DATE COLLECTED (mm/dd/yy):

SAMPLE LOCATION:

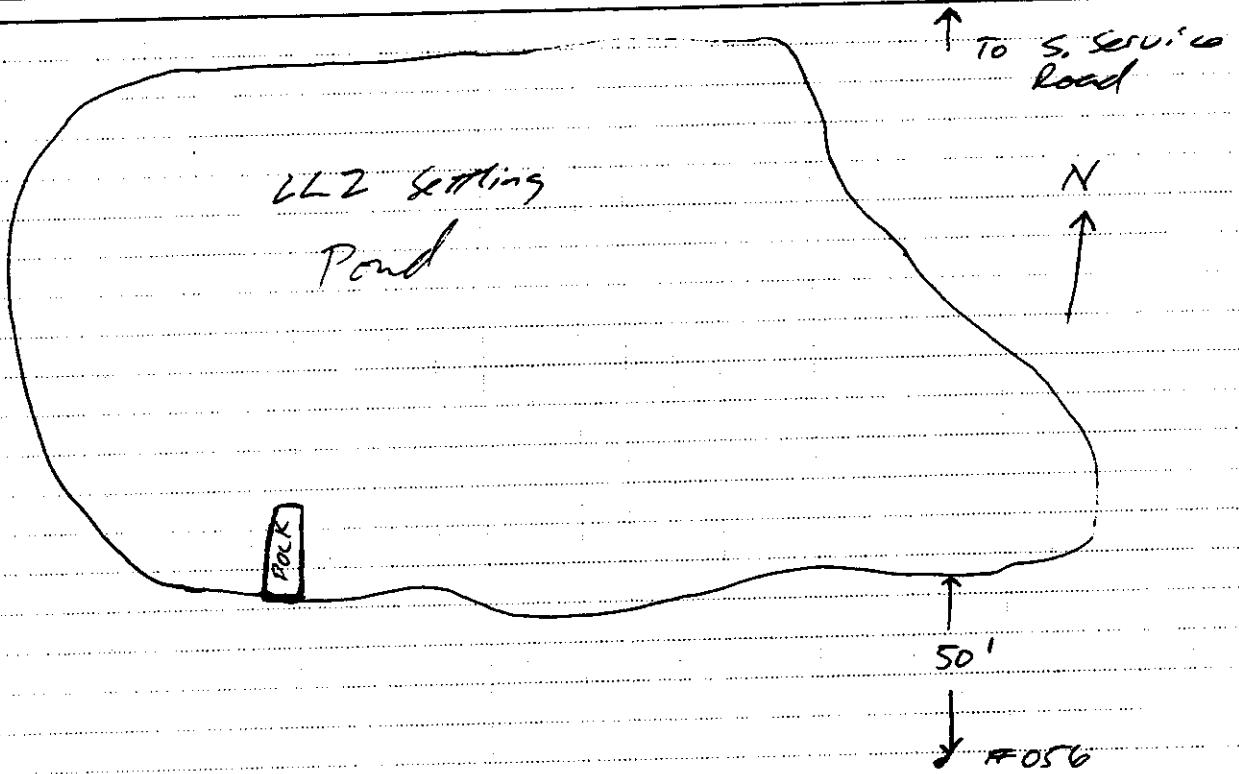
TIME COLLECTED (hh:mm):

SAMPLING POINT:

DEPTH:

LL2 wp - 056

10 TD



COMMENTS:

RECORDED BY:

Matt Doby

DATE
8-22-96

QA CHECK BY:

[Signature]

DATE

8/22/96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: _____

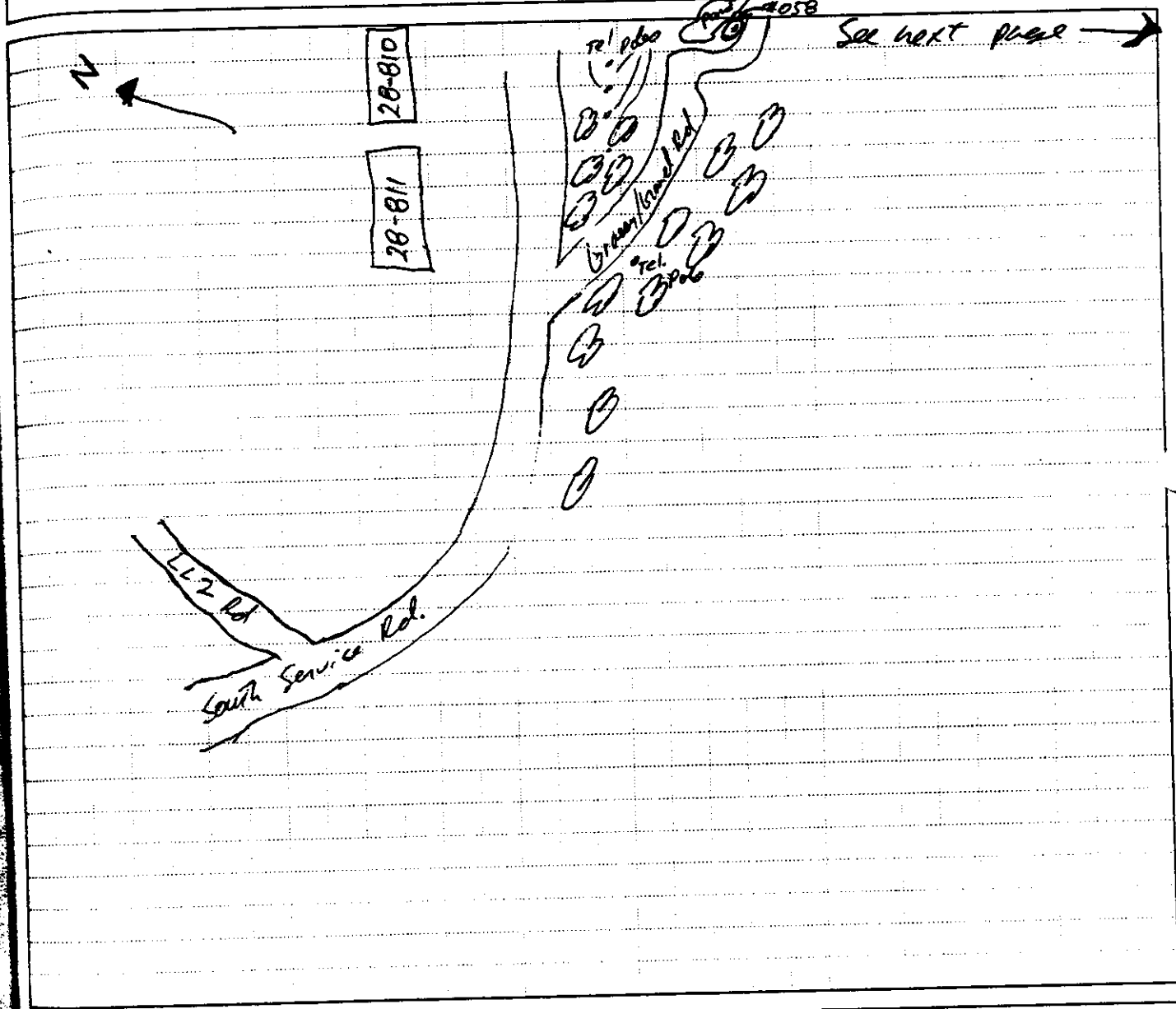
DATE COLLECTED (mm/dd/yy): _____

SAMPLE LOCATION: _____

TIME COLLECTED (hh:mm): _____

SAMPLING POINT: LL2wp-057

DEPTH: 7.3' TD Bottom of screen
6.3' TD



COMMENTS:

RECORDED BY: Matt Doley

DATE: 07/5/96

QA CHECK BY: [Signature]

DATE: 8/22/96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: _____

DATE COLLECTED (mm/dd/yy): _____

SAMPLE LOCATION: _____

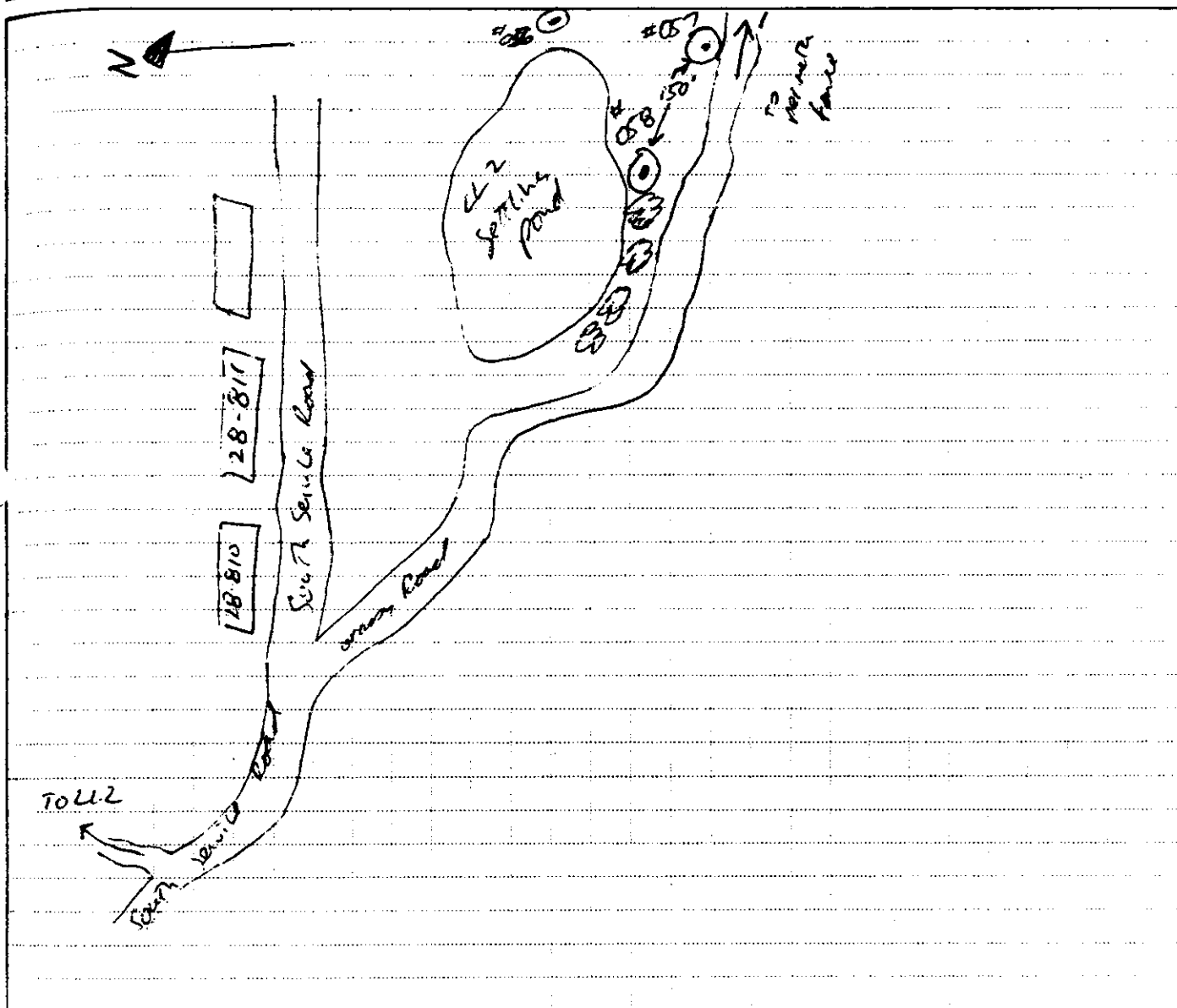
TIME COLLECTED (hh:mm): _____

SAMPLING POINT: _____

LL2 WP - 058

DEPTH: _____

10.7' TD Bottom of Screen 9.7'



COMMENTS:

RECORDED BY: *M. J. D. Dwyer*

DATE: 07/31/96

QA CHECK BY: *J. L. Dwyer*

DATE: 8/22/96

SAMPLE LOCATION MAPS AND SOIL BORING LOGS
Load Line 3

Soil Samples:

LL3-ss-001, 004, 006, 008
LL3-ss-002, 005, 007
LL3-ss-009, 011, 013, 027, 028
LL3-ss-012, 014, 010, 016, 015
LL3-ss-021, 020, 019, 018, 017
LL3-ss-022, 003
LL3-ss-023
LL3-ss-024, 025
LL3-ss-026
LL3-ss-029
LL3-ss-034, 033, 030, 032, 031
LL3-ss-036
LL3-ss-037
LL3-ss-038(b)
LL3-ss-039(b)
LL3-ss-040(b)
LL3-ss-043

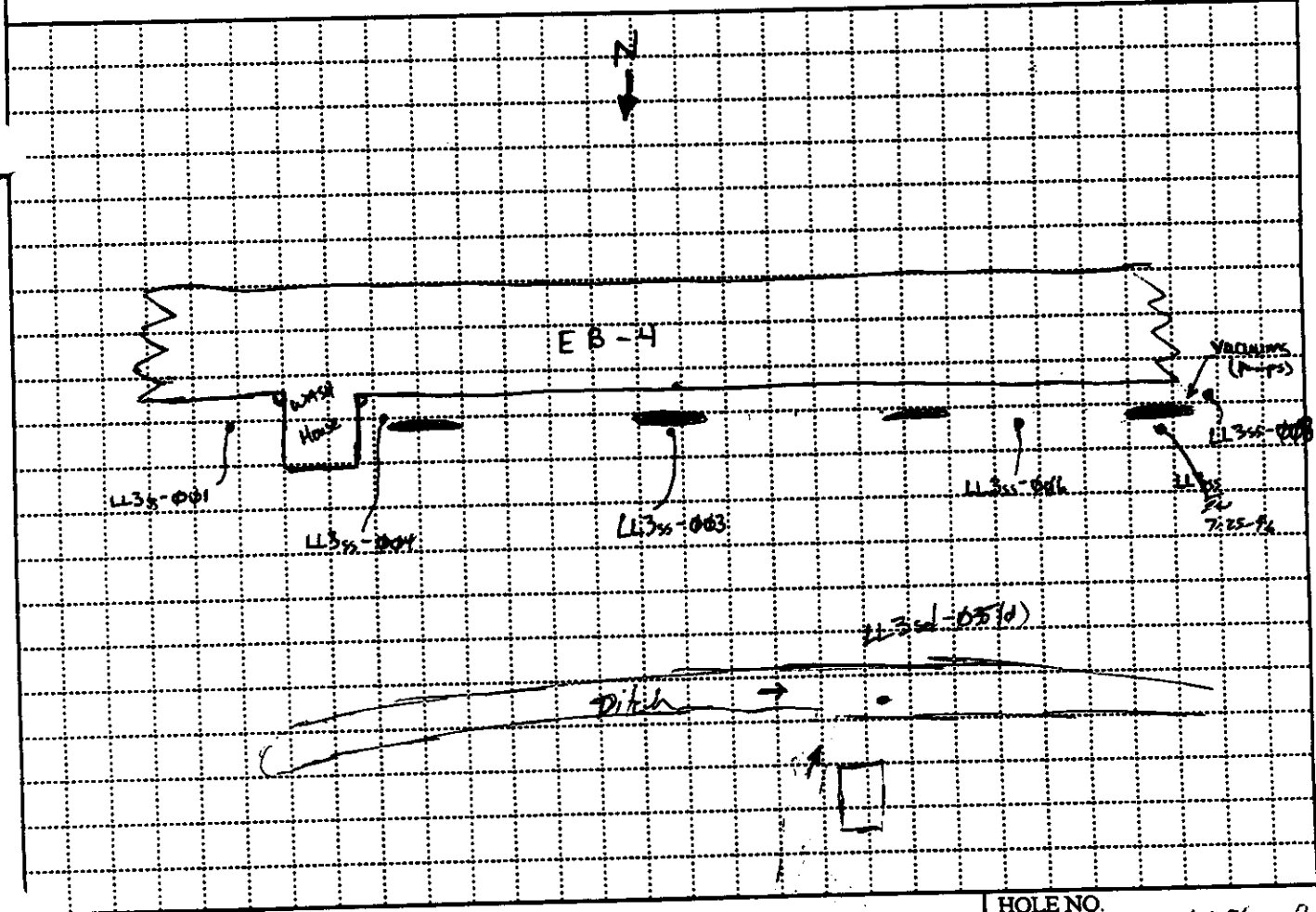
Drainage Sediment Samples:

LL3-sd-035(d), 042(d)
LL3-sd-046(d)
LL3-sd-050(d), 047(d), 048(d), 049(d)
LL3-sd-051(d), 052(d)
LL3-sd-053(d)

LOAD LINE 3
SOIL BORING LOGS
LOGBOOK #25

HTRW DRILLING LOG		DISTRICT <i>NASHUA</i>	HOLE NUMBER <i>LL 355-1, 4, 6, 8</i>
1 COMPANY NAME <i>SAIL</i>		2 DRILL SUBCONTRACTOR <i>NA</i>	SHEET SHEETS <i>1 OF 2</i>
PROJECT <i>RVAAP</i>		4 LOCATION <i>North Side of EB-4 LL3/RVAAP</i>	
5 NAME OF DRILLER <i>NA</i>		6 MANUFACTURERS DESIGNATION OF DRILL <i>Hand auger</i>	
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S.S. Hand auger</i>		8 HOLE LOCATION <i>SEE SKETCH BELOW</i>	
		9 SURFACE ELEVATION <i>NA</i>	
		10 DATE STARTED <i>7/25/96</i>	11 DATE COMPLETED <i>7/25/96</i>
12 OVERBURDEN THICKNESS <i>NA</i>		15 DEPTH GROUNDWATER ENCOUNTERED <i>No GW</i>	
13 DEPTH DRILLED INTO ROCK <i>NA</i>		16 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>	
14 TOTAL DEPTH OF HOLE <i>SEE Page 2 of 2</i>		17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>	
18 GEOTECHNICAL SAMPLES <i>NA</i>	DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>
20. SAMPLES FOR CHEMICAL ANALYSIS <i>SEE SAMPLE LOG</i>	VOC	METALS	OTHER (SPECIFY)
22. DISPOSITION OF HOLE <i>Abandoned</i>	BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Bedrock</i>
			21. TOTAL CORE RECOVERY % <i>NA</i>
LOCATION SKETCH/COMMENTS			23. SIGNATURE OF INSPECTOR <i>[Signature]</i>

SCALE: 1" = 25'



PROJECT <i>RVAAP</i>	HOLE NO. <i>LL355-001, 004, 006, 008</i>
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(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBERS
LL355-001, 002, 003, 004
SHEET 2 of 2

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0"	organic rich top soil				LL355-001
	12"	Tan silt w/ brick fragments				Re-sol at 12" logs
	0"	Tan silt w/ rock fragments very large				LL355-004
	10"					Re-sol at 10" logs
	0"	Tan silt w/ large rock fragments				LL355-006
	10"					Re-sol at 12" logs
	0"	Tan silt w/ large rock fragments				LL355-008
	10"					Re-sol at 12" logs
	12"					

Q_u
0.25 ft

PROJECT RVAAP

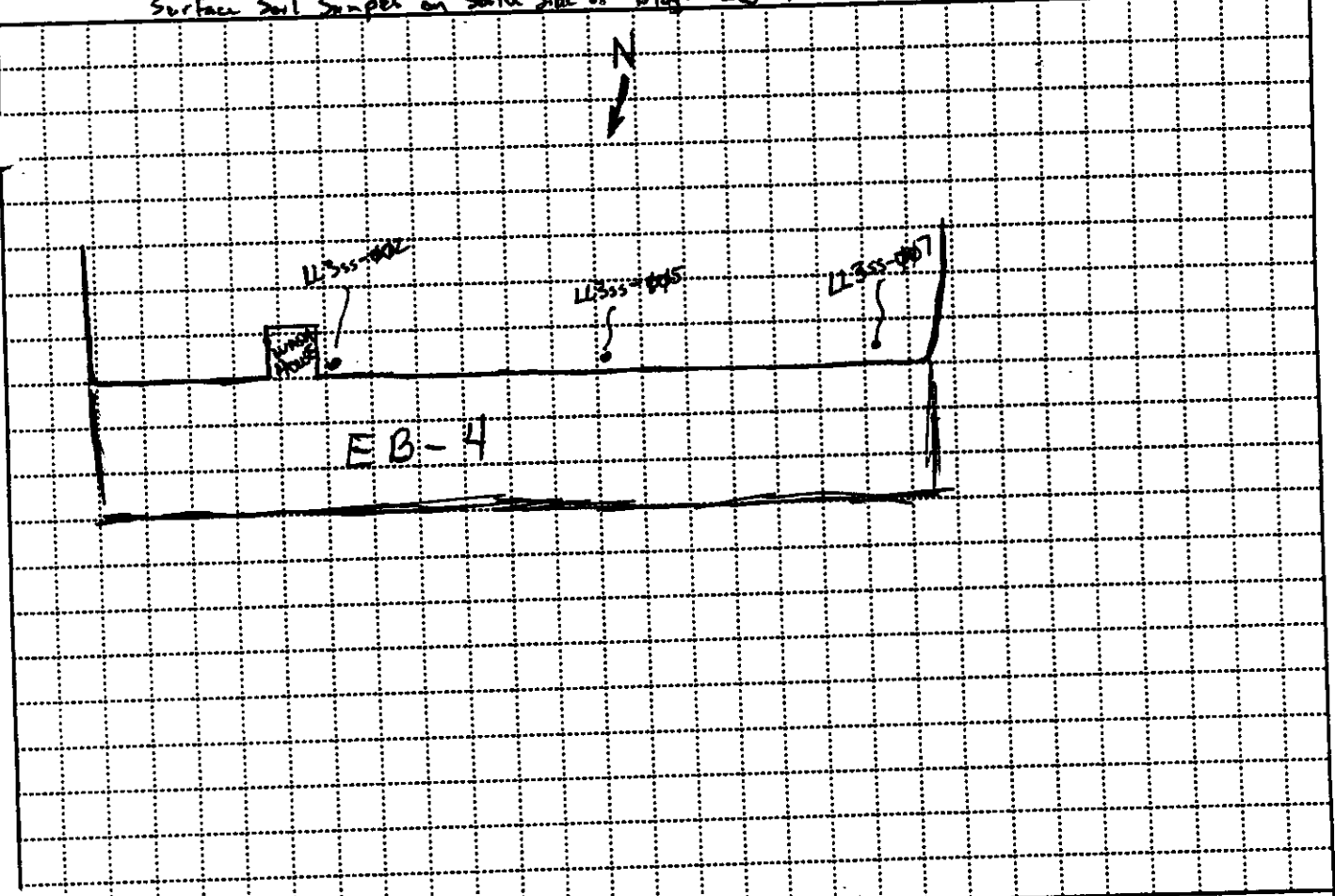
HOLE NO. LL355-001, 004, 006, 008

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL355-002, 005, 007	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION LL3/RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT Hand Auger (3" S.S.)		8. HOLE LOCATION SEE SKETCH BELOW			
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	
NA		NA		NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC		METALS	
SEE SANDS COC		NA		NA	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
		OTHER (SPECIFY) Bentonite		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
19. TOTAL NUMBER OF CORE BOXES NA			21. TOTAL CORE RECOVERY % NA		

LOCATION SKETCH/COMMENTS

Surface soil samples on South Side of Bldg. EB-4

SCALE: 1" = 10'



PROJECT RVAAP	HOLE NO. LL355-002, 005, 007
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HTRW DRILLING LOG

HOLE NUMBER'S
LL3ss-002, 005, 007
SHEET 2 of 2

PROJECT

RVAAP

INSPECTOR

K. Swann

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0"	dark brown coarse sand w/ pebbles				LL3ss - 002
	3"	light tan silt				Refusal at 6" bgs
	6"					
	0"	tan, clayey silt w/ rock fragments				LL3ss - 005
	6"	dark brown silty clay				Refusal at 9" bgs
	9"	dark brown silty clay int				
	0"	light, tan clayey silt w/ fragments of pink shale				LL3ss - 007
	6"	SAA				Refusal at 7" bgs
	7"					

PROJECT RVAAP

HOLE NO. LL3SS-002, 005, 007

40

ETRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL355-009, 011, 013, 027, 028
1. COMPANY NAME SAIC	2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2

PROJECT RVAAP		4. LOCATION Bldg. EB-4A		LL3/RVAAP
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER.		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT Hand Auger (3"SS)		8. HOLE LOCATION SEE SKETCH BELOW		
		9. SURFACE ELEVATION NA		
		10. DATE STARTED 7/24/96	11. DATE COMPLETED 7/27/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE LOG	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bestonite	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>
21. TOTAL CORE RECOVERY % NA				

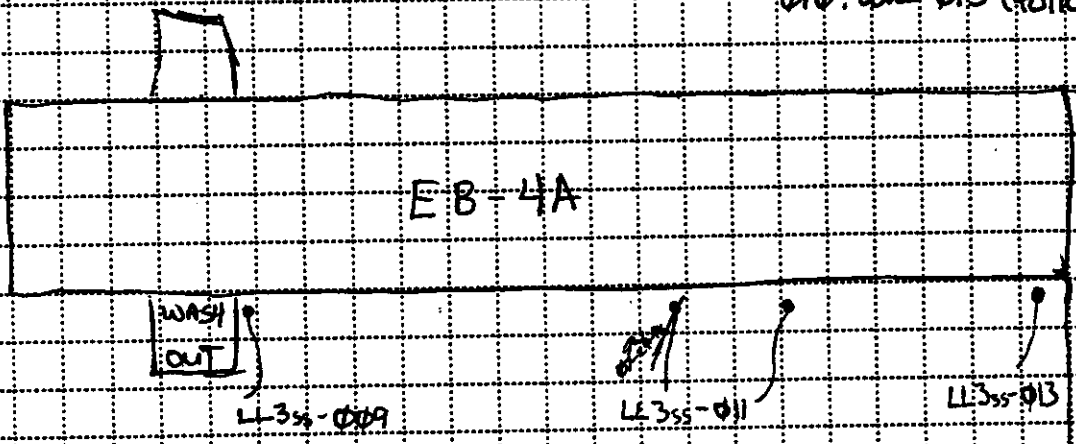
LOCATION SKETCH/COMMENTS

SCALE: 1" = 50'

LL355-009, 011, 013



LL355-027 and 028:
locations are shown on
map of LL355-012, 014, 010,
016, and 015 (following)



PROJECT
RVAAP

HOLE NO. **LL355-009, 011, 013, 027, 028**

HTRW DRILLING LOG

HOLE NUMBER S
LL355-009, 011, 013, 027, 028
SHEET 2 of 2

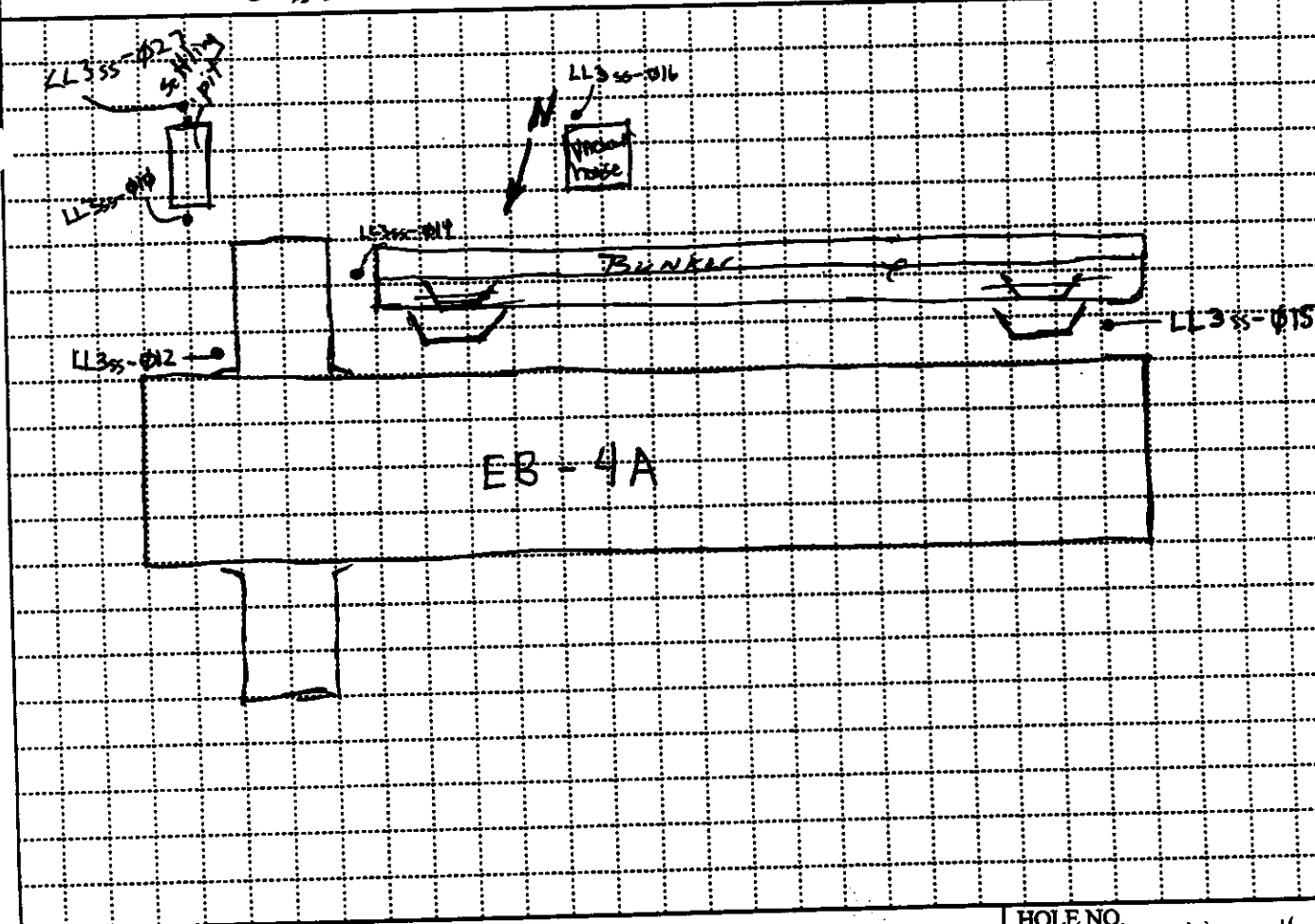
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0"	yellow-tan silt w/ abundant rock fragments				LL355-009 ↓ Retired at 8" bgs
	6"	SAA				
	8"					
	0"	yellow-tan silt w/ abundant rock fragments				LL355-011 ↓ Retired at 9" bgs
	9"					
	0"	tan, silty clay mottled w/ gray clay and abundant rock fragments				LL355-013 ↓
	6"	SAA w/ cobbles				
	12"	SAA w/ iron staining				Retired at 20" bgs
	20"					
	0"	Tan clayey silt with abundant rock frags				LL355-027 see previous rep
	16"					
	15"	Retired @ 18 inches				
	0"	Dark tan clayey silt-organic rich				LL355-028 see previous rep
	5"	Tan clayey silt				
	16"					

PROJECT RUAAP

HOLE NO. LL355-009, 011, 013, 027, 028.

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL355-12, 14, 15, 16, 15	
1. COMPANY NAME Saic		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2	
PROJECT RVAAP			4. LOCATION EB-4A LL3/RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW			
9. SURFACE ELEVATION NA					
10. DATE STARTED 7/24/96			11. DATE COMPLETED 7/24/96		
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE SEE PAGE 2 OF 2			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE LOG		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	22. DISPOSITION OF HOLE Abandoned	
23. SIGNATURE OF INSPECTOR <i>[Signature]</i>		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	

LOCATION SKETCH/COMMENTS
 • LL355-028
 SCALE: 1" = 50'



PROJECT RVAAP	HOLE NO. LL355-12, 14, 15, 16, 15
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HTRW DRILLING LOG

HOLE NUMBER: LL355-12
DATE: 07-24-96
SHEET: 2 OF 2

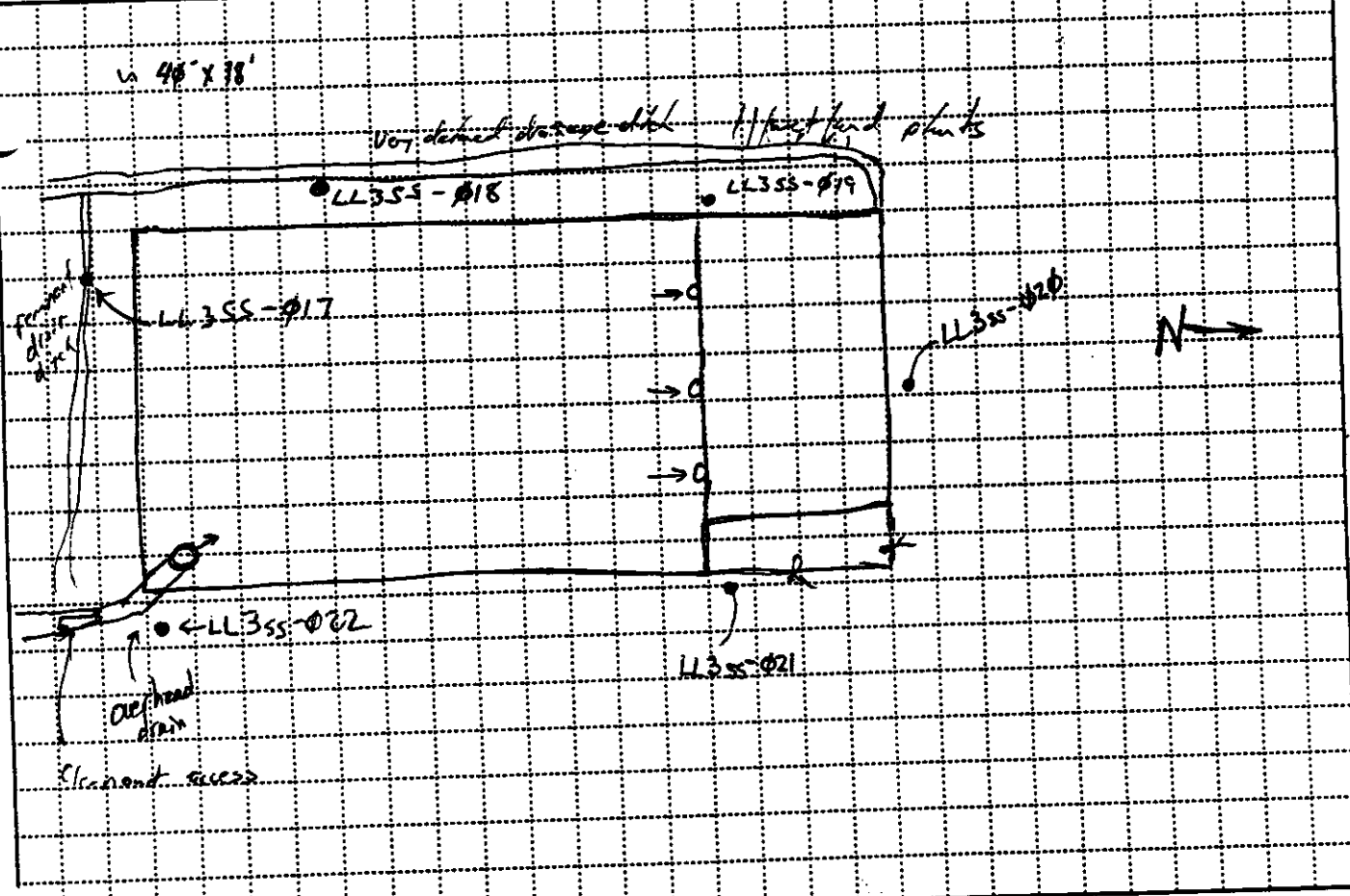
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0"	Φ-18"				LL355-Φ12
	6"	Fill, yellow brown clay w/ abundant rock fragments				↙
	12"					
	18"	Φ-8" tan silt w/ roots very loose				Refract at 18"
	24"					LL355-Φ14
	30"					Refract at 8"
	36"	Φ-4" organic rich top soil				LL355-Φ10
	42"	4"-19" tan silt				↙
	48"	8" assorted rock fragments, possibly silt				
	54"	8"-19" abundant iron staining w/ rock fragments				Refract at 19" bgs
	60"					
	66"	Φ-3" topsoil w/ abundant roots				LL355-Φ16
	72"	3"-8" tan clay w/ abundant rock fragment				↙
	78"	8"-24" tan silt				
	84"	Note: glassic soils from unknown interval				stop at 24" bgs
	90"					
	96"	Φ-8" mixture of tan and yellow-orange clay (heterogeneous) damp				LL355-Φ15
	102"	8-10" SAA				↙
	108"	10" Heavy iron staining				Refract at 10"
	114"					
	120"					

07-24-96

PROJECT RVAAP

HOLE NO. LL355-12, 14, 10, 16 & 15

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL355-21, 20, 19, 18, 17	
1. COMPANY NAME SATC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2
3. SUBJECT RVAAP		4. LOCATION LL3/RVAAP/ Large settling tanks		
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS. hand auger		8. HOLE LOCATION SEE SKETCH BELOW		
		9. SURFACE ELEVATION NA		
		10. DATE STARTED 7/25/96		11. DATE COMPLETED 7/25/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE SEE Page 2 of 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		
VOC NA		METALS NA		OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		22. DISPOSITION OF HOLE		
BACKFILLED Abandoned		MONITORING WELL NA		OTHER (SPECIFY) Diamond
23. SIGNATURE OF INSPECTOR <i>[Signature]</i>		SCALE: 1" = 10'		
LOCATION SKETCH/COMMENTS Settling tanks north of EB-4				



PROJECT RVAAP	HOLE NO. LL355-21, 20, 19, 18, 17
ENG FORM 5056-R, AUG 94	

HTRW DRILLING LOG

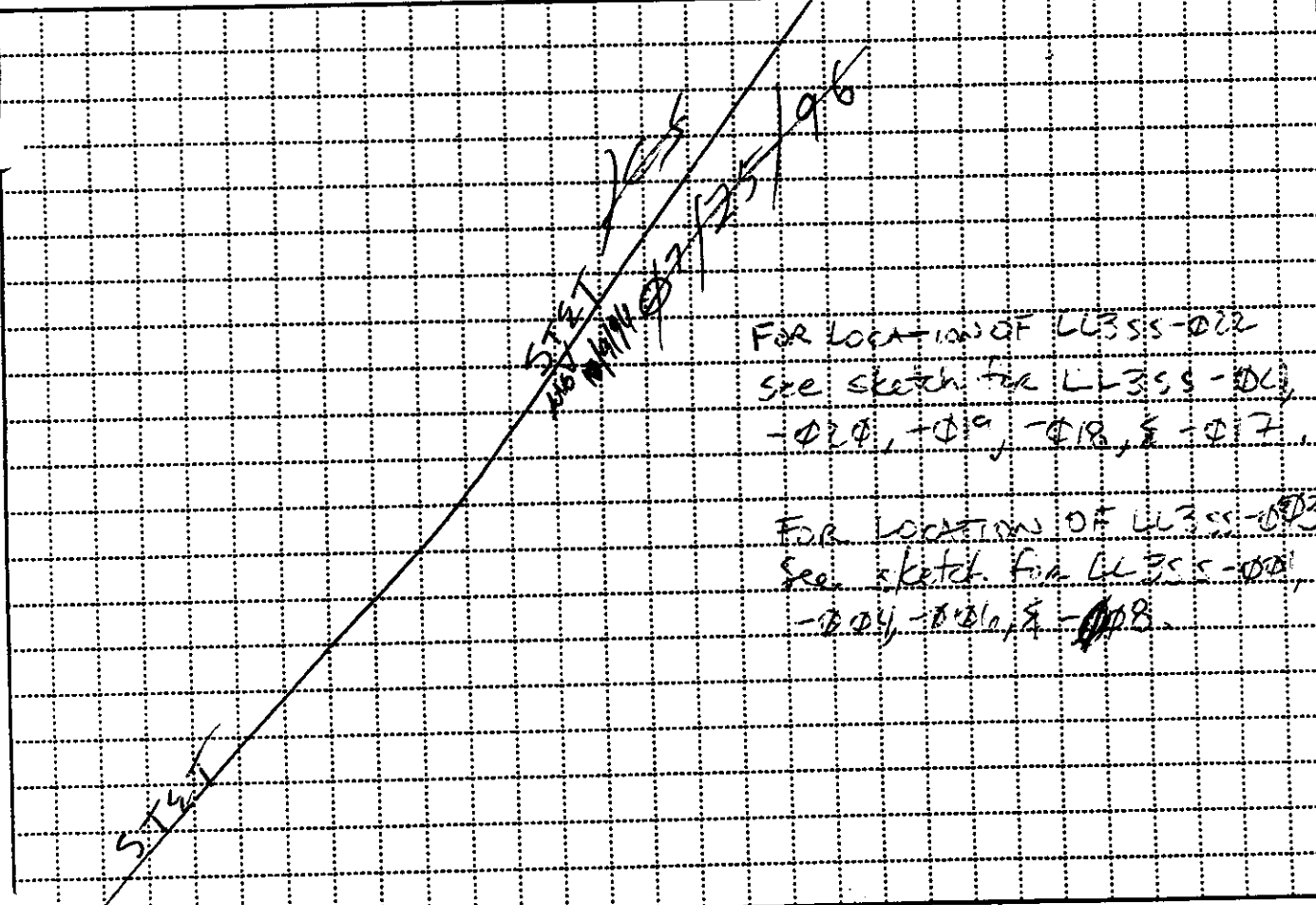
HOLE NUMBER: LL355-20, 19, 18, 17
SHEET: 2 of 2

PROJECT	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
RVAAP					
ELEV (A)	DEPTH (B)				
	0"	Aggregate fill w/ tan-brown silt			LL355-021 ↓ Refract @ 5" bgs
	5"				
	0"	gravel (parking area)			LL355-020 ↓
	4"	Tan silt w/ large rock fragments			Refract @ 14" bgs
	10"				
	15"				LL355-019
	0"	Tan silt w/ large aggregates stone and riprap along ditch			Refract @ 4" bgs
	5"				
	0"	wet Tan silt with rock frags			LL355-018
	0"				
	0"	organic-rich topsoil dark grey			LL355-017
	10"	Tan grey silt w/ Fe staining			
	20"				Refract @ 22 m bgs

PROJECT RVAAP

HOLE NO. 355-21, 20, 19, 18, 17

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL355-022 & 003	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP		4. LOCATION LL3/RVAAP			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 7 1/2" S. hand auger.		8. HOLE LOCATION See details for sketch of below			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/25/94		11. DATE COMPLETED 7/26/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE SEE PAGE 2 OF 2		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA					
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC		METALS	
SEE SAMPLE CDC ←		NA		NA	
21. TOTAL CORE RECOVERY NA		OTHER (SPECIFY)		OTHER (SPECIFY)	
22. DISPOSITION OF HOLE ABANDONED		BACKFILLED NA		MONITORING WELL NA	
		OTHER (SPECIFY) BENTONITE		23. SIGNATURE OF INSPECTOR <i>Paul J. W...</i>	
LOCATION SKETCH/COMMENTS FOR LL355-022 see LL355-021, 020, 019, 018, 017 SKETCH. FOR LL355-003 see LL355-1, 4, 6, 28. SCALE: N/A					



PROJECT RVAAP	HOLE NO. LL355-022 & 003
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HTRW DRILLING LOG

HOLE NUMBER
LL355-022 & 023

PROJECT
RVAAP

INSPECTOR
K. Swain

SHEET
2 of 2

ELEV. (A)	DEPTH (B) (feet)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0					LL355-022
	3	Gravel fill with subgrade tan gray silt				Refusal @ 5 inches on large rock frags
	6	Transition to tan silt w/ large rock fragments				LL355-023 Refusal at 6" logs
	10					

92
07-26-96

PROJECT
RVAAP

HOLE NO.
LL355 022 & 023