

APPENDIX D1
FUZE AND BOOSTER SOIL SAMPLING LOGS

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APPENDIX D1 SOIL SAMPLING LOG LOCATOR SHEET

Page Number	Site Number
5	57
8	58
11	52
14	54
17	56
20	43
23	58
26	39
29	59
32	51
35	49
38	36
41	34
44	35
47	33
50	28
53	44
56	32
59	29
62	30
65	31
68	26
71	25
74	21
77	22
80	20
83	24
86	49
89	27
92	23

Page Number	Site Number
95	19
98	17
101	16
104	10
107	14
110	1
113	2
116	8
119	13
122	15
125	11
128	17
131	18
134	9
137	5
140	3
143	4
146	6
149	12
152	55
155	53
158	50
161	47
164	48
170	37
173	46
176	41
179	45
182	60

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TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/01/03 Su M Tu W Th F Sa
Task Team Members:PAGE 1 OF 1Chantelle CarrollWilliam "Bill" DrolzbaughAndre Leon

Narrative (include time and location):

11:20 Arrive at sample location FBQ-Ø57Steve cleared site prior at Ø-1 level11:23 Start sampling FBQ₀-Ø57-Ø113-50for explosives and metals at the Ø-112:08 Steve clears 1-3 ft12:10 Start sampling FBQ₅₀-Ø57-Ø114-50for explosives & metals at the 1-312:29 Finished Sample Leaving for lunch~~RAB
120403~~

Daily Weather Conditions: A.M.

Sunny, Cool, 40-50°, (Breeze)

Recorded By

Chantelle Carroll

P.M.

QA Checked By

Andre Leon

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FBQ-057
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a			SHEET L OF 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER:		6. MANUFACTURER'S DESIGNATION OF DRILL n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION FBQ-057			
		9. SURFACE ELEVATION: n/a			
		10. DATE STARTED: 10-1-03		11. DATE COMPLETED: 10-1-03	
12. OVERBURDEN THICKNESS		13. DEPTH GROUNDWATER ENCOUNTERED:			
13. DEPTH DRILLED INTO ROCK		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a			
14. TOTAL DEPTH OF HOLE 3.0 ft		15. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a			
16. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	17. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See active log</i>		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE n/a		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <i>C. Canall</i>
24. LOCATION SKETCH/COMMENTS					
SCALE: <i>not to scale</i>					

HTRW DRILLING LOG

HOLE NUMBER: FBG-057

4

PROJECT: Fuze & Booster/RVAAP		INSPECTOR C. Carroll			SHEET 1 OF 1	
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE DR. CORE BOX	ANALYTICAL SAMPLE NO. (if)	REMARKS (if)
2'	2'	Topsoil - orange dark olive brown		N/A	FBG-057- 0113-50	
5'	5'	Yellowish brown, silty sand, some gravel, moist, soft, loose fragile				
1'	6'	yellow-orange brown, silty clay sand, moist, soft, low to medium brittleness, some gravel, subangular			FBG-057- 0114-50	
2'	7'					
3'	8'	Color Grade Bright Orange silty sand moist soft subangular pebbles				
4'	9'					
5'	10'					
6'	11'					
7'	12'					
8'	13'					
9'	14'					
10'	15'					

120 ft 803

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

13

Date (mm/dd/yy): 12/11/03 Su M Tu W Th F Sa PAGE / OF 1
 Task Team Members:

Charlotte CarrollSteve KingAndre LeonBill Drotbough

Narrative (include time and location):

AT 1600 Arrive Sample Location FBO-#58

Steve cleared site prior to, 1 foot level and
10/1 Start sampling FBO-#58-#113-30

for explosives / metals

16:32 Have refusal in center hole -

off-set approx. 7" to the west

2nd, 3rd refusal tries → stop @ 8"

have to use the NW corner Explosives sample
hole to proceed to the 1-3 interval

Start sampling the 1-3 interval after clearance

unable to sample below the 1-foot interval

16:48 Stop sampling due to refusal at the 1-foot
interval. Go to next sample.

CCB
12/11/03

Daily Weather Conditions: A.M.

PM. Overcast, rain, winds, sun later

Recorded By

Charlotte Carroll

QA Checked By

Landis

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FBQ-058
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: n/a			SHEET 6 of 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: Andre Leon		6. MANUFACTURERS DESIGNATION OF DRILL: n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: SS spoon/bowl SS 3 1/2" bucket auger		8. HOLE LOCATION: FBQ-058			
		9. SURFACE ELEVATION: n/a			
		10. DATE STARTED: 10-1-03			11. DATE COMPLETED: 10-1-03
12. OVERBURDEN THICKNESS: n/a		15. DEPTH GROUNDWATER ENCOUNTERED: n/a			
13. DEPTH DRILLED INTO ROCK: n/a		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a			
14. TOTAL DEPTH OF HOLE: 1.1" - refusal due to rock		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a			
18. GEOTECHNICAL SAMPLES	DISTURBED		UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: n/a	
20. SAMPLES FOR CHEMICAL ANALYSIS: See act. log	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE: n/a	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: C. Canale	
LOCATION SKETCH/COMMENTS			SCALE: Not to Scale A North		

HTRW DRILLING LOG

PROJECT: Fuze & Booster/RVAAP

INSPECTOR

C. Cannell

HOLE NUMBER: FBQ-058

16

ELEV. (A) Feet	DEPTH (B) Feet	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE IN CORE BOX	ANALYTICAL SAMPLE NO. (D)	REMARKS (E)
		Top dry gravels - dark olive brown	Ø 0.0 mm	N/A	FBQ-058 - Ø 15.50	Refused rock due to on 3 holes on top 10' 0" = approx 8" - 16" = Coarser refusal > offcut - refusal > Stop at 8"
6	6	yellowish brownish, silty-sand, moist, firm, coarse grain				
1	1	1.1" - then refusal		N/A	FBQ-058 - Ø 116.50	Go to NW corner dig down 13 in that hole refusal unable to sample due to refusal
2	2					
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100	100					

TASK TEAM ACTIVITY LOG SHEET

17

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER. 0012

Date (mm/dd/yy): 10/02/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Charlette CarrollSteve KingAndre LeonBill Driskbaugh

Narrative (include time and location):

10:29 Arrived Sample Location FBQ-052Steve cleaned site prior to testing FBQ-05210:30 Started Sampling FBQ-052-0103 so.
for Explosives and Metals10:35 Have Refusal on North Sample Hole & East Hole
& West Hole ϕ - 6"

Go To Center Hole / Refusal Due To Rock/Sand at 8"

11:35 Due To Refusal in all 3 holes and center prior to
1' interval Stop work and wait for EPA Guidance* 11:36 Pack up and return to BL, Get guidance
to fully document all holes if refusal
is determined by the shallow bedrock
by EPA. All efforts must be made before
refusal is determined on a hole.RFB12/07/03Daily Weather Conditions: A.M. 10:28 Sunny Windy Cold 45°

P.M. _____

Recorded By W.D. DriskbaughQA Checked By RFBCharlette Carroll

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FBQ-052
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR			SHEET 1 of 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: Andre Leon		6. MANUFACTURER'S DESIGNATION OF DRILL			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: SS Spown Auger Dowd		8. HOLE LOCATION: FBQ-052			
		9. SURFACE ELEVATION:			
		10. DATE STARTED: 10/02/13			11. DATE COMPLETED: 10/02/13
12. OVERBURDEN THICKNESS: n/a		13. DEPTH GROUNDWATER ENCOUNTERED:			
13. DEPTH DRILLED INTO ROCK: n/a		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a			
14. TOTAL DEPTH OF HOLE: 8" Due To Refugl		15. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a			
16. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	17. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS: See act. log		VOC	METALS	OTHER (SPECIFY):	OTHER (SPECIFY):
22. DISPOSITION OF HOLE: BACKFILLED		MONITORING WELL	OTHER (SPECIFY):	21. TOTAL CORE RECOVERY %	
23. SIGNATURE OF INSPECTOR: [Signature]					
LOCATION SKETCH/COMMENTS: SCALE: Not To Scale					
<p>The sketch shows a rectangular area labeled "Road" at the top. Below it is a large irregular shape labeled "Pond". A point on the bottom edge of the pond is marked with a vertical arrow pointing upwards and labeled "100'". From this same point, a horizontal line extends to the right and is labeled "X FBQ-052". A horizontal arrow points from this line towards the right, labeled "North".</p>					

HTRW DRILLING LOG

HOLE NUMBER: FBQ-052
20

PROJECT: Fuze & Booster/RVA AP

INSPECTOR W. Drolbough

SHEET 1 OF 1

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (D)	REMARKS (E)
	6"	Top Organics Dark olive Brown	0.0ppm	N/A	FBQ-052 \$103.50	10% oil rots Sandstone rock AT Refusal Due To Rock Faded AT 8"

TASK TEAM ACTIVITY LOG SHEET

21

PROJECT NAME: Phase VII Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/02/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Charlene CampbellAndre LeonBill DolsburghLeB
10/02/03

Narrative (include time and location):

13:45 Steve K. cleaned site prior to testing FBQ.05413:46 STARTED Sampling FBQ.054 .6108 so

for Explosives and Metals AT 0'-1' INTERVAL

14:20 START Sampling FBQ.054 .6108 so for Explosive Metal (1-3')14:30 Finish Sample Going To Next LocationLeB
10/02/03

Daily Weather Conditions: A.M.

(P.M.) 13:48 Sunny Scattered Clouds. Cold 45°Recorded By WA DolsburghQA Checked By LeB

HTRW DRILLING LOG

DISTRICT Louisville

HOLE NUMBER
FBG0154

23

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR:

N/A

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER:

6. MANUFACTURERS DESIGNATION OF DRILL: N/A

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENTSS /spiral bowl
SS bucket Auger

8. HOLE LOCATION:

FBG - Ø54

9. SURFACE ELEVATION: N/A

12. OVERBURDEN THICKNESS: N/A

10. DATE STARTED: 10/02/03

11. DATE COMPLETED: 10/02/03

13. DEPTH DRILLED INTO ROCK: N/A

15. DEPTH GROUNDWATER ENCOUNTERED:

14. TOTAL DEPTH OF HOLE: 3'

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A

18. GEOTECHNICAL SAMPLES

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES: N/A

20. SAMPLES FOR CHEMICAL ANALYSIS:

VOC

METALS

OTHER (SPECIFY)

OTHER (SPECIFY)

OTHER (SPECIFY)

21. TOTAL CORE
RECOVERY %

See M.L. Log

N/A

BACKFILLED

MONITORING WELL

OTHER (SPECIFY)

22. DISPOSITION OF HOLE:

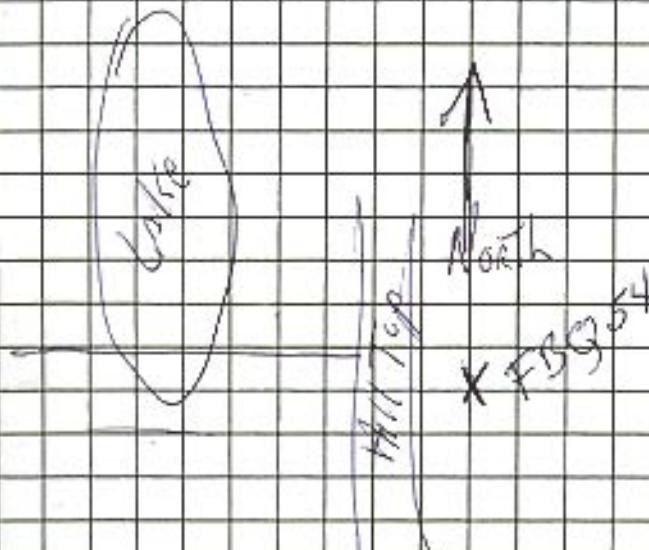
SIGNATURE OF INSPECTOR:

WA. S. Indayal

LOCATION SKETCH/COMMENTS

SCALE:

Not To Scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-054

24

PROJECT: Fuze & Booster/RVAAP

INSPECTOR: WA Dugay

SHEET / OF

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if)	REMARKS (G)
0	0	Organic medium Brown Silty Sand + little Clay	0.0 PPM	N/A	FBQ-054 .0107	Rooty
1	1	Light yellow Brown Silty Clay light yellow bright orange fine Mist like fiber. Fibrillated bright orange mottled tan clay Med-Plst. soft - damp sand clay			FBQ-054 .0108	More Rooty Less Roots
2	2	sample same to bottom of hole				
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

TASK TEAM ACTIVITY LOG SHEET

25

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/02/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Chantelle CarrollAndrea LeonBill Dolsbaugh

Narrative (include time and location):

14:45 Steve King Cleared Site prior to my FBQ. #5614:46 STARTED Sampling FBQ. #56 .0111 SO
for Explosives and Metals AT 0- 1' Interval15:20 STARTED Sampling FBQ. #56 .0112 SO
for Explosives + Metals - 1' 3" level15:35 Refusal AT 1' 4" AT the 1/03" Interval15:36 END of Test Moving To another Test Spot

Daily Weather Conditions: A.M.

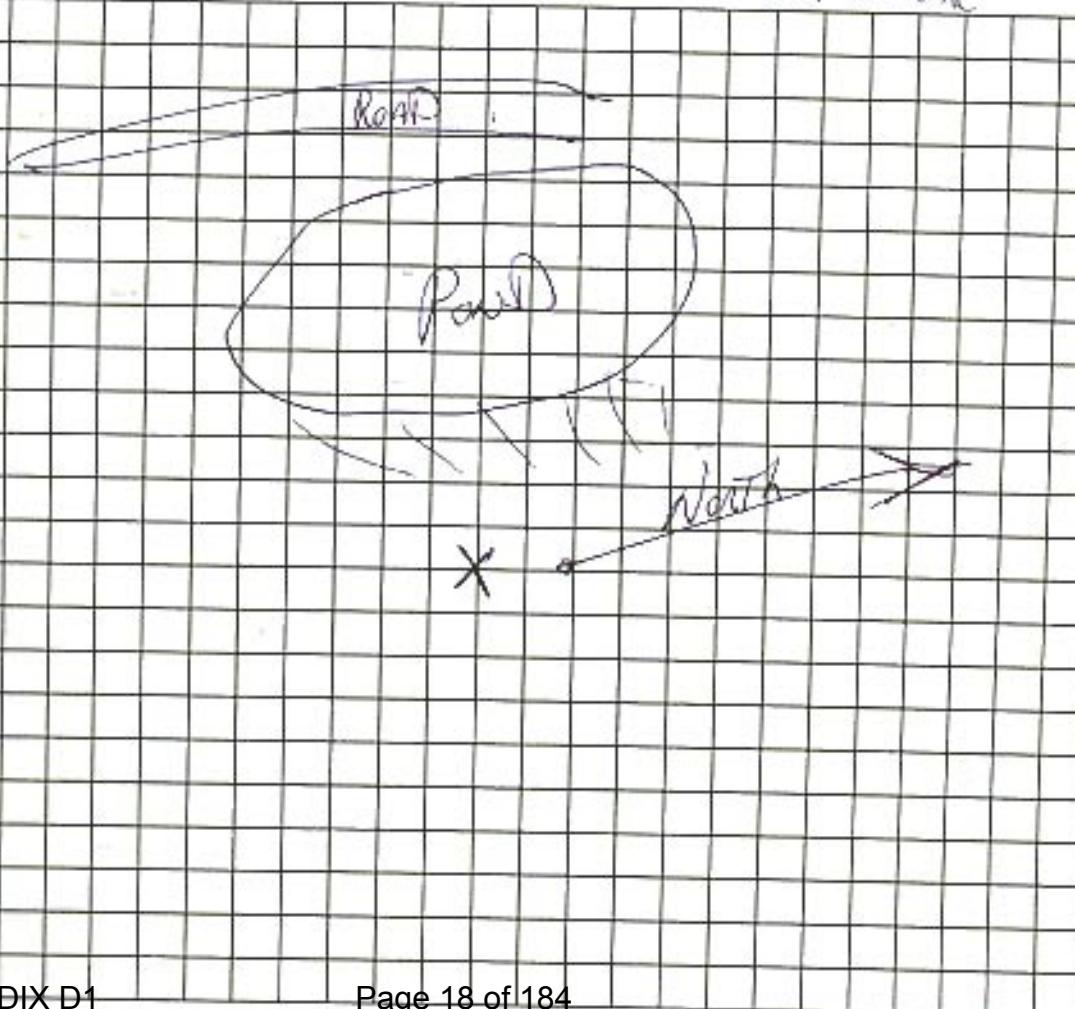
P.M. 14:45 Sunny Windy Cool 45°

Recorded By

WA Dolsbaugh

QA Checked By

BIG

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FBQ-056
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR <i>N/A</i>			SHEET 1 of 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER:		6. MANUFACTURER'S DESIGNATION OF DRILL <i>N/A</i>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION <i>FBQ-056</i>			
		9. SURFACE ELEVATION <i>N/A</i>			
		10. DATE STARTED <i>10/02/03</i>		11. DATE COMPLETED <i>10/02/03</i>	
12. OVERBURDEN THICKNESS <i>N/A</i>		13. DEPTH GROUNDWATER ENCOUNTERED:			
13. DEPTH DRILLED INTO ROCK <i>N/A</i>		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: <i>N/A</i>			
14. TOTAL DEPTH OF HOLE <i>1.4"</i>		15. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>N/A</i>			
16. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	17. TOTAL NUMBER OF CORE BOXES <i>N/A</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>SPP 4T, log</i>		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE		SACRIFICED <input checked="" type="checkbox"/>	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY % <i>N/A</i>
23. SIGNATURE OF INSPECTOR <i>NA, D. B. Lough</i>					
LOCATION SKETCH/COMMENTS  <p>SCALE: Not To Scale</p>					

HTRW DRILLING LOG

HOLE NUMBER: PBQ056 28

PROJECT: Fuze & Booster/RVAAP

INSPECTOR

SHEET 1 OF 1

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECHNIQUE SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (D)	REMARKS (E)
	2"	ORGANICS dark brown				
		Silty Clay w/ fine small pebbles Moist-soft red-brown plastic	0.0 ppm.	N/A	PBQ056 Ø.111 SO	Roots
	1'	Silty-Sand Clay (or Calc. Clay)				
1'40		Subangular Lg. pebbles do = Silty Sand Clay Color Change Moist/ - - - - -			PBQ056 Ø.112 SO	
						Reamed @ 1.0 Y"
	3'					
	4'					
	5'					
	6'					
	7'					
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	94'					
	95'					
	96'					
	97'					
	98'					
	99'					
	100'					

TASK TEAM ACTIVITY LOG SHEET

29

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/02/03 Su M Tu W Th F Sa PAGE / OF /
Task Team Members:

Andre Leon _____
 Chantelle Carroll _____
 Bill Dicksburgh _____

Narrative (include time and location):

16:09 Steve Cleaned Site FBQ - Ø43
 Prior To Testing
 16:10 Started Sampling FBQ Ø43 0085-50
 Total Explosives at Ø-1' interval
 Unable to get past 1' Refusal in all holes
 Digging A Composite of 5 Holes
 Deepest Hole is 6" Stop Sampling - unable to take
 Finish Going Back To Bld. 1-3 ft wide sample

16:50

Daily Weather Conditions: A.M.

(P.M.) Sunny Windy CoolRecorded By Bill Dicksburgh
Chantelle CarrollQA Checked By Lackney

HTRW DRILLING LOG		DISTRICT Louisville				HOLE NUMBER FBO-043
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR N/A				SHEET 1 of 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond				
5. NAME OF DRILLER:		6. MANUFACTURER'S DESIGNATION OF DRILL N/A				
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION FBO-043				
		9. SURFACE ELEVATION				
		10. DATE STARTED 10/22/03				11. DATE COMPLETED 10/22/03
12. OVERTBURDEN THICKNESS N/A		13. DEPTH DRILLED INTO ROCK N/A				15. DEPTH GROUNDWATER ENCOUNTERED:
						16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A
14. TOTAL DEPTH OF HOLE 6" Due To Rock Refusal		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) N/A				
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES N/A		
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See Activity Log</i>		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE <i>Backfilled</i>		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <i>N/A - D. M. Blough</i>	
LOCATION SKETCH/COMMENTS <p>SCALE: <i>NOT TO Scale</i></p>						

HTRW DRILLING LOG

HOLE NUMBER: FGQ048

32

PROJECT: Fuze & Booster/RVAAP		INSPECTOR			SHEET / OF	
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
6"	6"	Medium Brown mixed w/ Top Organics Silty Sand soft moist 40% Sub Anglesea Sandstone Pebbles	Exp PPrL	N/A	FB922-043 -0085-50	Holeic Field Tile Glass/Rock Charcoal/
1		Refusal AT unable to take	6" 1-3 sample			Rock
2						
3						
4						
5						
6						
7						
8						
9						
10						

TASK TEAM ACTIVITY LOG SHEET

33

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/03/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Charlotte CaneffBill DrobshoffSteve Kline

Narrative (include time and location):

9:20 Steve Cleared Site FBQ-038Prior to Testing9:25 Start sampling FBQ-038 - 007550 at the
0-1 interval for explosives, metals all 3 exp holes refra @ 8-9 inches10:00 After Steve clears the 1-3'10:02 Starting Sampling at the 1-3' interval for
explosives, metals (FBQ-038-007650)10:25 Refusal at 1.9 in Center hole (still take sample)10:37 Finished hole, go to next hole

Daily Weather Conditions: A.M. Partly Cloudy, to Partly cloudy, breezy, first PM

P.M.Recorded By Charlotte CaneffQA Checked By Jack Gandy

HTRW DRILLING LOG

DISTRICT Louisville

HOLE NUMBER
FBG-038

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: B. Brinkman

6. MANUFACTURER'S DESIGNATION OF DRILL:

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT:55 ftm / 52m
55 ft dia auger bucket

8. HOLE LOCATION:

FBG-038

12. OVERBURDEN THICKNESS:

n/a

15. DEPTH GROUNDWATER ENCOUNTERED:

~8"

13. DEPTH DRILLED INTO ROCK:

n/a

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:
~1 ft to water in center hole

14. TOTAL DEPTH OF HOLE:

109

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

n/a

18. GEOTECHNICAL SAMPLES

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES:

n/a

20. SAMPLES FOR CHEMICAL ANALYSIS:

VOC

METALS

OTHER (SPECIFY)

OTHER (SPECIFY)

OTHER (SPECIFY)

21. TOTAL CORE

See act 103

RECOVERY %

22. DISPOSITION OF HOLE:

BACKFILLED

MONITORING WELL

OTHER (SPECIFY)

23. SIGNATURE OF INSPECTOR:

C. Lewis

LOCATION SKETCH/COMMENTS

SCALE:

10' to scale

FBG-038
FBG-043
109
108
R5m
R5m

HTRW DRILLING LOG

PROJECT: Faze & Booster/RVAAP

INSPECTOR C. Canell

HOLE NUMBER: FBG-188

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BYC	ANALYTICAL SAMPLE NO. +FI	REMARKS G)
		Organics, top 1/2 inch red/orange-brick color 1/2" sand/cobbles to gravel Size 6, hard; (E6070) gravel	0.0 ppm	n/a	FBG-188 0015-50	lots roots exp holes - 8", hit water 7' water rock 10' Water rock
		Color changes to grayish-brown gravel Size 10mm gravel				
1.9	1.9	+14cc	0.0 ppm	n/a	FBD-058 0076-50	Water in center. soil ~1.1"

Re refusal in center 1.9

10
9
8
7
6
5
4
3
2
1

10
9
8
7
6
5
4
3
2
1

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10-2-03 Su M Tu W Th F Sa Task Team Members: PAGE 1 OF 1

Bill Drolshagen

Chantelle Carroll

LBB

12/24/03

Narrative (include time and location):

10:29 Arrived at location FBD - 039

Steve cleared site prior to arrival

10:31 Start sampling FBD 039-0077-50 for explosives & metals at the 0-1 interval
Refusal in Center hole at 9H -

All explosive holes have refusal below 4-8"
water holes also

10:59 Top sample go to next location

LBB
12/24/03

Daily Weather Conditions: A.M. P. cloudy, breezy, 40's

P.M.

Recorded By C Carroll

QA Checked By LBB

HTRW DRILLING LOG		DISTRICT Louisville				HOLE NUMBER FBQ-639		
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a				SHEET 66		
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond						
5. NAME OF DRILLER: B. Drostbaugh		6. MANUFACTURER'S DESIGNATION OF DRILL n/a						
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS 3 1/2 dia auger bucket		8. HOLE LOCATION FBQ-039						
		9. SURFACE ELEVATION n/a						
10. DATE STARTED 06-3-03		11. DATE COMPLETED 08-3-03						
12. OVERBURDEN THICKNESS n/a		13. DEPTH GROUNDWATER ENCOUNTERED 8'						
14. DEPTH DRILLED INTO ROCK n/a		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED n/a						
16. TOTAL DEPTH OF HOLE 9' ^{analog} refusal		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) n/a						
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED		19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS See act log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY	%
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR C. Canall			
LOCATION SKETCH/COMMENTS					SCALE:			
<p>location on map on page 36 in the Son Log 11</p>								

HTRW DRILLING LOG

PROJECT: Fuze & Boester RVAAP

INSPECTOR C. Donall

HOLE NUMBER: FBD-085

SHEET 1 OF

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GHOSTCH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (#)	REMARKS (if)
		Topsoil to approx 1", brittle reddish brown, silty sand/gravel ± 40%, color changing around 9" to a brown stain - red, etc	N/A	AST-0077 50		explosives hole refusal @ 8" due to rock - roots = stems @ 4" rock refusal @ 9" rock refusal Soil in hole 12"

9

Refusal in Center hole
at 9"

Roots

TASK TEAM ACTIVITY LOG SHEET

41

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/06/03 Su Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Bill DicksbaughAndree LeonRonda Bailey

Narrative (include time and location).

10:03 Arrived AT Location FBQ-Ø59Steve cleane) STC p.m To arrived10:05 STARTED sampling, FBQ-Ø59-Ø117-SOfor Explosives + Metal AT the Ø-1 intervalReturn AT 1'10/06/03
WAD11:00 Ø-111:11 STARTED Sampling AT the 1-3 interval for
Explosive Metals FBQ Ø59 Ø118 SO11:15 Return AT Center Hole AT 1"6" Still Taking ^{Total} Exp. Sample11:36 Finished Hole and SamplingA.G.
L.S.P.Daily Weather Conditions A.M. Sunny 52°P.M.Recorded By WA Dicksbaugh QA Checked By Amy Flanagan

HTRW DRILLING LOG		DISTRICT Louisville		HOLE NUMBER FBQ-059	
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR <i>N/A</i>		SHEET 1 of 1	
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: <i>Fisher (P)</i>		6. MANUFACTURER'S DESIGNATION OF DRILL <i>N/A</i>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>55 Spool/Boil 55 3/8" Bar Auger Bucket</i>		8. HOLE LOCATION FBQ-059			
		9. SURFACE ELEVATION <i>N/A</i>			
		10. DATE STARTED <i>10/06/03</i>		11. DATE COMPLETED <i>10/06/03</i>	
12. OVERBURDEN THICKNESS <i>N/A</i>		13. DEPTH DRILLED INTO ROCK <i>N/A</i>			
		14. TOTAL DEPTH OF HOLE <i>1.10</i>			
15. DEPTH GROUNDWATER ENCOUNTERED		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: <i>N/A</i>			
		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): <i>N/A</i>			
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See Activity Log</i>		VOC	METALS	OTHER (SPECIFY)	
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
23. SIGNATURE OF DRILLER <i>WA. D. Dillinger</i>					
LOCATION SKETCH/COMMENTS					SCALE: <i>NCT</i>
<p>A hand-drawn sketch on a grid background. It shows a large irregular shape labeled "Scatt Pond". A circle is drawn inside it. To the right of the pond, there is a point marked with a cross and labeled "FBQ-059". A line extends from this point towards the top right corner of the grid. The sketch is done in black ink on white paper.</p>					

HTRW DRILLING LOG

PROJECT: Fune & Booster RVAAP

INSPECTOR: B. Drobobanov

SC

HOLE NUMBER: FBQ059 44

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if applicable)	REMARKS
6'	6"	olive Brown Clay/Silt Tense Sand Trace Gravel Fine-Medium Gravel	P.D. = Ø	NA	Ø59411730	Side Slope of Southern Pav/Town Side Light Holes
12'	12"	Change AT 6" Light yellowish Brown Firm, Most Blackish Clay Same A/A @ 1'6" zone Red Soil			TBD 22-451 Ø118-50	West end hole AT 8" (Caved) In Due To Rodent Hole
18'	18"	Fine				Refusal at 1'6"
24'	24"					Center Hole for Explosives Fine To Medium Gravel Some Gravel/Fine To Coarse
30'	30"					
36'	36"					
42'	42"					
48'	48"					
54'	54"					
60'	60"					
66'	66"					
72'	72"					
78'	78"					
84'	84"					
90'	90"					
96'	96"					
102'	102"					

TASK TEAM ACTIVITY LOG SHEET

45

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/06/03 Su Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Ronda BaileyAndrea LowBill Dabbsburgh

Narrative (include time and location):

12:00 Arrived AT Location FBQ-051Steve K. cleaned site prior To Arrival12:05 START Sampling FBQ-051-0101 SO.AT The 0'-level for Explosives & Metal Samples12:17 Return AT West Hole 1 ft. - East Hole 8"Samples Taken12:45 Started Sampling FBQ-051-0102 SO.AT the 1-3' level for Explosives & Metal Samples1:30 Sampled A Full SuiteReturned To U.S.12-10
ceDaily Weather Conditions A.M. Scattered Clouds Sunny 58° Light WindP.M.Recorded By WA DabbsburghQA Checked By Clark O'Cardell

HTRW DRILLING LOG		DISTRICT Louisville		HOLE NUMBER FBG.051			
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR <i>N/A</i>		SHEET 1 OF 1			
3. PROJECT: Fuze & Booster/RVAAP			4. LOCATION: Fuze & Booster Quarry Landfill/Pond				
5. NAME OF DRILLER: <i>Fabrice LeClerc</i>			6. MANUFACTURER'S DESIGNATION OF DRILL: <i>N/A</i>				
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: <i>SS Bowl</i>		8. HOLE LOCATION: <i>FBG.051</i>					
<i>SS# Specia + Bucket</i>		9. SURFACE ELEVATION: <i>N/A</i>					
10. DATE STARTED: <i>10/22/03</i>			11. DATE COMPLETED: <i>10/22/03</i>				
12. OVERBURDEN THICKNESS: <i>N/A</i>			13. DEPTH GROUNDWATER ENCOUNTERED:				
14. DEPTH DRILLED INTO ROCK: <i>N/A</i>			15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: <i>N/A</i>				
16. TOTAL DEPTH OF HOLE: <i>30 ft</i>			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): <i>N/A</i>				
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS: <i>JAR Activity Log</i>		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE:		<i>BACKFILLED</i>	<i>MONITORING WELL</i>	OTHER (SPECIFY)	23. SIGNATURE OF DRILLER: <i>M. J. Dusharh</i>		
LOCATION SKETCH/COMMENTS					SCALE: <i>Not To Scale</i>		

HTRW DRILLING LOG

PROJECT: Fuz & Booster RVAAP

INSPECTOR

HOLE NUMBER:

FBG.051

SHEET 1 OF 1

48

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (#)	REMARKS (GI)
		LIGHT olive Brown Clay Silt Trace/Gravel Fine/Tan Sand Moist-loose	AD-Q	N/A	FBG.051 Φ1Φ1. 50	Small Trees on upper terrane light Wind
1'	1'	Change of Color Light Yellowish Brown Clay Silt Some Sand	SA/A			
1'6"	2'	Light Yellowish Brown Hotted Orange Silty Clay Trace Gravel Tan sand (Medium) Dry Plastic @ 1.6"	SA/A	N/A		
2'	3'	Color Change to Light Grayish Brown by Hotted Orange SA/A @ 2'-3'			FBG.051 Φ1Φ2 50	
3'	4'	Light yellowish Brown Silty Sand Trace of Clay/Gravel Fine to Coarse Loose moist				
4'	5'					
5'	6'					
6'	7'					
7'	8'					
8'	9'					
9'	10'					
10'	11'					
11'	12'					
12'	13'					
13'	14'					
14'	15'					
15'	16'					
16'	17'					
17'	18'					
18'	19'					
19'	20'					
20'	21'					
21'	22'					
22'	23'					
23'	24'					
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25'	26'					
26'	27'					
27'	28'					
28'	29'					
29'	30'					
30'	31'					
31'	32'					
32'	33'					
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34'	35'					
35'	36'					
36'	37'					
37'	38'					
38'	39'					
39'	40'					
40'	41'					
41'	42'					
42'	43'					
43'	44'					
44'	45'					
45'	46'					
46'	47'					
47'	48'					
48'	49'					
49'	50'					
50'	51'					
51'	52'					
52'	53'					
53'	54'					
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56'	57'					
57'	58'					
58'	59'					
59'	60'					
60'	61'					
61'	62'					
62'	63'					
63'	64'					
64'	65'					
65'	66'					
66'	67'					
67'	68'					
68'	69'					
69'	70'					
70'	71'					
71'	72'					
72'	73'					
73'	74'					
74'	75'					
75'	76'					
76'	77'					
77'	78'					
78'	79'					
79'	80'					
80'	81'					
81'	82'					
82'	83'					
83'	84'					
84'	85'					
85'	86'					
86'	87'					
87'	88'					
88'	89'					
89'	90'					
90'	91'					
91'	92'					
92'	93'					
93'	94'					
94'	95'					
95'	96'					
96'	97'					
97'	98'					
98'	99'					
99'	100'					

TASK TEAM ACTIVITY LOG SHEET

49

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/24/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Andrea LeonSteve K.Bill DotschayhRonda Bailey

Narrative (include time and location):

- 1515 - Arrive @ FBQ p14. Begin sample take ~~143~~
Duplicate Sample. FA03-0400720 (metals/rocks) ~~SKB~~
- * 1600 - Begin center hole for metals sample in ch. ~~SKB~~
- * 1610 - Begin 1'-3', take duplicate ~~metals/rocks~~ ~~SKB~~ metals
(FA03-0400720)
- * 1630 - Leave site. ~~(FA03-0400720)~~ ~~SKB~~
(0-1' metals; explosives; 1-3' metals; explosives and duplc. sample taken)
- * 1620 - Site cleared by SK. @ 1'-3'. ~~SKB~~
not taken

10/24/03

Daily Weather Conditions: A.M.

P.M.

Sunny, H^o 50° F

Recorded By

Ronda Bailey

QA Checked By

Claudia Carroll

HTRW DRILLING LOG

DISTRICT Louisville

HOLE NUMBER

FBQ #49

sec. 1d

1. COMPANY NAME SpecPro, Inc.

2. DRILL SUBCONTRACTOR

Andres Leon

3. PROJECT Fuze & Booster/RVAAP

4. LOCATION Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER Andres Leon

6. MANUFACTURER'S DESIGNATION OF DRILL

n/a

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT

SS Spade

8. HOLE LOCATION

FBQ #49

SS Powl

3/2 SS Auger bucket

9. SURFACE ELEVATION

n/c

12. OVERBURDEN THICKNESS

N/A

10. DATE STARTED 16 Apr 93

11. DATE COMPLETED

16 Apr 93

13. DEPTH DRILLED INTO ROCK

N/A

15. DEPTH GROUNDWATER ENCOUNTERED

n/a

14. TOTAL DEPTH OF HOLE

3

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED

n/c

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

n/a

18. GEOTECHNICAL SAMPLES

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS

VOC

METALS

OTHER SPECIFY

OTHER SPECIFY

OTHER SPECIFY

21. TOTAL CORE
RECOVERY

22. DISPOSITION OF HOLE

BACKFILLED

MONITORING WELL

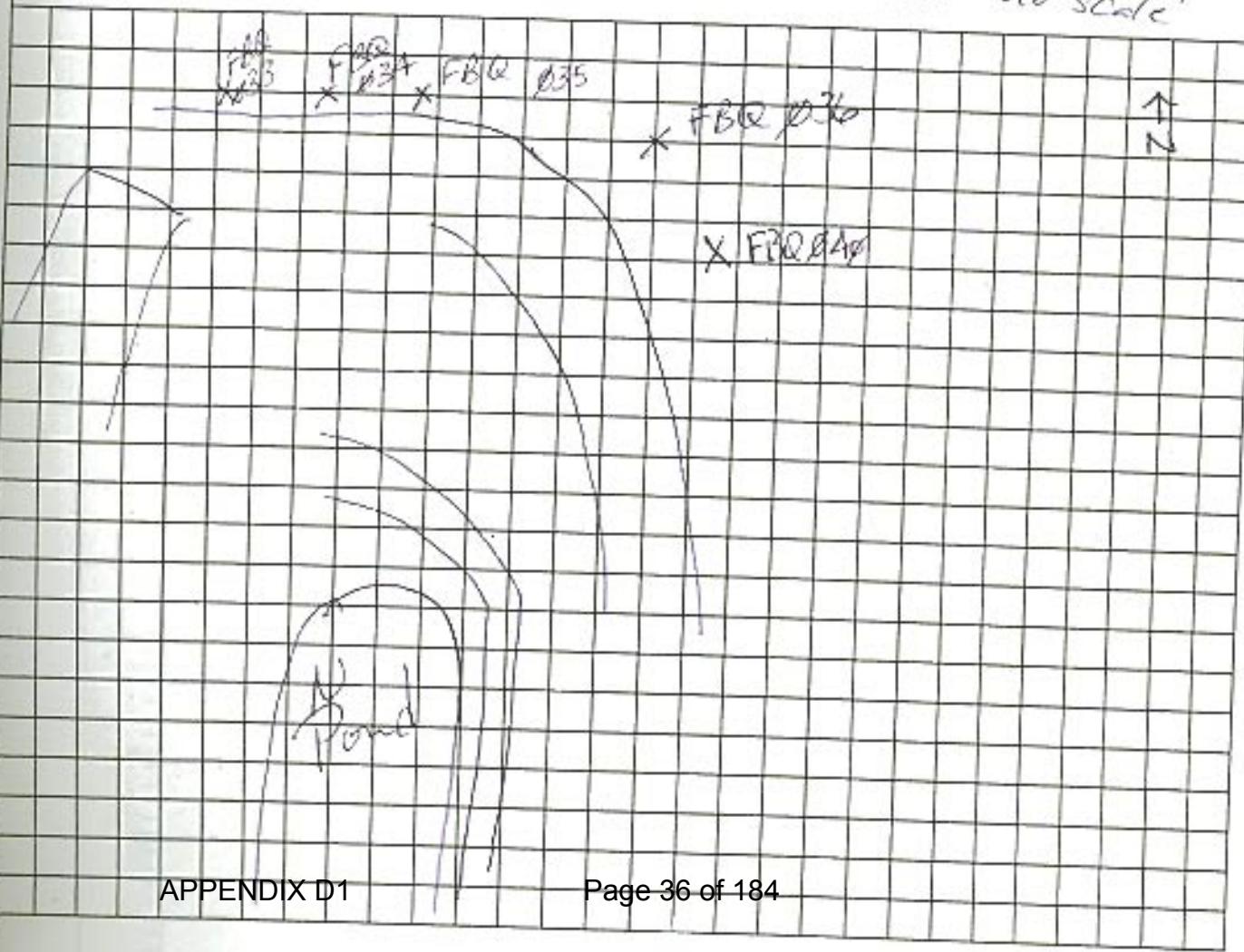
OTHER SPECIFY

23. SIGNATURE OF INSPECTOR

Randy Blay

SCALE: no scale

LOCATION SKETCH/COMMENTS



HTRW DRILLING LOG

PROJECT: Fuze & Booster RVAAP

INSPECTOR R. Bailey

HOLE NUMBER F-BQ 140

SHEET OF

ELEV (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	EVALUATION N. LOC NO.		ANALYTICAL SAMPLE NO (F)	REMARKS (if)
			HEADSPACE SCREENING RESULTS	GEOTECHNICAL SAMPLE OR CORE BOX		
0'-1'	0'-1'	Light Olive Brown Clayey Silt, moist, trace sand, fine gravel fine-mesh. to 6' @ 6' change to yellowish brown Silty clay, damp trace sand, trace gravel	PID-Ø	n/a	FBQ30-Ø40 Ø300-50	
1'-3'	1'-3'	Same as above yellow brn. Silty Clay.	0.8 ppm	n/a	FBQ30-Ø40 Ø300-50 FBQ30-Ø40 Ø300-50	
3'	3'					
4'	4'					
5'	5'					
6'	6'					
7'	7'					
8'	8'					
9'	9'					

13.5' Ø3

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

53

Date (mm/dd/yy): 10/20/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Andre Leon
Bill Drolsbaugh
Ronda BelySteve King

Narrative (include time and location):

- 0900 - Arrive @ FBQ #36; Begin sample interval. Site cleared by S.K. FBQ ss 036007150
0925 - Begin center hole of interval for explosives/metals portion
0953 - End sample @ 2' 0"; refusal of S.K.
Auger Take FBQ ss 036007250, metals; explosives
0957 - Abandon site.

~~AB
9.5.03~~Daily Weather Conditions: A.M. Sunny, mid to high 40s°FP.M. Cloudy Recorded By Ronda Bely QA Checked By Amy Hensward

HTRW DRILLING LOG

DISTRICT Louisville

HOLE NUMBER
F100-#36

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR

n/a

SHEET 1 OF 1

55

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: Andre Leon

6. MANUFACTURER'S DESIGNATION OF DRILL

n/a

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT

SS Spade

SS 3 1/2" Auger bucket

SS baffle

8. HOLE LOCATION

FBQ-#36

12. OVERBURDEN THICKNESS

7/8"

13. DEPTH DRILLED INTO ROCK

7/8"

14. TOTAL DEPTH OF HOLE

2-10

9. SURFACE ELEVATION

n/a

10. DATE STARTED

10/07/03

11. DATE COMPLETED

10/07/03

15. DEPTH GROUNDWATER ENCOUNTERED

n/a

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED.

n/a

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

n/a

18. GEOTECHNICAL SAMPLES

19. SAMPLES FOR CHEMICAL ANALYSIS

See activity log

22. DISPOSITION OF HOLE

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES

VOC

METALS

OTHER (SPECIFY)

OTHER (SPECIFY)

OTHER (SPECIFY)

21. TOTAL CORE RECOVERY

BACKFILLED

MONITORING WELL

OTHER (SPECIFY)

23. SIGNATURE OF INSPECTOR

RDB

LOCATION SKETCH/COMMENTS

See Pg 51

SCALE:

HTR W DRILLING LOG

HOLE NUMBER: FBQPA36

PROJECT: Fuzz & Bonner RVAAP

INSPECTOR: *J. H. G.*

SHEET 1 OF 1

ELEV. GND	DEPTH FBSI	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEOTUBE SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if applicable)	REMARKS (if applicable)
	0'-1'	Olive brown silty clay, moist; trace sand, trace gravel fine, plastic, soft (change) (@ 6' to 1C olive brown clayey silt, damp, trace gravel, trace sand, change @ 8" to yellowish brown) Silty clay, some sand, damp, plastic, firm.	Ø Ø 1pm	n/a	FBQPA36B7150	
	1'-3'	Yellowish brown clayey silt, damp, trace sand, trace to some gravel, fine to coarse med-dense silt up to 2' 10" some gray mottling.	Ø Ø 1pm	n/a	FBQPA36B7250	Refusal @ 2' 10" of Anger.

Refusal 2.10

Ab
12.6.03

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/07/03Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Andre Lea
Bill Dalgarno
Ronda Basler

Steve King

Narrative (include time and location):

1050 - Arrive @ PBO 634. Begin interval
Refusal @ 3"-6"; in 5 perimeter
holes. Sample from all 5 per hole. F024031006750
1108 - begin center hole for metals
1130 - Abandon site, Refusal @ 6".

10
12.5
03

Daily Weather Conditions: A.M.

Sunny, H 67, low 50°F

P.M.

Recorded By

LRB

QA Checked By

Amy Greenwald

HTRW DRILLING LOG		DISTRICT Louisville		HOLE NUMBER <i>FBR p34</i>
1. COMPANY NAME SpecPro, Inc.		2. DRILL SUBCONTRACTOR <i>n/a</i>		SHEET <i>1</i> OF <i>1</i>
3. PROJECT Fuze & Booster/RVAAP		4. LOCATION Fuze & Booster Quarry Landfill/Pond		
5. NAME OF DRILLER <i>Andre Leon</i>		6. MANUFACTURER'S DESIGNATION OF DRILL <i>6 1/4</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>25' Spear 35' Blowl 55' 1/2" Auger bucket</i>		8. HOLE LOCATION <i>FBR p34</i>		
		9. SURFACE ELEVATION <i>n/a</i>		
		10. DATE STARTED <i>10/07/93</i>	11. DATE COMPLETED <i>10/07/93</i>	
12. OVERBURDEN THICKNESS <i>n/a</i>		13. DEPTH GROUNDWATER ENCOUNTERED <i>n/a</i>		
14. DEPTH DRILLED INTO ROCK <i>n/a</i>		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>n/a</i>		
16. TOTAL DEPTH OF HOLE <i>25' 6"</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>n/a</i>		
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
20. SAMPLES FOR CHEMICAL ANALYSIS <i>see activity log</i>		VOC	METALS	OTHER SPECIMEN
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER SPECIMEN
		23. SIGNATURE OF INSPECTOR <i>R. M. R.</i>		
LOCATION SKETCH/COMMENTS <i>See pg 51</i>		SCALE: <i>n/a</i>		

HTRW DRILLING LOG

PROJECT: Faze & Boosier RVAAP

INSPECTOR: *JESB*

HOLE NUMBER: FBQ 034

60

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
6	6'	Olive green clayey silt and sand, mottled red trace elongated loose, damp, gravel fine, no ind. refusal all holes up to 6"	P-PPM		FBQ 034 0067	
2						Refusal @ 6"
5						
6						
7						
8						
9						

AB
12.5
03

TASK TEAM ACTIVITY LOG SHEET

61

PROJECT NAME: Phase VII Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/07/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Andri Leon
Bill Dushkany
Randy BulySteve King

Narrative (include time and location):

- 1000 - Arrive @ FBQ d35. Begin interval for sample Site cleared by S.K. FBQ550351006950
- 1010 - Refusal @ 1' in south perimeter hole
- 1024 - Refusal @ 1" in center hole, offset 3" NE of center. Refusal RDB
- 1030 - Refusal @ offset center hole @ 1'. RDB
- 1037 - Abandon site

A6
10.5.03

Daily Weather Conditions: A.M. Sunny and to high 40's. Lt breeze

P.M.

Recorded By R.L.B. QA Checked By Amy Greenawald

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ #35
1 COMPANY NAME: SpecPro, Inc.		2 DRILL SUBCONTRACTOR n/a			SHEET 1 OF 1
3 PROJECT Fuze & Booster/RVAAP		4 LOCATION Fuze & Booster Quarry Landfill/Pond			
5 NAME OF DRILLER Andre Leon		6 MANUFACTURERS DESIGNATION OF DRILL n/a			
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS 5' PDC SS 5' bond SS 3' HHR basket		8 HOLE LOCATION FBQ #35			
		9 SURFACE ELEVATION n/a			
		10 DATE STARTED 11/07/03			11 DATE COMPLETED 11/07/03
12 OVERTBURDEN THICKNESS n/a		13 DEPTH GROUNDWATER ENCOUNTERED n/a			
14 DEPTH DRILLED INTO ROCK n/a		15 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED n/a			
16 TOTAL DEPTH OF HOLE 1		17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) n/a			
18 GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19 TOTAL NUMBER OF CORE BOXES	
20 SAMPLES FOR CHEMICAL ANALYSIS See Activity Log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22 DISPOSITION OF HOLE BACKFILLED		MONITORING WELL	OTHER (SPECIFY)	23 SIGNATURE OF INSPECTOR Rodd Bly	
LOCATION SKETCH/COMMENTS See Pg 51					
SCALE:					

HTRW DRILLING LOG

PROJECT: Faze & Bonner RVAAP

INSPECTOR *JL*HOLE NUMBER: *FBBQ 035*

SHEET 1 OF 1

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (D)	REMARKS (E)
0.1		0.0' older brown clayey silt, moist trace sand, trace gravel to 6' @ 6" change to brown silt, trace clay some. loose. Refusal at 1'	0.0pm	n/a	<u>FBBQ 035 106 950</u>	<u>Refusal @ 1'</u>
1.						<u>Refusal @ 1'</u>
2.						
3.						
4.						
5.						
6.						
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10.						

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

65

DELIVERY ORDER: 0012

Date (mm/dd/yy): 11/17/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Andre Leon
Bill Drostbush
Ronda BaileySteve King

Narrative (include time and location):

- 1300 - Arrive @ EBO #33, Begin sample interval, Site cleared by S.K. File #033#06559 (metals explosive)
- 1315 - Refusal between 4" and 6" in perimeters X/18
- 1330 - Begin +3' 1:3' interval, RDB
- 1349 - Refusal @ 2' 2' in center hole RDB
File #033#06506666
(by metals explosive)
- 1355 - Abandon site

12-7-03
A.G.

Daily Weather Conditions: A.M.

P.M. Sunny, Lt wind low 60°F
Recorded By Randy Bly QA Checked By Amy Hernandez

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ #33
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a			SHEET 1 OF 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: Andre Leon		6. MANUFACTURER'S DESIGNATION OF DRILL: n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION: FBQ #33			
SS Rod SS SPT SS 3½" Amer Banket		9. SURFACE ELEVATION: n/a			
		10. DATE STARTED: 10/7/93		11. DATE COMPLETED: 10/7/93	
12. OVERBURDEN THICKNESS: n/a		13. DEPTH GROUNDWATER ENCOUNTERED: n/a			
13. DEPTH DRILLED INTO ROCK: n/a		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a			
14. TOTAL DEPTH OF HOLE: 2'		15. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a			
16. GEOTECHNICAL SAMPLES: Soil gravity log		DISTURBED		UNDISTURBED	
20. SAMPLES FOR CHEMICAL ANALYSIS: Soil gravity log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE:		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	OTHER (SPECIFY)
LOCATION SKETCH/COMMENTS: See Pg 51		SCALE:			
16. TOTAL NUMBER OF CORE BOXES: n/a					
21. TOTAL CORE RECOVERY: n/a					
22. SIGNATURE OR INSCRIPTION:					

HTRW DRILLING LOG						HOLE NUMBER: FBQ 9368
PROJECT: Fuz & Booster RVIAAP			INSPECTOR: RLB			SHEET 1 OF 1
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (G)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE IN CORE BOX	ANALYTICAL SAMPLE NO (E)	REMARKS (G)
0'	0'	yellowish brown clay, trace sand, trace gravel, moist, soft, gravel fine to coarse, below 4' - 6" mottled yellowish brown. Refusal @ 8" in Perimeter Center hole to 1' - Same A/A	P.D. 4	n/a	FBQ 55033006.550	
1'	1'	light yellowish brown silty sand, trace gravel, fine to coarse, dry. Refusal @ 2'		n/a	FBQ 50433006.50	
		Refusal @ 2'				
		12.5' - 03				

TASK TEAM ACTIVITY LOG SHEET

69

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 11/17/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Andre Leon
Bill Dolsbach
Linda BaileySteve King

Narrative (include time and location):

1405 - Arrive @ FBA 028 Begin sample interval ^{cleared by} _{S.P.} FBA 028/05550
0a metals and explosives

1430 - Begin center hole

1455 - Begin 1-3' interval. FBA 50028d05650fna metals/explos

1515 Abandon site.

~~12.
7.6.
7.6.~~

Daily Weather Conditions: A.M.

P.M.

Sunny, Lt Brz., N.W. 68°Recorded By B.B.

QA Checked By

Amy Greenawalt

HTRW DRILLING LOG		DISTRICT: Louisville	HOLE NUMBER FBQ #28
1. COMPANY NAME: SpecPro, Inc.	2. DRILL SUBCONTRACTOR	n/a	DEPT (ex)
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond	
5. NAME OF DRILLER: Andre Leon	6. MANUFACTURER'S DESIGNATION OF DRILL: n/a	7. HOLE LOCATION: FBQ #28	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: SS Powl SS spoon SS 3 1/2" Auger bucket	8. SURFACE ELEVATION: n/a	9. DATE STARTED: 10/07/03	
10. OVERBURDEN THICKNESS: n/a	11. DATE COMPLETED: 10/07/03	12. DEPTH GROUNDWATER ENCOUNTERED: n/a	
13. DEPTH DRILLED INTO ROCK: n/a	14. TOTAL DEPTH OF HOLE: 31	15. DEPTH TO WATER AND (ELAPSED TIME AFTER DRILLING COMPLETED): n/a	
16. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a		17. OTHER GEOTECHNICAL SAMPLES: n/a	
18. GEOTECHNICAL SAMPLES: DISTURBED: n/a UNDISTURBED: n/a		19. TOTAL NUMBER OF CORE BOXES: n/a	
20. SAMPLES FOR CHEMICAL ANALYSIS: Soil Activity Log	VOC: n/a	METALS: n/a	OTHER (SPECIFY): n/a
22. DISPOSITION OF HOLE: BACKFILLED	MONITORING WELL: n/a	OTHER (SPECIFY): n/a	23. SIGNATURE OF INSPECTOR: R. Hob
24. TOTAL CORE RECOVERY %: n/a			
LOCATION SKETCH/COMMENTS: SCALE: No Scale			
<p>Monitoring well FBQ #172</p> <p>FBQ #28</p> <p>FBQ #27</p> <p>FBQ #24</p> <p>FBQ #23</p> <p>FBQ #44</p> <p>FBQ #49</p> <p>waterline</p>			

HTRW DRILLING LOG

INSPECTOR R. Bailey

HOLE NUMBER FB2-#28

PROJECT: Fuze & Booster RVAAP

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	DIGITECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (ID)	REMARKS (G)
0-1		16 olive brown clayey silt, trace gravel, trace sand, moist to 6". @ 6" Δ light yellow olive brown silt, trace clay, trace gravel. Moderate, mat.	HD-4	n/a	FBQ55P28005550	organic material
1-3	1' to 2' 6"	Same as above. @ 2' 6"	6 ppm	n/a	FBQ50P28005650	
2	Δ to med brown	silt, very dense, damp, trace gravel. Mottled gray.				
3			3'			
4						
5						
6						
7						
8						
9						
10						
11						
			12-9-03 OC			

TASK TEAM ACTIVITY LOG SHEET

73

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/07/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Andy Leon
Bill Probstang
Ronda BellSteve King

Narrative (include time and location):

- 1526 - Apire @ FBQ 044. Hand by SK.
Begin Sample interval. Refusal up to 8" perimeter
FEASIBILITY TEST
- 1540 - Begin center hole for nits.
- 1549 - Refusal center hole @ 1'
- 1555 - Abandon Site ^{LEFT} AG

~~12-5-03
9G~~

Daily Weather Conditions: A.M.

P.M.

Sunny LL 67°3 Mid 68°Recorded By R.W.

QA Checked By

Amy Greenawalt

HTRW DRILLING LOG		DISTRICT Louisville		HOLE NUMBER F8Q 0444/5		
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR ✓/a		sec L		
3. PROJECT Fuze & Booster/RVAAP		4. LOCATION Fuze & Booster Quarry Landfill/Pond				
5. NAME OF DRILLER Andie Lane		6. MANUFACTURER'S DESIGNATION OF DRILL				
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS 3/8" log SS 3/8" screen SS 2 1/2" auger		8. HOLE LOCATION F8Q 0444				
		9. SURFACE ELEVATION m/s				
		10. DATE STARTED 10/17/13		11. DATE COMPLETED 10/17/13		
12. OVERBURDEN THICKNESS 1/2		13. DEPTH GROUNDWATER ENCOUNTERED 1/2				
13. DEPTH DRILLED INTO ROCK 1/2		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED 1/2				
14. TOTAL DEPTH OF HOLE 1'		15. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) 1/2				
16. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	17. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS Soil		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE BACKFILLED		MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR RSB		
LOCATION SKETCH/COMMENTS See pg 71		SCALE				

HTRW DRILLING LOG

PROJECT: Faze & Booster RVAAP

INSPECTOR *JLB*HOLE NUMBER *26A944*

SHEET 1 OF 1

76

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (#)	REMARKS (#)
61'	0'-	dk brown with traces of Clay, fine gravel, oxidized particles, gravels up to coarse gravel. Refusal	0.0 ppm	n/a	Fazsp449987	organic material
	1'	<i>Refusal @ 1'</i>				
	2'					
	3'					
	4'					
	5'					
	6'					
	7'					
	8'					
	9'					
	10'					
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	89'					
	90'					
	91'					
	92'					
	93'					
	94'					
	95'					
	96'					
	97'					
	98'					
	99'					
	100'					

TASK TEAM ACTIVITY LOG SHEET

77

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10-8-03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Audre LoonBH DoolshandyChandl Carroll

Narrative (include time and location):

- 0937 Arrive at location FBQ - 032
- 0938 Start sampling for a full suite of the
0-1 interval Explosives/PCBs-Pesticides/TARmetals
C₆H₆, Propellants, SMC, VOC's
FBQ03-CB3-10003-00
- 10:16 Start sampling the 1-3 interval for explosives
and TAR metals FBQ03-032-B001 and
take a split sample
- 10:18 Finish sample after refusal of rock
at 1.9". Go to next hole

96
125.03

Daily Weather Conditions: A.M. Sunny P. Cloudy, mid-upper 50'sRecorded By Chandl Carroll P.M. Amy Hernandez
QA Checked By Amy Hernandez

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ-Ø32
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a			sheet L-1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: Andre Leon		6. MANUFACTURER'S DESIGNATION OF DRILL: n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 25' bowl spoon 35 1/2" choker bucket		8. HOLE LOCATION: FBQ-Ø32			
		9. SURFACE ELEVATION: n/a			
		10. DATE STARTED: 10/8/03			11. DATE COMPLETED: 10/8/03
12. OVERBURDEN THICKNESS: n/a		13. DEPTH GROUNDWATER ENCOUNTERED: n/a			
14. DEPTH DRILLED INTO ROCK: n/a		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a			
16. TOTAL DEPTH OF HOLE: 196' 10"		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a			
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: n/a	
20. SAMPLES FOR CHEMICAL ANALYSIS: Soil Oct. 105		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE: n/a		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: C. Carroll
24. TOTAL CORE RECOVERY: %					
LOCATION SKETCH/COMMENTS:					
<p style="text-align: center;">SCALE: not to scale</p>					

HTRW DRILLING LOG

PROJECT: Fuze & Booster RVAAP

INSPECTOR C. Can

HOLE NUMBER: F80-032

80

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS G	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (#)	REMARKS IGI	SHEET TOF
		top organic, moist brown, silty-clay, loose sand pebbles, moist	0 ppm	n/a	F80-032 00063 (red)	roots, stems throughout	
8.0		med. H yellow brown sand moist, silty-clay, subangular pebbles grading into small boulders color changes	0.9 ppm	n/a	F80-032 00064- +spit		
10.9						Refusal 10.9"	
11.0							
12.0							
13.0							
14.0							
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16.0							
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TASK TEAM ACTIVITY LOG SHEET

81

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10-7-03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Andre LeonCharollo CarrollBill Prolsbaugh

Narrative (include time and location):

10:28 Arrive at Location FBQ-029, Steve Cleveland10:30 Start to sample (FBQ-029-0057-50) for explosives, AC metals, Cr, PCB, Pesticides, VOC, SVOC, Propellants at the 0-1 interval10:54 Shoot the 1-3 interval after cleaned, for explosives and metals (FBQ-029-0058-50) at the 1-3 and take the duplicate FBQ-029-0057-5011:00 Refusal at 1.8", finish sample11:05 Go to next holeAB
12.5.03Daily Weather Conditions: A.M. Sunny, low 60'sRecorded By Charollo Carroll P.M. Amy Greenwald QA Checked By Amy Greenwald

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ-029
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: n/a			SHEET 1 of 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			n/a
5. NAME OF DRILLER: Andre Leon		6. MANUFACTURER'S DESIGNATION OF DRILL: n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 30' bow / 30' stem 30' DTH w/ a align bucket		8. HOLE LOCATION: FBQ-029			
		9. SURFACE ELEVATION: n/a			
		10. DATE STARTED: 4/18		11. DATE COMPLETED: 4/18	
12. OVERBURDEN THICKNESS: n/a		13. DEPTH DRILLED INTO ROCK: n/a			14. TOTAL DEPTH OF HOLE: 18'
		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a			16. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a
18. GEOTECHNICAL SAMPLES: See act. log		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: n/a	
20. SAMPLES FOR CHEMICAL ANALYSIS: See act. log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE:		BAGGED/LED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: C. Carroll
LOCATION SKETCH/COMMENTS					SCALE: Not to Scale

HTRW DRILLING LOG

BOLENT NUMBER FBQ-059

84

PROJECT: Faze & Booster R/V AAP

INSPECTOR O'Carroll

SHEET 1 OF 1

ELEV (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (if applicable)	REMARKS
		trace to organics med brown, silty clay thin sand, moist soft	0.0 ppm	n/a	FBP-0057 (full)	root, stems
1		Graded into more of a sand than just trace	0.9 ppm	n/a	FBP-0058 (Dip)	
1.8		Refusal at		1.8		
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TASK TEAM ACTIVITY LOG SHEET

85

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 11/27-03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Andre LeonBill DugalsbaughDonald Carroll

Narrative (include time and location):

11:35 Go to location FBQ-030 - Steve clear prior

11:38 Sample explosives and metals at the B-1 (FBQ-030-0059). Also take a split and a duplicate (FBQ-030-0368-50)

Refusal in 3 explosive holes and center need

to offset center hole approximately 5" to the east. (Center hole refusal @ 3")

6" Refusal in one explos. hole

45" Refusal, 3" Refusal, dig 4th explos. hole

12:11 Start the 1-3 interval FBQ-030-0368-50

and take a split for explosives; metals refusal @ 1.9"

12:18 Finish sample go to next location - go to lunch

Daily Weather Conditions: A.M. Sunny, mid-60's

P.M.

Recorded By

Donald Carroll

QA Checked By

Amy Stromquist

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ-630
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a			SHEET 1 of 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: Andre Lagan		6. MANUFACTURER'S DESIGNATION OF DRILL: n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: S2 10m21 Spoon S3 3 1/2" auger bucket		8. HOLE LOCATION: FBQ-030			
		9. SURFACE ELEVATION: n/a			
		10. DATE STARTED: 10/8/03			11. DATE COMPLETED: 10/8/03
12. OVERBURDEN THICKNESS: n/a		15. DEPTH GROUNDWATER ENCOUNTERED: n/a			
13. DEPTH DRILLED INTO ROCK: n/a		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a			
14. TOTAL DEPTH OF HOLE: 1.9"		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a			
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: n/a	
20. SAMPLES FOR CHEMICAL ANALYSIS: Soil Act. 20%		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE: n/a		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: C. Carroll
LOCATION SKETCH/COMMENTS: SCALE:					
<p style="text-align: center;">Goto page 83 to see location of FBQ-630 in the Soil logbook #1</p>					

HTRW DRILLING LOG

PROJECT: Fenc & Binisut RVAAP

INSPECTOR: Carroll

HOLE NUMBER: FBQ-630 88

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GOTCH SAMPLE IN CORE BOX	ANALYTICAL SAMPLE NO. (#)	REMARKS (G)
3'	3'	topsoil - topsoil medium brown, soft, silty sand reddish brown, slightly sand, pebbles, rounded angular, wet, loose		n/a	FBQ-630 -0059 +split +dry -0368	refusal @ 4" explosive refusal @ 4.5' dis. 4' hole and 3" refusal - refusal @ 3" in center - off-set newcenter hole
10'	10'	Graded into more sand		n/a	FBQ-630 -0060 +split	Refusal 10'

10' 9"

12.5' 03

TASK TEAM ACTIVITY LOG SHEET

89

PROJECT NAME: Phase III RI Fuze & Booster Quarry Landfill/Pond DELIVERY ORDER NO: 0012

Date (mm/dd/yy): 10-9-03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Steve King
Charles Carroll
Ronda BaileyBill Drolsbaugh

Narrative (include time and location):

09:40: Arrive on Corral Dr. # FBQ-Q31
09:45 Starting sample (FBQ-Q31-0374L30)
 for explosives and metals and
 Complete a Deep. Sam. (FBQ-Q31-0374L50)
 at the D-I interval also take a split
 Center hole ^{at 10' 10"} refusal at 6" - offset
 5" over to North -

Second center hole refusal at 9"
10:17 Finish up and go to the next sample due
 to refusal on center hole - unable to
 take 1-3 sample

P.D. P.G.

Daily Weather Conditions: A.M. SunnyRecorded By Charles Carroll P.M. 10:17 Checked By Amy Granard

HTRW DRILLING LOG		DISTRICT: Louisville	HOLE NUMBER FBQ-031			
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: n/a	SHEET 1 OF 1			
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond				
5. NAME OF DRILLER: Steve King		6. MANUFACTURERS DESIGNATION OF DRILL: n/a				
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS Dow 1/2" Spom SS 3 1/2" dia auger bucket		8. HOLE LOCATION: FBQ-031				
		9. SURFACE ELEVATION: n/a				
		10. DATE STARTED: 10/9/03	11. DATE COMPLETED: 10/9/03			
12. OVERBURDEN THICKNESS n/a		13. DEPTH DRILLED INTO ROCK n/a				
14. TOTAL DEPTH OF HOLE 10' un 1 explosive hole 9" in 2" center hole		15. DEPTH GROUNDWATER ENCOUNTERED: n/a				
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a				
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS See Act. Log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE n/a		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %	
					23. SIGNATURE OF INSPECTOR C. Canale	
LOCATION SKETCH/COMMENTS				SCALE: not to scale		

HTRW DRILLING LOG

PROJECT: Fuze & Boester-RVAAP

INSPECTOR C. Carroll

HOLE NUMBER: FB9-1B

SHEET 1 OF 1

92

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS at	HEADSPACE SCREENING RESULTS	GROTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if)	REMARKS (if)
10	10	dk olive brown, sandy silt, loose, some gravel, few ty rangs, dry (red colored) sand, yellowish sandy - 1 ft fine grained, dry red color, fine clay -	0.7 ppm	n/a	PCG-23-03 0301-50-10 th regional Dug - 031 0301-50-10 0301-50-10	10 th refusal on 6x6 0301-50-10 th regional Center hole refusal 5 th 0301-50-10 Second refusal in center hole at 9"

TASK TEAM ACTIVITY LOG SHEET

93

PROJECT NAME: Phase III RI Fuze & Booster Quarry Landfill/Pond DELIVERY ORDER NO: 0012

Date (mm/dd/yy): 10/09/03 Su M Tu W Th F Sa PAGE 1 OF 1
 Task Team Members:
Randy Bailey Steve King
Bill Dicksburgh
Chantelle Carroll

Narrative (include time and location):

- 1040 - Arrive @ FBQ → FBQ - 026, closed SLB
 - by S. King. Begin 0'-1' sample interval. FBQ50P26P05150
1115 - Begin 1'-3' Sample. FBQ50P26P052 (method: open)
1140 - Refusal @ 2'8", Abandon Site

1046
1055
1058

Daily Weather Conditions: A.M. Sunny, H. baze 52°F

P.M.
 Recorded By Randy Bailey QA Checked By Amy Greenwald

HTRW DRILLING LOG		DISTRICT: Louisville		HOLE NUMBER <i>FAB-026</i>
1. COMPANY NAME SpecPro, Inc.		2. DRILL SUBCONTRACTOR <i>n/a</i>		SHEET <i>1 of 1</i>
3. PROJECT Fuze & Booster/RVAAP		4. LOCATION Fuze & Booster Quarry Landfill/Pond		
5. NAME OF DRILLER <i>Bill Drolsham Jr</i>		6. MANUFACTURER'S DESIGNATION OF DRILL <i>N/a</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>SS Spooler</i> <i>SS Thread</i> <i>SS 3 1/2" Auger Landjet</i>		8. HOLE LOCATION <i>FBAQ #26</i>		
		9. SURFACE ELEVATION <i>n/a</i>		
		10. DATE STARTED <i>10/09/03</i>	11. DATE COMPLETED <i>10/09/03</i>	
12. OVERBURDEN THICKNESS <i>n/a</i>		13. DEPTH GROUNDWATER ENCOUNTERED <i>n/a</i>		
13. DEPTH DRILLED INTO ROCK <i>n/a</i>		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>n/a</i>		
15. TOTAL DEPTH OF HOLE <i>2' 8"</i>		16. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>n/a</i>		
17. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	18. TOTAL NUMBER OF CORE BOXES
19. SAMPLES FOR CHEMICAL ANALYSIS <i>See add. Log</i>		VOC	METALS	OTHER (SPECIFY)
20. DISPOSITION OF HOLE <i>BACKFILLED</i>		MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY <i>n/a</i>
22. SIGNATURE OF INSPECTOR <i>[Signature]</i>		SCALE:		
LOCATION SKETCH/COMMENTS <i>SEE Pg 91</i>				

HTRW DRILLING LOG

HOLE NUMBER: FBQ p26

96

PROJECT: Fuge & Booster RV AAP			INSPECTOR: R.S.B.	SHEET 1 OF 1		
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (ft)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE IN CORE BOX	ANALYTICAL SAMPLE END (ft)	REMARKS (ft)
0'-1'	0'-8"	0-8" brn to o. Ok olive brn clayey silt, trace Sand, some gravel fine To med. Orange @ 6" to yellowish brn silty clay, trace sand, some gravel, both moist, soft, plasto	PP	FBQ 026 FBQ ss 026 0051	50	Organic Matter
1'-3'	1'-3'	Same A/A: yellowish brn silty clay. A @ 1'6" to more dry moist damp yellowish silty clay w/ orange & gray mottling, some gravel fine to coarse, soft, oxidized particulate up to 2'6" A @ 2'6" to yellow clay silt mottled orange & gray, dry, some sand	PP	FBQ 50 026 0052	50	
		T.D. 28"				
		<u>Refused at 2' 8"</u>				
		LL 703 R.S.B.				

TASK TEAM ACTIVITY LOG SHEET

97

PROJECT NAME Phase I/II RI Fuze & Booster Quarry Landfill/Pond DELIVERY ORDER NO: 0012

Date (mm/dd/yy): 10/09/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Bill Dolan
Ron de Bally
Charlene CarrollSteve King

Narrative (include time and location):

12:00 - Arrive @ FBQ - Ø25. Begin interval
 after Steve clears and take the Ø1
 for metals and explosives sample
 FBQs - Ø25 Ø15 Ø10 Ø9 Ø8 Ø7 Ø6 Ø5 Ø4 Ø3 Ø2 Ø1 Ø0.5
 Refusal in explosive holes @ 6", 3", and 8"
 Refusal in center hole for metals @ 10"
 because not enough dirt to fill the sample
 jar, and second hole was started and
 had refusal @ 6"

12:45 Finish sample and go to bldg. for lunch

AK
 12/05/03

Daily Weather Conditions: A.M. Sunny, 60°F, Lt Brz SERecorded By CB, Charlene Carroll P.M. QA Checked By Amy Fennard

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ-825
1. COMPANY NAME SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a			SHEET 1 OF 1
3. PROJECT Fuze & Booster/RVAAP		4. LOCATION Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER BH Drilling		6. MANUFACTURER'S DESIGNATION OF DRILL n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS 3 1/2" Span SS 3 1/2" auger bucket		8. HOLE LOCATION FBQ-825			
		9. SURFACE ELEVATION n/a			
		10. DATE STARTED 10/19/03			11. DATE COMPLETED 10/19/03
12. OVERBURDEN THICKNESS n/a		13. DEPTH GROUNDWATER ENCOUNTERED. n/a			
14. DEPTH DRILLED INTO ROCK n/a		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED. n/a			
16. TOTAL DEPTH OF HOLE 100' refusal		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) n/a			
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS TSP Actives		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE		BACFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR Carroll
LOCATION SKETCH/COMMENTS		See pg 91			SCALE: no scale

HTRW DRILLING LOG

PROJECT: Faze & Booster RVAAP

INSPECTOR *J. B. B.*HOLE NUMBER: *FBD-125*

SHEET 1 OF 1

100

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEO TECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if)	REMARKS
0	0-6'	p-6' Dk olive brown silty sand, some gravel, fine to coarse, loose poorly sorted, trace dry	Ø. Øpp	n/a	FBD-125 ØØ49 SO	Refusal @ 6" (3" excepted holes 8")
10"		Refusal @ 10"				Refusal @ 10" Refusal @ 6" (to get enough dirt) All jaws

TASK TEAM ACTIVITY LOG SHEET

101

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/09/03 Su M Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

Ronnie BaileySteve KingAndre Leon)Bill Drokhaugh

Narrative (include time and location):

1A15 - Arrive @ FBQ #21. Cleared by Steve K.
Begin Sample interval FB#55021004150 → FB#50021037350
P-1 + Dups for exp.

1A45 - Begin 1'-3' interval - cleared by
 S. King. FB#50021004250 → FB#50021037450 (Dups) Refused @ 2

1503 - End interval and abandon site

~~12/05/03
AG~~

Daily Weather Conditions: A.M.

P.M. Partly sunny, mid 60's F

Recorded By RWB QA Checked By Amy Greenland

HTRW DRILLING LOG		DISTRICT Louisville	HOLE NUMBER FBQ Ø21
1. COMPANY NAME SpecPro, Inc.	2. DRILL SUBCONTRACTOR	n/a	SHEET 1 OF 1
3. PROJECT Fuze & Booster/RVAAP		4. LOCATION Fuze & Booster Quarry Landfill/Pond	
5. NAME OF DRILLER Bill Droske, Jr.		6. MANUFACTURER'S DESIGNATION OF DRILL n/h	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS 5' Spud SS bottom SS 3 1/2' Auger		8. HOLE LOCATION FBQ Ø21	
		9. SURFACE ELEVATION n/a	
		10. DATE STARTED 10/09/03	11. DATE COMPLETED 10/09/03
12. OVERBURDEN THICKNESS n/c		13. DEPTH DRILLED INTO ROCK n/a	
		14. TOTAL DEPTH OF HOLE n/a 2' Ø21	
15. DEPTH GROUNDWATER ENCOUNTERED n/a		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED n/a	
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) n/c			
18. GEOTECHNICAL SAMPLES DISTURBED UNDISTURBED		19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS VOC METALS OTHER/SPECIFY		21. TOTAL CORE RECOVERY %	
See act log		22. DISPOSITION OF HOLE BACKFILLED MONITORING WELL OTHER/SPECIFY	
23. SIGNATURE OR DRILLER CRSB			
LOCATION SKETCH/COMMENTS			
SCALE: no scale			

HTRW DRILLING LOG

HOLE NUMBER F8Q621

104

PROJECT: Fuze & Booster RVAAP

INSPECTOR *PLB*

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GRODCH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (ID)	REMARKS (G)
0	0	Olive brown silt, clay, ^{sof} True gravel, trace sand, Soft, damp to 8', A to yellow brown clayey 1' Silt trace sand, trace Gravel fine to med, damp soft. $\Delta @ 1\frac{1}{2}$ ' to sand A/A Mod dense clayey silt to 2 ft	PID=g,g,ppn			
1	0				F8Q55021664150 Dup F8Q55021637350	
2	0				F8Q50021664250 Dup F8Q50021637450	
2	2	<i>Refusal @ 2'</i>				
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

TASK TEAM ACTIVITY LOG SHEET

105

PROJECT NAME: Phase VII Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/09/02 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Andre Leon
Bill Dicksayfa
Rod BaileySteve King

Narrative (include time and location).

1505 - Arrive @ FBIQ - #22. Begin Sample
 interval 0-1'. Exp. split taken & Met split taken

1535 - Begin 1'-3' interval. Begin sample and split. Closed by S.K.

1600 AB63

1555 - Abandon Site

AK12/05/0303

Daily Weather Conditions: A.M.

P.M. Partly SunnyRecorded By AKB QA Checked By Dave Greenwald

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FBQ #22	107
1. COMPANY NAME SpecPro, Inc.		2. DRILL SUBCONTRACTOR. n/a			SHEET 1 OF 1	
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond				
5. NAME OF DRILLER Bill Drotzbaugh		6. MANUFACTURER'S DESIGNATION OF DRILL				
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS bent SS spoon SS 1 3/8" auger		8. HOLE LOCATION: FBQ #22				
		9. SURFACE ELEVATION n/a				
		10. DATE STARTED 10/09/03		11. DATE COMPLETED 10/09/03		
12. OVERBURDEN THICKNESS n/a		13. DEPTH GROUNDWATER ENCOUNTERED n/a				
14. DEPTH DRILLED INTO ROCK n/a		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED n/a				
16. TOTAL DEPTH OF HOLE 3'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a				
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS See all log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
21. DISPOSITION OF HOLE BACKFILLED		MONITORING WELL	OTHER (SPECIFY)	22. SIGNATURE OF INSPECTOR <i>SRB</i>		
LOCATION SKETCH/COMMENTS See Pg 103		SCALE:				

HTRW DRILLING LOG

PROJECT: Fuze & Booster RVAAP

INSPECTOR

FILE NUMBER: F001022

SHEET 1 OF 1

108

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GENTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (#)	REMARKS (#)
0'-1'	0'-1'	Olive brown sandy Silt damp, trace gravel, trace clay. Fine to med grain. A @ 6' to clayey silt, yellow brown, mottled gray/orange firm.	P10-pp4pm	FBQ55	022.0043	so + <u>split</u>
1'-3'	1'-3'	Same, also yellow brown mottled orange and gray. Firm. damp. Clayey silt.			FBQ50	022.00450 + <u>split</u>
3'	3'					
4'	4'					
5'	5'					
6'	6'					
7'	7'					
8'	8'					
9'	9'					
10'	10'					
11'	11'					
12'	12'					
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91'	91'					
92'	92'					
93'	93'					
94'	94'					
95'	95'					
96'	96'					
97'	97'					
98'	98'					
99'	99'					
100'	100'					

TASK TEAM ACTIVITY LOG SHEET

109

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 1969/03 Su M Tu W Th F Sa

PAGE 1 OF 1

Task Team Members:

Andy Leon

Steve King

Bill Driskamp Jr.

Randy Boley

Narrative (include time and location):

1600 - Arrive @ FBQ q2⁰ Cloudy
 Settling Begin Sample interval
 0-1' Duplicate exp φ-1', dry met & Exp
 1635 1'-3' interval begins Dup. met & Exp
 taken with wet/Exp Sample
 1655 End interval and abandon site

FBR50P200003750
FBR50P2493150

FBR50P200004050
FBR50P24937250

12.
 05-03
 7-6

Daily Weather Conditions: A.M.

P.M.

Cloudy, 63ish° F

Recorded By

QA Checked By

Amy Thompson

HTRW DRILLING LOG		DISTRICT Louisville				HOLE NUMBER FBQ-0211	
1. COMPANY NAME SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a				SHEET 1 OF 1 10/020	
3. PROJECT Fuze & Booster/RVAAP			4. LOCATION Fuze & Booster Quarry Landfill/Pond				
5. NAME OF DRILLER Andre Leon			6. MANUFACTURER'S DESIGNATION OF DRILL				
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS 3' core SS borehole SS 3 1/2" Auger			8. HOLE LOCATION FBQ - Ø 22				
			9. SURFACE ELEVATION 1/2				
			10. DATE STARTED 10/09/03		11. DATE COMPLETED 10/09/03		
12. OVERBURDEN THICKNESS n/c			13. DEPTH GROUNDWATER ENCOUNTERED n/c				
14. DEPTH DRILLED INTO ROCK n/c			15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED n/c				
16. TOTAL DEPTH OF HOLE 3'			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) n/c				
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED		19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS See act log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR RBB		
LOCATION SKETCH/COMMENTS See Log 103 SCALE: n/c							

HTRW DRILLING LOG

HOLE NUMBER: FB-~~02~~⁰² 112

PROJECT: Fuze & Booster RV AAP

INSPECTOR: *J. B.*

SHEET 1 OF

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (ID)	REMARKS (D)
0'-1'		Dk olive brown sandy silt. Trace gravel fine, up to 8". A to yellow brown sandy silt trace clay, trace gravel, scattered ls &? loose	P10, ϕ 4.99m	FBA 55024663950 E.		hole - 4' refusal in Permo
1'-3'		Same A/A yellow brn sandy silt trace clay + mottled gray. Med dense	ϕ 4.99m	Dup FBA 50024664450		
3'						3'
4'						
5'						
6'						
7'						
8'						
9'						
10'						
11'						
12'						
13'						
14'						
15'						
16'						
17'						
18'						
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21'						
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72'						
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77'						
78'						
79'						
80'						
81'						
82'						
83'						
84'						
85'						
86'						
87'						
88'						
89'						
90'						
91'						
92'						
93'						
94'						
95'						
96'						
97'						
98'						
99'						
100'						

TASK TEAM ACTIVITY LOG SHEET

113

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/06/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Ronda BaileySteve KingAndre LeonBill Drotzbaugh

Narrative (include time and location):

- 0906 - Arrive @ FBQ #24. Cleared by Steve K.
- 0905 - Begin sample interval 0'-1' and ^{F0030024014730}
duplicates for explosives and Refusal ↑ 9".
^{F0030024037550}
- 0920 - Refusal @ 1' in center hole, /
Retrieve Sample metals & Duplicate.
- 0930 - Abandon site.

96
12/25
103

Daily Weather Conditions: A.M.

Overcast, 58°F, no breeze, foggy.

P.M.

Recorded By

Rlb

QA Checked By

Amy Hernandez

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ #24
1. COMPANY NAME SpecPro, Inc.		2. DRILL SUBCONTRACTOR: n/a			115
3. PROJECT Fuze & Booster/RVAAP		4. LOCATION Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER Andre Leon		6. MANUFACTURER'S DESIGNATION OF DRILL			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS auger SS spoon SS front		8. HOLE LOCATION FBQ #24			
		9. SURFACE ELEVATION			
		10. DATE STARTED 10/10/03			11. DATE COMPLETED 10/11/03
12. OVERBURDEN THICKNESS n/a		13. DEPTH GROUNDWATER ENCOUNTERED n/a			
14. DEPTH DRILLED INTO ROCK n/a		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED n/a			
16. TOTAL DEPTH OF HOLE 1'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) n/a			
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS Soil cut log		YOD	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. DISPOSITION OF HOLE BACKFILLED		MONITORING WELL	OTHER (SPECIFY)	22. SIGNATURE OF INSPECTOR BBS	
LOCATION SKETCH/COMMENTS See pg 71			SCALE: no scale		

HTRW DRILLING LOG

HOLE NUMBER: FBG 134 116

PROJECT: Finc & Booster RVAAP

INSPECTOR R. Bailey

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS in	HELDSPACE SCREENING RESULTS	GEOTECH SAMPLE IN CORE BOX	ANALYTICAL SAMPLE NO. (ft)	REMARKS (ft)
0'-0"	0'-0"	Yellow brn clayey silt mottled Orange and gray. Some gravel fine to coarse trace sand(fine). Soft, loose	0.0		FBG 134 14 FBG 134 15 FBG 134 16 FBG 134 17 FBG 134 18 FBG 134 19 FBG 134 20 FBG 134 21 FBG 134 22 FBG 134 23 FBG 134 24 FBG 134 25 FBG 134 26 FBG 134 27 FBG 134 28 FBG 134 29 FBG 134 30 FBG 134 31 FBG 134 32 FBG 134 33 FBG 134 34 FBG 134 35 FBG 134 36 FBG 134 37 FBG 134 38 FBG 134 39 FBG 134 40 FBG 134 41 FBG 134 42 FBG 134 43 FBG 134 44 FBG 134 45 FBG 134 46 FBG 134 47 FBG 134 48 FBG 134 49 FBG 134 50	Refusal @ 8" N Refusal @ 5" S @ 9" W For perimeter holes Refusal @ 1' center hole

TASK TEAM ACTIVITY LOG SHEET

117

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/16/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Ronda BaileySteve KingAndre LeonBill Drotzbaugh

Narrative (include time and location):

0940: Arrive @ FBO p49. Checked by S.King
 and begin interval 6-1. Refusal
 in periphery holes. Retrieve exp sample 5-442
 and dupes. FBSS 049069750 & FG0049037850

1000: Refusal @ center/metal's hole. Retrieve
 metal sample & Duplicate

1008: Abandon ^{leave} site.

1045: Begin 1-3' interval. Take RAB

~~1100~~
~~1130~~
~~1200~~
~~1230~~
~~1300~~
~~1330~~
~~1400~~
~~1430~~
~~1500~~
~~1530~~
~~1600~~
~~1630~~
~~1700~~
~~1730~~
~~1800~~
~~1830~~
~~1900~~
~~1930~~
~~2000~~
~~2030~~
~~2100~~
~~2130~~
~~2200~~
~~2230~~
~~2300~~
~~2330~~

Daily Weather Conditions: A.M.

Partly sunny, 60°F Hazy

P.M.

Recorded By

RBB

QA Checked By

Darryl Greenawalt

HTRW DRILLING LOG

DISTRICT Louisville

HOLE NUMBER
FBQ #49

1 COMPANY NAME: SpecPro, Inc.

2 DRILL SUBCONTRACTOR

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

5. NAME OF DRILLER: Andre Leon

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT:SS Bowl
SS Auger
SS Spoon

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

6. MANUFACTURER'S DESIGNATION OF DRILL

FBQ #49

8. HOLE LOCATION

9. SURFACE ELEVATION

n/c

10. DATE STARTED

11. DATE COMPLETED

9/14/03

10/16/03

12. OVERBURDEN THICKNESS

n/c

13. DEPTH GROUNDWATER ENCOUNTERED

n/c

14. DEPTH DRILLED INTO ROCK

n/c

15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED

n/c

16. TOTAL DEPTH OF HOLE

1'

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

n/c

18. GEOTECHNICAL SAMPLES

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS

VOC

METALS

OTHER SPECIMEN

OTHER SPECIMEN

OTHER SPECIMEN

21. TOTAL CORE
RECOVERY %

22. DISPOSITION OF HOLE

BACKFILLED

MONITORING WELL

OTHER SPECIMEN

23. SIGNATURE OF ASSESSOR

CRHRS

LOCATION SKETCH/COMMENTS

See pg 71

SCALE:

no scale

HTRW DRILLING LOG

PROJECT: Faze & Booster RVAAP

INSPECTOR: *J. B. B.*

HOLE NUMBER: FBQ 049

120

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	MINESHAFT SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (E)	REMARKS (G)
6-1		Olive brown silty silt Salty Sand, loose moist Sand is also reddish/ Trace clay, also tan Sand, some gravel Fine to coarse grain.	WP mm		F3035049 637850	Refusal of perimeter holes 6" E 5" W 5" N 6" center hole
		<i>Refusal</i>				

TASK TEAM ACTIVITY LOG SHEET

121

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/19/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Ronka Bailey
Andre Leon
Bill DicksburghSteve King

Narrative (include time and location):

- 1030 - Arrive @ FBQ #27. Cleared by S. King
 Begin 0-1' Sample interval. Refusal @ 4'
 @ 6" in return FBQ #27 0051350 xsls
- 1935 Refusal @ 6" in perimeter holes. Retain sample and split samples for exp. Ass
- 1100-1110 Abandon Site
- 1045 Refusal @ 5" center hole. Retain sample and split for metals
- 1105 - Abandon Site

12 P.M.
63°
5°

Daily Weather Conditions: A.M.

Partly cloudy, 68°F, 11 hrs

P.M.

Recorded By

QA Checked By

Amy Greenawalt

HTRW DRILLING LOG		DISTRICT: Louisville		HOLE NUMBER: FBQ 927			
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: n/a		SHEET 1 of 1			
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond					
5. NAME OF DRILLER: Andre Leon		6. MANUFACTURER'S DESIGNATION OF DRILL					
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: SS 5in Sump/bed SS 3 1/2in Auger		8. HOLE LOCATION: FBQ 927					
		9. SURFACE ELEVATION: n/a					
		10. DATE STARTED: 10/10/03		11. DATE COMPLETED: 10/16/03			
12. OVERBURDEN THICKNESS: n/a		13. DEPTH GROUNDWATER ENCOUNTERED: n/a					
14. DEPTH DRILLED INTO ROCK: n/a		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a					
16. TOTAL DEPTH OF HOLE: 60'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a					
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS: See act 16		VOG	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE:		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: rbb		
LOCATION SKETCH/COMMENTS		See Pg 71			SCALE:		

HTRW DRILLING LOG

HOLE NUMBER: F88 027

124

PROJECT: Fire & Booster RVAAP

INSPECTOR: B.L.

SHEET 1 OF 1

ELEV. (ft)	DEPTH, (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if)	REMARKS (if)
0-6'	0-6'	Yellowish brown sandy clay, trace glauconite, fine to medium grain moist, plastic, soft.	0.0 ppm	n/a	F885SP27 #85350 + split	Refusal @ 6' 6" N } perimeter 6" S } water 6" E) 5" center hole

TASK TEAM ACTIVITY LOG SHEET

125

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/19/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Anche Leg
Randa Bailey
Bill DolsbaughSteve King

Narrative (include time and location):

1115 : Arrive @ FBQ #23. Begin sample interval 0-1. Retrieve Met. & exp samples & dups.

1200 : Begin 1-3' interval. Retrieve met/exp samples and dups. Checked by S. King

1215 : Abandon site

FBQ55#230

FBQ55#2303745

FBQ50#2304650
FBQ50#2303750

11:15

12:00

12:15

Daily Weather Conditions: A.M.

P. Cloudy off, H bre

P.M.

Recorded By

LBB QA Checked By Dawn Greenawald

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ 623
1. COMPANY NAME SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a			SHEET 1 OF 1
3. PROJECT Fuze & Booster/RVAAP		4. LOCATION Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER Andre Leon		6. MANUFACTURER'S DESIGNATION OF DRILL n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS auger 23 auger 35 Auger		8. HOLE LOCATION FBQ φ23			
		9. SURFACE ELEVATION n/a			
10. OVERBURDEN THICKNESS n/a		11. DATE STARTED 10/16/03			12. DATE COMPLETED 10-18-03
13. DEPTH DRILLED INTO ROCK n/a		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED n/a			
15. TOTAL DEPTH OF HOLE n/a 3'		16. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) n/a			
17. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	18. TOTAL NUMBER OF CORE BOXES	
19. SAMPLES FOR CHEMICAL ANALYSIS See act. log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
20. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. SIGNATURE OF INSPECTOR <i>BBB</i>					
LOCATION SKETCH/COMMENTS See Pg 71			SCALE: no scale		

HTRW DRILLING LOG

FILE NUMBER: FQ/f23

PROJECT: Fuze & Booster/RVAAP

INSPECTOR: *L.H.*

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEO TECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (#)	REMARKS (#)
6'-1'		Yellow brown sandy Silt, trace clay, Some gravel, fine To coarse. Loose, damp, mottled gray.	0.0		FQSS 623 045 50 FQBSS 623 037 50	Refrigerated Organic material
1/3		Same A/A up to 2', Δ @ 2' to yellow brown silty sand. Loose, some gravel fine to mod. dry-damp			FQBSS 623 044 50 FQBSS 623 037 50	
2						
3						
4						
5						
6						
7						
8						
9						
10						

TASK TEAM ACTIVITY LOG SHEET

129

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/13/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Andre LeonRonda BrileySteve King

Narrative (include time and location):

- 0910 - Arrive @ FBQ #19. Cleared by S. King. Box Begin Sample for 0-1' interval FBQ #19 003750
- 0940 Refused @ 2 per. holes @ 6" See Dr. Hlog #16
- 0930 - Take 0-1 samples for full suite: Exp, TAL Met + Cr⁶⁺, SVOC, PCB + Pest, SOC, metals
- 0945 - Begin 1'-3' Sample interval. Take VOC sample from 1'-1" FBQ #19 003850
- 0955 - Take full suite of Exp, TAL met + Cr⁶⁺, SVOC, VOC, PCB + Pest @ 1'-3"
- 1015 - Abandon Site

10/13/03
P.M.

Daily Weather Conditions: A.M.

Sunny, 58F,

P.M.

Recorded By R.B.

QA Checked By

Amy Greenwood

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FBD φ19
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a			3. SHEET / of
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: Andre Leo-		6. MANUFACTURER'S DESIGNATION OF DRILL: n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: SS Spoon SS Howl SS 3½" Auger		8. HOLE LOCATION: FBD φ19			
		9. SURFACE ELEVATION n/a			
		10. DATE STARTED: 10/13/03			11. DATE COMPLETED: 10/13/03
12. OVERBURDEN THICKNESS: n/c		13. DEPTH GROUNDWATER ENCOUNTERED: n/c			
14. DEPTH DRILLED INTO ROCK: n/c		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/c			
16. TOTAL DEPTH OF HOLE: 3'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a			
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS: See act 1g		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. DISPOSITION OF HOLE:		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	22. TOTAL CORE RECOVERY % 70%
23. SIGNATURE OF INSPECTOR: DAB					
LOCATION SKETCH/COMMENTS 					
SCALE:					

HTRW DRILLING LOG

HOLE NUMBER: F86-019

132

PROJECT: Fuze & Booster/RVAAP

INSPECTOR R. Bailey

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if)	REMARKS (if)
0	0'-1'	Olive brown clayey silt up to 6", loose, moist, trace sand, trace gravel (fine to coarse grain). Δ @ 6" to yellow brown. Clayey silt, some sand fine grain damp, loose, some orange mottling.	PID: 0.44		F86-019003750	Refusal @ 6" 6" N 6" E
1-3'	2	Yellow Brown clay silt, some sand, some gravel fine to coarse, damp?, loose, orange and gray, mottling. Some white & red powder grains (oxidized): Between 2'6" & 3'.			F86-019003850	Refusal @ 3'
4						Refusal @ 3'
5						
6						
7						
8						
9						
10						
11						

10 13 03

TASK TEAM ACTIVITY LOG SHEET

133

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 11/13/03

Su M Tu W Th F Sa

PAGE 1 OF 1

Task Team Members:

Andrea LeonBill DotsroughRonda BaileyChar tolle CarrollSteve L.

Narrative (include time and location):

Cleared by S. King / FBQ50/0117043350

- 1930 - Arrive @ FBQ #17. Begin Sample interval
- 1935 - Refused @ N Perimeter hole: 8" Take full site. 0
- 1945 - Begin interval 1-3. Retrieve sample
for exp/plt. FBQ50/01170434
- 1950 - Stop interval. Abandon site.

9612.05.03

Daily Weather Conditions: A.M.

Sunny. High 59°F

P.M.

Recorded By

RLB

QA Checked By

Amy Leonard

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ #17
1. COMPANY NAME SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a			3. SHEET 1 OF 1
3. PROJECT Fuze & Booster/RVAAP		4. LOCATION Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER Andre/Steve		6. MANUFACTURERS DESIGNATION OF DRILL n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS Point SS Stork SS 3 1/2" Auger		8. HOLE LOCATION FBQ #17			
		9. SURFACE ELEVATION n/a			
		10. DATE STARTED 1/13/03		11. DATE COMPLETED 1/13/03	
12. OVERBURDEN THICKNESS		13. DEPTH GROUNDWATER ENCOUNTERED n/c			
14. DEPTH DRILLED INTO ROCK n/a		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED n/a			
16. TOTAL DEPTH OF HOLE n/a 3'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) n/a			
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS See pg. 108		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE		BACKFILLED <input checked="" type="checkbox"/>	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>
LOCATION SKETCH/COMMENTS		See Pg. 131			SCALE 40 Scale

HTRW DRILLING LOG

HOLE NUMBER: FBR 617

136

PROJECT: Fuze & Booster/RVAAP

INSPECTOR: *J. H. S.*

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECHE SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
9-1		Olive Brown clayey silt Some Sand, trace gravel, loose, moist. Fine sand grain gravel.	P120-0.10		FBR5017663490	8" Refuse N Perimeter hole
1-3		Same A/A. Δ @ 1' 8" to a yellow brown clayey silt. Some gravel/ fine - coarse, trace sand. loose, damp!			FBR5017663490	
3					3'	
4						
5						
6						
7						
8						
9						
10						

3'
RHS
1Φ 3 6 3

TASK TEAM ACTIVITY LOG SHEET

137

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 1/13/03Su Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Andre LoonRonnie BaileySteve King

Narrative (include time and location):

1105 - Arrive @ FBO 016 Board byS. King Begin Ø-1 sample intervals1129 - Retrieve sample for Ø-1 exp FBQSS010B031501125 - Refusal b" in center holeRetrieve Ø-1 Metals.1130 - ~~Afternoon~~ Site~~AG
12/03
103~~

Daily Weather Conditions: A.M.

Sunny 60° F

P.M.

Recorded By KLQA Checked By Darryl Standard

HTRW DRILLING LOG

DISTRICT Louisville

HOLE NUMBER
F13Q D16

139

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: Andre Leon

6. MANUFACTURER'S DESIGNATION OF DRILL: n/a

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT:

SS Bent
SS Ayacer 3 1/2'
SS 5 1/2"

8. HOLE LOCATION: F13Q D16

12. OVERTBURDEN THICKNESS: n/a

16. DEPTH GROUNDWATER ENCOUNTERED: n/a

13. DEPTH DRILLED INTO ROCK: n/a

18. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a

14. TOTAL DEPTH OF HOLE: 11'

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a

18. GEOTECHNICAL SAMPLES:

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES:

20. SAMPLES FOR CHEMICAL ANALYSIS:

VOC

METALS

OTHER (SPECIFY):

OTHER (SPECIFY):

OTHER (SPECIFY):

21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE:

BACKFILLED

MONITORING WELL

OTHER (SPECIFY):

23. SIGNATURE OF INSPECTOR: *JDB*

LOCATION SKETCH/COMMENTS: See Pg 131

SCALE: NO Scale/e

HTRW DRILLING LOG

FILE NUMBER: FBG616
140

PROJECT: Fuz & Booster RVAAP

INSPECTOR: *PSB*

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (I)	REMARKS (G)
6-1		Clayey silt - olive brown. Some gravel/ fine - coarse. Some sand to 3". A to yellow brown clayey silt. Some sand - loose, damp. Some gravel - fine to coarse. Some pebbles.	PID - P-4		FBG61640310	Refusal @ 10' 2 Perimeter @ 6' @ 1' @ 6" Center hole
2						Refusal @ 1'
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TASK TEAM ACTIVITY LOG SHEET

141

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/14/93 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Ronny BaileySteve KingLynne LornBill Dolsbaugh

Narrative (include time and location):

1945 Arrived at FBQ #10. Cleared by S. King. Begin 0-1 interval and took a split sample for explosives metals FBQ5561010095 10/14/93 ce

1946 Begin 1-3 interval FBQ556100200

1955 Retire sample for most/Exp, Refusal @ 3'

1955 Abandon site

10-15
ft
cc

Daily Weather Conditions: A.M.

Overcast, mid 50°F

P.M.

Recorded By

RJB

QA Checked By

Blawith Carroll

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ 616
1 COMPANY NAME SpecPro, Inc.		2 DRILL SUBCONTRACTOR n/a			SHEET 1 of 1
3. PROJECT Fuze & Booster/RVAAP			4 LOCATION Fuze & Booster Quarry Landfill/Pond		
5 NAME OF DRILLER Andre Leon			6 MANUFACTURER'S DESIGNATION OF DRILL n/a		
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		SS 5800n SS Rowl SS 3" Auger			8 HOLE LOCATION FBQ 616
9 SURFACE ELEVATION n/a			10 DATE STARTED 10/14/13 11 DATE COMPLETED 10/14/13		
12 OVERBURDEN THICKNESS n/c			13 DEPTH GROUNDWATER ENCOUNTERED n/c		
14 DEPTH DRILLED INTO ROCK n/c			15 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED n/c		
16 TOTAL DEPTH OF HOLE 3' ss			17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) n/c		
18 GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS Soil at top		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <i>RBB</i>
LOCATION SKETCH/COMMENTS			SCALE: no Scale		

HTRW DRILLING LOG

HOLE NUMBER: FBQ 61P

144

PROJECT: Fuze & Booster/RV AAP

INSPECTOR *Reff*

SHEET / OF /

ELEV. FT.	DEPTH FT.	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
0	0-1	Dark Olive Green Silt/clay, trace sand, trace gravel, some moist, soft, fine grain 86% to wet, 14% brown Clay, some Silt, trace sand, soft. A@ 14" to 1 ft brown clay, mottled orange & gray, trace sand some silt, trace gravel fine grain.	0-0		FBQ55@1000/950	+50ft Water percolates in to 60 ft. 2 per holes.
1	1-3	1 ft brown clay, mottled orange & gray, soft, increase of sand to some sand, D 2'8". increase of gravel to some. A@ 12'8" to a clay sand, coarse grain, some gravel fine & Coarse.			FBQ50@1000/950	
3						Refused @ 3'
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TASK TEAM ACTIVITY LOG SHEET

145

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/14/03 Su M Tu W Th F Sa

PAGE 1 OF 1

Task Team Members:

Andre Leon

Steve King

Bill Drolsbaysh

Ronda Bruley

Narrative (include time and location):

- 1024 - Arrive @ FBQ 614. Cleared by S. King.
 Begin 0-1 sample interval. Retrieve
 1035 - & + Retrieve Exp sample 2 0'-1' 4113
 1040 - " Met sample FBQ55 014002750
 1045 - Begin 1-3' interval FBQ50 014002850
 1053 - Retrieve Exp/Met sample to 1-3' 4113
 1058 - A backhoe site

A6

12/05/03

Daily Weather Conditions: A.M.

Overcast, mid 50's F

P.M.

Recorded By

RFB

QA Checked By

Amy Hernandez

HTRW DRILLING LOG		DISTRICT Louisville				HOLE NUMBER FBQ 614
1 COMPANY NAME: SpecPro, Inc.		2 DRILL SUBCONTRACTOR: n/a				Spec Pro L.L.C.
3 PROJECT Fuze & Booster/RVAAP		4 LOCATION Fuze & Booster Quarry Landfill/Pond				
5 NAME OF DRILLER: Bill Drotzbach		6 MANUFACTURER'S DESIGNATION OF DRILL: n/a				
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: SS 5" x 20' / SS 3.5" x 20' SS 2 1/2" Auger		8 HOLE LOCATION: FBQ 614				
		9 SURFACE ELEVATION: n/a				
		10 DATE STARTED: 10/14/03		11 DATE COMPLETED: 10/14/03		
12. OVERBURDEN THICKNESS: n/a		15. DEPTH GROUNDWATER ENCOUNTERED: n/a				
13. DEPTH DRILLED INTO ROCK: n/a		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a				
14. TOTAL DEPTH OF HOLE: x 3' 0"		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a				
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS: See ACT. Log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE:		<input checked="" type="checkbox"/> BACKFILLED	<input type="checkbox"/> MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: <i>RLB</i>	
LOCATION SKETCH/COMMENTS: See pg 143						
SCALE:						

HTRW DRILLING LOG

FILE NUMBER: FBQ 014

PROJECT: Fuz & Boester/RVAAP

INSPECTOR: *R.H.S.*

SHEET 1 OF 1

148

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (G)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (I)	REMARKS (G)
0	0'-6"	0'-6" olive brown silty clay, soft, some sand, trace gravel, fine moist A @ 6" to clayey silt - It brown w/orange & gray mottling, loose, med dense, moist	Ø Ø		FBQ55914002750	
1'	1"	A to a R brown clayey silt with orange gray mottling, loose, damp A @ 2' 1/3 med dense			FBQ50014002850	
2'	2' 1/3"	Same A/A, A/A				
3'	2' 6"	to olive brown clayey silt, med dense, damp, trace sand, trace gravel - fine				
4'						
5'						
6'						
7'						
8'						
9'						
10'						

3'

10' 1/2 03

TASK TEAM ACTIVITY LOG SHEET

149

PROJECT NAME: Phase VII Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 1/14/03

Su M Tu W Th F Sa

PAGE 1 OF 1

Task Team Members:

Andre LeonSteve KingBill DrokshangRonnie Bailey

Narrative (include time and location):

- 1/19 - Arrive @ FBQ601. Begin 0-1' sample interval. FBQss 001000150
- 1/25 - Retrieve Exp 4 Met 0-1' samples
- 1/40 - Begin 1-3' interval. FBQso 001000250
- ~~1/41~~ Water percolating in from 10'
- 1/42 - Retrieve 1-3' exp/met sample
- 1/45 - Abandon site

12/25/03

Daily Weather Conditions: A.M. Cloudy, mid 50° F

P.M.

Recorded By

Ronnie Bailey

QA Checked By

Amy Greenawald

HTRW DRILLING LOG		DISTRICT, Louisville			HOLE NUMBER FBQ 661
1. COMPANY NAME, SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a			SHEET 1 of 1
3. PROJECT Fuze & Booster/RVAAP			4. LOCATION Fuze & Booster Quarry Landfill/Pond		
5. NAME OF DRILLER Andie Leon			6. MANUFACTURER'S DESIGNATION OF DRILL		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION FBQ 461			
		9. SURFACE ELEVATION n/a			
			10. DATE STARTED 10/14/63		11. DATE COMPLETED 10/14/63
12. OVERBURDEN THICKNESS 1/2			13. DEPTH GROUNDWATER ENCOUNTERED 7 ft		
14. DEPTH DRILLED INTO ROCK n/a			15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7 hr		
16. TOTAL DEPTH OF HOLE 1/2			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) 7 1/2		
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS see act. log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. DISPOSITION OF HOLE BACKFILLED		MONITORING WELL	OTHER (SPECIFY)	22. TOTAL CORE RECOVERY %	
23. SIGNATURE OF INSPECTOR Andie Leon					
LOCATION SKETCH/COMMENTS			SCALE: n/a		

HTRW DRILLING LOG

HOLE NUMBER: FBQ 9

152

PROJECT: Fuze & Booster RVAAP

INSPECTOR

SHEET / OF /

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (E)	REMARKS (G)
1-1	0"	16" Olive brn sandy clay, moist. Soft, trace Sand, some gravel. Fine. At 6" Ht brn Sandy Clay, wet, trace Silt, some gravel. Fine to coarse, soft. At 10" to clayey sand. Ht brn, mottled orange. Fine to coarse, moist.	g.0		FBQ55 091000150	Water seen in to 10" bgl in perimeter holes
1-3	0"	Same as above, alternates from Sandy Clay to clayey sand.	V		FBQ50 061000250	
2	0"					
3	0"					
4	0"					
5	0"					
6	0"					
7	0"					
8	0"					
9	0"					
10	0"					

TASK TEAM ACTIVITY LOG SHEET

153

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/14/03

Su M Tu W Th F Sa

PAGE 1 OF 1

Task Team Members:

Ronda Bailey

Steve King

Andre Leon

Bill Dolsbaugh

Narrative (include time and location):

1216 - Arrive @ FBQ p02; Cleared by S. King
Begin 0-1' interval FBQ50p02 #0350

1226 - Retrieve sample for exp water

1246 - Perc. in perimenter holes @ 7" bgn.
Begin 1-3' interval #21 ✓ RHD

1256 - Retrieve sample 1-3 exp/met. FBQ50992900450

1306 - Leave Site

AG

12/05/03

Daily Weather Conditions: A.M.

Cloudy, H. wind, high 50°F

P.M.

Recorded By

Ronda Bailey

QA Checked By

Amy Steenward

HTRW DRILLING LOG		DISTRICT: Louisville				HOLE NUMBER FBQ 462	
1 COMPANY NAME SpecPro, Inc.		2 DRILL SUBCONTRACTOR: n/a				SHEET 1 of 1	
3 PROJECT Fuze & Booster/RVAAP		4 LOCATION: Fuze & Booster Quarry Landfill/Pond					
5 NAME OF DRILLER: Bill Driskbaugh		6 MANUFACTURERS DESIGNATION OF DRILL					
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS 4' pod SS 3 1/2" Auger SS - bowl		8 HOLE LOCATION: FBQ 462					
		9 SURFACE ELEVATION: n/c					
10 OVERBURDEN THICKNESS: n/c		11 DATE STARTED: 10/14/13				11. DATE COMPLETED: 10/14/13	
13 DEPTH DRILLED INTO ROCK: n/c		15 DEPTH GROUNDWATER ENCOUNTERED: 6"				16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a	
14. TOTAL DEPTH OF HOLE: 3'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a					
18. GEOTECHNICAL SAMPLES: 500 ft. long		DISTURBED		UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS:		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE: 0		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: GCB		
LOCATION SKETCH/COMMENTS: See Pg 151							
SCALE: n/a							

HTRW DRILLING LOG

HOLE NUMBER: FBQ-162

156

PROJECT: Fuze & Booster/RVAAP

INSPECTOR

SHEET 1 OF 1

ELEV (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
6	6'-1'	Dark Olive brown Clayey soil mottled gray with orange. Trace Sand, Some gravel; fine-med. Mod Dense moist.	0.9		FBQ5002009350	water perfs in (@) 6' in perimeter holes
1-3	4'-6'	Olive brown S. fly Clay mottled orange & gray, trace sand, some gravel, fine to coarse, moist. Soft increasing Consistency to stiff with depth, some sand inc. w/depth plastic			FBQ500200450	
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TASK TEAM ACTIVITY LOG SHEET

157

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/14/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Angie Leon
Bill Drotzbaugh
Randi BaitySteve King

Narrative (include time and location):

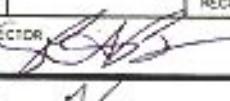
1445 - Arrive @ FBQ #8. Cleared by Steve K.
Begin 0-1" sample. FBQ50#08#01550
Collect sample met & exp.1506 - Begin 1-3' interval FBQ50#08#016501510 - Refusal @ 2' collect 1-3' met/exp1515 - Abandon Site

~~7/6
12/10/03~~

Daily Weather Conditions: A.M. _____

P.M. Rain, 53°F

Recorded By Randi BaityQA Checked By Amy Jeannot

HTRW DRILLING LOG		DISTRICT: Louisville				HOLE NUMBER F30- ppb		
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a				SHEET 1 of 1		
3. PROJECT: Fuze & Booster/RVAAP			4. LOCATION: Fuze & Booster Quarry Landfill/Pond					
5. NAME OF DRILLER: Andre			6. MANUFACTURERS DESIGNATION OF DRILL: n/p					
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		52 bowl/soil spoon 53 3/4" auger bucket		8. HOLE LOCATION: F30- ppb		9. SURFACE ELEVATION: n/p		
						10. DATE STARTED: 10/14/03	11. DATE COMPLETED: 10/14/03	
12. OVERBURDEN THICKNESS: n/a			13. DEPTH DRILLED INTO ROCK: n/a					
14. TOTAL DEPTH OF HOLE: 21			15. DEPTH GROUNDWATER ENCOUNTERED: n/a					
16. GEOTECHNICAL SAMPLES			DISTURBED	UNDISTURBED	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a		18. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS: See Act. 10a			VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE: 0			BACKFILLED n/a	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: 		
LOCATION SKETCH/COMMENTS						SCALE: 1/4"		
								

HTRW DRILLING LOG

HOLE NUMBER: P20-008

160

PROJECT: Fuze & Bouler/RVAAP

INSPECTOR

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if)	REMARKS (if)
0.0	0.0	DK olive Br Clayey Silt, some sand. trace gravel - fine - med, moist. Δ @ 8" to light brown clayey Silt. same as above.	BP to non functioning	PB08-008 0014-50		Organic material
1.0	1.0	Same as a		PB08-008 0014-50		Refusal 2'
2.0	2.0					
3.0	3.0					
4.0	4.0					
5.0	5.0					
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255.0						

TASK TEAM ACTIVITY LOG SHEET

161

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/15/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Andre LeonBill DicksburghSteve King

Narrative (include time and location):

<u>07:18</u>	<u>Steve King (Meng) Site</u>	<u>FBQ #13</u>
	<u>Began A-1 Sampled Met+Exp.</u>	
<u>09:34</u>	<u>Began 1-3 Interval</u>	<u>FBQ ss #13 pp25 so</u>
		<u>FBQ so #13 pp26 so</u>
<u>09:35</u>	<u>Collected 1-3 Sample Met-Exp</u>	
<u>09:44</u>	<u>Leave Abandoned Site</u>	

96
12-05
103

Daily Weather Conditions: A.M. Cloudy Windy 50

P.M. _____

Recorded By W.D. Dicksburgh QA Checked By Amy Standard

HTRW DRILLING LOG		DISTRICT Louisville			HOLE NUMBER FBQ 013
1 COMPANY NAME: SpecPro, Inc.		2 DRILL SUBCONTRACTOR: n/a			SHEET 1 of 1
3 PROJECT: Fuze & Booster/RVAAP		4 LOCATION: Fuze & Booster Quarry Landfill/Pond			
5 NAME OF DRILLER Andre		6 MANUFACTURER'S DESIGNATION OF DRILL n/a			
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS 400L SS 36 Agip Bunker		8 HOLE LOCATION FBQ 013			
		9 SURFACE ELEVATION.			
		10 DATE STARTED 11/15/03		11 DATE COMPLETED 10/13/03	
12 OVERBURDEN THICKNESS N/A		13 DEPTH DRILLED INTO ROCK N/A			14. TOTAL DEPTH OF HOLE 3'
		15. DEPTH GROUNDWATER ENCOUNTERED: N/C			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED N/C
18. GEOTECHNICAL SAMPLES		DISTURBED	UNCUTSTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS See Det. Log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE n/a		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY % n/a
23. SIGNATURE OF INSPECTOR <i>[Signature]</i>					
LOCATION SKETCH/COMMENTS SCALE: Not to Scale					

HTRW DRILLING LOG

HOLE NUMBER: FQ01B

164

PROJECT: Fuze & Booster RVAAP

INSPECTOR: JLB

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (G)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (P)	REMARKS (G)
5.0	10'	Ok olive Brown (Very) Silt Silt, some Sand Gravel Fines @ 10' light brown clay silt SMP isotope dry	6.0		FQ0501302550	Sab Soil started at 10"
2.	12'	Light Yellow Brown Chy Silt sand traces 20% Angular rounded Light Dry			FQ0501302650	Light Roots
3.	18'					
4.	20'					
5.	22'					
6.	24'					
7.	26'					
8.	28'					
9.	30'					
10.	32'					
11.	34'					
12.	36'					
13.	38'					
14.	40'					
15.	42'					
16.	44'					
17.	46'					
18.	48'					
19.	50'					
20.	52'					
21.	54'					
22.	56'					
23.	58'					
24.	60'					
25.	62'					
26.	64'					
27.	66'					
28.	68'					
29.	70'					
30.	72'					
31.	74'					
32.	76'					
33.	78'					
34.	80'					
35.	82'					
36.	84'					
37.	86'					
38.	88'					
39.	90'					
40.	92'					
41.	94'					
42.	96'					
43.	98'					
44.	100'					

TASK TEAM ACTIVITY LOG SHEET

165

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/15/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Steve KingAndrea (Con)Bill Daddsbaugh

Narrative (include time and location):

- 09:50 Steve King Cleaned Site FBQ - 015
Began Sampling Met+Exp FBQ ss 015 4#2 950
- 09:55 South Perimeter Hole Refusal AT 1' ON EXP. HOLE
- 10:15 Centre Hole Refusal AT 10"
- Unable To Get Met-Exp AT 1-3, Therefore Took Sample At Perimeter
10:16 Canyon 1-3 Sample AT Northern
 Perimeter Hole, AT 2'9" IT Refusal
- 10:18 Obtained 1-3 Met/Exp Sample FBQ 50 015 pp.3#50
- 10:21 Left Site

AC12.05 23Daily Weather Conditions: A.M. Cloud (Partal) Sunny 52°

P.M. _____

Recorded By W.A. Daddsbaugh QA Checked By Amy Fenner

HTRW DRILLING LOG

DISTRICT Louisville

HOLE NUMBER

FBQ, #15

167

1. COMPANY NAME SpecPro, Inc.

2. DRILL SUBCONTRACTOR

n/a

SHEET 1 OF 1

3. PROJECT Fuze & Booster/RVAAP

4. LOCATION Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER Andrew

6. MANUFACTURER'S DESIGNATION OF DRILL n/a

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT

CS Auger 3K Bucket

8. HOLE LOCATION

FBQ, #15

SS Spudger Bowl

9. SURFACE ELEVATION

12. OVERBURDEN THICKNESS

n/a

15. DEPTH GROUNDWATER ENCOUNTERED:

N/A

13. DEPTH DRILLED INTO ROCK

n/a

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:

n/a

14. TOTAL DEPTH OF HOLE

2' 9"

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

n/a

18. GEOTECHNICAL SAMPLES

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS

VOC

METALS

OTHER (SPECIFY)

OTHER (SPECIFY)

OTHER (SPECIFY)

21. TOTAL CORE

RECOVERY %

22. DISPOSITION OF HOLE

n/a

BACKFILLED

MONITORING WELL

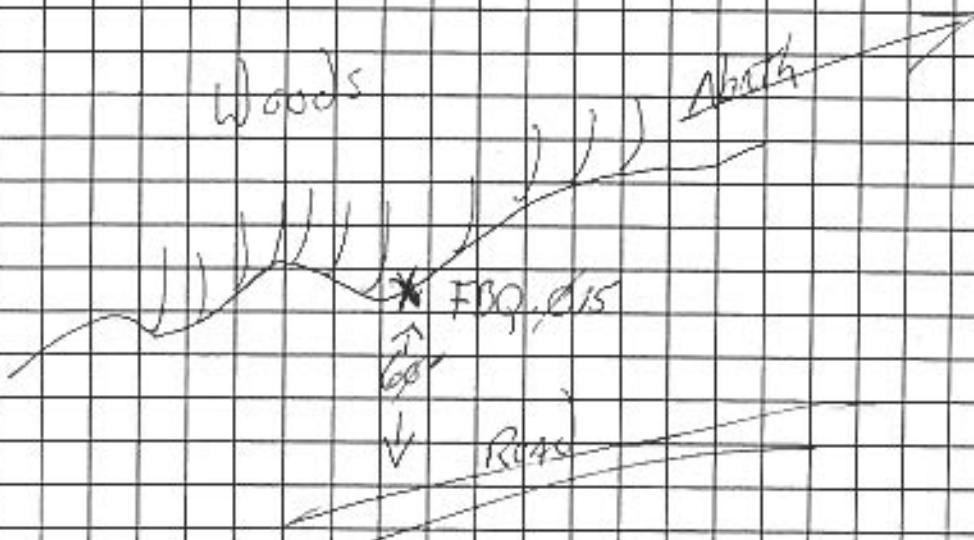
OTHER (SPECIFY)

23. SIGNATURE OF INSPECTOR

LOCATION SKETCH/COMMENTS

SCALE:

Not To Scale



HTRW DRILLING LOG

HOLE NUMBER: ~~FHQ.015~~ 168

PROJECT: Fuze & Booster/RVAAP

INSPECTOR: *R.A.B.*

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. ft's	REMARKS (G)
		Medium Dark Brown Silt w/ sand traces Very silty Fine-Mod Dense Mat	P.P		FHQ.015 002930	Working on Down Slope
2	2' 9"	Lighter Yellow Brown Silt w/ traces Heavy Gravels Mod Dense			FHQ.015 003050	
3						Retained at 2' 9" Obtained Sample
4						
5						
6						
7						
8						
9						
10						

TASK TEAM ACTIVITY LOG SHEET

169

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10-15-03 Su M Tu W Th F Sa PAGE / OF /

Task Team Members:

Andre LowBill DrolslburghSteve King

Narrative (include time and location):

10:35Starting Cleaned SITEFBQ, 01110:40Began of 1 IntervalFBQ55, 011 002 15010:40Retrieved Sample for Exp. SampleMet10:50Sampling i-3 Met / Exp SampleFBQ50, 011 002 250Collected Met / Exp Sample11:00Left SITE

~~10/15
12:05
03~~

Daily Weather Conditions: A.M. Sunny Windy 51°

P.M.

Recorded By

WA. Drolslburgh

QA Checked By

Amy Thonawak

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FDO.011
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: N/A			SHEET 1 OF 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: Steve King		6. MANUFACTURER'S DESIGNATION OF DRILL:			
7. SITES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION: FDO.011			
SS Spade Bowl		9. SURFACE ELEVATION:			
SS 3 1/2 Auger		10. DATE STARTED: 10/15/03			11. DATE COMPLETED: 10/15/03
12. OVERBURDEN THICKNESS		13. DEPTH DRILLED INTO ROCK: N/A			14. DEPTH GROUNDWATER ENCOUNTERED: 21 ft
					15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A
16. TOTAL DEPTH OF HOLE: 3'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A			
18. GEOTECHNICAL SAMPLES	DISTURBED		UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS: Re Tel log	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY) 21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE: N/A	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: JES	
LOCATION SKETCH/COMMENTS			SCALE: Not To Scale		

HTR W DRILLING LOG

HOLE NUMBER: FGQ 011

172

PROJECT Fuze & Booster/RVAAP		INSPECTOR B. Drivshaug			SHEET / OF	
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (ID)	REMARKS (G)
01		Medium Dark Brown Silt w/Tones of Sand Clayey Dry TENX Gravel Fine Deb			FGQ 011 002250	Flat Woods Area East of Road
1.3		Light Yellow Brown Silt Tones Sand Small Pebbles Found Firm - Med. Wet Bottom with Red Orange Coarse Sand and Dune			FGQ 011 002350	WATER AT 2' Interval
3						
4						
5						
6						
7						
8						
9						
10						

WA - D 6/15/83

TASK TEAM ACTIVITY LOG SHEET

173

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/15/13 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Steve KingJadee (ew)Bill Deesbaugh

Narrative (include time and location):

11/19 Steve King (¹ board) Site FBQ. 007
Beginning φ-1 Interval FBQ55007001350

11/15 Retrieved MET/Exp 90% samples φ-1

11/25 Started Sampling Center, Hole 1-3 MET/Exp FBQ50007001450

11/37 ^{Leave} Abandon Site

~~AG~~
~~12-05-03~~

Daily Weather Conditions: A.M. Sunny Cloudy Windy 50°

P.M.

Recorded By WA Deesbaugh QA Checked By Dawn Greenawald

HTRW DRILLING LOG

DISTRICT Louisville

HOLE NUMBER
FBQ-607

175

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR:

SHEET 1 of 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER:

Steve King

6. MANUFACTURER'S DESIGNATION OF DRILL

N/A

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT:

55 ft. long

8. HOLE LOCATION: FBQ-607

55' SSW

9. SURFACE ELEVATION:

55' boat

N/A

10. DATE STARTED: 10/15/03

11. DATE COMPLETED: 10/15/03

12. OVERBURDEN THICKNESS:

N/A

13. DEPTH DRILLED INTO ROCK:

N/A

14. TOTAL DEPTH OF HOLE:

3'

15. DEPTH GROUNDWATER ENCOUNTERED:

N/A

16. GEOTECHNICAL SAMPLES

DISTURBED

UNDISTURBED

17. TOTAL NUMBER OF CORE BOXES:

20. SAMPLES FOR CHEMICAL ANALYSIS:

VOC

METALS

OTHER(SPECIFY)

OTHER(SPECIFY)

OTHER(SPECIFY)

21. TOTAL CORE

RECOVERY

22. DISPOSITION OF HOLE:

BACKFILLED

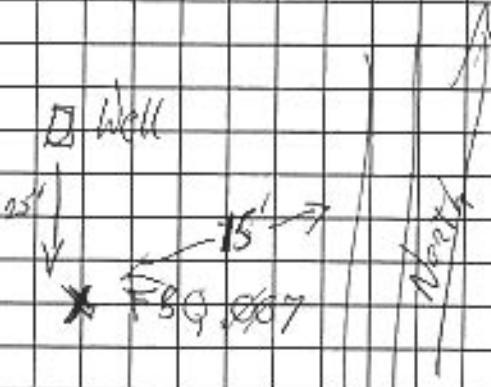
MONITORING WELL

OTHER(SPECIFY)

23. SIGNATURE OF INSPECTOR:

LOCATION SKETCH/COMMENTS

SCALE: Not To Scale



HTRW DRILLING LOG

HOLE NUMBER: F50/01

176

PROJECT: Fuze & Boxxer/RVA/AP

INSPECTOR: SJB

SHEET / OF /

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE ID (F)	REMARKS (G)
0	0-1	Hairy Brown Silt w/ traces of sand. Dry Trace Gravel Dull reddish brown Med Pebbles Med Dense			F50/007	6/13/50
1	1-3	Light yellow brown Silt Traces sand/clay Small Pebbles (Pebble's Sand) Hatched w/ Red/Orange (orange sand) Med Dense WET			F50/007	6/14/50
2	3'					
3	5'					
4	10'					
5	15'					
6	18'					
7	20'					
8	22'					
9	24'					
10	26'					

TASK TEAM ACTIVITY LOG SHEET

185

PROJECT NAME: Phase I/II RI Fuze & Booster Quarry Landfill/Pond DELIVERY ORDER NO: 0012

Date (mm/dd/yy): 10/26/93 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Ronnie BaileyAndre LeonTiggs

Narrative (include time and location):

* 0930 - Arrive @ FBQ 018. Chased by
 - Tiggs. Begin Q-1 interval, moved from prior location

0947 - Retrieving exp'd a exp spl.t. FBQ 5918 003550

1000 - 4 oz VOC from Q-1 center hole and 8 oz VOC split
 from 1st Auger bucket

1020 - Retrieve full suite and spl.t.: TAL met/cr. + Spl.t.
 PCB/part + gr.1/t
 SVOC/Prop + spl.t
 VOC + spl.t
 MS/MSD

1025 - Refusal @ 1'

* See Dase TMT for reference of 1st sample

Daily Weather Conditions: A.M. Sunny, Mid 50s°F

P.M.

Recorded By

Karen Bly

QA Checked By

Amy Greenawalt

HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER
FBQ p18

187

1 COMPANY NAME SpecPro, Inc.

2 DRILL SUBCONTRACTOR

n/a

SHEET 1 of 1

3 PROJECT Fuze & Booster/RVAAP

4 LOCATION Fuze & Booster Quarry Landfill/Pond

5 NAME OF DRILLER Andre Leon

6 MANUFACTURER'S DESIGNATION OF DRILL

7 SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT

SS 50mm

SS 100mm

SS 3 1/2" Auger

8 HOLE LOCATION

FBQ p18

12. OVERBURDEN THICKNESS

1/2

10 DATE STARTED

1/26/93

11 DATE COMPLETED

1/26/93

13. DEPTH DRILLED INTO ROCK

n/c

15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED

n/c

14. TOTAL DEPTH OF HOLE

11

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

1/2

18. GEOTECHNICAL SAMPLES

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS

VOC

METALS

OTHER (SPECIFY)

OTHER (SPECIFY)

OTHER (SPECIFY)

21. TOTAL CORE

RECOVERY %

22. DISPOSITION OF HOLE

BACKFILLED

MONITORING WELL

OTHER (SPECIFY)

23. SIGNATURE OF INSPECTOR

RFB

LOCATION SKETCH/COMMENTS

SCALE:

no scale

N

No Pond

FBQ
p18Middle
Pond

HTRW DRILLING LOG

HOLE NUMBER: F8Q 016

188

PROJECT: Fuze & Booster RVAAP

INSPECTOR: *R. R. B.*

SHEET / OF

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
1	1	Med. brown Silty Clay, trace Sand, trace gravel. Fine to med. soft, damp.	D.P.		F8Q 55018 #350	refusal @ 9' E. perimeter Refusal @ 1' center hole
1	1					Refusal
2	2					
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

TASK TEAM ACTIVITY LOG SHEET

189

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/20/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Ronale BaileyAndre LeonJigss

Narrative (include time and location):

1055 - Arrive @ FBQ 009. Cleared by Jigss.Began 0-1 interval. FBQSS 0090017501107 - Retrieve Exp + Exp Split from Per holes1119 - Retrieve VOC + VOC Split from reactor hole1125 - Retrieving 0-1 Full suite + split: TAC met/cb + split
Per/Per + split
SVOC/Prop + split
MS/MS1140 - Begin 1-3 interval. Retrieve VOC + split +1155 - Retrieve 1-3 full suite + split: exp + split
FBQ50009001850 TAC met/cb + split
Per/Per + split** Sample originally taken 10-13-03,
was dropped and had to be re-done.
See page 181-184 for original. ca

Daily Weather Conditions: A.M.

Sunny, high 50's F

P.M.

Recorded By LGBQA Checked By Chandler Baile

HTRW DRILLING LOG		DISTRICT Louisville				HOLE NUMBER FEBQ 4P9
1 COMPANY NAME: SpecPro, Inc.		2 DRILL SUBCONTRACTOR <i>n/a</i>				SHEET <u>1</u> of <u>1</u>
3. PROJECT: Fuze & Booster/RVAAP			4 LOCATION Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER <i>J. J. Goss</i>			6. MANUFACTURER'S DESIGNATION OF DRILL <i>n/a</i>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		<i>SS bowl</i> <i>SS screen</i> <i>SS 3/4" Auger</i>		8. HOLE LOCATION <i>F-BQ-605</i>		
			9. SURFACE ELEVATION <i>n/a</i>			
			10. DATE STARTED: <i>10/26/03</i>		11. DATE COMPLETED: <i>10/26/03</i>	
12. OVERBURDEN THICKNESS <i>n/c</i>			13. DEPTH GROUNDWATER ENCOUNTERED <i>n/c</i>			
13. DEPTH DRILLED INTO ROCK <i>n/a</i>			14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: <i>n/c</i>			
14. TOTAL DEPTH OF HOLE <i>X 34 ft (40)</i>			15. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>n/c</i>			
16. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	17. TOTAL NUMBER OF CORE BOXES <i>n/a</i>		
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See activity log</i>		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE <i>Y</i>		BACKFILLED <i>✓</i>	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <i>R. Bailey</i>	
LOCATION SKETCH/COMMENTS					SCALE: <i>no scale</i>	

HTRW DRILLING LOG

HOLE NUMBER: FRQ 407

PROJECT: Fux & Booster/RVAAP

INSPECTOR: J.L.H.

SHEET 1 OF 1

192

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if applicable)	REMARKS (if applicable)
0-1		Olive brown silty clay, some sand, trace gravel, fine to med. Saturated, soft. Orange & grey mottling.	0.0	F13050409991850	(full)	Grasses, roots leaves, stems
1		Sand as above			F13050409991850	(full)
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TASK TEAM ACTIVITY LOG SHEET

193

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10-05-03 Su M Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

Linda BaileyTroy EnnisCharles CarrollAndy Leon

Narrative (include time and location):

1409 Arrive at Sample Location FBQ-005-008-501410 Start sampling after flag clears
Location FBQ-005-009-50by explosives, TAC metals, and ms/msD1435 Start 1-3 sample FBQ-005-008-50for explosives and metals and ms/msD1456 Finish sample go to next location~~10/05/03~~

Daily Weather Conditions: A.M.

P.M. Sunny, Warm, light breeze SWRecorded By Charles Carroll

QA Checked By

Amy Monawald

HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER
FB0605

195

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR

n/a

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: Andre Leon

6. MANUFACTURER'S DESIGNATION OF DRILL: n/a

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT:55 foot spoon
55 3/4" dia auger
Bucket

8. HOLE LOCATION: FB0-605

12. OVERBURDEN THICKNESS:

n/a

15. DEPTH GROUNDWATER ENCOUNTERED: n/a

13. DEPTH DRILLED INTO ROCK:

n/a

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:
n/a

14. TOTAL DEPTH OF HOLE:

3 ft

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):
n/a

18. GEOTECHNICAL SAMPLES:

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES:

n/a

20. SAMPLES FOR CHEMICAL ANALYSIS:

VOC

METALS

OTHER (SPECIFY)

OTHER (SPECIFY)

OTHER (SPECIFY)

21. TOTAL CORE
RECOVERY %

22. DISPOSITION OF HOLE:

BACKFILLED

MONITORING WELL

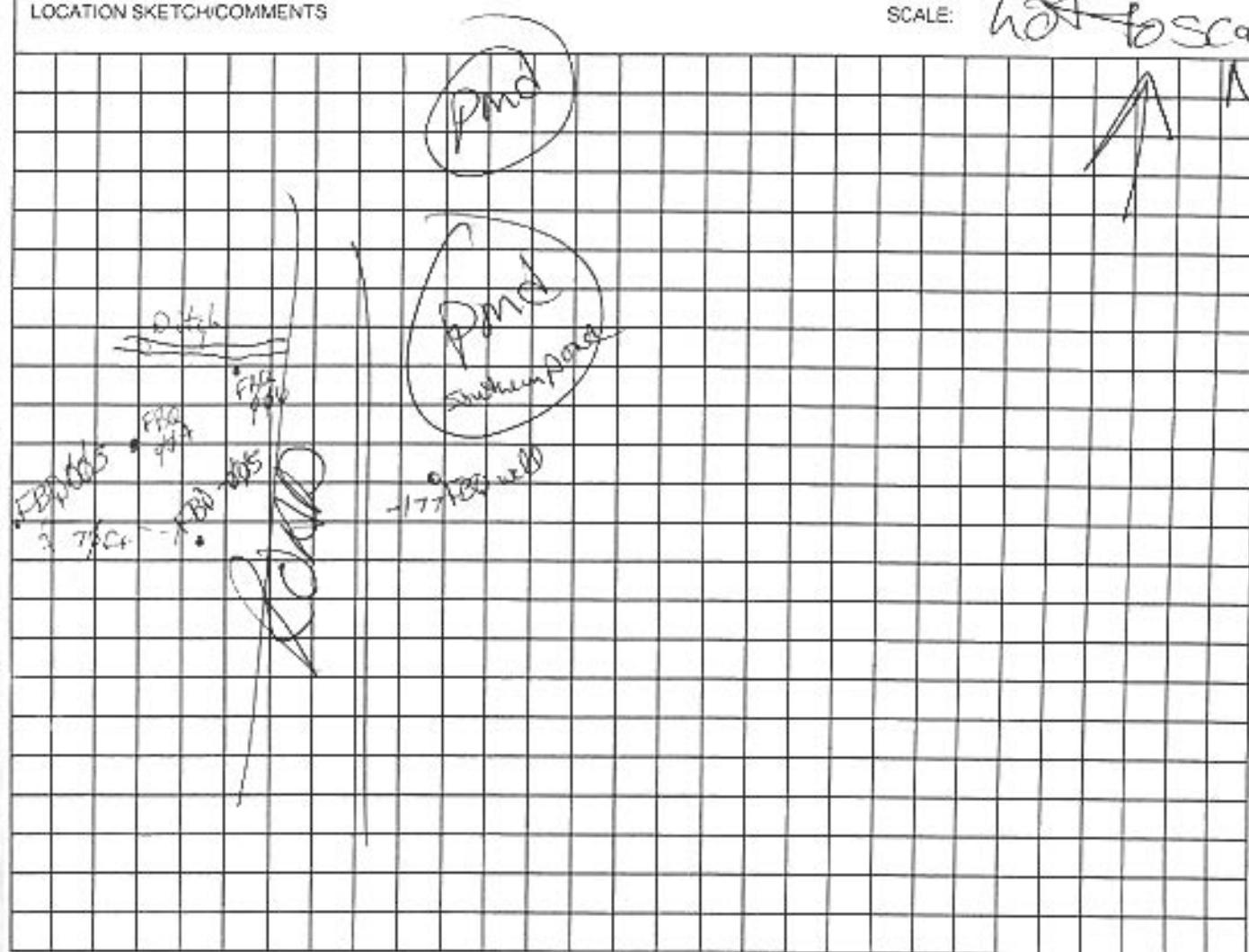
OTHER (SPECIFY)

23. SIGNATURE OF INSPECTOR:

C. Canale

LOCATION SKETCH/COMMENTS

SCALE:

not to scale
North

HTRW DRILLING LOG

HOLE NUMBER:

H9-005

PROJECT: Fuze & Booster RVAAP

INSPECTOR C. Canall

SHEET

OF

196

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (c)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OK CORE BOX	ANALYTICAL SAMPLE NO. (ft)	REMARKS (c)
0	0-1	med brownish tan, Clay-Silt + trace Sand, coarse, moist med plasticity	0 ppm	N/A	H9-005 D09-50	roots, stems
1	1-3					
2	2	graded into finer clay, silt, trace gravel, traces sand med low plasticity	0 ppm	N/A	H9-005-665 D09-50 D10-50	
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

10 20 30 40

D1 D2 D3

TASK TEAM ACTIVITY LOG SHEET

197

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10-20-03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Chandler CanaleJesse EnnisRonda BaileyAndie Leon

Narrative (include time and location)

14:57 Arrive at Sample LocationFBQ-00314:58 Start sample FBQss-003-0005 -50After Jesse cleared for explosives
and TAC Metals with MS/MSD15:23 Start 1-3 interval FBQss-003-0006-50and take the split for DOC/SWOC, propellant/
PCB, Pesticides/TAC metals, Cr⁶⁺ and explosives15:45 Finish Sample, go to next location10-20-03

Daily Weather Conditions: A.M.

Sunny, clear, breezy, 60°'sRecorded By Chandler Canale on Checked By Amy Hernandez

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FBQ-003		
1. COMPANY NAME SpecPro, Inc.		2. DRILL SUBCONTRACTOR n/a			Sheet 1 of 1		
3. PROJECT: Fuze & Booster/RVAAP			4. LOCATION: Fuze & Booster Quarry Landfill/Pond				
5. NAME OF DRILLER: Andre Leon		6. MANUFACTURER'S DESIGNATION OF DRILL R/n					
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2 1/2" bore / spoon 3 3/8" dia auger bucket		8. HOLE LOCATION FBQ-003					
			9. SURFACE ELEVATION n/a				
			10. DATE STARTED: 10/26/03		11. DATE COMPLETED: 10/26/03		
12. OVERBURDEN THICKNESS n/a		13. DEPTH DRILLED INTO ROCK n/a			14. TOTAL DEPTH OF HOLE 3 ft		
		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a			16. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) n/a n/a		
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS Soil Act 10g		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE n/a		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: Randall		
LOCATION SKETCH/COMMENTS				SCALE:			
				<p>Soil location for FBQ-003 on page 195 in the Soil Sample Logbook</p> <p># 1</p>			

HTRW DRILLING LOG

HOLE NUMBER: 18 - 03

200

PROJECT: Fuzz & Booster/RVAAP			INSPECTOR: <i>Mawall</i>	SHEET 1 OF 1		
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEO TECH SAMPLE IN CORE BOX	ANALYTICAL SAMPLE NO (if)	REMARKS (if)
0	0-1	med tanish brown silty clay trace sand, coarse to fine gravel some mottling of orange/brown, hard gradecolumn to a deep brown the 1" mottling of brownish and clay appears around 4-5"	2.1 ppm 0.0 ppm	7/A	FBQ5-103- 0005-SD	roots, stems
1	1-3					
2	3-4	grading into a stiff/hard, stiff cutting, denser towards the 3ft. Occasionally large gravel (sometimes appearing	0.0 ppm		FBQ5-03 0006-SD (Full)	
3	4-5					
4	5-6					
5	6-7					
6	7-8					
7	8-9					
8	9-10					
9	10-11					
10	11-12					
11	12-13					
12	13-14					
13	14-15					
14	15-16					
15	16-17					
16	17-18					
17	18-19					
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270	271-272					
2						

TASK TEAM ACTIVITY LOG SHEET

201

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10-20-03 Su M Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

<u>Chandler Arnall</u>	<u>Jesse Ennis</u>
<u>Ronda Bailey</u>	
<u>Andre Dean</u>	

Narrative (include time and location):

<u>1555</u>	<u>Arrive at Sample Location FBD-004</u>
	<u>Begin Sample P-1 FBQ02-P04-000750</u>
<u>1610</u>	<u>Exp. Met + MS/MSD</u>
<u>1615</u>	<u>Begin 1:3 interval - FBQ50-004-009850</u>
<u>1618</u>	<u>Re refusal center hole 22" (1'10").</u>
<u>1625</u>	<u>Atmospheric Site</u>

Daily Weather Conditions: A.M.

P.M. Sunny, 100's, clearRecorded By Chandler Arnall QA Checked By Amy Greenawalt

HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER
FBQ 664

203

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: Chantelle Carroll

6. MANUFACTURER'S DESIGNATION OF DRILL

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT

SS screen

n/a

SS bowl

FBQ #44

SS 3 1/2" Auger

8. HOLE LOCATION

12. OVERBURDEN THICKNESS

n/a

15. DEPTH GROUNDWATER ENCOUNTERED

13. DEPTH DRILLED INTO ROCK

n/a

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:

14. TOTAL DEPTH OF HOLE

n/a 1' 10"

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)

OTHER (SPECIFY)

21. TOTAL CORE

22. DISPOSITION OF HOLE

BACKFILLED

MONITORING WELL

OTHER (SPECIFY)

23. SIGNATURE OF INSPECTOR

Carroll

LOCATION SKETCH/COMMENTS

See Pg 195

SCALE:

HTRW DRILLING LOG

HOLE NUMBER: F6Q44

204

PROJECT: Fuze & Booster/RVAAP

INSPECTOR: RAB

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OK COKE SKIX	ANALYTICAL SAMPLE NO. (#)	REMARKS (G)
1'-1"	Med brown Clayey Silt, firm, trace sand, trace gravel, fine to coarse, damp.	9.9: PWD	F6QSS #A	9/0750		Roots, stems
1'-1"	Med brown Sandy Silt, trace Clay, some gravel, fine-coarse dry-damp - st. ff.	9.9: PWD	F6QSS #A	9/0750		
2'						Refusal @ 1' 10"
3'						
4'						
5'						
6'						
7'						
8'						
9'						
10'						

TASK TEAM ACTIVITY LOG SHEET

205

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 1/2/13

Su Tu W Th F Sa

PAGE 1 OF 1

Task Team Members:

Linda Bailey

Tessie Dennis

Andrea Leon

Chantelle Carroll

Narrative (include time and location):

1639 - Arrive @ FBQ 6#6. Checked by Tess. Begin
0-1 interval

1639 - Retrieve Exp Sample FBQ 6#6 091130

1642 Retrieve met sample or m/m/s sample

1645 - Begin 1-3 interval

1656 - Retrieve met/Exp Sample FBQ 50#6 091230

1706 - ^{Leave} Abandon Site12 AG
105
103

Daily Weather Conditions: A.M.

P.M. Sunny, 60°F

Recorded By

ASB

QA Checked By

Amy Greenawalt

HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER

F6Q 686

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR:

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: Tugger

6. MANUFACTURER'S DESIGNATION OF DRILL:

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT

SS Bowl

SS 3" core

SS 3 1/2" Auger

8. HOLE LOCATION:

F6Q 686

12. OVERTBURDEN THICKNESS

-10

15. DEPTH GROUNDWATER ENCOUNTERED:

n/a

13. DEPTH DRILLED INTO ROCK

n/a

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:

n/a

14. TOTAL DEPTH OF HOLE

364

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

n/a

18. GEOTECHNICAL SAMPLES

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS

VOC

METALS

OTHER (SPECIFY)

OTHER (SPECIFY)

OTHER (SPECIFY)

21. TOTAL CORE

RECOVERY %

22. DISPOSITION OF HOLE

BACKFILLED

MONITORING WELL

OTHER (SPECIFY)

23. SIGNATURE OF INSPECTOR: *J. A. B.*

LOCATION SKETCH/COMMENTS

See pg 195

SCALE:

HTRW DRILLING LOG

HOLE NUMBER: F0466

208

TASK TEAM ACTIVITY LOG SHEET

209

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 12/24/03

Su M Tu W Th F Sa

PAGE 1 OF 1

Task Team Members:

Randy Bailey

Andre Leon

Tiggs Evans

Narrative (include time and location):

1705 - Arrive @ FBQ p12. Checked by Tiggs. Begin
0-1' interval

1715 - Exp sample FBQ ss p12 #923 SO.

1720 - Met sample

1722 - Begin 1-3' interval

1725 - Met exp sample so p12 #924 SO

1730 - Abandon Site

AG
12-25-03

Daily Weather Conditions: A.M.

P.M. Sunny, 60°F

Recorded By

Amy Granawalt

HTRW DRILLING LOG

DISTRICT: Louisville

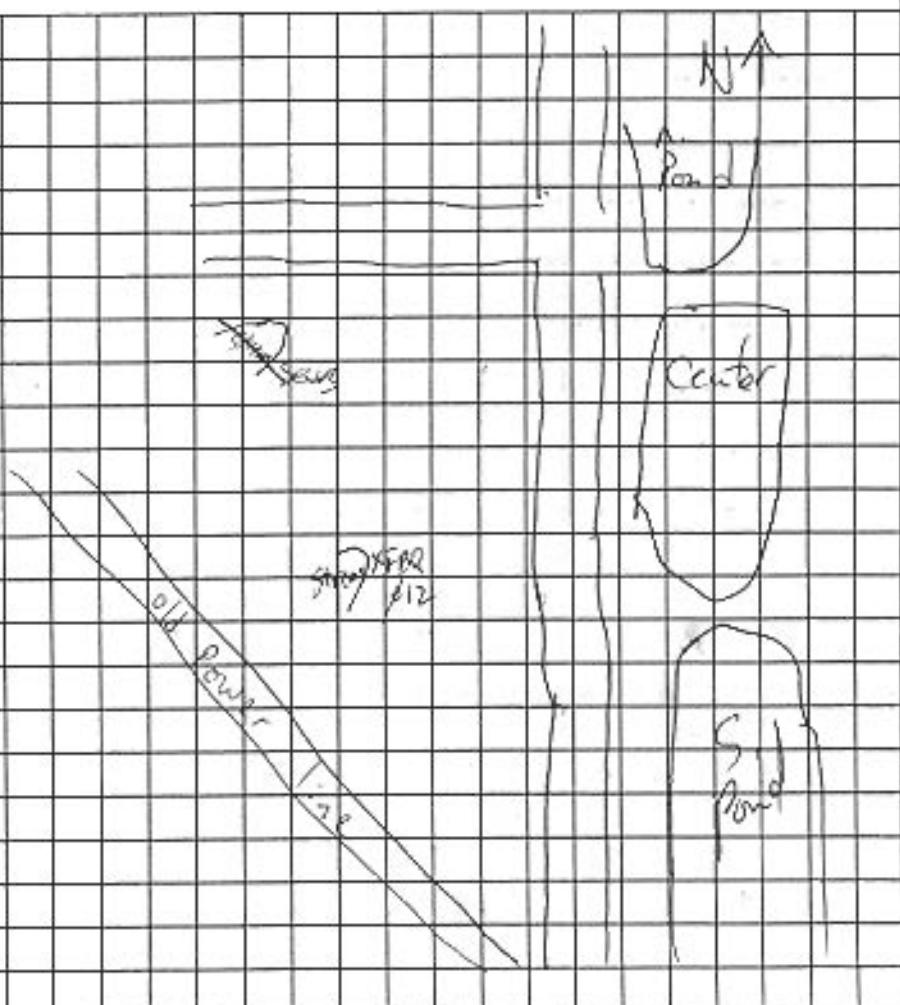
HOLE NUMBER
FBQ-p12

211

1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: n/a		3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond	
5. NAME OF DRILLER: TSSS		6. MANUFACTURERS DESIGNATION OF DRILL:		7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT:		8. HOLE LOCATION: FBQ-p12	
				SS 3 1/2" Auger		9. SURFACE ELEVATION: n/a	
						10. DATE STARTED: 1/24/93	11. DATE COMPLETED: 1/26/93
12. OVERBURDEN THICKNESS: 1/2		13. DEPTH DRILLED INTO ROCK: n/a		14. TOTAL DEPTH OF HOLE: 2' 9"		15. DEPTH GROUNDWATER ENCOUNTERED: n/a	
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a		18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS: Soil activity log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY: n/a
22. DISPOSITION OF HOLE: Backfilled		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: RMB		

LOCATION SKETCH/COMMENTS

SCALE:



HTRW DRILLING LOG

FILE NUMBER: FBQ 612

212

TASK TEAM ACTIVITY LOG SHEET

1

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/12/03 Su M Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

MADCherie HeE. CarrollRonda BaileyMark DeeringSteve King

Narrative (include time and location):

MAD

- 10/20 Arrive on location for FBQ Q55
- 10/25 S. King clears
- 10/30 Start sampling @ Ø-1 for samp. FBQSS-Q55-0109-50 for Exps. + Mts.
- 11:00 Collect Ø-1' Exp. samp.
- 11:05 Start sampling @ Ø-1 center hole
- 11:20 Augering effort halted due to lack of recovery in center hole + refusal in two of three triangle holes. Need to confer w/ DEPA.

* DEPA advised, 'document "refusal" of sampling equipment for each sample site where applicable.'

Daily Weather Conditions: A.M. Clear, low 40's

Recorded By Mark Deering P.M. Amy Greenawald
QA Checked By

HTRW DRILLING LOG		DISTRICT Louisville		HOLE NUMBER FBG-055			
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR N/A		SHEET 1 of 1			
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond					
5. NAME OF DRILLER: C. Carroll		6. MANUFACTURER'S DESIGNATION OF DRILL N/A					
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS Spowl Bowl SS 3½" dia auger back		8. HOLE LOCATION: FBG-055					
		9. SURFACE ELEVATION: N/A					
		10. DATE STARTED: 10/2/03 11. DATE COMPLETED: 10/2/03					
12. OVERBURDEN THICKNESS N/A		13. DEPTH DRILLED INTO ROCK: N/A					
		14. TOTAL DEPTH OF HOLE: 1 ft. bgs (auger refusal) N/A					
15. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	16. TOTAL NUMBER OF CORE BOXES N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS See Activity Log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE N/A		RACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR M Deering		
LOCATION SKETCH/COMMENTS				SCALE: Not to Scale			

HTRW DRILLING LOG

HOLE NUMBER: FRQ-655 4

PROJECT: Fuze & Booster/RVAAP		INSPECTOR	Mark Deering		SHEET 1 OF	
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (D)	REMARKS (E)
		DK.yel. bryn silty clay, tr. gr. silt, comp, firm	PFM	N/A	FRQ- 055010930	S.W. exp. hole refusal-8'
7'		Olive m-f dk.yel bryn clayey silt, tr. gr. silt, comp, med dense	P	MAD	F3	S.E. exp. hole refusal-8'
	T.D.	(Refusal @ 1' bgs)				Augering/sampling terminated at 1' bgs due to refusal + lack of recovery. (Per discussion on site, this day w/ OEDA representative)
						RB 12.4.03
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

TASK TEAM ACTIVITY LOG SHEET

5

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/02/03 Su M Tu W () F Sa PAGE 1 OF 1
Task Team Members:Mark DeeringRonda BaikySteve King

Narrative (include time and location):

13:40 Arrive on location (pre-cleaned by S. King)

13:45 Begin sampling 0-1' bags

14:00 Collect samples for 0-1': Exps.; 0-1': Metals;
auger refusal at 6" in center hole (- FBG 45370105)

14:10 Auger sampling halted due to refusal, as noted
on log (i.e., 6" bag in center hole).

12.4.03

Daily Weather Conditions: A.M.

P.M. Cloudy, mid 40's

Recorded By Mark Deering

QA Checked By

Amy Greenawald

HTRW DRILLING LOG		DISTRICT: Louisville	HOLE NUMBER FBQ-053			
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: <i>N/A</i>	SHEET 1 OF 1			
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond				
5. NAME OF DRILLER: R. Bailey		6. MANUFACTURERS DESIGNATION OF DRILL: N/A				
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>SS 5000N Bow SS 3 1/2 dia auger bucket</i>		8. HOLE LOCATION: FBQ-053				
		9. SURFACE ELEVATION: N/A				
		10. DATE STARTED: 10/2/03	11. DATE COMPLETED: 10/2/03			
12. OVERBURDEN THICKNESS N/A		15. DEPTH GROUNDWATER ENCOUNTERED: N/A				
13. DEPTH DRILLED INTO ROCK N/A		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: <i>N/A</i>				
14. TOTAL DEPTH OF HOLE 1 ft. bgs (auger refusal) N/A		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):				
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS <i>Spec activity 10g</i>	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE N/A	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <i>M.F. Deering</i>		
LOCATION SKETCH/COMMENTS				SCALE: Not to scale		
<p>Quarry Pond(s)</p> <p>#3</p> <p>#2</p> <p>#1</p> <p>(X)</p> <p>Location ~ 50 yds east of center of Pond #3</p>						

HTRW DRILLING LOG

HOLE NUMBER: FB0-653

8

PROJECT: Fuze & Booster RVAAF			INSPECTOR	Mark Deering		SHEET 1 OF 1
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (G)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (IPI)	REMARKS (G)
		Dk olv bm sly Silt, tr Sediment, loose	0.77M	N/A	F34- 053- 0165- 50	S.E. Exp. hole refusal @ 7". SW @ Sew. location turned up slope of a big tree Refusal in center hole @ 6"
1	T.D.	(Refusal @ 1' bgs)				
2						
3						
4						
5						
6						
7						
8						
9						
10						

TASK TEAM ACTIVITY LOG SHEET

9

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/22/03 Su M Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

Ronda Ba. by
Mark Deering
Steve King

Narrative (include time and location):

1417 - Arrive @ FBQ-#50. (Pre-cleaned by S. King)

1436 - Begin sampling (FBQ-#50) (0799-50)

1438 - Collect EXP^{+Metals} samples (Note: refusals @ 3", 5", + 6")

1445 - Refusal in center hole @ 8"

AG
12.4.03

Daily Weather Conditions: A.M.

P.M. Cloudy, mid-40'sRecorded By Mark Deering QA Checked By Dawn Greenawald

HTRW DRILLING LOG

DISTRICT Louisville

HOLE NUMBER
FBQ-056

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR:

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

11

5. NAME OF DRILLER:

M.H. R. Bailey - S. King

6. MANUFACTURER'S DESIGNATION OF DRILL

N/A

7. SIZES AND TYPES OF DRILLING
AND SAMPLING EQUIPMENT55' ground / 13' wall
33' 45' auger bucket

8. HOLE LOCATION:

FBQ-056

9. SURFACE ELEVATION

N/A

10. DATE STARTED:

10/2/03

11. DATE COMPLETED:

10/2/03

12. OVERBURDEN THICKNESS

N/A

13. DEPTH DRILLED INTO ROCK

N/A

14. TOTAL DEPTH OF HOLE

8 inches bgs (auger refusal) N/A

15. DEPTH GROUNDWATER ENCOUNTERED

N/A

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:

N/A

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

18. GEOTECHNICAL SAMPLES

DISTURBED

UNDISTURBED

19. TOTAL NUMBER OF CORE BOXES

N/A

20. SAMPLES FOR CHEMICAL ANALYSIS

See Activity Log

VOC

METALS

OTHER (SPECIFY)

OTHER (SPECIFY)

OTHER (SPECIFY)

N/A

21. TOTAL CORE
RECOVERY %

22. DISPOSITION OF HOLE

N/A

BACKFILLED

MONITORING WELL

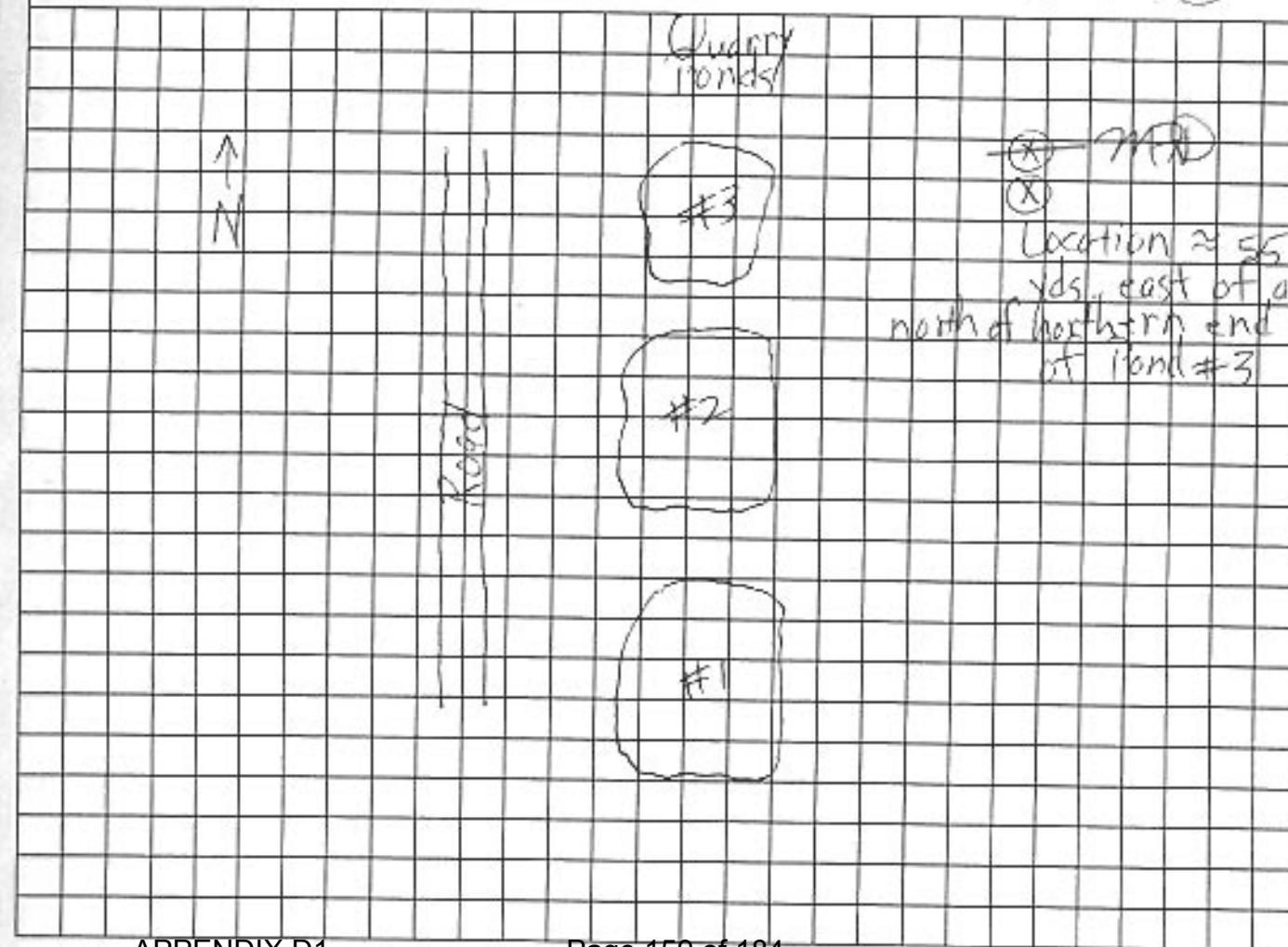
OTHER (SPECIFY)

23. SIGNATURE OF REPORTOR

D. J. Dearing

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



HTRW DRILLING LOG

FILE NUMBER: FBQ-034 12

PROJECT: Fuze & Booster/RVAAP			INSPECTOR	Mark Deering		SHEET 1 OF 1
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GROOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (ft)	REMARKS
	8"	Olv. brn. silty Sand tr - some fn. - med. gravel, damp, loose	10 PPM	N/A	FBQ-030 68350 N 3"; S. Exp. hole @ 6"; E. Exp. hole @ 5" bgs; Center Exp. hole @ 8"	Refusal (Refusal @ 8" bgs) Auger sampling terminated at this location due to refusal or not done.

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

13

Date (mm/dd/yy): 12/12/03

Su M Tu W Th F Sa

PAGE 1 OF 1

Task Team Members:

MHD Ronita Bailey
Mark Deering
Steve King

Narrative (include time and location):

(Pre-cleared by S. King)

14:48: Arrived @ location FBQ - 04715:00: Collect ^{+ Metals} Exp samples (Note: refusal @ 2", 4",
+ 8" in Exp auger holes) FBQ - 047 - 0093-50
(Center hole refusal @ 8")

AG

12-4-03

Daily Weather Conditions: A.M.

MHD P.M. Cloudy, mid - 40's
Recorded By Mark Deering QA Checked By Amy Hernandez
Mark

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER SPD-047
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: N/A		N/A	FBQ SHEET 1 of 1
3. PROJECT: Fuze & Booster/RVAAP			4. LOCATION: Fuze & Booster Quarry Landfill/Pond		
5. NAME OF DRILLER: S. King			6. MANUFACTURER'S DESIGNATION OF DRILL: N/A		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 22' 3" core/Boat 55' 3" dia Auger Bucket			8. HOLE LOCATION: 5134 - Ø47		
			9. SURFACE ELEVATION: N/A		
			10. DATE STARTED: 10/2/03 11. DATE COMPLETED: 10/2/03		
12. OVERBURDEN THICKNESS: N/A			13. DEPTH DRILLED INTO ROCK: N/A		
14. TOTAL DEPTH OF HOLE: 8 inches bgs			15. DEPTH GROUNDWATER ENCOUNTERED: N/A		
16. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	
18. SAMPLES FOR CHEMICAL ANALYSIS See Activity Log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
19. DISPOSITION OF HOLE: N/A		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	20. TOTAL CORE RECOVERY %
21. SIGNATURE OF INSPECTOR: M.A. Deering					
LOCATION SKETCH/COMMENTS			SCALE: Not to scale		
<p>Drury Ponds</p> <p>#3</p> <p>#2</p> <p>#1</p> <p>Location xc 55 yds east of northern end of Pond #3</p>					

HTRW DRILLING LOG

HOLE NUMBER: FBQ-047

16

PROJECT: Fure & Booster/RVAAP

INSPECTOR

Mark Deering

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS in core	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if)	REMARKS (if)
		Light yel. brn. silt sand, some grvl, damp + loose	6/PPM	N/A	FBQ-047 0993.50 mRD	Refusal in N. Exp hole - 8"; W. Exp hole - 4½"; E. Exp hole - 2"; Central hole - 8"

8" T.D. (Refusal @ 8" bgs)

RB 12-1-03

TASK TEAM ACTIVITY LOG SHEET

17

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/2/03 Su M Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

Ronda BrileySteve KingMark Deering

Narrative (include time and location):

(Pre-cleaned by S. King)

1610 : Arrived at location FBQ-648



1626 : Begin to sample Exps + Metab @ 0'-1' FBQ-648-6695-50

1645 : Begin to sample Exps + Metab @ 1-2' - refuse @ 2'

FBQ-648-6696

10/2/03
10/2/03

Daily Weather Conditions: A.M. _____

P.M. _____

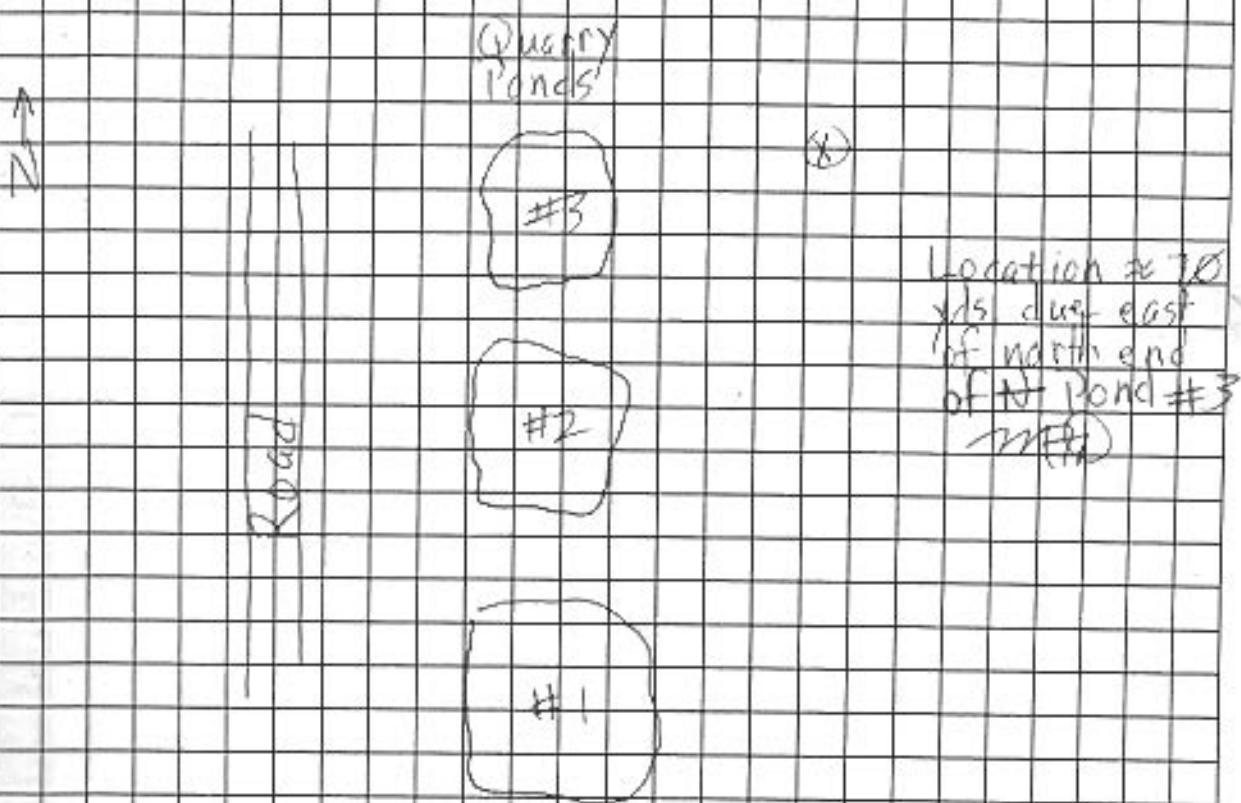
Cloudy mid 40's

Recorded By Mark Deering QA Checked By Amy Hernandez

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FBQ-148
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR N/A			SHEET 1 OF 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: S. King		6. MANUFACTURER'S DESIGNATION OF DRILL N/A			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS 8" dia Bowl SS 3½" dia Auger Bucket		8. HOLE LOCATION: FBQ-148			
		9. SURFACE ELEVATION N/A			
		10. DATE STARTED 10/2/03			11. DATE COMPLETED 10/2/03
12. OVERBURDEN THICKNESS N/A		13. DEPTH DRILLED INTO ROCK N/A			15. DEPTH GROUNDWATER ENCOUNTERED N/A
					16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED N/A
14. TOTAL DEPTH OF HOLE		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) N/A			
18. GEOTECHNICAL SAMPLES	DISTURBED		UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES N/A	
20. SAMPLES FOR CHEMICAL ANALYSIS See Activity Log	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE N/A	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR M.F. Deering	

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



HTRW DRILLING LOG

PROJECT: Fuze & Boester RVAAP

INSPECTOR Mark Deering

HOLE NUMBER: FBQ-048-20

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (if)	REMARKS (if)
		Dk brn silty clay, tr fn grn, damp, soft, plastic to slightly plastic	0 PPM	N/A	FBQ-048-0096 SO	Refusal: N+S. Exp holes to 1'; E. hole to 8"; Center hole to 1'
2		Gry brn Clay, tr fn-med sand, damp, soft, plastic to 1.5'; change to lt yel brn	Ø	N/A	FBQ-048-0096	Center hole refusal @ 2'
2	T.D.	Clay, moist, soft plastic + 2" change to lt gry brn clay	Ø			
2		Sand, wet, med. dns				
3						(Refusal @ 2' bgs)
4						
5						
6						
7						
8						
9						
10						

TASK TEAM ACTIVITY LOG SHEET

21

PROJECT NAME Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/3/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Steve King
Ronda Bailey
Mark Deering

Narrative (include time and location):

- 0915: Arrived @ FBQ-642 (Pre-cleaned by S. King)
0918: Commenced augering Exps. holes
0925: Began collection of samples (Exps.: 0-10"; Met., 0-10")
0935: Terminated auger/sampling due to refusal
@ 10"

AF
12-4-03

Daily Weather Conditions: A.M. Sunny, 41°F

Recorded By Mark Deering P.M. QA Checked By Amy J. Hernandez

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FBQ-042
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: N/A			SHEET 1 OF 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: R. Bailey		6. MANUFACTURER'S DESIGNATION OF DRILL: N/A			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 55 Green Bowl 55 3/8" dia Aug. Buck		8. HOLE LOCATION: FBQ-042			
		9. SURFACE ELEVATION: N/A			
		10. DATE STARTED: 10/3/03			11. DATE COMPLETED: 10/3/03
12. OVERBURDEN THICKNESS: N/A		13. DEPTH DRILLED INTO ROCK: N/A			14. TOTAL DEPTH OF HOLE: 18" bgs (Auger refusal)
15. DEPTH GROUNDWATER ENCOUNTERED: N/A		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A
18. GEOTECHNICAL SAMPLES: See Activity Log		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS: See Activity Log		VOC	METALS	OTHER (SPECIFY):	OTHER (SPECIFY):
21. DISPOSITION OF HOLE: N/A		BACKFILLED	MONITORING WELL	OTHER (SPECIFY):	22. TOTAL CORE RECOVERY %: N/A
23. SIGNATURE OF INSPECTOR: J. A. Jernigan					
LOCATION SKETCH/COMMENTS: Scale: Not to scale					

HTRW DRILLING LOG

HOLE NUMBER: FBQ-642

PROJECT: Fuzc & Booster/RVAAP

INSPECTOR

Mark Deering

SHEET 1 OF

24

TASK TEAM ACTIVITY LOG SHEET

25

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/3/03 Su M Tu W Th Sa PAGE 1 OF 1
Task Team Members:

Ron Bailey
Steve King
Mark Deering

Narrative (include time and location): (Pre-cleared by S. King)

- 0940: Arrived @ FBQ - 037
0942: Commenced augering for Exps. ($\pm 6-1'$); Metals ($\pm 1'$)
0950: Began sample collection (FBQ33, 037-0073-30)
1000: Sampling terminated due to auger refusal @ 1' bgs

AG
12-4-03

Daily Weather Conditions: A.M. Partly sunny, 41°FP.M. Partly cloudy, 50°FRecorded By Mark Deering QA Checked By Darryl Greenawald

HTRW DRILLING LOG		DISTRICT: Louisville				HOLE NUMBER FBG-K37	
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR N/A				SHEET 1 OF 1	
3. PROJECT: Fuze & Booster/RVAAP			4. LOCATION: Fuze & Booster Quarry Landfill/Pond				
5. NAME OF DRILLER S. King			6. MANUFACTURER'S DESIGNATION OF DRILL N/A				
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		CB Spud/Bowl 3 1/2" Auger Bucket		8. HOLE LOCATION FBG-K37			
			9. SURFACE ELEVATION: N/A				
			10. DATE STARTED 10/3/03		11. DATE COMPLETED: 10/3/03		
12. OVERBURDEN THICKNESS N/A			13. DEPTH DRILLED INTO ROCK N/A				
14. TOTAL DEPTH OF HOLE 1' bgs (auger refusal)			15. DEPTH GROUNDWATER ENCOUNTERED N/A				
16. GEOTECHNICAL SAMPLES		DISTURBED	UNCUTURBED	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS See Activity Log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE N/A		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR J.F. Deering		
LOCATION SKETCH/COMMENTS						SCALE:	

HTRW DRILLING LOG

HOLE NUMBER

FRQ-67

28

PROJECT: Fuze & Booster RVAAP		INSPECTOR				SHEET 1 OF 1
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS D	HEADSPACE SCREENING RESULTS	GEOTICK SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. FH	REMARKS (G)
		Med brn Silt and Grv (fn- med), dry, loose MBD	Ø ppm	N/A	F32-657 #07350	Expl. holes refusal W.L. N.-1, E.- 6"; Center hole refu- sal - 8"
1.0						(Auger sampling termi- nated due to refusal @ 1' bgs)
2						
3						
4						
5						
6						
7						
8						
9						
10						

TASK TEAM ACTIVITY LOG SHEET

29

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/3/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:Ronda BaileySteve KingMark Deering

Narrative (include time and location):

1015 : Arrived @ location FBQ-0161024 : Checked by S King1025 : Commence augering for Exps1035: Begin to collect Exp. samples FBQ-(016-009)-501040: Terminate auger sampling due to refusal @ 1' bgsAG
12.4.03Daily Weather Conditions: A.M. Sunny, 43°FP.M.
Recorded By Mark Deering QA Checked By Dawn Greenawald

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FBRQ-246
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: N/A			SHEET 1 OF 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER:		6. MANUFACTURER'S DESIGNATION OF DRILL: N/A			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT SS Spoon/Bowl SS 3 1/2" dia Auger Bucket		8. HOLE LOCATION: FBRQ-494			
		9. SURFACE ELEVATION: N/A			
		10. DATE STARTED: 10/3/93			11. DATE COMPLETED 10/3/93
12. OVERBURDEN THICKNESS: N/A		13. DEPTH DRILLED INTO ROCK: N/A			15. DEPTH GROUNDWATER ENCOUNTERED: N/A
					16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A
14. TOTAL DEPTH OF HOLE: 1' hgs (Auger refusal)		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A			
18. GEOTECHNICAL SAMPLES See activity log		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS: See activity log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DEPOSITION OF HOLE: N/A		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: M.E. Deering
LOCATION SKETCH/COMMENTS					SCALE: Not to Scale

HTRW DRILLING LOG

HOLE NUMBER: FRQ-146 32

PROJECT: Fuze & Booster/RVA/AP

INSPECTOR: Mark Diering

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (ft)	REMARKS (ft)
		Med hrn clayey sandy Silt v clmp, loose fn-med grn grn	øPPM	N/A	FBQ- 2 ft ø9/150	refusal in Exp. holes: E.-1', N-3', S-6'. refusal in Center hole -1'

T.D. (Auger refusal @ 1' hgs)

12.4 - 13.5 ft

TASK TEAM ACTIVITY LOG SHEET

33

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 11/3/03 Su M Tu W Th F Sa PAGE 1 OF 1
Task Team Members:

Steve King _____
Ronda Barley _____
Mark Deering _____

Narrative (include time and location):

1448: Arrived @ FBQ - 041

1450: Location cleared by S. King

1452: Commence augering

1457: Begin collecting Exp. (6-1') sample (FBQ 041-001)

1456: Begin collecting Metak (6-1') sample

1459: Terminate auger sampling due to refusal @ 6" bgs

AG

11/4/03

Daily Weather Conditions: A.M. Clear, 45°FRecorded By Mark Deering P.M. _____ QA Checked By Jamy Greenaway

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER FB4-641
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: RBA			SHEET 1 OF 1
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: R. Bailey		6. MANUFACTURER'S DESIGNATION OF DRILL: N/A			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION: FB4-641			
		9. SURFACE ELEVATION: N/A			
		10. DATE STARTED: 10-3-03			11. DATE COMPLETED: 10-3-03
12. OVERBURDEN THICKNESS: N/A		13. DEPTH GROUNDWATER ENCOUNTERED: N/A			
14. DEPTH DRILLED INTO ROCK: N/A		15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A			
16. TOTAL DEPTH OF HOLE: 6" bgs (Auger refusal)		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A			
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS: See Activity Log		VOC	METALS	OTHER (SPECIFY):	OTHER (SPECIFY):
22. DISPOSITION OF HOLE: N/A		BACKFILLED	MONITORING WELL	OTHER (SPECIFY):	21. TOTAL CORE RECOVERY: % Signature: J. M. Bailey
LOCATION SKETCH/COMMENTS			SCALE:		
			Location ≈ 75 yds. northeast of northeastern corner of Pond #3		

HTRW DRILLING LOG

HOLE NUMBER: FRQ-64

36

PROJECT: Fuze & Booster/RVAAP		INSPECTOR	Mark Deering	SHEET	OF	
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS C	HEAVYWEIGHT SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (if)	REMARKS (if)
		Dk olive brn, silty Silt, tr sand, Hr-fine (grv) (damp-moist, soft)	/ ppm	N/A	PBR- 68150	Refusal @ 6" in E. Exp. hole, 3" in W. Exp. hole, 3" in N. Exp. hole, refusal 3" in Center hole
TD.	1					(Auger refusal @ 6" bgs)
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TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: Phase I/II Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10-13-03

Su

M

Tu

W

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PAGE

1

OF

Task Team Members:

Steve Lin
Bill Drobisch
Charlton Carroll

~~10-13-03~~
~~ce~~

Narrative (include time and location):

09:10 Arrive at Orientation FBQ-043

09:14 Start Sampling FBQs-045 - 0089-50

Take a full suite/ explos/TAC Meth, Cr+6/
 SVOCs/Pn pollutants/VOC & PCBs, Pesticides

10:00 Refusal in Center hole

9:11 Refusal in explosive

8:11 Refusal in explosive

1' hole no refusal - made it through hole

9:32 Finish Sample and go to next
 Sample Orientation

~~10-13-03~~
~~ce~~

Daily Weather Conditions: A.M.

Sunny, cool, mid 70-50's

P.M.

Recorded By

Charlton Carroll

QA Checked By

Amy Tharaward

HTRW DRILLING LOG		DISTRICT: Louisville				HOLE NUMBER FBQ-045
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR: n/a				SHEET 1 of 1
3. PROJECT: Fuze & Booster/RVAAP			4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER: Steve King			6. MANUFACTURER'S DESIGNATION OF DRILL: n/a			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION: FBQ-045				
		9. SURFACE ELEVATION: n/a				
			10. DATE STARTED: 10/13/03		11. DATE COMPLETED: 10/13/03	
12. OVERBURDEN THICKNESS: n/a			15. DEPTH GROUNDWATER ENCOUNTERED: n/a			
13. DEPTH DRILLED INTO ROCK: n/a			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: n/a			
14. TOTAL DEPTH OF HOLE: 100' (20')		100' Refused - core 20' Expl. plots 60' Refuse - center hole		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): n/a		
18. GEOTECHNICAL SAMPLES: 300' act. 100'		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES:		
20. SAMPLES FOR CHEMICAL ANALYSIS: 300' act. 100'		VOC	METALS	OTHER (SPECIFY):	OTHER (SPECIFY):	OTHER (SPECIFY):
22. DEPOSITION OF HOLE: n/a		BACKFILLED	MONITORING WELL	OTHER (SPECIFY):	23. SIGNATURE OF INSPECTOR: C. Canfield	
LOCATION SKETCH/COMMENTS						SCALE: Not to scale
						North

HTRW DRILLING LOG

HOLE NUMBER: FBQ-8453

40

PROJECT: Fuze & Booster/RVAAP		INSPECTOR C. Canale			SHEET 1 OF 1	
ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (a)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (d)	REMARKS (e)
		Mixed material - 50% sand and 50% small pebbles with some moist to dry granular to silty angular pebbles color changes from light brown to yellowish tan at depth of 10 ft and below	8' Open	W/A	FBQ-845 P3 #18950	9" explosives hole exposed 8" refusal - explosive few stems, roots

10.5" refusal Center hole

10-13' CC

TASK TEAM ACTIVITY LOG SHEET

41

PROJECT NAME: Phase III Fuze & Booster Quarry Landfill/Pond

DELIVERY ORDER: 0012

Date (mm/dd/yy): 10/13/03 Su M Tu W Th F SaPAGE 1 OF 1

Task Team Members:

Steve LinsChawell CarrollBill Brumbaugh10/13/03
ce

Narrative (include time and location):

09:48 Arrive on Location EBQ-06009:45 Start to sample EBQ-060-0119-50Do a full suite at the 0-1
(explosives/TAL Metals, Cr⁺⁺/SVOC, Propellants)VOC/PCBs, Pesticides;7" Refusal in Center hole10:03 Due to Refusal in Center hole - 8" sitethe 1-3 interval to an explosive hole to go to 1-3use for center hole
o N for 1-3 interval sampleTake a full suite for EBQ-060-0120-50
(explosives/TAL metals, Cr⁺⁺/VOC/SVOC, Propellants andPCBs, Pesticides)10:21 Finish Sample go back to building* Reminder - 1st sample was taken on10-1-03 and was broken accidentally, location moved
approximately 5 ft W of 1st location and resampled.
see page 9 in Logbook (SOL) #146 details.

Daily Weather Conditions: A.M.

Sunny, clear, calm, mid 50's

P.M.

Recorded By

Chawell Carroll

QA Checked By

Dawn Hernandez

HTRW DRILLING LOG		DISTRICT: Louisville			HOLE NUMBER <i>FBQ-060</i>
1. COMPANY NAME: SpecPro, Inc.		2. DRILL SUBCONTRACTOR <i>n/a</i>			SHEET <u>1</u> OF <u>1</u>
3. PROJECT: Fuze & Booster/RVAAP		4. LOCATION: Fuze & Booster Quarry Landfill/Pond			
5. NAME OF DRILLER <i>Devil King</i>		6. MANUFACTURER'S DESIGNATION OF DRILL: <i>n/a</i>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>5" DOWD/SPUD</i> <i>3 1/2" dia. auger bucket</i>		8. HOLE LOCATION <i>FBQ-060</i>			
		9. SURFACE ELEVATION <i>n/a</i>			
		10. DATE STARTED <i>10/3/03</i>			11. DATE COMPLETED: <i>10/3/03</i>
12. OVERBURDEN THICKNESS <i>n/a</i>		13. DEPTH DRILLED INTO ROCK <i>n/a</i>			14. TOTAL DEPTH OF HOLE <i>3ft</i>
		15. DEPTH GROUNDWATER ENCOUNTERED: <i>n/a</i>			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: <i>n/a</i>
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): <i>n/a</i>					
18. GEOTECHNICAL SAMPLES	DISTURBED		UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES <i>n/a</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>Joe and King</i>	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY) 21. TOTAL CORE RECOVERY %
22. DEPOSITION OF HOLE <i>n/a</i>	SACKFILLED <input checked="" type="checkbox"/>	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <i>P. Canada</i>	
LOCATION SKETCH/COMMENTS					SCALE: <i>not to scale</i>
					<i>n/a North</i>

HTRW DRILLING LOG

HOLE NUMBER: FBQ-660

44

PROJECT: Fuze & Booster/RVAAP

INSPECTOR C. Donald

SHEET 1 OF 1

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS ⑥	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (ID)	REMARKS (G)
		red to dark brown, silty-silty brown sand, moist, soft	0 ppm	n/a	FBQ-660 B119-30 (full)	100+ ft, Stem removed 7"
7.2	7.2	color changes to a red to brownish brown clay, moist, soft with clay streaks below	0.0 ppm	n/a	FBQ-660 B120-30 (full)	7" Refusal in Coker hole
2	2	color changes to a bright brown brown to hy-clay, trace sand Course materials into a mottling of red-orange, soft, red to low plasticity				
3	3	fragile, into larger pebbles, white and tan mottling in clay				
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