APPENDIX I

FIELD FORMS, SAMPLING FORMS, CALIBRATION FORMS, WATER LEVEL FORMS, AND WELL DEVELOPMENT FORMS

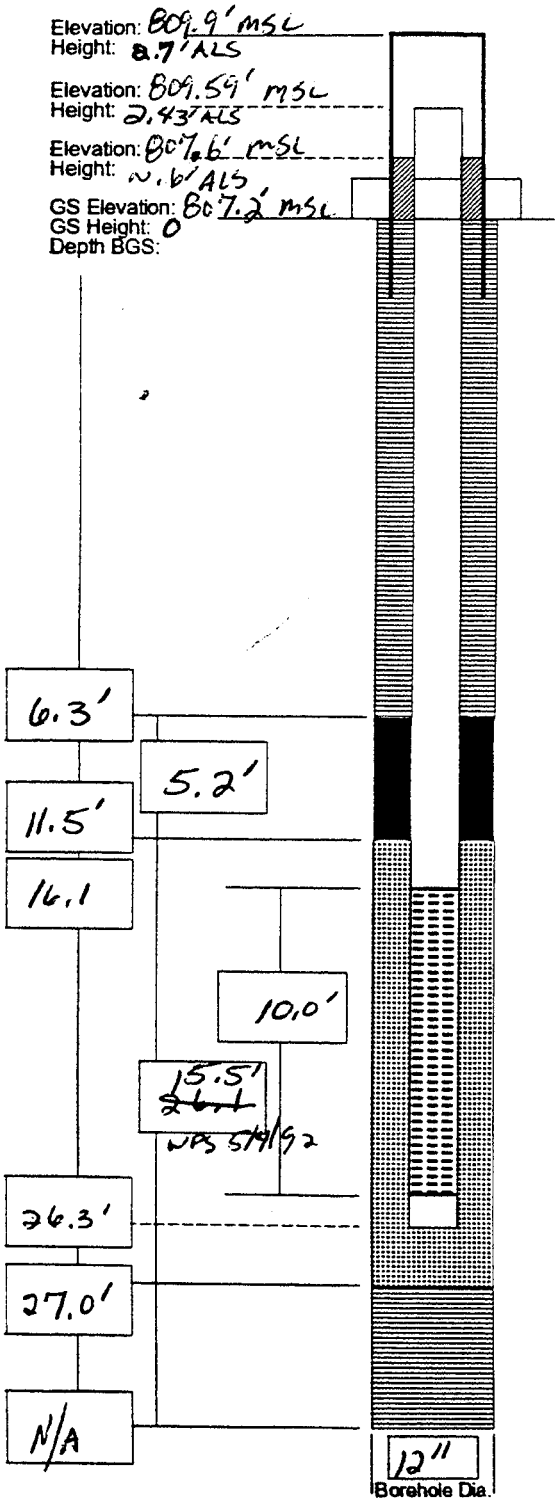
FIELD SOIL BORING LOGS

AND MONITORING WELL LOGS

LF2MW1

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2 MW1	Installation: FT McCLELLAN	Site: LF2 / LANDFILL #2
Project No.: 03-0424-08	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION	Driller: SHELDON TURNER	
Comp. Start: 5/4/92	Comp. End: 5/4/92	
Built By: SAIC / WAYNE STONER	Well Coord.: N 175402.32 E 516724.30	

Elevation: 809.9' MSL
Height: 0.7' ALS
Elevation: 809.59' MSL
Height: 2.43' ALS
Elevation: 807.6' MSL
Height: ~.6' ALS
GS Elevation: 807.2' MSL
GS Height: 0
Depth BGS:



PROTECTIVE CGS Material Type STEEL	Length: 5.0'
Diameter 8"x8" BOX	Water Tight Seal( )
Depth BGS 2.3' BLS	Drainage Hole (X) Height: ~.6' ALS Size: 1/4"
GUARD POSTS(X) No.: 4 Configuration: BOX SHAPE	Type STEEL
SURFACE PAD Composition & Size 3000 PSI ; 4'x4'x6"	
RISER PIPE Type PVC	
Diameter 4" ID	
GROUT	Composition: CEMENT ; BENTONITE ; H_2O Proportions : 94 lbs ; 5 lbs ; 8 GALS
Interval 0 - 6.3' BLS	Tremied(X)
CENTRALIZERS( ) Type: Depth(s) N/A	
SEAL Type BENTONITE PELLETS	
Source WYO-BEN BILLINGS, MT	
Setup / Hydration time .75 HR	Vol. Fluid Added ~15 GALS
Tremied( ) POURED BETWEEN AUGER & WELL CASING ANNULUS	
FILTER PACK Type SAND	
Amount Used 18 BAGS	Tremied( ) POURED ~~THRU~~ & TREMIED THROUGH AUGERS
Source MORIE CO. GEORGIA	
Gr. Size Dist #1 WELL MATERIAL	
SCREEN	Type: PVC Manufacturer: BUFFALO WELL PRODUCTS
Diameter ID: 4"	OD: ____
Slot Size: 10 SLOT Schedule / Thickness 40	
Interval BGS 16.1 - 26.1' BLS	
SUMP( ) Interval BGS 26.1 - 26.3'	Bottom Cap(X)
BACKFILL PLUG Material N/A	
Setup / Hydration time N/A	Tremied( ) N/A
WATER ADDED( ) Interval N/A	Amount N/A
Interval N/A	Amount N/A

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW1	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2
Project No.: 03-0424-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 5/4/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

DRILLING EQUIPMENT

Rig Manufacturer: MOBILE DRILL

Rig Model: B57

DRILLING METHOD: (X) Auger ( ) Mud Rotary ( ) Air Rotary ( ) Cable Tool ( ) Other (Specify) _____

Auger Type & Size: 2 1/4" ID HSA, REAMED W/ 6 5/8" ID HSA

Casing Size: N/A

Bit Type and Size: N/A

Hammer Weight and Percussion Method: 140lb HAMMER; CATHEAD, 30 INCH DROP

Rod Size: AWML

Mud Mixture (Mud Rotary)
Air Filter Method (Air Rotary): N/A

SAMPLING METHOD & NUMBER COLLECTED

(X) Split Spoon No.: (6) ( ) Shelby Tube No.: ( )
( ) Grab Sample No.: ( ) ( ) Core Barrel No.: ( )
( ) Misc. No.: ( )

MATERIALS USED (TOTALS)

Sand: 18 BAGS Bentonite Pellets: (4) 5 GAL BUCKETS

GROUT
Bentonite: 5 lbs Cement: 3 BAGS

SURFACE PAD MATERIALS: CONCRETE USED FOR MONITORING WELL SURFACE PAD WAS MIXED COMMERCIALLY TO A STRENGTH OF 3000 PSI

Screen (ft): 10.0'

Riser (ft): 20.0'

Misc: .15' - BOTTOM CAP ~.2'

MISC: TOTAL LENGTH OF RISER - 30.2'
CUT OFF 1.5'
WELL SCREEN & RISER 28.7'
STICK-UP 2.4' ALS
WELL BOTTOM 26.3 BLS

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2 MW1	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2
Project No.: 03-0424-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION INC	Driller: SHELDON TURNER	
Comp. Start: 5/4/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

Remarks: 5/4/92

WEATHER: SUNNY, WARM ~ 65°F AND CALM.

SAIC PERSONNEL:
WAYNE P. STONER (WPS)

DRILLERS:
D-SHELDON TURNER (ST)
H-JIM CRONIC (JC)

0730 WPS ARRIVES ON BASE AT BLDG 3228 AND CALIB HNU AND LEL. SEE NOTEBOOK #1. LOADED CAR AND PREPARED FOR DAY'S ACTIVITIES.

0840 WPS ARRIVED AT LANDFILL #2 (LF2). DRILLERS ON-SITE AND ~~SET UP~~ SETTING UP. DRILLERS SAID THEY HAVE BEEN ON SITE SINCE 0700. DECONNED .5 HR. WPS 5/4/92

0950 DRIVING 1ST SPOON. SEE FIELD BORING LOG FOR DESCRIPTIONS.

~1130 2 PERSONNEL FROM DEH (JOHNSON CONTROLS) ARRIVED ON SITE (LANDFILL #2) TO CLEAR ACCESS PATHES TO LF2MW2 AND LF2MW3. WE WERE GOING TO TAKE A SHELBY TUBE BETWEEN 25' AND 27' WHEN DRILLERS NOTICED H_2O ~~MET~~ IN THE BOTTOM OF THE BOREHOLE. WE'LL WAIT FOR H_2O LEVEL TO STABLIZE.

1200 DRILLERS AND WPS WENT TO LUNCH. WE WILL LET H_2O LEVEL SET OVER LUNCH AND THEN CHECK IT. AT 1144 H_2O LEVEL WAS 22.3' BLS

1300 WPS, DRILLERS AND DEH PERSONNEL ARRIVE ON SITE.

1315 DRILLERS WENT TO GET DRUMS. H_2O LEVEL 16.8' BLS

1330 DEH PERSONNEL DEPARTING SITE. ACCESS TO BOTH LOCATIONS IS CLEARED. DRILLERS ARRIVE BACK ON SITE. WE WILL SAMPLE 25-27' BLS.

1335 SAMPLE AT 25' BLS IS DRY. WPS IS NOT SURE WHERE WATER IS COMING IN. H_2O LEVEL 15.3' BLS.

1400 STARTED TO REAM. ST WILL REAM TO 27'. WE WILL SET THE WELL ~~BE~~ SCREEN BETWEEN 16' AND 26', APPROXIMATELY. H_2O IS BELEIVED TO BE COMING IN BETWEEN 12 AND 15' BLS.

1500 DIFFICULT REAMING TO DEPTH, STILL REAMING.

1545 FINISHED REAMING. TD ~ 27.0'. DRILLERS ARE GOING TO DECON WELL MATERIALS AND GO TO GMO AREA TO GET SAND & CEMENT.

1630 DRILLERS READY TO SET THE WELL. PUTTING WELL SCREEN AND RISER IN THE BOREHOLE.

1635 STARTED ADDING SAND

1730 FINISHED ADDING SAND. ADDING PELLET SEAL. USED 18 BAGS OF SAND. TOP OF SAND ~11.5' BLS

1745 FINISHED ADDING PELLETS. HYDRATED PELLETS W/10 GALS OF H_2O TOP OF SEAL 6.3' BLS. (4) 5 GAL BUCKETS.

1820 STARTED MIXING GROUT.

1830 ADDING GROUT TO BOREHOLE

1835 FINISHED ADDING GROUT. PLACED PROTECTIVE CASING OVER WELL. CLEANING UP AREA.

1900 DRILLERS AND WPS DEPART FOR THE DAY.

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW1	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2
Project No.: 03-0424-xx	Client / Project: USATHAMA / ST	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 5/4/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

Remarks: 5/5/92
1748 WPS CHECK H_2O LEVEL, 14.63' BTOC. H_2O LEVEL 12.20' BLS

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Field Boring Log Page 5 of 7

Site File No.: 03-0424-XX County CALHOUN Boring No. — Monitor Well No LF2MW1

Site File Name FT MCCLELLAN / (LANDFILL #2 / LF #2) Surface Elev. _____ Completion Depth 27.0'

Fed. ID. No. _____ Auger Depth 27.0' Rotary Depth N/A

Quadrangle _____ Sec. ____ T. ____ R ____ Date: Start 5/4/92 Sampling Finish 5/4/92

Boring Location LOCATED ON THE NORTHEASTERN AREA OF THE SITE.

Drilling Equipment MOBILE DRILL B57; 2¼" ID HSA; 140 lb HAMMER

Personnel: G - WAYNE STONER; D - SHELDON TURNER; H - JIM CRONIC; H -

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA (or HNU) readings	REMARKS
	(1) [CL] CLAY; 30%-40% SILT; 10% V. FINE TO FINE SAND, <5% MED TO CSE SAND. 5YR 4/4 REDDISH BROWN; SOFT TO STIFF; V. SL PLASTIC; DRY TO V. SL. MOIST. REC: 1.8'	0.0	(1)	SS	1.8		2-3-6-8	8	SS-SPLIT SPOON; BOREHOLE - BH; BH: 10 PPM; LEL: 3; SPOON: 8 PPM
	.5-2.0' [SW] V. FINE TO CSE. SAND; 20-30% PEBBLES (UP TO 40 mm). 10YR 4/4 DK YELLOWISH BROWN; LOOSE; NON-PLASTIC; DRY TO MOIST. DISCOLORED SOIL BETWEEN ~1.8-2.0'. SOIL HAS SHINY APPEARANCE AND COLOR IS ~~5YR~~ 5/4 5Y 2.5/1 BLACK	2.5'							
	(2) [CL] CLAY; 40% SILT; <5% CSE SAND. 10YR 5/6 YELLOWISH BROWN; STIFF; V. SL PLASTIC; DRY. REC 1.5'	5.0'	(2)	SS	1.5		9-16-22-22	2 PPM	AVG: 2; LEL: 0
		7.5'							
	(3) [CL] CLAY; 30-40% SILT. 7.5YR 5/8 STRONG BROWN AND 5Y 7/1 LT GRAY CLAY BANDS; STIFF TO FIRM; NON TO LOW PLASTICITY; DRY TO SL. MOIST. REC: 1.4'	10.0'	(3)	SS	1.4		12-22-30-39	10 PPM	LEL: 1
		12.5'							▼ BETWEEN 12' AND 15' BGS
	(4) [CL] SAME AS SAMPLE NO. 3. REC 1.7' EXCEPT CLAY COLOR IS 2.5Y 7/0 LT GRAY INSTEAD OF WHITE. REC 1.7'	15.0'	(4)	SS	1.7		7-11-24-33	.0	LEL: 1
		17.5'							

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Field Boring Log Page 6 of 7

Site File No.: 03-0424-XX County: CALHOUN Boring No.: — Monitor Well No: LF2MW[illegible]

Site File Name: FT McCLELLAN / (LF2/LANDFILL #2) Surface Elev.: Completion Depth: ~~25.5'~~ 27.0' WPS 5/4/92

Fed. ID. No.: Auger Depth: ~~25.5'~~ 27.0' WPS 5/4/92 Rotary Depth: N/A

Quadrangle: Sec.: T.: R.: Date: Start: 5/4/92 Finish: 5/4/92 (SAMPLING)

Boring Location: LOCATED ON THE NORTHEASTERN AREA OF THE SITE

Drilling Equipment: MOBILE DRILL B57; 2 1/4" ID HSA; 140lb HAMMER

Personnel: G - WAYNE STONER; D - SHELDON TURNER; H - JIM ~~[illegible]~~ CRONIC; H -

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or HNU readings	REMARKS
	(5) SAME AS SAMPLE NO. ~~4~~ 5 (WPS 5/4/92). REC: 1.8'	21.5	(5)	SS			11-27-28-38	ND	ND - NON DETECT; DNR - DATA NOT RECORDED
	(6) [ML] SILT; 30% CLAY. 10YR 5/3 BROWN; DENSE; NON TO V. SL PLASTIC; DRY TO SL. MOIST. 10% V. FINE SAND. REC: .7	24.2							1144 HRS H_2O LEVEL 22.3' BLS
		26.5	(6)	SS			37-50/2"	DNR	1305 HRS H_2O LEVEL 17.8' BLS

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW1	Installation: FT McCLELLAND	Site: LF2/LANDFILL #2
Project No.: 03-0404-XX	Client / Project: USATHAMA/SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION INC	Driller: SHELDON TURNER	
Comp. Start: 5/4/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

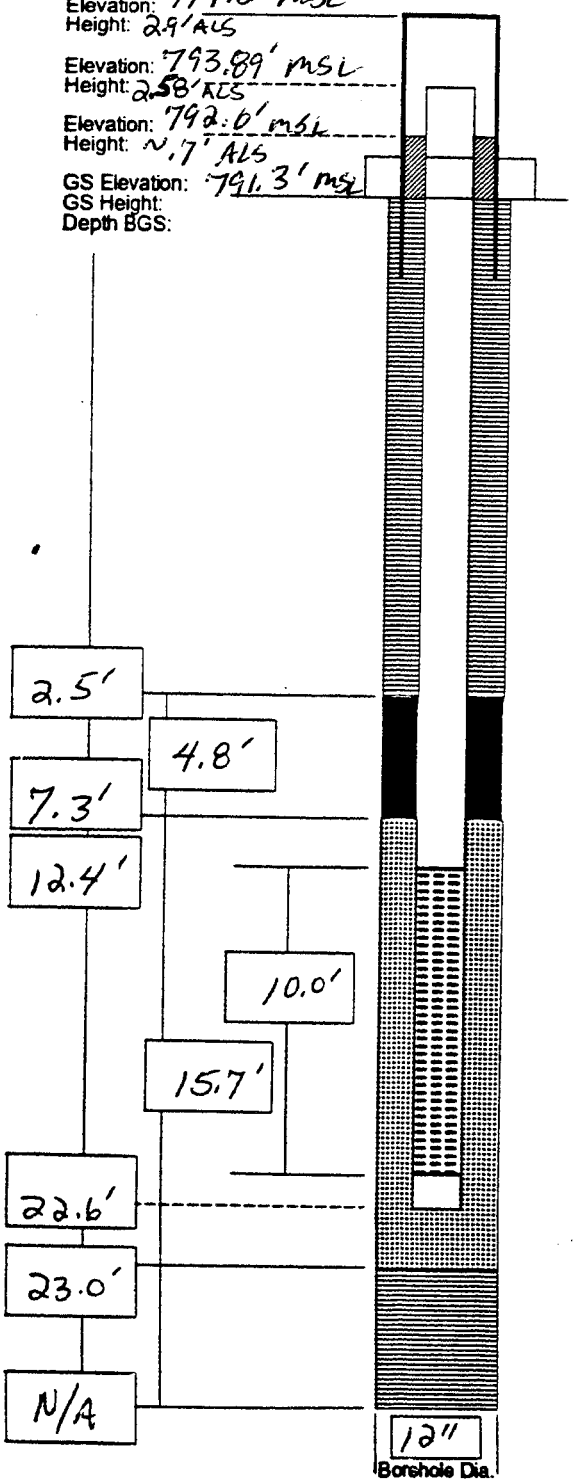
Remarks: ABBREVIATIONS:

WPS - WAYNE P. STONER
BLDG - BUILDING
w/ - WITH
H_2O - WATER
ST - SHELDON TURNER
HAH - HEATHER A. HOWLEY
GMO - GAME MANAGEMENT OFFICE
~ - ABOUT OR APPROXIMATELY
BLS - BELOW LAND SURFACE
ALS - ABOVE LAND SURFACE
BTOC - BELOW TOP OF CASING
TD - TOTAL DEPTH
OLF - OLD LANDFILL & LANDFILL #3
DEH - DIRECTORATE OF ENGINEERING AND HOUSING (JOHNSON CONTROLS)
PAD - PAIGE A. DILLON
FEDEX - FEDERAL EXPRESS
CALIB - CALIBRATE
LF2 - LANDFILL #2
HR - HOUR (S)
' - FEET
@ - ABOUT
GAL - GALLON
V. - VERY
SL. - SLIGHTLY
REC - RECOVERY
LT - LIGHT
HSA - HOLLOW STEM AUGER
ID - INSIDE DIAMETER
OD - OUTSIDE DIAMETER
TD - TOTAL

LF2MW2

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW2	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2
Project No.: 03-0424-A	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION INC	Driller: SHELDON TURNER	
Comp. Start: 5/5/92	Comp. End: 5/5/92	
Built By: SAIC / WAYNE STONER	Well Coord.: N 175099.16 E 516586.17	

Elevation: 794.2' MSL
Height: 2.9' AGS
Elevation: 793.89' MSL
Height: 2.58' AGS
Elevation: 792.6' MSL
Height: ~.7' AGS
GS Elevation: 791.3' MSL
GS Height:
Depth BGS:



PROTECTIVE CGS Material Type STEEL	Length: 5.0'
Diameter 8" x 8" BOX	Water Tight Seal( )
Depth BGS 2.1' BLS	Drainage Hole (X) Height: ~.7' AGS Size: 1/4"
GUARD POSTS(X) No.: 4 Configuration: BOX SHAPE	Type STEEL
SURFACE PAD Composition & Size 3000 PSI MATERIAL; 4'x4'x6"	
RISER PIPE Type PVC	
Diameter 4" ID	
GROUT	Composition: CEMENT; BENTONITE; H_2O Proportions: 94 lbs; 5 lbs; 8 GALS
Interval 0 - 2.5'	~~Tremied(X)~~ WPS 5/5/92 POURED IN.
CENTRALIZERS( ) Type: Depth(s) N/A	
SEAL Type BENTONITE PELLETS	
Source WYO-BEN BILLINGS, MT	
Setup / Hydration time .5 HR	Vol. Fluid Added ~15 GALS
Tremied( ) POURED BETWEEN WELL CASING AND BOREHOLE ANNULUS	
FILTER PACK Type SAND	
Amount Used 15 BAGS	Tremied( ) POURED BETWEEN WELL CASING AND BOREHOLE ANNULUS
Source MORIE CO. GEORGIA	
Gr. Size Dist #1 WELL MATERIAL	
SCREEN	Type: PVC Manufacturer: BUFFALO WELL PRODUCTS
Diameter ID: 4"	OD: —
Slot Size: 10 SLOT Schedule / Thickness 40	
Interval BGS 12.4' - 22.4' BLS	
SUMP( ) Interval BGS 22.4 - 22.6' BLS	Bottom Cap(X)
BACKFILL PLUG Material N/A	
Setup / Hydration time N/A	Tremied( )
WATER ADDED( ) Interval N/A	Amount N/A
Interval N/A	Amount N/A

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW2	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2
Project No.: 03-0424-xx	Client / Project: USATHAMA/SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 5/5/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

DRILLING EQUIPMENT

Rig Manufacturer: MOBILE DRILL

Rig Model: B57

DRILLING METHOD: (X) Auger ( ) Mud Rotary ( ) Air Rotary ( ) Cable Tool ( ) Other (Specify) _____

Auger Type & Size: 2¼" AND 6⅝" I.D. HSA

Casing Size: N/A

Bit Type and Size: N/A

Hammer Weight and Percussion Method: 140 lb HAMMER; CATHEAD W/ 30 INCH DROP

Rod Size: AWML

Mud Mixture (Mud Rotary)
Air Filter Method (Air Rotary): N/A

SAMPLING METHOD & NUMBER COLLECTED

(X) Split Spoon No.: (3) (X) Shelby Tube No.: (1)
( ) Grab Sample No.: ( ) ( ) Core Barrel No.: ( )
( ) Misc. No.: ( )

MATERIALS USED (TOTALS)

Sand: 15 BAGS Bentonite Pellets: 4 BUCKETS (5 GAL EA.)

GROUT
Bentonite: 5 lbs Cement: 2 BAGS

SURFACE PAD MATERIALS: CONCRETE USED ~~FOR~~ FOR MONITORING WELL SURFACE PADS WAS MIXED COMMERCIALLY TO A STRENGTH OF 3000 PSI

Screen (ft): 10.0'

Riser (ft): 15.0'

Misc: BOTTOM CAP .15' ~.2'

MISC: TOTAL RISER & SCREEN LENGTH 25.2'
STICK UP 2.6' ALS
WELL BOTTOM 22.6' BLS

MONITORING WELL CONSTRUCTION LOG - Standard			Rev: 4/92
Well No.: LF2MW2	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2	
Project No.: 03-0424-XX	Client / Project: USATHAMA / ST		
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER		
Comp. Start: 5/5/92	Comp. End:		
Built By: SAIC / WAYNE STONER	Well Coord.:		

Remarks: 5/5/92

WEATHER: SUNNY, COOL ~55°F AND BREEZY.

SAIC PERSONNEL:

WAYNE STONER (WPS)

DRILLERS:

D-SHELDON TURNER (ST)

H-JIMMY WRIGHT (JW)

H-JIM CRONIC (JC)

0730 WPS MET DRILLERS AT LANDFILL #2 (LF2). DRILLERS ARE DECONNING. WPS WENT TO BLDG 3228 TO CALIB HNU & LEL. SEE NOTEBOOK #1

0845 WPS ARRIVES BACK AT LF2. DRILLERS FINISHED DECONNING.

0855 MOVING TO SET UP ON LF2MW2

0955 TAKING 1ST SPOON.

1045 ATTEMPTED TO COLLECT A SHELBY TUBE BUT THE MATERIAL IS TOO DENSE.

1100 MOIST ON THE BOTTOM OF THE BORE HOLE. WE LET IT SIT A WHILE.

1130 SOME WATER COMING IN BUT NOT ENOUGH TO GET A H_2O LEVEL MEASUREMENT. WE WILL TAKE LUNCH AND MEASURE THE WATER AFTER LUNCH. WPS TOOK ST & JC TO WELL OLF 7, WHERE JW IS DEVELOPING THAT WELL.

1145 DRILLERS AND WPS LEFT FOR LUNCH.

1245 WPS & DRILLERS MET AT LANDFILL #2. TOOK A H_2O LEVEL. IT WAS ~12.6' BLS AND STILL RISING, VERY SLOWLY.

1300 H_2O LEVEL ~12.5' BLS. WPS DECIDED TO SET THE WELL. WE WILL DRILL DOWN TO A TD OF ~23'. THE SCREEN WILL BE SET BETWEEN 13' AND 23' BLS. ST IS STARTING TO SET UP TO REAM W/ 6 5/8" HSA.

1315 STARTED REAMING.

1415 STILL REAMING.

1500 FINISHED REAMING BOREHOLE. TD IS ~ 23.0'. DRILLER WENT TO DECON WELL SCREEN & RISER. KNOCKED BOTTOM PLUG OUT.

1545 FINISHED DECONNING. ADDING WELL SCREEN AND RISER. 25.2' TOTAL LENGTH.

1550 ADDING SAND.

1625 FINISHED ADDING SAND. TOP OF SAND IS 7.3' BLS.

1630 STARTED ADDING THE PELLETS.

1635 FINISHING ADDING PELLETS. TOP OF 2.5' BLS. HYDRATING PELLETS. USED ~15 GALS

1710 MIXING GROUT. ADDING GROUT TO HOLE.

1720 PLACING PROTECTING CASING OVER WELL.

1730 WPS AND ST COMPLETING DAILY REPORTS.

1735 WPS AND DRILLERS DEPART SITE.

1800 WPS DEPARTS BASE.

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW2	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2
Project No.: 03-0424-X	Client / Project: USATHAMA/ST	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 5/5/92	Comp. End:	
Built By: SAIC/WAYNE P. STONER	Well Coord.:	

Remarks: 5/6/92

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Field Boring Log

Site File No.: 13-0424-XX County: CALHOUN

Site File Name: FT McCLELLAN / (LF2 / LANDFILL #2)

Fed. ID. No

Quadrangle ____ Sec. ____ T. ____ R ____

Boring Location: LOCATED ON SOUTHWESTERN CORNER OF SITE

Drilling Equipment: MOBILE DRILL B57 ; 2¼" ID HSA ; 140 lb HAMMER

Boring No. ____ Monitor Well No: LF2 MW2

Surface Elev. ____ Completion Depth: 23.0'

Auger Depth: 23.0' Rotary Depth: N/A

Date: Start 5/5/92 Sampling Finish 5/5/92

Personnel:
G - WAYNE STONER
D - SHELDON TURNER
H - JIMMY WRIGHT
H - JIM CRONIC

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or HNU readings	REMARKS
	① [CL] CLAY: 20% V. FINE TO CSE SAND; 20% SILT. 10YR 2/2 V. DK. BROWN; SOFT; SL. TO PLASTIC; MOIST. 0-.3' 3-2.0' SAME AS 0-.3' EXCEPT 10YR 6/4 LT. YELLOWISH BROWN; <5% GRANULES; DRY TO SL. MOIST. REC: 1.2'	2.5'	①	SS	X		2-3-3-4	20	SS - SPLIT SPOON; BOREHOLE - BH. 10 ppm; LEL: 0; ST - SHELBY TUBE
	② [CL] CLAY; 30-40% SILT. 7.5YR 5/6 STRONG BROWN AND 5Y 7/1 LT. GRAY THIN BEDDED ~~CLAY~~ CLAY: STIFF TO FIRM; NON TO LOW PLASTICITY; DRY TO MOIST. REC: 1.5' WPS 5/5/92	5.0' 7.5'	②	SS	X		10-15-17-20	1	LEL: 0; HARD DRILLING
	③ [ML] SILT; 20% CLAY; 10YR 5/3 BROWN; V. DENSE; NON-TO SL PLASTIC; DRY. REC: .5'	10.0' 12.5'	③	ST	X		@ 900 BZ	7	LEL: 0; ATTEMPTED ST BUT MATERIAL IS TOO DENSE AND BENT ST.
	④ WPS 5/5/92 ~~ALL~~ SAME AS SAMPLE NO. 3 EXCEPT <10% PEBBLES (UP TO 10mm); 10YR 5/4 YELLOWISH BROWN; V. DENSE; DRY; NON-PLASTIC. BOTTOM .5' - SILT/CLAY STONE; MODERATELY HARD; BADLY WEATHERED; HORIZONTAL BEDDING; IRON STAINING; SOLID; 10YR 4/0 DK GRAY	15.0' 17.5'	④	SS	X		17-50/5"	170 ppm	LAST SAMPLE COLLECTED; LEL: 0

SAIC

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW2	Installation: FT McCLELLAN	Site: LF2/LANDFILL#2
Project No.: 03-0404-XX	Client / Project: USATHAMA/SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION INC	Driller: SHELDON TURNER	
Comp. Start: 5/5/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

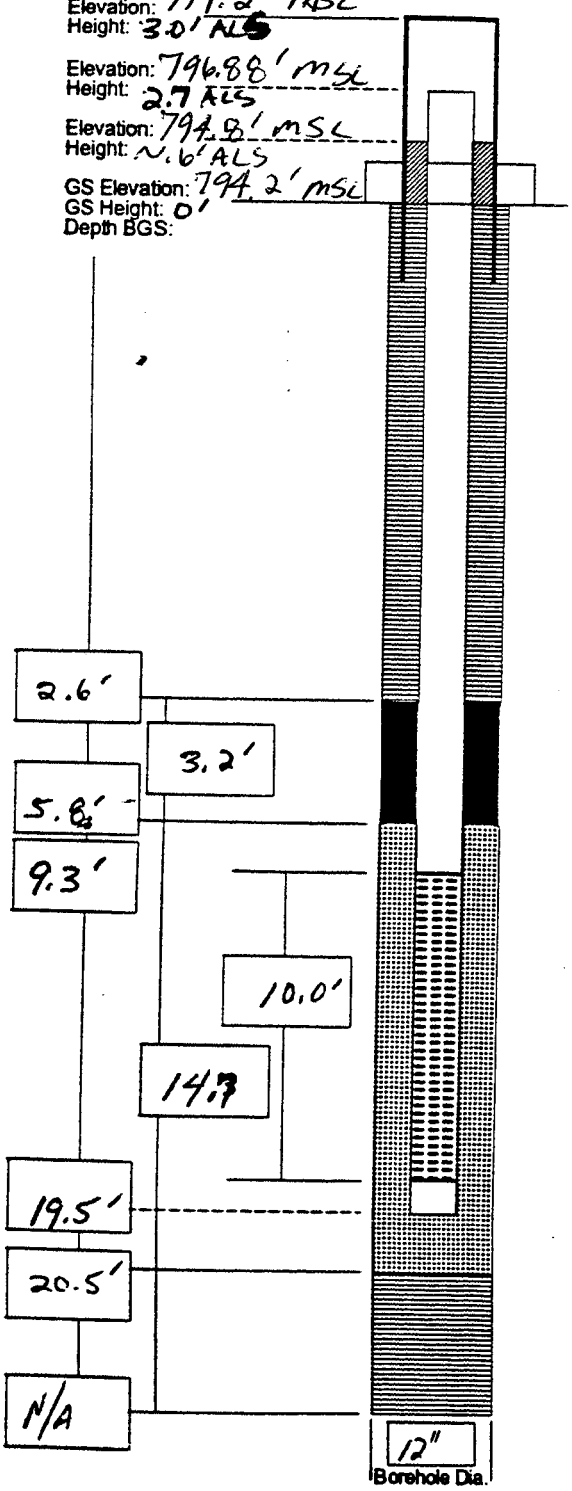
Remarks: ABBREVIATIONS:

WPS - WAYNE P. STONER
BLDG - BUILDING
w/ - WITH
H_2O - WATER
ST - SHELDON TURNER
HAH - HEATHER A. HOWLEY
GMO - GAME MANAGEMENT OFFICE
~ - ABOUT OR APPROXIMATELY
BLS - BELOW LAND SURFACE
ALS - ABOVE LAND SURFACE
BTOC - BELOW TOP OF CASING
TD - TOTAL DEPTH
OLF - OLD LANDFILL & LANDFILL#3
DEH - DIRECTORATE OF ENGINEERING AND HOUSING (JOHNSON CONTROLS)
PAD - PAIGE A. DILLON
FEDEX - FEDERAL EXPRESS
CALIB - CALIBRATE
LF2 - LANDFILL#2
HR - HOUR (S)
' - FEET
@ - ABOUT
GAL - GALLON
V. - VERY
SL. - SLIGHTLY
REC - RECOVERY
LT - LIGHT
HSA - HOLLOW STEM AUGER
ID - INSIDE DIAMETER
OD - OUTSIDE DIAMETER
TD - TOTAL

LF2MW3

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW3	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2
Project No.: 03-0424-xx	Client / Project: USATHAMA/SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 5/6/92	Comp. End: 5/6/92	
Built By: SAIC/WAYNE STONER	Well Coord.: N 1175177.24 E516947.63	

Elevation: 794.2' MSL
Height: 3.0' ALS
Elevation: 796.88' MSL
Height: 2.7' ALS
Elevation: 794.8' MSL
Height: ~.6' ALS
GS Elevation: 794.2' MSL
GS Height: 0'
Depth BGS:



PROTECTIVE CGS Material Type STEEL	Length: 5.0'
Diameter 8"x8" BOX	Water Tight Seal( )
Depth BGS 2.0'	Drainage Hole (X) Height: ~.6' AB Size: 1/4"
GUARD POSTS(X) No.: 4 Configuration: BOX SHAPE	Type STEEL
SURFACE PAD Composition & Size 3000 PSI CONCRETE; 4'x4'x6"	
RISER PIPE Type PVC	
Diameter 4" ID	
GROUT	Composition: CEMENT; BENTONITE; H_2O Proportions: 94 lbs; 5 lbs; 8 GALS
Interval 0 - 2.5' BLS	Tremied( ) POURED
CENTRALIZERS( ) Type: Depth(s) N/A	
SEAL Type BENTONITE PELLETS	
Source WYO-BEN	
Setup / Hydration time 1 HR	Vol. Fluid Added NONE
Tremied( ) POURED BETWEEN WELL AND BOREHOLE ANNULUS	
FILTER PACK Type SAND	
Amount Used 14.5 BAGS	Tremied(X)
Source MORIE CO. GEORGIA	
Gr. Size Dist #1 WELL MATERIAL	
SCREEN	Type: PVC Manufacturer: BUFFALO WELL PRODUCTS
Diameter ID: 4"	OD: —
Slot Size: 10 SLOT Schedule / Thickness 40	
Interval BGS 9.3 - 19.3' BLS	
SUMP( ) Interval BGS 19.3' - 19.5' BLS	Bottom Cap(X)
BACKFILL PLUG Material N/A	
Setup / Hydration time N/A	Tremied( )
WATER ADDED( ) Interval 10 - 20'	Amount ~10 GAL
Interval N/A	Amount N/A

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW3	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2
Project No.: 03-0404-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 5/6/92	Comp. End:	
Built By: SAIC / WAYNE P. STONER	Well Coord.:	

DRILLING EQUIPMENT

Rig Manufacturer: MOBILE DRILL

Rig Model: B57

DRILLING METHOD: (X) Auger ( ) Mud Rotary ( ) Air Rotary ( ) Cable Tool ( ) Other (Specify) _____

Auger Type & Size: 2 1/4" ID AND 6 5/8" ID HSA

Casing Size: N/A

Bit Type and Size: N/A

Hammer Weight and Percussion Method: 140 lb HAMMER; CATHEAD AND 30 INCH DROP

Rod Size: NWML

Mud Mixture (Mud Rotary)
Air Filter Method (Air Rotary): N/A

SAMPLING METHOD & NUMBER COLLECTED

(X) Split Spoon No.: (2) (X) Shelby Tube No.: (1)
( ) Grab Sample No.: ( ) ( ) Core Barrel No.: ( )
( ) Misc. No.: ( )

MATERIALS USED (TOTALS)

Sand: 14.5 BAGS Bentonite Pellets: (1.5) 5GAL BUCKETS.

GROUT
Bentonite: 10 lbs Cement: 2 BAGS

SURFACE PAD MATERIALS: SURFACE PAD MATERIAL WAS CONCRETE COMMERCIALLY MIXED TO A STRENGTH OF 3000 PSI

Screen (ft): ~~10.0~~ 10.0'

Riser (ft): 12.0'

Misc: BOTTOM CAP = .15' ~.2'

MISC: TOTAL LENGTH OF WELL SCREEN & CASING 22.2'
STICK UP 2.7' AGS
WELL BOTTOM 19.5' BGS

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW3	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2
Project No.: 03-0424-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC.	Driller: SHELDON TURNER.	
Comp. Start: 5/6/92	Comp. End:	
Built By: SAIC / WAYNE P. STONER	Well Coord.:	

Remarks: 5/6/92

WEATHER: PARTLY SUNNY, COLD ~40°F AND WINDY

SAIC PERSONNEL:

WAYNE P. STONER (WPS)

0730 WPS MET DRILLERS AT LANDFILL #2 (LF2). THEY WERE DECONNING THE RIG. WPS WENT TO BLDG 3228 TO CALIB HNU & LEL. SEE NOTEBOOK #1.

0845 WPS ARRIVED BACK ON-SITE. DRILLERS READY TO SET-UP. MOVING TO LF2MW3 LOCATION.

0915 DRIVING 1ST SPOON. SEE FIELD BORING LOGS FOR DESCRIPTIONS.

0930 DRIVE SHELBY TUBE. WE WILL CHECK H_2O LEVEL BECAUSE BOTTOM OF HOLE WAS SL. WET.

1015 H_2O LEVEL IS ABOUT 8.9' BLS. WE'LL DRILL TO ~20' AND SET THE WELL. STARTED AUGERING W/ 6 5/8" ID HSA.

1100 STILL REAMING. WPS CALLED BLDG 3270 AND TALKED TO GLENDA SOUTHERLAND AND LUKE OWENS ABOUT DRUM SHIPMENT THAT ARRIVED YESTERDAY. THEY THOUGHT THE DRUMS WERE THEIRS SO THEY STORED THEM ~~NEAR~~ AT DEH. THE DRILLERS HAVE TO GO OVER TO THE DEH BLDG AND MOVE THE DRUMS TO THE GMO AREA. WPS 5/6/92 JW AND JC LEFT AT 1100 HRS TO DO THIS.

1150 FINISHED REAMING. DEPTH IS ~20.5' BLS. WPS AND ST GOING TO DECON WELL SCREEN AND RISER.

1155 NOT ABLE TO DECON BECAUSE A PART IS NEEDED WHICH IS IN THE OTHER TRUCK.

1200 WPS & ST WENT TO LOOK FOR JW & JC BECAUSE THEY HAVE THE TRUCK.

1210 FOUND JW & JC AT OLF (LANDFILL #3). TRUCK IS STUCK. WENT TO GET THE H_2O TRUCK TO PULL IT OUT.

1245 FINALLY ABLE TO PULL THE TRUCK OUT. DRILLERS & WPS WENT TO LUNCH

1315 WPS ARRIVES BACK ON-SITE AND IS COMPLETING SOME PAPERWORK.

1345 DRILLERS ARRIVE ON-SITE AND STARTED DECONNING WELL MATERIAL.

1415 DRILLERS MOVE TO LF2MW3 TO START SETTING THE WELL.

1425 PLACING WELL MATERIAL INTO THE BOREHOLE AFTER KNOCKING OUT BOTTOM PLUG.

1430 STARTED TREMIEING SAND.

1530 FINISHED TREMIEING SAND. USED 14.5 BAGS AND ~10 GALS OF H_2O. STARTED ADDING PELLETS. TOP OF SAND 5.75' BLS ~5.8'.

1535 FINISHED ADDING PELLETS. TOP OF SEAL RIGHT NOW IS ~2.6' BLS. USED 1.5 BUCKETS. NO MORE PELLETS.

1545 DRILLERS PULLING RIG OFF OF HOLE AND WILL DECON IT. ST IS FILLING DRUMS W/ LF2MW3 CUTTINGS.

~~1635~~

1635 DRILLERS MIXING GROUT. (2) 94/lb BAGS CEMENT, ~10 lbs BENTONITE, ~16 GALS OF H_2O.

1640 DRILLERS FINISHED MIXING GROUT AND POURING IT INTO BOREHOLE.

1650 DRILLERS DEPART. THEY ARE GOING TO GET FORMS TO SET CONCRETE PADS FOR LF2 WELLS.

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: LF2MW3	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2
Project No.: 03-0424-xx	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 5/6/92	Comp. End:	
Built By: SAIC / WAYNE P. STONER.	Well Coord.:	

Remarks: 5/6/92 (CONT')

1700 WPS WENT TO BLDG 3228 TO PACK H&S EQUIPMENT FOR SHIPPING TOMORROW.

1730 WPS ~~[illegible]~~ WPS 5/6/92 WENT BACK TO LF2. DRILLERS SETTING PAD FORM ON LF2MW2. DRILLERS WILL SET FORM FOR PAD OF WELL LF2MW3 AND DEPART SITE.

1800 WPS DEPARTED BASE.

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Field Boring Log

Page 5 of 6

Site File No.: 03-0424-XX County: CALHOUN Boring No.: — Monitor Well No: LF2MW3

Site File Name: FT McCLELLAN (LF2/LANDFILL #2) Surface Elev.: ____ Completion Depth: 20.5

Fed. ID. No: ____ Auger Depth: 20.5' Rotary Depth: N/A

Quadrangle: ____ Sec. ____ T. ____ R ____ Date: Start 5/6/92 Sampling Finish 5/6/92

Boring Location: LOCATED ON SOUTHEASTERN PART OF SITE, BESIDE STREAM.

Drilling Equipment: MOBILE DRILL B57; 2¼" ID HSA; 140 lb HAMMER

Personnel: G - WAYNE STONER; D - SHELDON TURNER; H - JIMMY WRIGHT; H - JIM CRONIC

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA & HNU (readings)	REMARKS
									SS - SPLIT SPOON; ND - NON-DETECT; ST - SHELBY TUBE; DP - DOWN PRESSURE
	WPS 5/6/92 ① ~~SAND~~ [SW] V. FINE TO CSE SAND; 10-20% GRAVEL (PEBBLES UP TO 5cm). 10YR 5/6 YELLOWISH BROWN; LOOSE; NON PLASTIC; MOIST. REC. 1.7' ~~REC~~ WPS 5/6/92 IRON STAINING.	2.5	①	SS	1.7		15-4-5-9	ND	ROCK IN THE BOTTOM OF THE SPOON LIMITED RECOVERY. LEL: 0
	② [ML] SILT INTERBEDDED W/ LT. GRAY CLAY (5Y 7/1). ROCK FRAGMENTS. SILT IS 10YR 4/3 BROWN; DENSE; NON TO PLASTIC; DRY TO MOIST.	5.0	②	SS	1.8'		8-21-26-32	ND	LEL: 0
	③ SAME AS SAMPLE NO. 2.	7.5	③	ST		DP 650 PSI		5 ppm	LEL: 0 HEADSPACE READING 180 PPM WPS 5/6/92 ~~H2O TABLE AT 8.9'~~ H2O TABLE ~ 8-9' B.S
		10.0							
		12.5							

SAIC

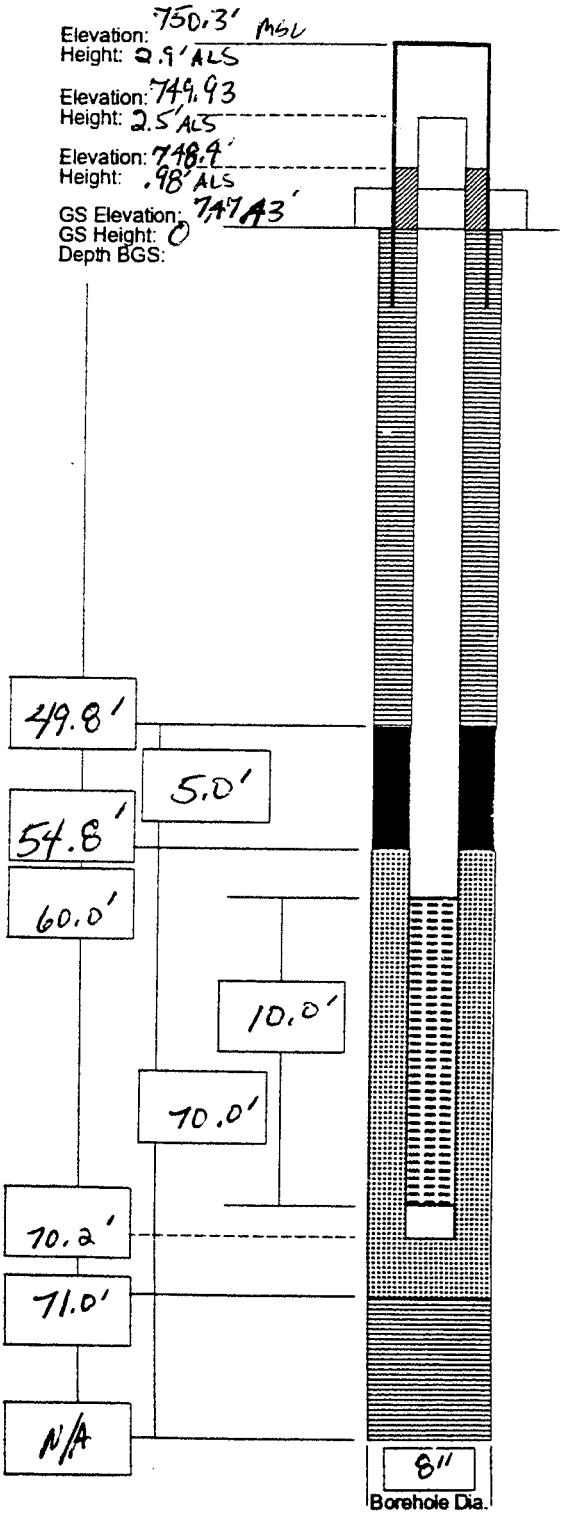
MONITORING WELL CONSTRUCTION LOG - Standard			Rev: 4/92
Well No.: LF2MW3	Installation: FT McCLELLAN	Site: LF2/LANDFILL #2	
Project No.: 03-0404-XX	Client / Project: USATHAMA/SI		
Drilling Contractor: ENVIRONMENTAL EXPLORATION INC		Driller: SHELDON TURNER	
Comp. Start: 5/6/92		Comp. End:	
Built By: SAIC / WAYNE STONER		Well Coord.:	

Remarks: ABBREVIATIONS:

WPS - WAYNE P. STONER
BLDG - BUILDING
w/ - WITH
H_2O - WATER
ST - SHELDON TURNER
HAH - HEATHER A. HOWLEY
GMO - GAME MANAGEMENT OFFICE
~ - ABOUT OR APPROXIMATELY
BLS - BELOW LAND SURFACE
ALS - ABOVE LAND SURFACE
BTOC - BELOW TOP OF CASING
TD - TOTAL DEPTH
OLF - OLD LANDFILL & LANDFILL #3
DEH - DIRECTORATE OF ~~ENGINEERING AND HOUSING~~ (JOHNSON CONTROLS)
PAD - PAIGE A. DILLON
FEDEX - FEDERAL EXPRESS
CALIB - CALIBRATE
LF2 - LANDFILL #2
HR - HOUR (S)
' - FEET
@ - ABOUT
GAL - GALLON
V. - VERY
SL. - SLIGHTLY
REC - RECOVERY
LT - LIGHT
HSA - HOLLOW STEM AUGER
ID - INSIDE DIAMETER
OD - OUTSIDE DIAMETER
TD - TOTAL

OLF6

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 6	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 8-0424-XX	Client / Project: USATHAMA / ST	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON. TURNER	
Comp. Start: 4/22/92	Comp. End: 4/24/92	
Built By: SAIC / WAYNE STONER	Well Coord.: N 1180592.99 E 51266.25	



PROTECTIVE CGS Material Type ~~STEEL~~	Length: 5.0'
Diameter 8"x8" BOX	Water Tight Seal( )
Depth BGS 2.1'	Drainage Hole (X) Height: ~1' ALS Size: ¼"
GUARD POSTS(X) No.: 4 Configuration: SQUARE	Type STEEL
SURFACE PAD Composition & Size CONCRETE (3000 PSI) ~~4'~~ x 4' x 6"	
RISER PIPE Type PVC	
Diameter 4" ID	
GROUT Composition: CEMENT ; BENTONITE ; H2O Proportions : 94 lbs ; 5 lbs ; 8 GALS	
Interval 0-49.8' BLS	Tremied(X)
CENTRALIZERS( ) Type: Depth(s) N/A	
SEAL Type BENTONITE PELLETS	
Source WYO-BEN, INC BILLINGS, MT	
Setup / Hydration time .75 HR	Vol. Fluid Added NONE
Tremied( ) POURED IN BOREHOLE AND WELL CASING ANNULUS	
FILTER PACK Type SAND	
Amount Used 5.5'	Tremied(X) USED ABOUT 50 GALS OF H2O
Source MORLE CO. GEORGIA	
Gr. Size Dist #1 WELL MATERAL	
SCREEN	Type: PVC Manufacturer: BUFFALO WELL PRODUCTS
Diameter ID: 4"	OD: —
Slot Size: 10 SLOT Schedule / Thickness 40	
Interval BGS 60.0' - 70.0' BLS	
SUMP( ) Interval BGS 70.0' - 70.2' BLS	Bottom Cap(X)
BACKFILL PLUG Material N/A	
Setup / Hydration time N/A	Tremied( ) N/A
WATER ADDED( ) Interval 0 - 55'	Amount ~175 GALS
Interval 55 - 72	Amount ~175 GALS

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 6	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0424-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/22/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

DRILLING EQUIPMENT

Rig Manufacturer: MOBILE DRILL

Rig Model: B57

DRILLING METHOD: (X) Auger (X) Mud Rotary ( ) Air Rotary ( ) Cable Tool (X) Other (Specify) CORING

Auger Type & Size: 2¼" ID HSA

Casing Size: N/A

Bit Type and Size: HSA-NONE; 3" O.D CORE BARREL; 8" OD, TRI-CONE BIT

Hammer Weight and Percussion Method: 140 lb HAMMER; CATHEAD W/ A 30" DROP

Rod Size: AWML

Mud Mixture (Mud Rotary) NO BENTONITE USED, JUST H_2O.
Air Filter Method (Air Rotary)

SAMPLING METHOD & NUMBER COLLECTED

(X) Split Spoon No.: ( ) ( ) Shelby Tube No.: ( )
( ) Grab Sample No.: ( ) (X) Core Barrel No.: (2) (1) 10' RUN (1) 5' RUN
( ) Misc. No.: ( )

MATERIALS USED (TOTALS)

Sand: 5.5 Bentonite Pellets: (2) 5 GAL BUCKETS

GROUT
Bentonite: 1 BAG Cement: 7 BAGS

SURFACE PAD MATERIALS

Screen (ft): 10.0'

Riser (ft): 65.0'

Misc: END PLUG = .15 ~ .2'

MISC: SCREEN LENGTH – 10.0'
RISER LENGTH – 65.0'
END PLUG – .15'
RISER CUT OFF = 2.5'

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 6	Installation: FT McCLELLAN	Site: OLF / LANDFILL #3
Project No.: 03-0424-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/22/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

Remarks: 4/22/92

0645 WAYNE P. STONER (WPS) AND PAIGE A. DILLON (PAD) ARRIVED AT BLDG 3228 TO CALIBRATE HNU AND LEL. SEE NOTEBOOK #1

0710 WPS AND PAD ARRIVE ON SITE (LANDFILL #3). WAITING ON DRILLERS.

0720 DRILLERS ARRIVE ON SITE AND PREPARE TO DRILL.

0730 STARTED DRILLING W/ 2 1/4" ID. HOLLOW STEM AUGERS. SEE FIELD BORING LOG FORM FOR LITHOLOGY.

0945 STOPPED DRILLING. DRILLERS NEED TO GET MORE AUGERS. DOWN TIME STARTS.

1140 DRILLERS ARRIVE BACK ON SITE W/ (1) 5' AUGER FLIGHT.

1210 DRILLERS BREAKING FOR LUNCH. WE WILL SET-UP TO REAM TO 50' AND CORE 10'.

1245 DRILLERS ARRIVE BACK ON-SITE AND ~~START~~ START PULLING AUGERS WPS 4/22/92

1310 FINISHED PULLING AUGERS. DRILLERS ARE GOING TO LOAD THE MUD TUB AND DECON IT. THEY ARE ALSO GOING TO GET MORE DRUMS AND MAKE A H_2O TRIP.

1415 DRILLERS ARRIVE BACK ON-SITE (OLF 6) WITH DECONNED TUB AND DRILLING EQUIPMENT. 45 MIN DECON. SETTING UP DIFFICULTIES - GETTING ADAPTER OFF OF THE CORE BARREL. NEEDED TO SET THE MUD TUB IN PLACE.

1448 STARTING TO PUT RODS IN THE HOLE. WE WILL CLEAN OUT THE HOLE WITH THE DRAG BIT (6" O.D.) ~~AND~~ TO DEPTH AND THEN CORE FROM 50' TO 55'. WPS 4/22/92

1515 PULLED RODS. DRILLERS LOST A PIPE WRENCH ~~INTO~~ DOWN IN THE BORE HOLE. THEY WENT TO GET SOMETHING TO RETRIEVE IT. WPS 4/22/92

1845 STEVE DESHERLIA (SD) STILL FISHING FOR WRENCH WHILE SHELDON TURNER AND WPS DOING PAPERWORK.

1900 DRILLERS AND SAIC PERSONNEL DEPART BASE FOR THE DAY.

4/23/92

0645 WPS AND PAD CALIB HNU AND LEL. SEE NOTEBOOK #1

0710 WPS AND PAD ARRIVE ON SITE. DRILLERS ARRIVED AT 0700. DOWN TIME STARTS. THEY ARE STILL FISHING FOR WRENCH.

0730 WPS AND PAD LEAVE SITE TO GO TO BLDG 3270 TO ARRANGE KEY CONTROL FOR BLDG 1298 WITH RON LEW. JERALD BRONGHTON HAS BEEN ON SITE SINCE 0700 AND WILL OBSERVE DRILLERS WHILE WPS IS GONE.

0815 WPS ARRIVES BACK ON-SITE. PAD IS GOING TO OBSERVE JEU. DRILLERS ARE STILL FISHING FOR WRENCH.

0905 SHELDON TURNER (ST) WENT TO GET CEMENT TO GROUT HOLE.

0930 ST ARRIVES BACK ON SITE. BREAKING DOWN AND SETTING UP TO GROUT.

1015 FINISHED GROUTING OLF 6 (1ST ATTEMPT). DRILLERS PUT MORE GROUT IN OLF 7 AND PLACED PROTECTIVE CASING OVER WELL RISER

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 6	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0434-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/22/92	Comp. End:	
Built By: SAIC / WAYNE STONE CO	Well Coord.:	

Remarks: 4/23/92 CONT'

1045 DRILLERS SETTING UP ON 2ND LOCATION OF MONITORING WELL OLF 6. JERALD BROUGHTON (WPS) APPROVED GROUTING 1ST BOREHOLE AND 2ND LOCATION. 1ST BOREHOLE WAS ABANDONED W/ WRENCH IN PLACE. GROUTING ONLY FEASIBLE OPTION. JB ALSO WAIVED SAMPLING HOLE TO 55' BECAUSE SAMPLES WERE COLLECTED FROM FIRST BORING. DRILLERS ARE USING A 5 7/8" OD. DRAG BIT TO DRILL TO 55' BLS. 50' INTERVAL SAMPLE FOR RECORD ONLY.

1136 DRILLERS STILL DRILLING.

1230 DRILLERS FINISHED ROTARY DRILLING TO DEPTH OF 55' BLS.

1330 DRILLERS ARRIVE BACK FROM LUNCH AND SET-UP TO CORE. THEY ARE GOING TO SHOVEL OUT THE MUD TUB AND CHANGE H_2O. WILL ADD NEW H_2O.

1420 CORE BARREL IN PLACE. FILLING RIG W/ GAS.

1425 STARTING TO CORE.

1455 PULLING CORE BARREL. CORED FROM 55 TO 65' BLS AT 1' PER 3 MIN RATE. DOWN PRESSURE AVG WAS ABOUT 100 PSI.

1515 ST AND WPS LOOK AT OLF 4 TO EVALUATE CURRENT DEPTH. DECIDED TO CORE 5 MORE FEET AND THEN BAIL IT OUT.

1530 STARTED CORING TO 70'.

1545 STOPPED CORING. DOWN TO 70' BLS AT A RATE OF 1' PER 3 MIN WITH AN AVG DOWN PRESSURE OF 100 PSI. PULLING CORE BARREL.

1600 STARTED HAND PUMPING THE WELL.

1615 WELL PUMP IS CLOGGED. PULLING IT OUT TO CLEAN.

1630 STARTED PUMPING AGAIN.

1645 WELL PUMP CLOGGED AGAIN. PULLING PUMP. TAKING A BREAK WPS TOOK PAD TO MOTEL TO MEET RIDE TO AIRPORT.

1715 WPS ARRIVES BACK ON-SITE. DRILLERS PUMPING WELL AGAIN.

1730 HAND PUMP IS CLOGGED AGAIN

1745 WPS, JB AND ST DISCUSSING BEST PLACE TO SET THE WELL SCREEN. JB SAID HE WOULD SET THE SCREEN BETWEEN 60' AND 70' BLS. WPS AND ST CONCURRED. DECISION BASED ON FRACTURED ROCK RECOVERED FROM CORING. WE WILL LET SET OVER NITE AND CHECK H_2O TOMORROW MORNING. H_2O LEVEL 57' BTOC, 56' BLS.

1800 WPS AND ST DOING DAYS PAPERWORK. HELPERS ARE MOVING DRUMS OUT OF THE WAY AT OLF 4 SO BEA PERSONNEL CAN MAKE THE ROAD BETTER.

1830 WPS AND DRILLERS DEPART SITE.

4/24/92

0700 WPS ARRIVED AT BLDG 3228 TO CALIB HNU AND LEL SEE. NOTEBOOK #1.

0715 WPS ARRIVED ON-SITE. WAITING ON DRILLERS, TOOK A H_2O LEVEL MEASUREMENT. NO H_2O IN THE HOLE. MUD AT ~ 59' BTOC.

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF6	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0404-xx	Client / Project:	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/22/92	Comp. End:	
Built By: SAIC/WAYNE STONER	Well Coord.:	

Remarks: 4/24/92 (CONT)

0730 DRILLERS ARRIVE ON SITE. WPS AND ST DISCUSS CURRENT SITUATION.

0750 WPS AND ST GO TO WELL OLF 7 AND TAKE A H_2O LEVEL WHICH IS AT ABOUT 40.5' BLS.

0800 SETTING UP TO REAM TO 72' AND SET THE WELL W/ THE SCREENED INTERVAL BETWEEN 61 AND 71' BLS. LARRY HORNSBY FROM DEH (JOHNSON CONTROLS) IS ON-SITE AND WILL BE FIXING THE ROAD TO WELL OLF 7.

0830 REAMED TO 16.5 W/ 7 7/8" OD. TRICONE BIT.

1000 STILL REAMING. ~~TO A~~ WPS 4/24/92 AT ~ 60' BLS NOW.

1100 REAMED TO ABOUT 71' BLS. WPS DECIDED TO SET THE WELL SCREEN BETWEEN 61 AND 71' BLS BASED ON CORING SAMPLE AND WELL DATA FROM OLF 4. SEE FIELD BORING LOG FOR CORE SAMPLE INFO FOR OLF 6. STOPPED REAMING AND FLUSHED HOLE. BEN KEELER AND GARY BRAY ARRIVE ON SITE. SEE NOTEBOOK #1 FOR COMMENTS.

1130 DRILLERS WENT TO GMU BLDG TO GET MORE RISER.

1145 ARRIVED BACK ON SITE AND DECONNED WELL SCREEN, RISER AND TREMIE PIPE.

1230 BROKE FOR LUNCH

1330 RETURNED FROM LUNCH AND DRILLERS

1335 PUTTING WELL SCREEN AND RISER INTO BOREHOLE

1350 FLUSHING HOLE BECAUSE THERE IS ~ 4' OF FALL IN AND SETTLEMENT. TD IS ~ 71.0'

1400 STARTED TREMIEING SAND PACK FOR OLF6.

1430 WPS COLLECTED (2) 7 oz JARS OF SAND MATERIAL. FINISHED TREMIEING SAND. ADDING PELLET SEAL. SAND TOP IS 54.8' BLS.

1445 FINISHED ADDING PELLETS. WE LET THE SEAL SET UP BEFORE GROUTING. DRILLERS ARE STARTING TO BREAK DOWN AND CLEAN UP. TOP OF PELLETS 49.8' BLS.

1530 MIXING GROUT. STARTING TO GROUT.

1600 FINISHED GROUTING. PULLING MUD TUB.

1625 CUT RISER STICKUP DOWN. RISER LENGTH CUTOFF = 2.5' ~~ALS~~ WPS 4/24/92 RISER STICK-UP = 2.5' ALS

1630 PLACING PROTECTIVE CASING OVER WELL. TOP OF PROTECTIVE CASING 2.9' ALS

1635 ~~R+B~~ RIG WPS 4/24/92 PULLING OFF OF WELL. DRILLERS GOING TO DECON PAD TO DECON EQUIPMENT.

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Field Boring Log

Site File No.: 03-0424-XX County: CALHOUN

Site File Name: FT McCLELLAN / (OLF / LANDFILL #3)

Fed. ID. No.:

Quadrangle: Sec. T. R.

Boring Location: LOCATED ON NORTHWESTERN SIDE OF SITE ALONG DIRT ROAD THROUGH THE SITE ON THE HIGHWAY 3

Drilling Equipment: MOBILE DRILL B57, 3" O.D. CORE BARREL, 24" HSA, 140 lb HAMMER

Boring No.: — Monitor Well No: OLF6

Surface Elev.: Completion Depth: 71.0'

Auger Depth: 55' Rotary Depth: 71.0'

Date: Start 4/22/92 Sampling Finish 4/23/92

Personnel:
G - WAYNE STONER
D - SHELDON TURNER
H - JIMMY WRIGHT
H - STEVE DESHERLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA (or HNU) readings	REMARKS
	[ML] SILT, 20-30% CLAY. 5YR 4/6 YELLOWISH RED; LOOSE; V. LOW PLASTICITY; MOIST TO DRY. REC: 1.5'		1	SS	1.5		2-2-3-3	ND	ND - NON-DETECT SS - SPLIT SPOON HNU BKGD: 2PPM LEL: 0
		2.5							
	[CL] CLAY, 40% SILT. 2.5YR 3/4 DK REDDISH BROWN; FIRM; ~~LOW~~ PLASTICITY; DRY TO V. SL. MOIST. REC: 1.3'	5.0	2	SS	1.3		5-9-16-20	ND	HNU BKGD: 2PPM LEL: 0
	[SM] ~~V. FINE SAND TO FINE SAND; 30-40% SILT; 5-10% CLAY, 5YR 5/3 REDDISH BROWN; MED DENSE; NON PLASTIC; DRY. REC: 1.3~~ WPS 4/22/92	7.5							
	[SM] V. FINE TO FINE SAND; 30-40% SILT; 5-10% CLAY. 5YR 5/3 REDDISH BROWN; ~~MED~~ LOW DENSE; NON-PLASTIC; DRY. REC: 1.3' WPS 4/22/92	10	3	SS	1.3		5-7-7-9	1	LEL: 0
		12.5							
	SAME AS SAMPLE NO. 2 (5-7' INTERVAL) REC: 2.0'	15.0	4	SS	2.0		5-15-14-19	.6	
		17.5							

Science Applications International Corporation

Field Boring Log

Site File No. 03-0424-XX County CALHOUN

Boring No. — Monitor Well No OLF6

Site File Name FT McCLELLAN / (OLF/LANDFILL #3)

Surface Elev. _____ Completion Depth 71.0'

Lab. File No. _____

Auger Depth 55.0' Rotary Depth 71.0'

Quadrangle _____ Sec. ____ T. ____ R ____

Date: Start 4/22/92 Finish 4/23/92

Boring Location LOCATED ON NORTHWESTERN SIDE OF SITE ALONG DIRT ROAD THROUGH THE SITE.

Drilling Equipment MOBILE DRILL B57; 2¼" ID HSA; 140 lb HAMMER

Personnel:
G - WAYNE STONER
D - SHELDON TURNER
H - JIMMY WRIGHT
H - STEVE DESHERLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA readings	REMARKS
									SS- SPLIT SPOON ND- NON-DETECT
	[ML] SILT; 20-30% V. FINE SAND; 75% CLAY. 7.5YR 7/6 REDDISH YELLOW; LOW DENSE; NON-PLASTIC; DRY. REC: 1.5'	WPS ~~26.5~~ 21.5	5	SS			5-10-13-15	ND	LEL: 0
	[ML] SILT; 10-30% V. FINE SAND; >10% CLAY. 2.5YR 4/4 REDDISH BROWN ~~AND~~ MOTTLED W/ 10YR 6/8 BROWNISH YELLOW; LOW DENSE; NON-PLASTIC; DRY. SILT/CLAY STONE PRESENT IN SAMPLE. REC: 1.6'	24.0 26.5	6	SS			7-9-11-15	.6	HNU BKGD: .6 LEL: 0
	SAME AS SAMPLE NO. #5, EXCEPT ~~7.5R~~ 7.5YR 5/4 BROWN; ~~SILT/CLAYSTONE DEN~~ MED DENSE SILT/CLAY STONE. REC: 1.8' (WPS 4/23/92)	29.0 31.5	7	SS			8-18-24-35	ND	LEL: >1
	SAME AS SAMPLE NO. #5 EXCEPT 7.5YR 6/6 REDDISH YELLOW; DENSE. REC: 1.7'	34 36.5	8	SS			23-25-36-50/5.5"	ND	LEL: 0

Applications International Corporation

Field Boring Log

Site File No.: 03-0424-XX County: CALHOUN

Boring No.: — Monitor Well No: OLF6

Site File Name: FT McCLELLAN / (OLF / LANDFILL #3)

Surface Elev.: ____ Completion Depth: 71.0'

Fed. ID. No.: ____

Auger Depth: 55.0' Rotary Depth: 71.0'

Quadrangle: ____ Sec. ____ T. ____ R. ____

Date: Start 4/22/92 Finish 4/23/92

Boring Location: LOCATED ON NORTHWESTERN SIDE OF SITE ALONG DIRT ROAD THROUGH SITE.

Drilling Equipment: MOBILE DRILL B57, 3" O.D. CORE BARREL, 2 1/4" ID HSA; 140 lb HAMMER

Personnel: G - WAYNE STONER; D - SHELDON TURNER; H - JIMMY WRIGHT; H - STEVE DESHERLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or HNU readings	REMARKS
									SS - SPLIT SPOON; ND - NON DETECT; DNR - DATA NOT RECORDED; CB - CORE BARREL
	(9) [CL] CLAY: 40% SILT. 2.5YR 5/3 REDDISH BROWN; V. FIRM; NON-PLASTIC; DRY.	40.5	(9)	SS	X		50/5"	ND	LEL: 0
		43.0							
	(10) SAME AS SAMPLE # 9.	45.5	(10)	SS	X		50-50/5"	ND	LEL: 0
		48							
	~~NOTE:~~ WPS 4/23/92 (11) SAME AS SAMPLE # 9 BUT V. FIRM.	50.5	(11)	SS ~~CB~~	*		50/4" 50/5"	DNR	* RECOVERY FOR DESCRIPTION AND NOT ANALYSIS.
		53.0					WPS 4/23/92		
	(12) CLAYSTONE; LAMINATED; 10R 5/3 WEAK RED; HARD; WELL CEMENTED; FINE GRAINED; HORIZONTAL BEDDING; BADLY WEATHERED AND V. FRACTURED; POROUS TO V. POROUS, IRON STAINING IN PORES.	55.5	(12)	CB	X			DNR	N 30% RECOVERY

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Field Boring Log Page 9 of 9

Site File No.: 03-0424-XX County CALHOUN

Site File Name FT McCLELLAN / (OLF/LANDFILL #3)

Fed. ID. No.

Quadrangle Sec. T. R

Boring Location LOCATED ON NORTHWESTERN SIDE OF SITE ALONG DIRT ROAD GOING THROUGH THE SITE

Drilling Equipment MOBILE DRILL B57 ; 3" OD CORE BARREL

Boring No. — Monitor Well No OLF6

Surface Elev. Completion Depth 71.0'

Auger Depth 5.50' Rotary Depth 71.0'

Date: Start 4/22/92 Sampling Finished 4/23/92

Personnel
G - WAYNE P STOMER
D - SHELDON TURNER
H - JIMMY WRIGHT
H - STEVE DESHERLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or HNU (reading)	REMARKS
	(12) CONT'				X			DNR	CB-CORE BARREL DNR-DATA NOT RECORDED
		60.5							
		63.0							
	(13) SAME AS SAMPLE #12, BUT V. BADLY WEATHER.	65.5			X				~ 20% RECOVERY.
			(13)	CB				DNR	
		68.0							
		70.5							
	REAMED USING AN 7 7/8" OD. TRICONE BIT TO ~71.0'								

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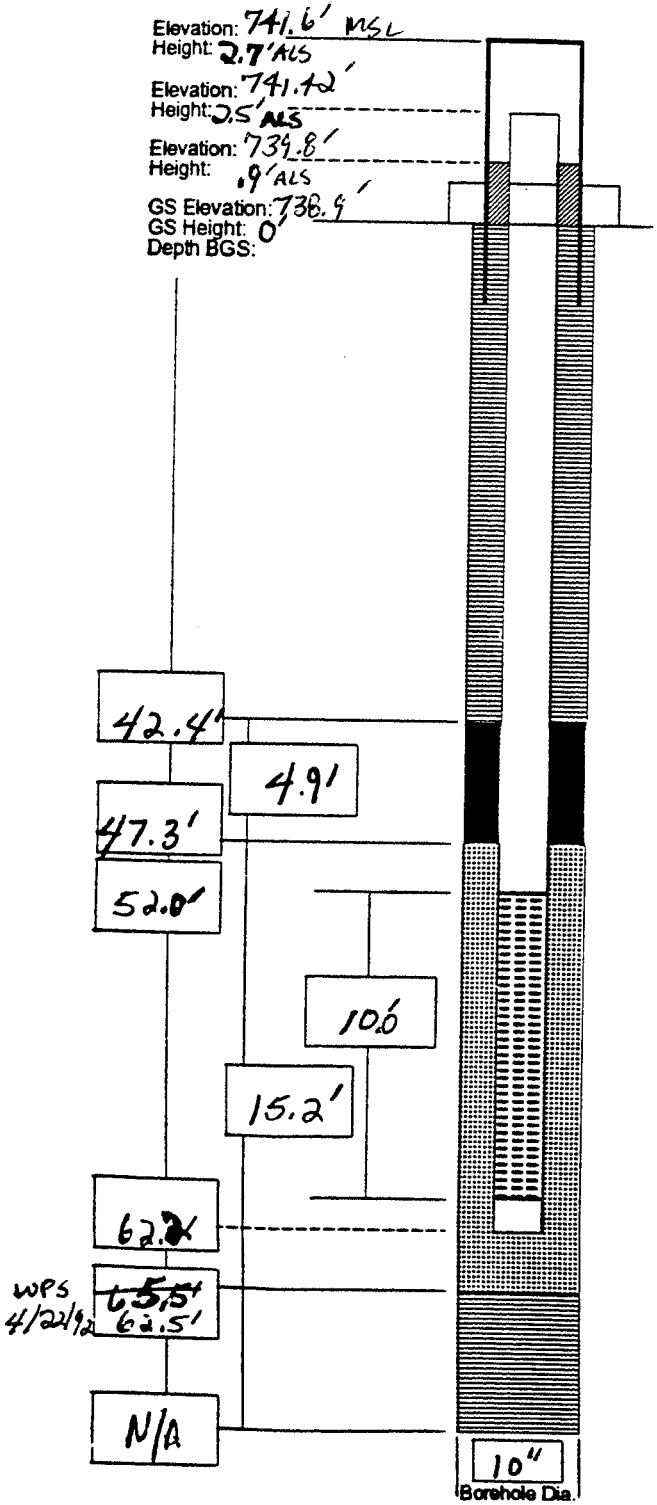
OLF7

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 7	Installation: FT. McCLELLAN ARMY BASE	Site: OLF/LANDFILL #3
Project No.: 01-0827-03-0424-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/14/92	Comp. End: 4/21/92	
Built By: SAIC / WAYNE STONER	Well Coord.: N 1180113.99 E 512352.32	



PROTECTIVE CGS Material Type STEEL	Length: 5.0'
Diameter 8"x8" BOX	Water Tight Seal( )
Depth BGS 2.3'	Drainage Hole (X) Height: ~.9' AGS Size: 1/4"
GUARD POSTS(X) No.: 4 Configuration: SQUARE	Type STEEL
SURFACE PAD Composition & Size CONCRETE (3000 PSI) 4'x4'x6"	
RISER PIPE Type PVC SCHEDULE 40	
Diameter 4" I.D.	
GROUT	Composition: CEMENT ; BENTONITE ; WATER Proportions : 94 lbs ; 5 lbs ; 8 GALS
Interval 0 - 42.4' BLS	Tremied(X)
CENTRALIZERS( ) Type: Depth(s) N/A	
SEAL Type BENTONITE PELLETS	
Source WYO-BEN, INC / BILLINGS, MONTANA	
Setup / Hydration time 1 HR	Vol. Fluid Added NONE, H2O IN THE BOREHOLE
Tremied( ) POURED	
FILTER PACK Type SAND - WASHED & SIEVED	
Amount Used 9 BAGS	Tremied(X)
Source MORIE CO. GEORGIA	
Gr. Size Dist #1 WELL GRAVEL	
SCREEN	Type: 4" PVC Manufacturer: BUFFALO WELL PRODUCTS
Diameter ID: 4"	~~DK~~ WPS 4/22/92
Slot Size: 10 SLOT Schedule / Thickness SCHEDULE 40	
Interval BGS 52.0' - 62.0' BLS	
SUMP( ) Interval BGS N/A	Bottom Cap(X)
BACKFILL PLUG Material N/A	
Setup / Hydration time N/A	Tremied( ) N/A
WATER ADDED( ) Interval ~ 27'	Amount 20 GALS
Interval ~ 31'	Amount 175 GALS

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 7	Installation: FT McCLELLAND ARMY BASE	Site: LANDFILL #3
Project No.: 03-0424xx	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATIONS, INC	Driller: SHELDON TURNER	
Comp. Start: 4/14/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

DRILLING EQUIPMENT

Rig Manufacturer: MOBILE DRILL

Rig Model: B57

DRILLING METHOD: (X) Auger (X) Mud Rotary w/o Bentonite ( ) Air Rotary ( ) Cable Tool (X) Other (Specify) CORING

Auger Type & Size: HSA 6 5/8" ID

Casing Size: N/A

Bit Type and Size: HSA - NO BIT ROTARY - TRI-CONE - 6" OD & 10" OD / CORE BARREL 3" OD

Hammer Weight and Percussion Method: 140 lb; 30 INCH DROP; CATHEAD

Rod Size: AW ML

Mud Mixture (Mud Rotary)
Air Filter Method (Air Rotary): BENTONITE WAS NOT USED FOR MUD, JUST H_2O.

SAMPLING METHOD & NUMBER COLLECTED — TOTAL

(X) Split Spoon No.: (13) ( ) Shelby Tube No.: ( )
( ) Grab Sample No.: ( ) (X) Core Barrel No.: (3) (2) 5' RUNS (1) 10' RUN
( ) Misc. No.: ( )

MATERIALS USED (TOTALS)

Sand: 9 BAGS Bentonite Pellets: 2 BUCKETS (5 GAL BUCKETS)

GROUT
Bentonite: 13 BAGS ~ 68 lbs Cement: 12 BAGS

SURFACE PAD MATERIALS

Screen (ft): 10'

Riser (ft): 55'

Misc: 1 STEEL PROTECTIVE CASING

MISC: SCREEN LENGTH 10 ft
RISER LENGTH: 55.18 ft = 10.05 ft + 10.05 + 10.05 + 10.00 + 10.00 + 5.03
BOTTOM PLUG SIZE: 0.15 ft
RISER ALS = 2.55 ALS
RISER PIECE CUTOFF = .8'
TOTAL LENGTH OF WELL = 65.33
CUTOFF AND RISER ALS − 3.35
WELL BOTTOM — 61.98 = 62.0' BLS
4/23/92 GROUT MEASUREMENT 2.7' BLS.

H_2O LOST WAS ~ 130 GALS.

MONITORING WELL CONSTRUCTION LOG - Standard

Rev: 4/92

Well No.: OLF 7	Installation: FT McCLELLAN WPS 4/14/92	Site: OLF/LANDFILL #3
Project No.: 03-0424-XX	Client / Project: USATHAMA / ST	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/14/92	Comp. End:	
Built By: SAIC/WAYNE STONER (WPS)	Well Coord.:	

Remarks: 4/14/92

1000 DRILLERS SETTING UP ON OLF 7.

1009 DRIVING 1ST SPLIT SPOON. SEE FIELD BORING LOG. STARTED DRILLING.

1141 DRILLER'S HAVING DIFFICULTIES DRILLING. DENSE MATERIAL.

1216 DRILLER'S BREAKING FOR LUNCH.

1316 DRILLERS HAVE NOT ARRIVED BACK FROM LUNCH.

1338 DRILLERS ARRIVED BACK ON SITE. WPS WENT TO BUILDING 3228 TO GET THE WATER LEVEL INDICATOR.

1408 WPS ARRIVES BACK ON SITE W/ WATER LEVEL INDICATOR.

1508 AUGER DRILLING IS DIFFICULT DUE TO DENSITY OF SOIL AND SIZE OF AUGERS. IT APPEARS THAT THE FORMATION IS SEMI CONSOLIDATED DUE TO REMNANTS OF WHAT APPEARS TO BE A SANDSTONE/SILTSTONE AND CLAYSTONE.

1515 ADDED ABOUT 20 GALS OF H_2O TO BOREHOLE TO EASE DRILLING.

1520 SAMPLE WAS DIFFICULT TO COLLECT. LOW RECOVERY (SEE BORING LOG). STARTED DRILLING AGAIN. HITTING REFUSAL AS DEFINED BY LETTER SHELDON TURNER (ST) HAD. THIS LETTER WAS TO BE SENT TO CHRIS MANIKAS AND STATED THE FOLLOWING:

AUGER REFUSAL ROLLER CONE BIT REFUSAL IS DEFINED AS ADVANCEMENT OF 1' OR LESS IN A MAXIMUM PERIOD OF 15 MINUTES W/ MAXIMUM ~~TORQUE~~ ROTATIONAL TORQUE AND DOWNTHRUST.

1540 IT WAS DECIDED THAT THE HOLE SHOULD BE CORED AND THEN REAMED. ST CAN NOT CORE UNTIL HIS COMPANY REPRESENTATIVE AUTHORIZES IT.

1600 WPS CALLED CHRIS MANIKAS (CM) TO ADVISE HIM OF CURRENT STATUS. DRILLERS PREPARING TO CORE AND REAM, SO WE CAN START IN THE MORNING UPON AUTHORIZATION.

1630 DRILLERS LEAVE SITE TO GET NEEDED EQUIPMENT. WPS CLEANING UP AREA.

1700 DRILLERS ARRIVE BACK ON-SITE. GATE IS LOCKED TO THEIR STORAGE AREA. FINISHED FOR THE DAY.

MID WPS WENT TO BLDG 3228 TO CHARGE EQUIPMENT AND PREP FOR TOMORROW'S ACTIVITES.

1745 WPS AND HAH DEPART SITE (BASE).

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 7	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0424-XX	Client / Project: USATHAMA / ST	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/14/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

Remarks: 4/15/92 WEATHER: CLOUDY; COOL ~50°F AND CALM.
SAIC FIELD CREW:
WAYNE P. STONER - WPS
HEATHER A. HOWLEY - WPS

0630 WPS AND HAH ARRIVE AT BLDG 322B. WPS CALIB HNU AND LEL. SEE FIELD NOTEBOOK # 1.

0730 WPS MET DRILLERS AT GMO AREA. WPS TRIED TO GET A KEY BECAUSE THE DRILLERS COULDN'T GET TO THEIR SUPPLIES LAST NITE. SHELDON TURNER (ST) SAID IT WOULD TAKE AN HOUR OR SO TO GET READY FOR CORING.

0830 ~~DRILLERS STA~~ WPS 4/15/92 WPS ARRIVES ON-SITE (LANDFILL #3) AND DRILLER GETTING READY TO START SETTING UP FOR CORING AND REAMING.

0838 AUGERED DOWN TO 30' BLS. PLACING A BENTONITE PLUG TO SEAL OFF THE AUGERS ~~ADDED 175 GALS~~ THIS IS THE SEAL BETWEEN THE AUGERS AND THE MUD TUB.

0857 PUTTING RODS TOGETHER FOR USING THE ROTOR CONE BIT. THE DRILLER WILL ROTOR TO 30' AND EVALUATE SITUATION. THE FORMATION MAY BE TO SOFT TO CORE. USING A 6" O.D. TRI CONE BIT.

0930 ST IS USING A TRI-CONE BIT SEE PG 2 FOR SPECS. DRILLED ABOUT .5' AND HE SAID THE ROCK IS PRETTY HARD. HE IS GOING TO ROTOR DOWN TO GET A BETTER OF CORING POSSIBILITIES

0939 ST IS GOING TO TRY A SPLIT SPOON AGAIN. IF THERE IS NO RECOVERY THEN HE WILL TRY TO CORE.

0950 COLLECTED SPLIT SPOON SAMPLE. ST CALLED LAB (2) 7 OZ. JARS ARE ENOUGH FOR GRAIN SIZE AND ATTERBERG ANALYSES. GOING TO USE THE ROLLER BIT UNTIL WE NEED TO CORE AS LONG AS WE GET ENOUGH SAMPLES

1016 STOPPED DRILLING BECAUSE MORE H_2O IS NEEDED. A LEAK IN THE TUB SEAL HAS LOST ~50 GALS OF H_2O. WPS PUT UP A SOIL BERM TO CONTAIN THE H_2O. WE WILL PUMP THIS H_2O INTO A DRUM.

1030 DRILLER BLEW A MUFFLER ON HIS RIG. HE IS TRYING TO FIX IT.

1035 DRILLER ADDED ~175 GALS OF H_2O TO THE TUB.

1044 STARTING TO DRILL AGAIN W/ THE ROLLER BIT. GETTING H_2S READINGS. CAN'T CONFIRM IF THEY ARE LEGITIMATE OR NOT BECAUSE THE H_2S WAS NOT CALIBRATED. WILL CONTINUE TO MONITOR.

1110 WPS CALLED PAIGE DILLON TO GET H_2S CALIBRATION GAS FOR TOMORROW. WPS TALKED TO (ST) AND AGREED THAT IF 5 PPM IS REGISTERED FOR A MINUTE IN THE BREATHING ZONE, WE WILL UPGRADE TO LEVEL C.

1123 ST PREPARING TO CORE.

1130 TUB SEAL IS STILL LEAKING

1155 READY TO CORE BREAKING FOR LUNCH

1300 WPS ARRIVES BACK ON SITE (LANDFILL #3). ST IS TRYING TO FIX

MONITORING WELL CONSTRUCTION LOG - Standard

Rev: 4/92

Well No.: OLF 7	Installation: FT McCLELLAN	Site: OLF LANDFILL #3
Project No.: 03-0424-xx	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/14/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

Remarks: 4/15/92 TUB SEAL.

1337 STARTING TO CORE FROM 36' BLS. CORING ABOUT 1' PER 4 MIN AT DOWN PRESSURE OF ABOUT 300 PSI.

1401 STOPPED CORING, ~~TO A~~ AT A DEPTH OF 45' BLS. GOING TO PULL THE CORE BARREL. WPS 4/15/92

1413 CORE BARREL PULLED. DRILLERS HAVING PROBLEMS GETTING IT APART. RECOVERY ON CORE BARREL IS ABOUT 1.8'.

1430 STOPPED TO FIX MUD TUB AGAIN.

1441 STARTED CORING AGAIN. DEPTH FROM 40.5'. CORING ABOUT 1' PER 4 MIN AT A DOWN PRESSURE OF 300 PSI WPS 4/15/92

1500 STOPPED CORING AT 45.5' BLS. PULLING CORE BARREL.

1515 PULLING CORE BARREL OUT OF THE HOLE AND LAYING IT DOWN BECAUSE ITS GETTING DIFFICULT TO BREAK IT APART.

1525 PULLING OUT CORED MATERIAL. DECIDED TO PUMP THE HOLE TO SEE IF H_2O IS COMING IN. DRILLERS WENT TO GET NEEDED EQUIPMENT.

1600 DRILLERS ARRIVE BACK ON-SITE. STARTED PUMPING BORE HOLE.

1630 CONTINUING TO PUMP WATER OUT OF BOREHOLE.

1700 WPS DECIDED TO CORE DOWN TO 50.5' AND PUMP DRY.

~~1705~~ 1710 STARTED CORING AGAIN. WPS 4/15/92

1727 STOPPED CORING AT A DEPTH OF 50.5' BLS. DOWN PRESSURE ~~AVG~~ WAS 150-300 PSI. AT ABOUT 1' PER ~~4 MIN~~ 4 MIN WPS 4/15/92 BETWEEN

1740 STARTED PUMPING BOREHOLE AGAIN. WPS 4/15/92

1800 STILL PUMPING BOREHOLE.

1830 STOPPED PUMPING. BREAKING DOWN FOR THE DAY. H_2O LEVEL 27.5' BTOC.

1900 WPS AND DRILLERS DEPART SITE.

4/16/92

0700 WPS CALIBRATED HNU AND LEL. SEE NOTEBOOK #1.
WEATHER: SUNNY, COOL ~50°F AND CALM.

0730 WPS MET DRILLERS AT LANDFILL #3.

0800 WPS TOOK A H_2O LEVEL MEASUREMENT. 28.7' BTOC. LAST NIGHT'S MEASUREMENT WAS 27.5' BTOC. STARTING TO BAIL THE WELL W/ 2" TEFLON BAILER WPS 4/16/92

0830 H_2O LEVEL MEASUREMENT IS ~~34~~ 31.1' BTOC. TD ~ 44' BLS

0905 H_2O LEVEL IS 34.5' BTOC

MONITORING WELL CONSTRUCTION LOG - Standard

Rev: 4/92

Well No.: OLF 7	Installation: FT McCLELLAN
Site: OLF 7 / LANDFILL #3	
Project No.: 63-0424-xx	Client / Project: USATHAMA / SI
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC.	Driller: SHELDON TURNER
Comp. Start: 4/14/92	Comp. End:
Built By: SAIC / WAYNE STONER	Well Coord.:

Remarks: 4/16/92 (CONT')

0927 H_2O LEVEL 42.4' BTOC. STOPPED BAILING HOLE

0943 H_2O LEVEL 42.0' BTOC.

1000 H_2O LEVEL 41.8' BTOC. DECIDED TO CORE TO 60.5' BLS BECAUSE OF LACK OF H_2O. GETTING READY TO CORE.

1026 STARTED TO CORE. H_2O TUB LEAKING. LOSING H_2O FROM THE SOIL UNDER THE H_2O TUB NOT THE H_2O TUB'S SEAL ITSELF.

1040 STARTED CORING AGAIN, LOSING H_2O SO THEY STOPPED.

1049 STARTED CORING AGAIN.

1115 STOPPED CORING AT A DEPTH OF 60.5'. AVG DOWN PRESSURE OF 400 PSI. CORING ABOUT 1' PER 2.5 MIN.

1130 STARTED TAKING OUT CORING. ROCK IS VERY FRACTURED AND POROUS. GOING TO PUMP IT DOWN AND TAKE H_2O LEVEL READINGS. STARTED PUMPING BOREHOLE. WILL PUMP IT DOWN AND START BAILING AGAIN.

1234 STILL BAILING THE HOLE. WPS CALLING OFFICE TO GET INFORMATION ON a submersible pump.

1312 H_2O LEVEL MEASUREMENT 43.4' BTOC.

1316 DRILLERS WENT TO LUNCH WILL LET IT RECHARGE AND CHECK H_2O LEVELS.

1330 CHRIS MANIKAS CALLED AND SAID DRILLING COMPANY WAS SUPPOSED TO SUPPLY SAIC W/ EQUIPMENT TO COMPLETE THE JOB. DOWN TIME.

1340 H_2O LEVEL 42.6' BTOC.

1400 H_2O LEVEL 42.4' BTOC.

1414 DRILLERS ARRIVE BACK FROM LUNCH.

1420 DRILLERS START REAMING BOREHOLE TO 62.0 USING 6" OD TRI-CONE BIT. WPS CALLED GARY BRAY IN REGARDS TO GET SOMETHING TO PUMP THE BOREHOLE, HE SAID BEN KEELER WILL CALL CHRIS MANIKAS.

1555 STOPPED REAMING JERALD ~~BROUGHTON~~ BROUGHTON AND DR BUCHI ARRIVED ON SITE. JERALD BROUGHTON SAID IF WE CAN INSTALL THE WELL IN THE 6" BOREHOLE TO DO IT.

1600 GETTING READY TO CLEAN THE HOLE OUT, SO WE CAN INSTALL THE WELL TOMORROW.

1615 STARTED TO FLUSH THE HOLE.

1630 STOPPED FLUSHING HOLE. STARTED TO CLEAN UP AROUND SITE.

1700 WPS AND DRILLERS DEPART SITE.

MONITORING WELL CONSTRUCTION LOG - Standard			Rev: 4/92
Well No.: OLF7	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3	
Project No.: 03-0424-xx	Client / Project: USATHAMA / SI		
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER		
Comp. Start: 4/14/92	Comp. End:		
Built By: SAIC / WAYNE STONER	Well Coord.:		

Remarks: 4/17/92

~~0646 0700~~ WPS AND HAH ARRIVED ON BASE AT BLDG 3228.
0700 WPS MET DRILLERS AT LANDFILL #3. DRILLERS NEED TO GET H_2O & WELL MATERIALS.
0745 ARRIVE BACK ON SITE. DRILLERS SETTING UP TO DECON WELL MATERIALS
0755 STARTED DECONNING WELL MATERIALS. 25 MIN DECON.
0820 FINISHED DECONNING AND STARTED LOADING.
0830 FILLING H_2O TANK OF RIG SO WE CAN FLUSH THE HOLE.
0855 FLUSHED BOREHOLE.
0859 TD IS 63.4' BTOC, MEASURED WELL RISER AND SCREEN AND BOTTOM PLUG SEE MISC BOX ON WELL CONSTRUCTION FORM.
0900 PLACING WELL SCREEN AND CASING IN THE HOLE.
0914. CAN'T GET THE TREMIE PIPE DOWN IN THE HOLE. ST IS GOING TO GET 1/2" TREMIE PIPE. DOWN TIME STARTS.
1015 ST ARRIVES BACK ON SITE W/ 1/2" TREMIE PIPE. TRYING TO GET IT TOGETHER BECAUSE IT DOES NOT HAVE THREADS. USING STAINLESS STEEL SCREWS TO PUT IT TOGETHER.
1030 STARTING TO TAKE THE WELL CASING AND SCREEN BACK OUT OF THE HOLE IT WILL NEED TO BE REAMED.
1050 STARTING TO PULL AUGERS.
1115 FINISHED PULLING AUGERS.
1130 DRILLERS WENT TO GET THE BIT TO REAM THE HOLE.
1154 DRILLERS ARRIVE W/ 10" TRI CONE BIT. TO BIG FOR H_2O TUB PIPE. PUTTING BIT AND RODS INTO BOREHOLE AND THEN PLACE THE H_2O TUB OVER THE HOLE.
1200 STARTED TO REAM. HAD PROBLEMS W/ H_2O TUB STARTED TO REAM AGAIN AT 1215.
1330 REAMED TO 40'. ADDING ANOTHER ROD.
1410 HAVING TROUBLE REAMING AT ABOUT 46' BLS DUE TO A HIGHLY FRACTURED ZONE. DOWN PRESSURE ABOUT 150 PSI.
1505 DOWN TO 50'. ADDING ANOTHER ROD.
1510 STARTED REAMING AGAIN. RAN OUT OF GAS.
1515 STARTING REAMING AGAIN TO 60'.
1600 STOPPED REAMING FINISHED FOR THE DAY. DEPTH IS ~~60~~ 58' WPS 4/17/92
1615 WPS & ST DID PAPERWORK AND DEPARTED SITE.
1645 WPS & HAH DEPART BASE FOR AIRPORT.

MONITORING WELL CONSTRUCTION LOG - Standard			Rev: 4/92
Well No.: OLF7	Installation: FT McCLELLAN		Site: OLF/LANDFILL #3
Project No.: 03-0424-xx	Client / Project: USATHAMA / SI		
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC.		Driller: SHELDON TURNER	
Comp. Start: 4/14/92		Comp. End:	
Built By: SAIC / WAYNE STONER		Well Coord.:	

Remarks: 4/20/92

1000 WPS AND PAD ARRIVE ON SITE AT LANDFILL #3. DRILLERS ALREADY ON SITE AND REAMING HOLE. H_2O LEVEL MEASUREMENT ~22.7' BTOC. ~ 88.14 GALS LOST WPS 4/20/92

1040 DRILLERS FINISHED REAMING HOLE TO A TD OF ~62.3' BLS. GETTING READY TO DECON SCREEN AGAIN. DRILLERS WERE REAMING 1 HOUR.

1100 DRILLERS DECONNING SCREEN, WELL CASING AND TREMIE PIPE AGAIN 30 MIN DECON.

1130 FINISHED DECONNING, LOADING WELL MATERIALS.

1144 BACK AT MONITORING WELL LOCATION OLF 7.

1150 FLUSHING BOREHOLE.

1200 FINISHED FLUSHING BORE HOLE. STARTED PULLING RODS.

1215. HAVING PROBLEMS BREAKING THE RODS. CHANGING TEETH ON THE PIPE WRENCH THAT IS HOOKED TO A WINCH AND USED TO BREAK THE RODS.

1230 WRENCH IS FIXED STARTED BREAKING RODS AGAIN.

1245 STARTED ADDING WELL SCREEN AND CASING TO BOREHOLE

1305 SETTING UP TO TREMIE SAND

1307 STARTED TO TREMIE SAND. WPS COLLECT (2) 7oz JARS OF THE SAND PACK USED

1335 ~~TREMIEING~~ WPS 4/20/92 TREMIED SAND TO ~47.3' BLS. STARTING TO ADD BENTONITE PELLETS FOR THE SEAL.

1356 FINISH ADDING BENTONITE SEAL. USED 2 BUCKETS. TOP OF SEAL 42.4' BLS.

1400 DRILLERS GETTING CEMENT AND LUNCH WHILE SEAL SETS-UP.

1500 DRILLERS RETURN FROM LUNCH AND START SETTING UP TO GROUT.

WPS 4/20/92 ~~1500~~ 1515 OFF IN THE DISTANCE THERE IS LIGHTNING AND IT IS STARTING TO RAIN.

1530 IT IS POURING AND STILL THUNDERING AND LIGHTNING.

1730 WPS 4/20/92 ~~1800~~ DEPARTING SITE BECAUSE OF WEATHER CONDITIONS. IT IS NOT SAFE TO WORK.

4/21/92

0830 WPS AND PAD MET DRILLERS ONSITE, LANDFILL #3. RAINY WEATHER AND THUNDER DELAYED WORK. DRILLERS CONTINUING TO SET UP TO GROUT.

0845 DRILLERS GO TO BLDG 1298 TO GET H_2O TRUCK FILLED.

0900 DRILLERS ARRIVE BACK ON-SITE BECAUSE BLDG 1298 IS LOCKED. WPS CALLED LEMAR SMITH TO GET THE BLDG UNLOCK - THEY ARE SENDING SOMEONE OVER.

MONITORING WELL CONSTRUCTION LOG - Standard

Rev: 4/92

Well No.: OLF 7	Installation: FT McCLELLAN
Site: OLF 7 LANDFILL #3	
Project No.: 03-0484-xx	Client / Project: USATHAMA / SI
Drilling Contractor: ENVIRONMENT EXPLORATION, INC	Driller: SHELDON TURNER
Comp. Start: 4/14/92	Comp. End:
Built By: SAIC / WAYNE STONER	Well Coord.:

Remarks: 4/21/92 (CONT')

0915 PERSON FROM DEH ARRIVES AND UNLOCKS BLDG.

0945 DRILLERS ARRIVE BACK ONSITE AND H_2O TRUCK GETS STUCK ABOUT 200 TO 300 FEET FROM THE WELL. DRILLERS SET UP A SYSTEM TO FILL DRUMS AS FAR AWAY FROM THE H_2O TRUCK ~~AS CLOSE~~ WPS 4/21/92 ~~AS PAR~~ AS POSSIBLE AND PUMP THE DRUMS USING THE RIG HOOK-UP.

1030 STARTING TO GROUT OLF 7 INCLUDING MIXING THE GROUT.

1100 MIXING LAST BATCH OF GROUT.

1115 GROUT PUMP HAVING PROBLEMS.

1130 FINISHED GROUTING OLF 7. CLEANING UP.

1150 TRYING TO MOVE RIG. RIG IS GETTING STUCK.

1220 WPS CALLED LEMAR SMITH TO GET EQUIPMENT TO PULL OUT THE RIG AND SUPPORT TRUCK. LEMAR WAS OUT TO LUNCH.

1225 DRILLERS WENT TO LUNCH. WPS AND PAD WENT TO DEH TO FIND LEMAR SMITH.

1245 WPS TALKED TO LEMAR AND HE IS GOING TO SEND SOMEONE OUT TO PULL OUT THE VEHICLES. WPS AND PAD WENT TO BLDG 3220 TO SEE IF ANY FEDEX PACKAGES ARRIVED.

1325 WPS AND PAD ARRIVE AT LANDFILL #3. WAITING FOR HELP.

1330 DRILLERS ARRIVE ON SITE. THEY ARE GOING BACK TO CLEAN-UP AND LOAD RIG UNTIL PERSON FROM DEH COMES.

1400 PERSON FROM DEH ARRIVES. STARTS TO PULL OUT RIG.

1430 ~~PULLS~~ WPS 4/21/92 DEH PERSON PULLED OUT RIG AND SUPPORT TRUCK W/ A DOZER. HE IS GOING TO PUT SOME DRY SOIL AROUND THE DECON PAD TO ~~EMPH~~ WPS 4/21/92 ENHANCE VEHICLE TRACTION.

1445 DRILLERS STARTED DECONNING.

1500 LEMAR SMITH ARRIVED ON SITE TO ASSESS ACCESS INTO MONITORING LOCATION OLF 88. WPS WILL CONTACT HIM LATER IN THE WEEK TO MAKE ARRANGEMENTS. WPS 4/21/92

1600 LT MIKE McMULLEN ARRIVED ON SITE, OPENED BLDG 1298 SO DRILLERS CAN GET H_2O.

1645 DRILLERS FINISHED DECONNING.

1700 SHELDON TURNER (ST) WENT TO GMO TO GET MORE DRUMS. STEVE DESHERLIA WENT TO GET A LOAD OF H_2O.

1745 ST AND WPS DOING PAPERWORK.

1800 SAIC PERSONNEL AND DRILLERS DEPART SITE. SAIC PERSONNEL GOING TO BLDG 3228.

1820 SAIC PERSONNEL DEPART BASE.

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Field Boring Log

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Site File No.: BR-0424-XX County CALHOUN

Site File Name FT. McCLELLAN / (SITE OLF/LANDFILL 3)

Boring No. ~~OLF 7~~ WPS 4/14/92 Monitor Well No. OLF7

Fed. ID. No.

Surface Elev. Completion Depth 62.5'

Quadrangle Sec. T. R.

Auger Depth 30.0' Rotary Depth 62.5'

Date: Start 4/14/92 Finish ~~4/18/92~~ 4/18/90 WPS 7/27/92

SOIL SAMPLING & CORING

Boring Location LOCATED ON NORTWESTERN SIDE OF SITE. IT IS APPROXIMATELY 150-200 YDS NORTH OF OLF 5.

Drilling Equipment MOBILE DRILL B57; HSA 6 5/8" ID; 140 lb HAMMER

Personnel: G - WAYNE P. STONER; D - SHELDON TURNER; H - STEVE P. DESHERLIA; H - JIMMY M. WRIGHT

TIME Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or HNU readings	REMARKS
1009	(0-2.0') 0-.45 [ML] SILT, V.FINE TO FINE SAND 20%, 10% MED SAND. 10YR 4/2 DK. GRAYISH BROWN, LOW DENSE, V.SL. PLASTIC; MOIST. .45-2.0' [ML] SILT, V.FINE SAND 10%, CLAY 10-20%. 10YR 5/6 YELLOWISH BROWN; LOW DENSE TO MED DENSE; LOW PLASTIC; MOIST.		1	SS	2.0'		2-3-3-5	ND	SS - SPLIT SPOON
1026	(2.5-4.5') [ML] SILT, CLAY 10-20%, V.FINE TO FINE SAND 20%. 10YR 5/6 YELLOWISH BROWN, ~~MED~~ LOW DENSE; NON TO V.LOW PLASTIC; MOIST TO DRY.	2.5	2	SS	2.0'		3-4-6-7	ND	DNR - DATA NO ND - NO DETECTED BKGD - BACKGROUND .8 PPM LEL: 0
1040	(5-7.0') SAME AS 2.5-4.5' INTERVAL EXCEPT MED DENSE TO DENSE, 7.5YR N7/0 LIGHT GRAY CLAY - 20%; LOW PLASTICITY; MOIST TO DRY. A PIECE OF ~~MICA~~ QUARTZ WAS IN THE SPOON WPS 4/14/92	5.0	3	SS	1.8'		5-14-37-41	.2	LEL: 0
1110	(7.5-9.5') (7.5-8.5) SAME AS 5-7' INTERVAL. 8.5-9.2' [SM] SAND, V.FINE TO FINE, SILT 20-30% CLAY <5%. 7.5YR 4/6 STRONG BROWN, MED DENSE; NON-PLASTIC; DRY. 9.2-9.5' [ML] SILT, V.FINE SAND 10-20%, CLAY 5%, 7.5YR 6/8 REDDISH YELLOW AND 7.5YR 4/4 DK BROWN; MED DENSE; NON PLASTIC; DRY.	7.5	4	SS	2.0'		8-9-15-21	ND	LEL: 0
1122	(10.0-12.0') [SM] SAND, V.FINE TO FINE, SILT 20%. 5YR 5/2 REDDISH GRAY; LOW DENSE, NON-PLASTIC; DRY	10.0	5	SS	2.0'		8-14-21-29	ND	LEL: 0
1145	(12.5-14.5') SAME AS 10.0-12.0' INTERVAL	12.5	6	SS	1.7'		9-13-28-30	ND	LEL: 0
NR	(15.5-16.0) SILTY CLAY, 20-30% SILT. 10YR 5/8 YELLOWISH BROWN AND 10YR 7/2 LIGHT GRAY; MED DENSE; LOW PLASTICITY; DRY. SILTY PARTINGS WPS 4/14/92	15.0	7	SS	1.5'		6-10-18-15	ND	LEL: 0
	(16.0-17) SAME AS 10-12' INTERVAL.								
1150	(17.5-19.5) [ML] SILT, CLAY 20%, 10R 4/3 WEAK RED; LOOSE TO DENSE; NON-PLASTIC; DRY.	17.5	8	SS	1.0'		9-13-21-27	ND	LEL: 0

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Field Boring Log

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Site File No.: 03-0424-XX County: CALHOUN

Boring No. OLF 7 Monitor Well No. OLF 7

Site File Name: FT. MCCLELLAN / OLF (LANDFILL #3)

Surface Elev. _____ Completion Depth 62.5'

Fed. ID. No. _____

Auger Depth 30.0' Rotary Depth 62.5'

Quadrangle _____ Sec. ____ T. ____ R ____

Date: Start 4/14/92 Finish 4/15/92

Boring Location: NORTHWESTERN SIDE OF SITE, APPROXIMATELY 150-200 YDS NORTH OF OLF 5.

Drilling Equipment: HSA 6 5/8" ID; B57; 140 lb HAMMER

SOIL SAMPLING & CORING

Personnel: G - WAYNE STONER; D - SHELDON TURNER; H - STEVE DESHERLIA; H - JIMMY WRIGHT

TIME	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or HNU readings	REMARKS
1200	(20-22') SAME AS 10-12' INTERVAL BUT 30% SILT & LOW TO MED DENSE.	21.5	9	SS		10-13-20-36		ND	SS-SPLIT SPOON CB-CORE BARREL. LEL: 0
1420	(22.5-24.5) SAME AS 20-22' INTERVAL.	24.5	10	SS		10-23-33-42		ND	LEL: 0
1445	(25-27') [ML] SILT, V. FINE SAND 30%. 5YR 5/2 REDDISH GRAY; ~~LOW TO MED~~ DENSE; NON-PLASTIC; DRY. CLAYSTONE PRESENT IN SAMPLE. WPS 4/14/92	26.5	11	SS		8-15-19-31		ND	LEL: 0
1520	(27.5-28.4') CLAYSTONE, 10R 4/2 WEAK ~~RED~~; LAMINATED; ~~HARD~~ SOFT; ~~WELL~~ POORLY CEMENTED; FINE GRAINED; BADLY WEATHERED. WPS 4/14/92	28.0	12	SS		14-50/5"			LEL: 0
5/15/92 0940	(31-32.1') SAME AS 27.5-28.4' INTERVAL.	31.5	13	SS		25-34-50/5"			ROTARY AT 30' BGS. WILL START CORING AT 36' IF SPLIT SPOON ~~SAMPLE~~ RECOVERY IS VERY LOW WPS 4/15/92
	(36.0-36.5') ~~CLAYSTONE;~~ WPS 5/15/92	34							
	(36.5-40.5') CLAYSTONE; LAMINATED; 10R 5/3 WEAK RED; HARD; WELL CEMENTED; FINE GRAINED; HORIZONTAL BEDDING; BADLY WEATHERED; ~~FAIR POROUS~~; V. FRACTURED	36.5	14 / 15	SS / CB		50/5"			ABOUT 30% RECOVERY.

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Field Boring Log

Site File No.: 03-0424-XX

County: CALHOUN

Boring No.: ——

Monitor Well No: OLF 7

Site File Name: FT McCLELLAN / (OLF/LANDFILL#3)

Surface Elev.: ——

Completion Depth: 62.5'

Fed. ID. No: ——

Auger Depth: 30.0'

Rotary Depth: 62.5'

Quadrangle: ——

Sec. ——

T. ——

R ——

Date: Start 4/14/92 Finish 4/18/92

Boring Location: NORTHWESTERN SIDE OF SITE. APPROXIMATELY 150-200 YDS NORTH OF OLF 5.

Drilling Equipment: MOBILE DRILL B57; 3" OD COREBARREL.

Personnel:
G - WAYNE STONER
D - SHELDON TURNER
H - JIMMY WRIGHT
H - STEVE DESHERLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA (ppm) readings	REMARKS
	NOTE: THE 36.5' TO 40.5' INTERVAL YIELDED ABOUT 1.5' OF RECOVERY. BECAUSE OF FRACTURING AND WEATHERING THE LOOSER MATERIAL WAS WASHED OUT, IT IS V. DIFFICULT TO DETERMINE AN INTERVAL OR INTERVALS OF LOST CORING.						N/A		CB - CORE BARREL
		40.5							
	(40.5'-45.5') SAME AS 36.5-40.5' INTERVAL				X				RECOVERY - ~30% ~1.5'
		43.0	16	CB					
		45.5							
	(45.5'-50.5') SAME AS 36.5-40.5' INTERVAL				X				RECOVERY - ~30% ~1.5'
		48.0	17	CB					
		50.5							
	(50.5'-60.5') SAME AS 36.5-40.5' INTERVAL AND V. POROUS.				X				RECOVERY - ~25% ~2.5'
		53.0	18	CB					
		55.5							

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Field Boring Log

Site File No.: 03-0424-XX County CALHOUN

Site File Name FT. McCLELLAN / (OLF/LANDFILL #3)

Fed. ID. No.

Quadrangle Sec. T. R.

Boring Location NORTH-WESTERN SIDE OF SITE. APPROXIMATELY 150-200 YDS NORTH OF OLF 5.

Drilling Equipment MOBILE DRILL B57; 6 5/8" HSA; 10" OD TRI-CONE BIT; 140 lb HAMMER

Boring No. —

Monitor Well No. OLF 7

Surface Elev.

Completion Depth 62.5'

Auger Depth 30.0' Rotary Depth 62.5'

Date: Start 4/14/92 Finish 4/18/92

Personnel
G - WAYNE STONER
D - SHELDON TURNER
H - JIMMY WRIGHT
H - STEVE DESHERLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or HNU readings	REMARKS
			1B						
		54.5							
	REAMED TO 62.5 W/ 10" OD. TRICONE BIT, NO SAMPLE COLLECTED BETWEEN 60' AND 62.5' BLS.	62.0							

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MONITORING WELL CONSTRUCTION LOG - Standard

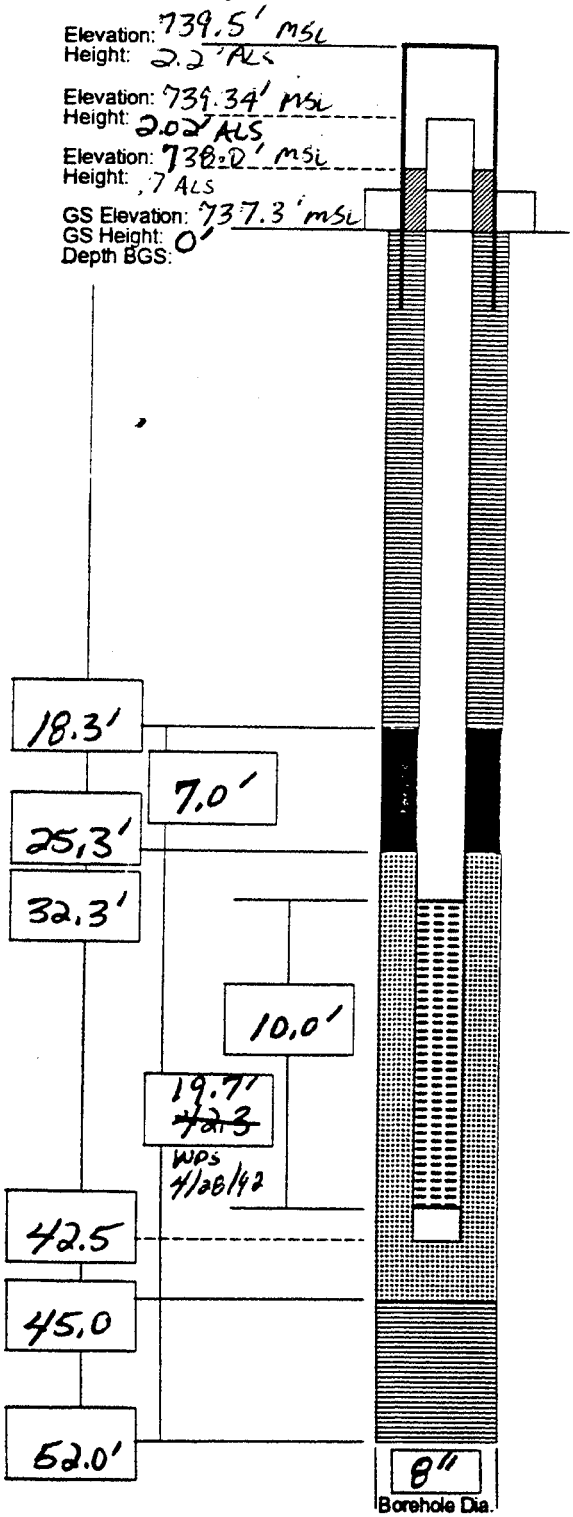
Well No.: OLF 7	Installation: FT McCLELLAN		Rev: 4/92
Project No.: 03-0404-XX	Client / Project: USATHAMA/SI		Site: LANDFILL #3/OLF
Drilling Contractor: ENVIRONMENTAL EXPLORATION INC		Driller: SHELDON TURNER	
Comp. Start: 4/15/92		Comp. End:	
Built By: SAIC / WAYNE STONER		Well Coord.:	

Remarks: ABBREVIATIONS:

WPS - WAYNE P. STONER
BLDG - BUILDING
w/ - WITH
H_2O - WATER
ST - SHELDON TURNER
HAH - HEATHER A. HOWLEY
GMO - GAME MANAGEMENT OFFICE
~ - ABOUT OR APPROXIMATELY
BLS - BELOW LAND SURFACE
ALS - ABOVE LAND SURFACE
BTOC - BELOW TOP OF CASING
TD - TOTAL DEPTH
OLF - OLD LANDFILL & LANDFILL #3
DEH - DIRECTORATE OF ENGINEERING AND HOUSING (JOHNSON CONTROLS)
PAD - PAIGE A. DILLON
FEDEX - FEDERAL EXPRESS
CALIB - CALIBRATE
LF2 - LANDFILL #2
HR - HOUR (S)
' - FEET
@ - ABOUT
GAL - GALLON
V. - VERY
SL. - SLIGHTLY
REC - RECOVERY
LT - LIGHT
HSA - HOLLOW STEM AUGER
ID - INSIDE DIAMETER
OD - OUTSIDE DIAMETER
TD - TOTAL

OLF8

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 8	Installation: FT McCLELLAN	Site: OLF / LANDFILL #3
Project No.: 03-0424-XX	Client / Project: US ATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/27/92	Comp. End: 4/28/92	
Built By: SAIC / WAYNE STONER	Well Coord.: N 1179911.24 E 5122771.72	



PROTECTIVE CGS Material Type STEEL	Length: 5.0'
Diameter 8"x8" Box	Water Tight Seal( )
Depth BGS 2.8'	Drainage Hole (X) Height: .8' ALS Size: 4"
GUARD POSTS(X) No.: 4 Configuration: SQUARE	Type STEEL
SURFACE PAD Composition & Size CONCRETE (3000 PSI) 4'x4'x6"	
RISER PIPE Type PVC	
Diameter 4" ID	
GROUT Composition: CEMENT; BENTONITE; H_2O Proportions: 94lbs; 5lbs; 8 GALS	
Interval 0' - 18.3' BLS Tremied(X)	
CENTRALIZERS( ) Type: Depth(s) N/A	
SEAL Type BENTONITE SLURRY	
Source WYO-BEN, INC BILLINGS, MT	
Setup / Hydration time 1.2 HRS Vol. Fluid Added	
Tremied(X)	
FILTER PACK Type SAND	
Amount Used 7 BAGS Tremied(X)	
Source MORIE CO. GEORGIA	
Gr. Size Dist #1 WELL MATERIAL	
SCREEN	Type: PVC Manufacturer: BUFFALO WELL PRODUCTS
Diameter ID: 4"	OD:
Slot Size: 10 SLOT Schedule / Thickness 40	
Interval BGS ~~42.3'~~ WPS 4/28/92 32.3'-42.3' BLS	
SUMP( ) Interval BGS 42.3'-42.5' BLS	Bottom Cap(X)
BACKFILL PLUG Material N/A	
Setup / Hydration time N/A	Tremied( ) N/A
WATER ADDED( ) Interval INITIAL H_2O FOR REAMING	Amount ~200 GALS
Interval 25-45' BLS	Amount ~20 GALS FOR SAND TREMIE

MONITORING WELL CONSTRUCTION LOG - Standard

Rev: 4/92

Well No.: OLF 8	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0424xx	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/27/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

DRILLING EQUIPMENT

Rig Manufacturer: MOBILE DRILL

Rig Model: B57

DRILLING METHOD: (X) Auger ( ) Air Rotary ( ) Other (Specify) ____
(X) Mud Rotary NO BENTONITE) Cable Tool

Auger Type & Size: 2 1/4" ID HSA

Casing Size: N/A

Bit Type and Size: 8" O.D. TRI-CONE BIT

Hammer Weight and Percussion Method: 140lb HAMMER; CATHEAD AND 30" DROP

Rod Size: AWML

Mud Mixture (Mud Rotary) NO BENTONITE WAS USED, JUST H_2O
Air Filter Method (Air Rotary)

SAMPLING METHOD & NUMBER COLLECTED

(X) Split Spoon No.: (4) (X) Shelby Tube No.: (1)
( ) Grab Sample No.: ( ) ( ) Core Barrel No.: ( )
( ) Misc. No.: ( )

MATERIALS USED (TOTALS)

Sand: 7 BAGS Bentonite Pellets: SLURRY MIX: 25lbs TO 16 GALS

GROUT
Bentonite: ~15-20 lbs Cement: 3 BAGS

SURFACE PAD MATERIALS

Screen (ft): 10.0'

Riser (ft): 34.5

Misc: WPS 4/28/92 ~~END~~ BOTTOM CAP = .15' ~ .2'

MISC:

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 8	Installation: Ft McCLELLAN	Site: OLF / LANDFILL #3
Project No.: 03-0424-xx	Client / Project: USATAAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/27/92	Comp. End:	
Built By: SAIC / WAYNE STONER (WPS)	Well Coord.:	

Remarks: 4/27/92

0700 WPS ARRIVES AT BLDG TO CALIBRATE LEL AND HNU. SEE NOTEBOOK #1. WEATHER: CLOUDY, COLD ~40-50°F AND BREEZY. JOHN PENDLETON (JP) ARRIVED LAST NITE AND WILL BE HELPING TEU AND DERRAL VAN WINKLE (DVW)

0800 WPS ARRIVES ON SITE (LANDFILL #3) AND DRILLERS ARE DECONNING THE RIG. THEY ARRIVED ABOUT 0730.

0900 DRILLERS FINISHED DECONNING RIG. WAITING ON SHELDON TURNER (ST) TO RETURN.

0915 WPS CHECKED OLF 9 FOR H_2O LEVEL WHICH WAS 14.78' BLS

0930 ST ARRIVES AND WE ARE TAKING THE RIG BACK TO OLF 8. LEMAR SMITH CAME OUT ~0930 TO LOOK AT ACCESS PROBLEM, ~~ONE~~ TWO OF HIS PEOPLE WERE OUT EARLIER TO TRY AND SMOOTH A SPOT ON THE ROAD BACK. THEY WERE HERE ABOUT 0900. 4/27/92

1000 HAD TO PULL THE RIG ON THE HOLE W/ A BULL DOZER. THEY (JOHNSON CONTRO.) ARE GOING TO PUT A COUPLE OF LOADS OF CHERT IN THE BAD SPOT SO THEY RIG MIGHT NOT GET STUCK WHEN PULLING OFF THE HOLE.

1015 DRILLERS WORKING ON RIG TRYING TO PUT A MUFFLER ON.

1120 STARTED DRILLING, WILL NOT TAKE A 0-2' BECAUSE OF THE ESCAVATION BY THE BULL DOZER. WE WILL INSTEAD START AT 5' BLS. SEE FIELD BORING LOGS FOR LITHOLOGY DESCRIPTIONS.

1230 BROKE FOR LUNCH. WPS FILLING OUT PAPERWORK.

1330 DRILLERS RETURN FROM LUNCH.

1400 START DRILLING AGAIN. HIT A FRACTURED ROCK ZONE BETWEEN 30 AND 31'. WAITING FOR H_2O TO COME UP.

1416 NO WATER IN THE HOLE.

1445 ~~[illegible]~~ INSIDE OF SPOON IS WET BUT IT IS THE FALLIN THAT IS WET. WE WILL WAIT FOR H_2O TO RISE. ~~TS~~ WPS 4/27/92 WPS 4/27/92

~~1446 DRILLING TO 35'~~

1508 H_2O LEVEL IS 34.6' BLS

1518 H_2O LEVEL IS 33.9' BLS

1524 DRILLING TO NEXT INTERVAL. SEE FIELD LOGS

1630 LAST SAMPLE AT 50-52' WAS DRY. WE WILL SET THE SAND PACK STARTING AT 50' AND WELL BOTTOM AT ~47' BLS. THE SAND PACK WILL EXTEND TO ABOUT 29' BLS.

1640 DRILLERS PULLING AUGERS

1651 FINISHED PULLING AUGERS. DRILLERS ARE GOING TO DECON THE MUD TUB AND SET IT UP ON OLF 8 FOR REAMING. THEY WILL USE AN 8" O.D. TRI-CONE BIT.

1730 DRILLERS LEAVE SITE, FINISHED FOR THE DAY. WPS WENT TO BLDG 3228 TO PREP FOR TOMORROW.

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 8	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-044-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: ~~4/28/92~~ 4/27/92 WPS 4/28/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

Remarks: 4/28/92

WEATHER: SUNNY, COLD ~ 40°F AND BREEZY.

WPS 4/28/92 ~~0715 DRILLERS~~

0700 WPS ARRIVES ON SITE AND WAITED FOR DRILLERS. CALIB HNU AND LEL. SEE NOTEBOOK #1

0710 WPS WENT TO BLDG 3228 TO PICK UP SOME EQUIPMENT.

0730 WPS MET DRILLERS AT OLF (LANDFILL #3). THEY HAD ARRIVED ~ 0715. THEY NEEDED H_2O AND BLDG 1298 WAS LOCKED WPS MET STEVE DESMERLIA (SD) AT BLDG 1298 WHILE ST WENT TO GET DRUMS. WPS CALLED CHRIS MANIKAS (CM) AND GAVE HIM CURRENT STATUS. SURVEYORS HAVE NOT CLEARED LANDFILL #1. HE SAID THEY SHOULD HAVE IT CLEARED BY TODAY IF NOT CALL CM BACK WPS 4/28/92

0800 WPS MET DRILLERS AT OLF 8. H_2O LEVEL READING IS ~28.5' BLS.

0815 STARTED TO REAM W/ 7 7/8" OD. TRICONE BIT. WPS 4/28/92

1045 FINISHED REAMING, WPS CALLED LEMAR TO PULL OUT H_2O TRUCK BECAUSE IT WAS STUCK. DRILLERS BREAKING DOWN.

1100 DRILLERS WAITING TO MOVE.

1130 DEH PERSON ARRIVED W/ LEMAR SMITH & PULLED H_2O TRUCK OUT.

DRILLERS ARE DECONNING WELL MATERIAL.

1216 DRILLERS GO TO LUNCH.

1300 ~~ARE~~ WPS 4/28/92 DRILLERS COME BACK FROM LUNCH. CONTINUEING TO DECON WELL MATERIALS.

1330 MOVING TO OLF 8 LOCATION.

1335 PUT WELL SCREEN AND RISER IN THE BOREHOLE. STARTING TO TREMIE SAND.

1415 FINISHED TREMIEING SAND. 7 BAGS. MIXING BENTONITE SLURRY FOR SEAL. USED 25 lbs OF BENTONITE & ABOUT 16 GALS OF H_2O

1420 ADDING SLURRY. WILL LET IT SET UP ~45 MINS TO AN HOUR.

1530 MIXING GROUT. STARTED GROUTING

1535 FINISHED GROUTING, STARTED BREAKING DOWN AND CLEANING UP.

1545 DRILLERS DECONNING RIG. WHEN FINISHED DECONNING, DRILLERS ARE GOING TO PREPARE TO SET SURFACE PADS ON THE INSTALLED WELLS AND BREAK DOWN DECON PAD.

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Field Boring Log

Site File No.: 02-0424-XX County: CALHOUN

Site File Name: FT McCLELLAN / (OLF/LANDFILL #3)

Fed. ID. No.:

Quadrangle: Sec. T. R.

Boring Location: ABOUT 15' FROM OLF 5

Drilling Equipment: MOBILE DRILL B57; 2¼" ID HSA; 140 lb HAMMER

Boring No.: — Monitor Well No: OLF8

Surface Elev.: Completion Depth: 52.0'

Auger Depth: 50' Rotary Depth: 45'

Date: Start 4/27/92 Finish 4/27/92

Personnel:
G - WAYNE P. STOPP
D - SHELDON TURNER
H - JIMMY WRIGHT
H - STEVE DESHERLI

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or (HNU) readings	REMARKS
									SPLIT SPOON - SS SHELBY TUBE - ST DOWN PRESSURE - DP DATA NOT RECORDED - DNR NON-DETECT - ND SPLIT SPOON - SS ~~SHEL~~ WPS 4/27/92
		2.5'							
		5.0'							
	① [ML] SILT; 20-30% CLAY; 20% V. FINE SAND 10YR 6/3 PALE GRAY; SOFT; SL. PLASTIC TO PLASTIC MOIST ~~TO WET~~. WPS 4/27/92 REC: 1.8'		①	SS	1.8		2-3-2-3	.3	LEL:0
		7.5'							
		10.0'							
	② [CL] CLAY; 10-20% SILT, 10YR 6/8 BROWNISH YELLOW MOTTLED W/ 10YR 6/1 GRAY; IRON STAINING; STIFF; PLASTIC; MOIST. TOP OF SHELBY		②	ST	2.0		750 PSI DP	DNR	LEL:0
		12.5							
		15.0							
	③ [ML] SILT; 30% CLAY, 10YR 6/8 BROWNISH YELLOW; DENSE; SL V. SL PLASTIC; DRY.		③	SS	1.5		7-27-34-37	ND	LEL:0
		17.5							

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Field Boring Log

Site File No.: 03-0424-XP County: CALHOUN

Site File Name: FT. McCLELLAN / (OLF / LANDFILL #3)

Boring No.: — Monitor Well No: OLF8

Fed. ID. No.:

Surface Elev.: Completion Depth: 52.0'

Quadrangle: Sec. T. R.

Auger Depth: 50' Rotary Depth: 45'

Date: Start 4/27/92 Finish 4/29/92

Boring Location: APPROXIMATELY 15' FROM OLF 5

Drilling Equipment: MOBILE DRILL B57; 2¼" ID HSA; 140 lb HAMMER

Personnel: G - WAYNE STONER; D - SHELDON TURNER; H - JIMMY WRIGHT; H - STEVE DESHERLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or HNU readings	REMARKS
	(4) GEO-TECH SAMPLE NOT COLLECTED DUE TO LOW RECOVERY FROM ~~SILT~~/CLAYSTONE LAYER. ~~SILT~~/CLAYSTONE; NO VISIBLE BEDDING; 10YR 7/4 V. PALE BROWN; HARD; WELL CEMENTED; V. FINE GRAINED; SEMI-WEATHERED; SOLID.	21.5	(4)	SS			50/3"	DNR	DNR - DATA NOT RECORDED ND - NON DETECT LEL: 0
	(5) [ML] SILT; 10-15% CLAY; 10% V. FINE SAND. 10YR 6/8 ~~VI PALE BROWN~~ STRONG BROWNISH YELLOW; DENSE; SL PLASTIC; MOIST. CLAYSTONE PRESENT SAME AS SAMPLE #4.	24.0 26.5	(5)	SS			30-50/3"	ND	LEL: 0
	(6) [SM] V. FINE SAND; 20-30% SILT; 20% CLAY. 10YR 3/3 DK BROWN; DENSE; V. SL PLASTIC; V. MOIST TO WET. SILTSTONE; 10YR 6/6 BROWNISH YELLOW STAINED W/ 2.5Y 3/0 V. DK GRAY; THINLY BEDDED; MOD HARD; WELL CEMENTED; FINE GRAINED; MOD WEATHERED; SOLID; HORIZONTAL FRACTURES.	29.2 31.5	(6)	SS			35-50/5"	DNR	H_2O TABLE, VERY FRACTURED AREA. HNU BATTERY IS DEAD.
	(7) [SM] V. FINE TO V. CSE SAND; 20-30% SILT; 20% CLAY 10YR 6/6 BROWNISH YELLOW MOTTLED W/ 2.5Y 3/0 V. DK GRAY; DENSE; V. SL. PLASTIC; MOIST TO WET. SILTSTONE SAME AS SAMPLE #6.	34.0 34.5	(7)	SS			50/5"	DNR	

Site File No.: 03-0434-XY County CALHOUN

Site File Name FT McCLELLAN / (OLF/LANDFILL #3)

Fed. ID. No.

Quadrangle Sec. T. R

Boring Location ABOUT 15' FROM OLF 5

Drilling Equipment MOBILE DRILL B57 ; 2 1/4" ID HSA ; 140 lb HAMMER

Boring No. Monitor Well No OLF 8

Surface Elev. Completion Depth 50.0

Auger Depth 50.0 Rotary Depth 45.0

Date: Start 4/26/92 Finish 4/27/92

Personnel: G - WAYNE P. STONE; D - SHELDON TURNER; H - JIMMY WRIGHT; H - STEVE DESHEFFLER

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or (HNU) readings	REMARKS
									DNR - DATA NOT RECORDED
	(8) [ML] SILT; 30% V. FINE SAND. 10YR 4/2 WEAK RED; DENSE; ~~NON PLASTIC~~ PLASTIC NON TO V. SL. PLASTIC, MOIST TO WET. REC: ~.5'	40.5	8	SS	.5		50/5"	DNR	LEL: 0
		43.0							
	(9) SAME AS SAMPLE # 8 AND IS MOTTLED W/ 7.5YR 4/6 STRONG BROWN. REC: .25'	45.5	9	SS	.25		50/3"	DNR	LEL: 0
		48.0							
	(10) SAME AS SAMPLE # 8 AND ALSO IS 10-15%; SL. PLASTIC TO NON PLASTIC AND DRY TO MOIST. GOOD REC: ~ .5'	50.5	10	SS	.5		11-36-62/5"	DNR	LEL: 0
		53.0							
		55.5							

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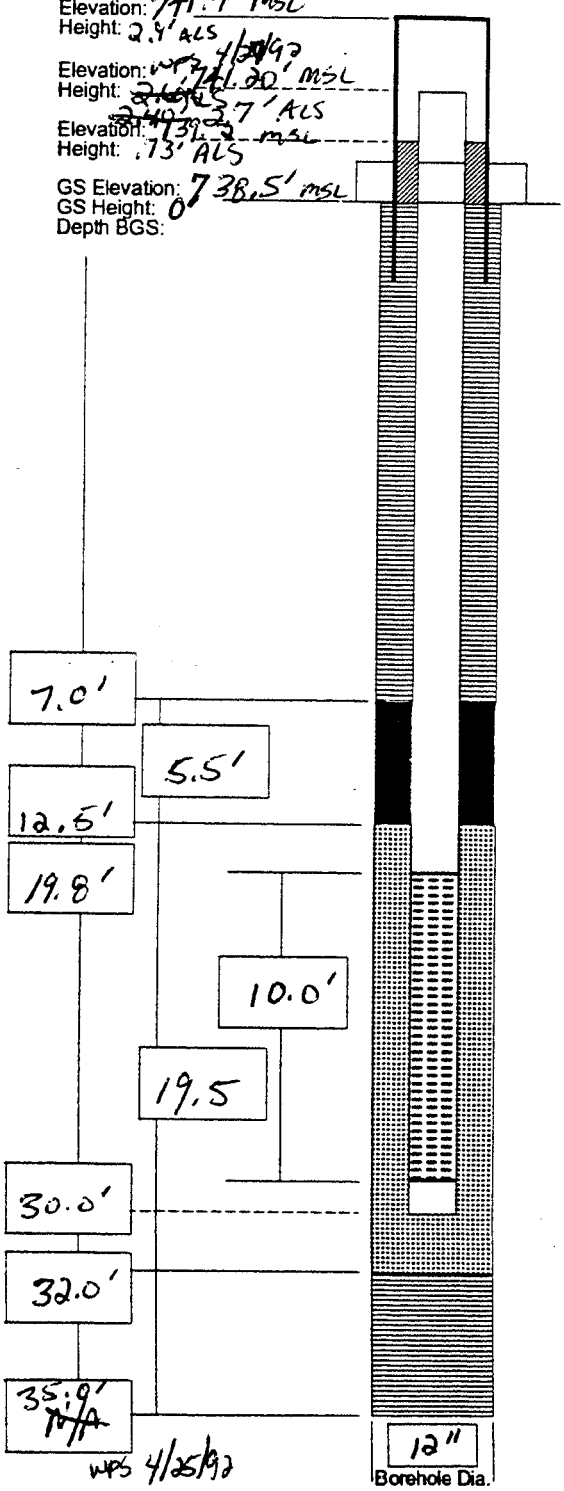
OLF9

MONITORING WELL CONSTRUCTION LOG - Standard

Rev: 4/92

Well No.: OLF 9	Installation: FT McCLELLAN	Site: OLE/LANDFILL #3
Project No.: 03-0424-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/25/92	Comp. End: 4/25/92	
Built By: SAIC / WAYNE P. STONER	Well Coord.: N 1180782.95 E 513343.85	

Elevation: 741.4' MSL
Height: 2.8' AGS
Elevation: WPS 4/25/92 741.20' MSL
Height: ~~2.6'~~ 2.7' AGS
Elevation: ~~739.2~~ MSL
Height: .73' AGS
GS Elevation: 738.5' MSL
GS Height: 0
Depth BGS:



PROTECTIVE CGS
Material Type STEEL Length: 5.0'
Diameter 8"x8" BOX Water Tight Seal( )
Depth BGS 2.1' Drainage Hole (X) Height: .79' AGS Size: 4"
GUARD POSTS(X) No.: 4
Configuration: SQUARE Type STEEL
SURFACE PAD
Composition & Size CONCRETE (3000 PSI) 7'x7'x6"
RISER PIPE
Type PVC
Diameter 4" ID
GROUT Composition: CEMENT; BENTONITE; H_2O
Proportions: 94 lbs; 5 lbs; 8 GALS
Interval 0 - 7.0' BGS Tremied(X)
CENTRALIZERS( ) Type:
Depth(s) N/A
SEAL
Type PELLETS
Source NYO-BEN, INC / BILLINGS, MONTANA
Setup / Hydration time .75 HR Vol. Fluid Added ABOUT 15 GALS
Tremied( ) POURED BETWEEN AUGER AND WELL ANNULUS
FILTER PACK
Type SAND - WASHED & SIEVED
Amount Used 17 BAGS Tremied(X) TREMIED THROUGH AUGERS
Source MARIE CO. GEORGIA
Gr. Size Dist #1 WELL GRAVEL
SCREEN Type: PVC
Manufacturer: BUFFALO WELL PRODUCTS
Diameter ID: 4" OD: —
Slot Size: 10 SLOT
Schedule / Thickness 40
Interval BGS 19.8 - 29.8' BGS
SUMP( ) Bottom Cap(X)
Interval BGS 29.8 - 30.0'
BACKFILL PLUG
Material N/A
Setup / Hydration time N/A Tremied( ) ~~POURED~~ WPS 4/25/92 N/A
WATER ADDED( )
Interval N/A Amount N/A
Interval N/A Amount N/A

MONITORING WELL CONSTRUCTION LOG - Standard

Rev: 4/92

Well No.: OLF 9	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0334-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/25/92	Comp. End:	
Built By: SAIC / WAYNE P. STONER	Well Coord.:	

DRILLING EQUIPMENT

Rig Manufacturer: MOBILE DRILL

Rig Model: B57

DRILLING METHOD: (X) Auger ( ) Mud Rotary ( ) Air Rotary ( ) Cable Tool ( ) Other (Specify)

Auger Type & Size: 2 1/4" ID AND 6 5/8" I.D. HSA

Casing Size: N/A

Bit Type and Size: N/A

Hammer Weight and Percussion Method: 140 lbs AND CATHEAD

Rod Size: AWML

Mud Mixture (Mud Rotary)
Air Filter Method (Air Rotary): N/A

SAMPLING METHOD & NUMBER COLLECTED

(X) Split Spoon No.: (8) ( ) Shelby Tube No.: ( )
( ) Grab Sample No.: ( ) ( ) Core Barrel No.: ( )
( ) Misc. No.: ( )

MATERIALS USED (TOTALS)

Sand: 17 BAGS Bentonite Pellets: (4) 5GAL BUCKETS

GROUT
Bentonite: ~15 lbs Cement: 3 BAGS

SURFACE PAD MATERIALS

Screen (ft): 10.0'

Riser (ft): 22.3'

Misc: END PLUG - .15' ~.2'

MISC: SCREEN LENGTH - 10.0'
RISER LENGTH - 22.3'
END PLUG - .15'
TOTAL LENGTH - 32.45 = 32.5'

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 9	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0424-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/25/92	Comp. End:	
Built By: SAIC / WAYNE P. STONER	Well Coord.:	

Remarks: 4/25/92

0730 WPS ARRIVES ON-SITE (LANDFILL #3). WAITING ON DRILLERS. HNU AND LEL WERE CALIB. SEE NOTEBOOK #1.

0815 DRILLERS ARRIVE ON SITE

0830 DRIVING 1ST SPOON. SEE FIELD BORING LOGS FOR LITHOLOGY DESCRIPTIONS.

0945 HIT H_2O BETWEEN 20' AND 25' BLS. TAKING H_2O LEVEL READINGS.

1000 H_2O LEVEL 19.7' BLS.

1030 H_2O LEVEL 12.5' BLS. CONTINUEING TO DRILL.

1100 DOWN TO 35' BLS, DRY BUT, A THIN WET ZONE WAS PRESENT, WE WILL USE INITIAL CONTACT OF H_2O. WE WILL REAM DOWN TO WPS 4/25/92 ABOUT 32' AND SET THE SCREEN BETWEEN 20' AND 30' BLS. PULLING 2¼" ID AUGERS

1130 ~~THE~~ STARTING TO REAM W/ 6⅝" ID AUGERS. 12" BOREHOLE.

1140 ~~1140~~ WPS 4/25/92 RIG CARBURETOR IS CAUSING PROBLEMS. ABOUT 7' OF AUGER IN THE HOLE. DRILLERS WILL BREAK EARLY FOR LUNCH AND TRY TO GET A NEW CARBURETOR

1200 DRILLERS BREAKING FOR LUNCH.

1330 DRILLERS RETURN FROM LUNCH

1345 CONTINUED TO REAM THE HOLE

1500 REAMED DOWN TO ABOUT 32' BLS. KNOCKING OUT BOTTOM PLUG.

1515 ADDING WELL SCREEN AND RISER. USING A WOODED BOTTOM PLUG.

1530 STARTING TO TREMIE SAND.

1605 FINISHED TREMIEING SAND, WPS 4/25/92 ~~TOP~~ TOP OF SAND 12.5' BLS. ADDING PELLETS THROUGH AUGERS. 17 BAGS OF SAND USED

1630 FINISHED ADDING PELLETS. HAD TO GET ANOTHER BUCKET OF PELLETS AND THAT IS WHY IT TOOK LONGER THAN USUAL. ADDING H_2O ADDED ABOUT 15 GALS. ~~PULLED~~ WPS 4/25/92 TOP OF SEAL BEFORE HYDRATION 7.0' BLS. PULLED AUGERS OUT. WE WILL LET THE SEAL SET UP 45 MINS TO AN HOUR AND THEN GROUT TO SURFACE.

1710 GROUTING THE HOLE TO LAND SURFACE.

1715 DRILLERS PULLING THE RIG OFF THE HOLE. GETTING READY TO DECON H_2O LEVEL IS 15.2' BLS.

1720 STARTED DECONNING

1830 FINISHED DECONNING AND DEPARTED SITE.

4/27/92

0915 CHECKED H_2O LEVEL 17.18' BTOC. NEW STICK-UP IS 2.40' ALS, USED NATURAL LAND SURFACE TO MEASURE IT. H_2O LEVEL IS 15.68 BLS.

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Field Boring Log

Site File No.: 03-0424-XX County CALHOUN

Site File Name FT McCLELLAN/(OLF/LANDFILL #3)

Fed. ID. No.

Quadrangle Sec. T. R

Boring Location SOUTH OF DIRT ROAD INTO SITE AND ABOUT 150 YDS FROM HARD ROAD.

Drilling Equipment MOBILE DRILL B57; 2¼ & 6⅝ ID HSA; 140# HAMMER

Boring No. Monitor Well No OLF 9

Surface Elev. Completion Depth 32.0'

Auger Depth 35' Rotary Depth

Date: Start 4/25/92 Sampling Finish 4/25/92

Personnel: G - WAYNE STONER; D - SHELDON TURNER; H - JIMMY WRIGHT; H - STEVE DESHERLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or HNU readings	REMARKS
	(1) [CL] CLAY; 30% SILT, 7.5% CSE TO V. CSE SAND. 7.5YR 5/8 STRONG BROWN; STIFF; LOW PLASTICITY; DRY TO V. SL. MOIST. REC: 1.4		(1)	SS	1.4		4-5-8-8	DNR	SS - SPLIT SPOON; BKGD HNU: .6 PPM; LEL: 0
		2.5							DNR - DATA NOT RECORDED; ND - NON-DETECT.
	(2) SAME AS SAMPLE NO. 1 BUT ALSO HAD INTERBEDDED WHITE 10YR 8/1 CLAY; PLASTIC, SL MOIST; SOFT. REC: 1.8'	5.0	(2)	SS	1.8		8-10-13-14	1.2 PPM	HNU BKGD: .6 PPM; LEL: 0
		7.5							
	(3) SAME AS SAMPLE NO. 2, ALSO HAD ABOUT 10% V. FINE SAND. REC: 2.0'	10.0	(3)	SS	2.0		3-3-5-6	ND	LEL: 0
		12.5							
	(4) SAME AS SAMPLE NO. 2, ALSO HAS INTERBEDDED REDDISH BROWN 5YR 5/4 CLAY. REC: 2.0'	15.0	(4)	SS	2.0		3-4-4-7	ND	LEL: 0
		17.5							

Site File No.: 03-0424-XX County: CALHOUN

Site File Name: FT McCLELLAN / (OLF/LANDFILL #3)

Fed. ID. No.

Quadrangle: Sec. T. R.

Boring Location: SOUTH OF DIRT ROAD INTO SITE AND ABOUT 150 YDS FROM HARD ROAD

Drilling Equipment: MOBILE DRILL B57; 2 1/4" ID HSA; 140 lb HAMMER

Boring No.: — Monitor Well No: OLF 9

Surface Elev.: Completion Depth: 32.0'

Auger Depth: 35' Rotary Depth: N/A

Date: Start 4/25/92 Finish 4/25/92

Personnel: G - WAYNE STONER; D - SHELDON TURNER; H - JIMMY WRIGHT; H - STEVE DESHORLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or HNU readings	REMARKS
	(5) [CL] CLAY; 20% SILT; >10% V. FINE TO MED SAND. 2.5 YR 4/6 RED; SOFT; PLASTIC; MOIST TO WET. REC: 1.7'	24.5	(5)	SS	1.7		3-2-2-5	ND	SPOON VERY MOIST ON THE INSIDE. LEL: 0
									H_2O COMING IN BETWEEN 20' AND 25' BLS.
	(6) [ML] SILT; 20-30% CLAY; >10% V. FINE SAND. 2.5 YR 5/3 REDDISH BROWN; DENSE TO V. DENSE; NON PLASTIC; V. DRY, IRON STAINING. REC: 1.5'	26.5	(6)	SS	1.5		13-18-28-30	ND	LEL: 0
	(7) [CL] CLAY; 30% SILT; 10% V. FINE TO V. CSE SAND. 10YR 5/6 YELLOWISH BROWN; FIRM; NON TO SL PLASTIC; DRY. REC 1.4	31.5	(7)	SS	1.4		13-28-30-50/5"	NR	LEL: 0
	(8) SAME AS SAMPLE NO. 7. ALSO HAD AT ~35' A PIECE OF SILT/CLAY STONE. THINLY BEDDED; 2.5 4/2 WEAK RED; MODERATELY HARD; WELL CEMENTED; FINE GRAINED; HORIZONTAL BEDDING; SL. WEATHERED; SOLID; IRON STAINED. REC: 1.0'	36.5	(8)	SS	1.0		36-50/5"	NR	ROCK IN SPOON AT ABOUT 35.3' INTERVAL LEL: 0

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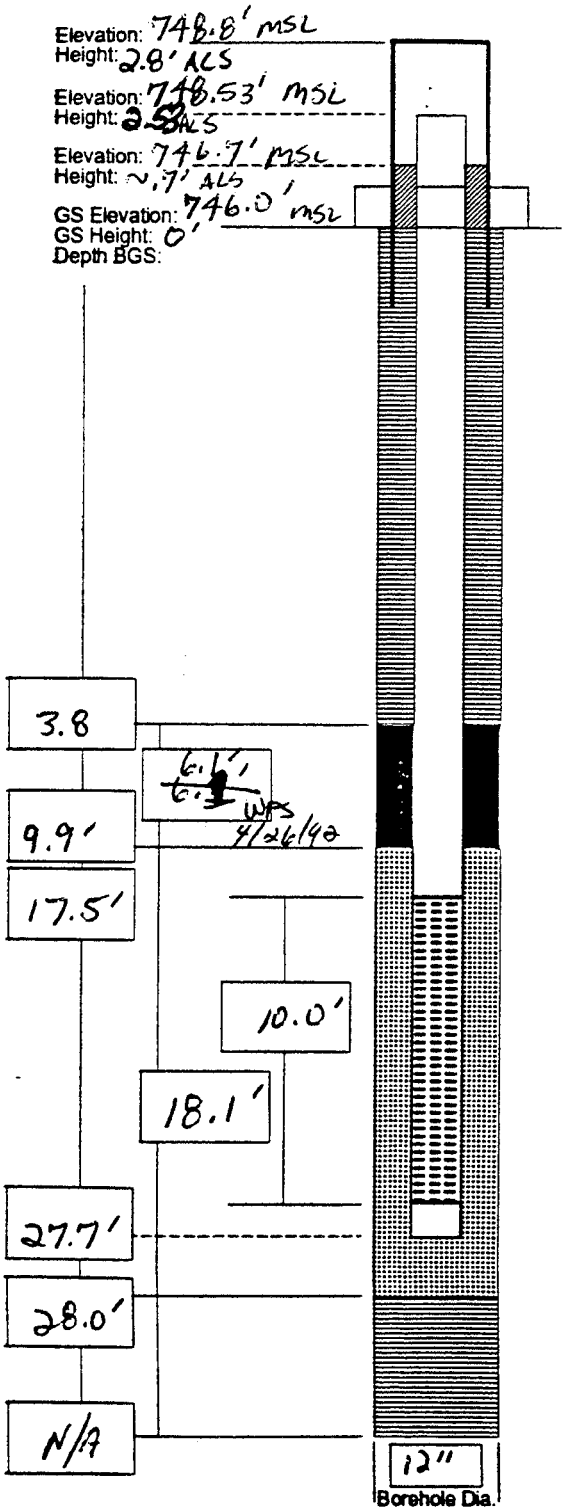
MONITORING WELL CONSTRUCTION LOG - Standard (SUPPLEMENT)		Rev: 4/92
Well No.: OLF 9	Installation: FT. McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0424-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/25/92	Comp. End: 6/12/92	
Built By: SAIC / WAYNE STONER	Well Coord.:	

Remarks: 6/22/92

IN REFERENCE TO A CONVERSATION TAKING PLACE ON JUNE 19, 1992, RISER STICK-UP MEASUREMENTS ARE SUPPOSE TO BE OBTAINED FROM ORIGINAL WELL CONSTRUCTION MEASUREMENTS. WELL OLF 9 HAD ~~AN INSTALLATION~~ WPS 6/22/92 STICKUP OF 2.5' ALS ~~AT~~ WHEN IT WAS BEING INSTALLED. THIS MEASUREMENT WAS MEASURED FROM THE LAND SURFACE TO THE BOTTOM OF THE THREADS AT THE TOP OF THE RISER. THE THREADS WERE SUPPOSED TO BE CUT OFF BUT THEY WERE NOT ~~BECAUSE~~ THE WELL CAP FIT BETTER. THE LENGTH OF THE THREADS WERE 2/10THS. ADDING THESE 2/10THS TO THE ORIGINAL STICK-UP MEASUREMENT OF 2.5' MAKES THE NEW STICKUP 2.7' ALS. THE TOTAL LENGTH OF RISER & SCREEN WOULD ~~BE~~ 32.7'.

OLF10

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 1C	Installation: FT. McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0424-XX	Client / Project: USATHAMA / SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC.	Driller: SHELDON TURNER	
Comp. Start: 4/26/92	Comp. End: 4/26/92	
Built By: SAIC / WAYNE P. STONER	Well Coord.: N 1179303.451 E 512538.82	



PROTECTIVE CGS Material Type STEEL	Length: 5.0'
Diameter 8"x8" BOX	Water Tight Seal( )
Depth BGS 2.2' BLS	Drainage Hole (X) Height: ~.7' AGS Size: 1/4"
GUARD POSTS(X) No.: 4 Configuration: SQUARE	Type STEEL
SURFACE PAD Composition & Size CONCRETE (3000 PSI) / 4'x4'x6"	
RISER PIPE Type PVC	
Diameter 4" I.D.	
GROUT	Composition: CEMENT : BENTONITE ; H_2O Proportions : 94 lbs : 5 lbs ; 8 GALS
Interval 0'-3.8' BLS	Tremied( ) POURED INTO BOREHOLE
CENTRALIZERS( ) Depth(s) N/A	Type:
SEAL Type BENTONITE SLURRY	
Source WYO-BEN, INC. BILLINGS, MT	
Setup / Hydration time 50 MIN	Vol. Fluid Added ~25 GALS OF H_2O
Tremied(X)	
FILTER PACK Type SAND	
Amount Used 17.5 BAGS	Tremied(X)
Source MORIE CO. GEORGIA	
Gr. Size Dist #1 WELL MATERIAL	
SCREEN	Type: PVC Manufacturer: BUFFALO WELL PRODUCTS
Diameter ID: 4" I.D.	OD: —
~~Slot Size:~~ 10 SLOT Schedule / Thickness 40	
Interval BGS 17.5'-27.5' BLS	
SUMP( ) Interval BGS 27.5'-27.7'	Bottom Cap(X)
BACKFILL PLUG Material N/A	
Setup / Hydration time N/A	Tremied( ) N/A
WATER ADDED( ) Interval N/A	Amount N/A
Interval N/A	Amount N/A

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF 10	Installation: FT McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0424-XX	Client / Project: USATHAMA / ST	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/26/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

DRILLING EQUIPMENT

Rig Manufacturer: MOBILE DRILL

Rig Model: B57

DRILLING METHOD: (X) Auger ( ) Mud Rotary ( ) Air Rotary ( ) Cable Tool ( ) Other (Specify) _____

Auger Type & Size: 2 1/4" AND 6 5/8" ID. HSA

Casing Size: N/A

Bit Type and Size: N/A

Hammer Weight and Percussion Method: 140 lb; 30 INCH DROP USING A CATHEAD

Rod Size: AWML

Mud Mixture (Mud Rotary) / Air Filter Method (Air Rotary): N/A

SAMPLING METHOD & NUMBER COLLECTED

(X) Split Spoon No.: (6) (X) Shelby Tube No.: (2)
( ) Grab Sample No.: ( ) ( ) Core Barrel No.: ( )
( ) Misc. No.: ( )

MATERIALS USED (TOTALS)

Sand: 17.5 BAGS

Bentonite ~~Pellets~~: SLURRY: 35 lbs BENTONITE; 25 GALS OF H2O
WPS 4/26/92

GROUT
Bentonite: 10-12 lbs

Cement: 2 BAGS

SURFACE PAD MATERIALS

Screen (ft): 10.0'

Riser (ft): 20.0'

Misc: END PLUG - .2

MISC: SCREEN LENGTH - 10.0'
RISER LENGTH - 20.0'
BOTTOM PLUG - .2'
TOTAL LENGTH - 30.2'
STICK UP 2.53 ~ 2.5' AGS
WELL BOTTOM 27.7 BGS

MONITORING WELL CONSTRUCTION LOG - Standard		Rev: 4/92
Well No.: OLF10	Installation: Ft McCLELLAN	Site: OLF/LANDFILL #3
Project No.: 03-0424-XX	Client / Project: USATHAMA/SI	
Drilling Contractor: ENVIRONMENTAL EXPLORATION, INC	Driller: SHELDON TURNER	
Comp. Start: 4/26/92	Comp. End:	
Built By: SAIC / WAYNE STONER	Well Coord.:	

Remarks: 4/26/92

0800 WPS ARRIVES ON SITE (LANDFILL #3). HNU AND LEL CALIB (SEE NOTEBOOK #1). DRILLERS ARRIVE AND PREP TO MOVE.

0830 MOVED TO WELL LOCATION OLF 10. SETTING UP TO DRILL.

0850 DRIVING 1ST SPOON. SEE FIELD BORING LOGS FOR LITHOLOGY DESCRIPTIONS

~1030 DVM ARRIVES ON SITE AND GETS KEYS FROM WPS FOR BLDG 3228

1100 DVM ARRIVES BACK ON-SITE. TAKING 15 MINS TO CHECK H_2O LEVEL OF OLF 10.

1110 STARTED TAKING SPLIT SPOON SAMPLE AT 25'. WHEN THE SPOON WAS PULLED UP, THE END PIECE HAD COME OFF. NO RECOVERY IN THE SPOON. SHELDON TURNER (ST) DRILLED THROUGH THE 25-27' INTERVAL TO RETRIEVE THE END PIECE. IT WAS RECOVERED.

1115 PULLED AUGERS. CHECKING H_2O LEVEL

1122 H_2O LEVEL 25.2' BLS. DRILLERS DEPART FOR LUNCH.

1132 H_2O LEVEL 24.8'

1232 DRILLERS AND WPS ARRIVE BACK ~~FROM~~ ON-SITE (WPS 4/26/92). CHECKED H_2O LEVEL — 22.0' BLS. RECHARGE OF ~3.2'/HR.

1245 ~~STILL RECHARG~~ H_2O LEVEL IS STILL INCREASING. 21.5' BLS. H_2O IS BELIEVED TO BECOMING IN ~~AT~~ BETWEEN ABOUT 17' AND 19' BLS. INTERVAL WHERE THE SHELBY TUBE WAS TAKEN. THE DRILLER (WPS 4/26/92) SAID THE TOP OF THE TUBE WAS MOIST. DRILLERS WENT TO DECON WELL SCREEN AND RISER. WPS WILL CONTINUE TO MONITOR THE H_2O LEVEL.

1315 WPS AND STEVE DESHERLIA ~~WEN~~ (SD) (WPS 4/26/92) WENT TO BLDG 1298 TO GET H_2O.

1324 WPS ARRIVES AT MONITORING WELL OLF 10 AND TAKES H_2O READING. 20.0' BLS.

1345 DRILLERS ARRIVE W/ DECONNED WELL MATERIALS. LAST H_2O LEVEL BEFORE WELL INSTALLATION. 19.4' BLS.

1400 STARTED REAMING DOWN W/ 6 5/8" ID HSA W/ BOTTOM PLUG. DEPTH WILL BE ABOUT 28' BLS.

1430 DENSE SOIL AND THE RIG IS NOT RUNNING RIGHT.

1500 STARTED REAMING AGAIN

1550 DOWN TO 28.0'. KNOCKING OUT BOTTOM PLUG.

1600 ADDING SAND. POURING BETWEEN AUGER AND WELL CASING ANNULUS. KEEPING SAND IN AUGERS AND RAISING AUGERS 1-2' AT A TIME.

1639 FINISHED ADDING SAND, TOP OF SAND 9.9' BLS. USED ABOUT 17.5 BAGS

1645 ADDED BENTONITE SLURRY BECAUSE THE DRILLERS ARE OUT OF PELLETS. TOP OF SEAL 3.75' BLS ~3.8'. WILL LET THE SLURRY SET UP BETWEEN 45 MINS AND AN HOUR. USED ~35 lbs OF BENTONITE & ~25 GALS OF H_2O.

1635 ADDED GROUT.

1700 BREAKING DOWN AND SETTING UP TO DECON TOMORROW.

1800 DRILLERS DEPART SITE.

1830 WPS DEPARTS BASE

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Field Boring Log

Site File No.: 03-0424-XX County: CALHOUN

Boring No.: — Monitor Well No: OLF10

Site File Name: FT McCLELLAN / (OLF / LANDFILL #3)

Surface Elev.: ____ Completion Depth: 28.0'

Fed. ID. No: ____

Auger Depth: 28.0' Rotary Depth: N/A

Quadrangle: ____ Sec. ____ T. ____ R ____

Date: Start 4/26/92 Sampling Finished 4/26/92

Boring Location: EASTERN SIDE OF SITE. APPROXIMATELY 100 YDS SOUTH OF OLF 2

Drilling Equipment: MOBILE DRILL B57; 12¼" & 6⅝" ID HSA; KOLB HAMMER

Personnel: G - WAYNE P STONER; D - SHELDON TURNER; H - JIMMY WRIGHT; H - STEVE DESHERCLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or BHC readings	REMARKS
	(1) (ML) SILT; 20-30% CLAY. 7YR 4/6 STRONG BROWN; ~~YELLOW~~ LOW DENSE; LOW PLASTICITY; SL. MOIST. WPS 4/26/92		(1)	SS	20		2-3-5-4	ND	SS-SPLIT SPOON; ST-SHELBY TUBE; ND-NON-DETECT; LEL: >1; ~~NR-NOT RECORDED~~ DNR-DATA NOT RECORDED.
		2.5							
	(2) [ML] SILT; 20% CLAY. 5Y 6/2 LT OLIVE GRAY; DENSE; NON TO SL. PLASTIC; DRY.	5.0	(2)	SS	18		5-10-7-17	DNR	LEL: 7+ <1 WPS 4/26/92
		7.5							
	(3) NO DESCRIPTIVE SAMPLE COLLECTED. PUSHED TUBE 2.5'	10.0	(3)	ST	2.5'		DOWN PRESSURE (DP) 600 PSI	ND	LEL: 7+ <1 WPS 4/26/92
		12.5							
	(4) (ML) SILT; 20-30% CLAY. 10YR 4/8 BROWNISH YELLOW; LOW DENSE; SL. TO LOW PLASTIC; DRY TO MOIST.	15.0	(4)	SS	18		5-15-11-11	ND	LEL: 7+ <1 WP 4/26/92
	(5) DESCRIPTIVE SAMPLE WAS NOT COLLECTED. PUSHED TUBE 2'.	17.5	(5)	ST	2.0'		DP 750 PSI		

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Field Boring Log

Site File No. 03*04/24-XX County CALHOUN

Boring No. — Monitor Well No OLF 10

Site File Name FT McCLELLAN, (OLF/LANDFILL #3)

Surface Elev. ____ Completion Depth 28.0

Fed. ID. No. ____

Auger Depth 28.0' Rotary Depth N/A

Quadrangle ____ Sec. ____ T. ____ R ____

Date: Start 4/26/92 Finish 4/26/92

Boring Location EASTERN SIDE OF SITE, APPROXIMATELY 100 YDS SOUTH OF OLF 2.

Drilling Equipment MOBILE DRILL B57; 2¼" & 6⅝" ID HSA; 140 lb HAMMER

Personnel: G - WAYNE STONER; D - SHELDON TURNER; H - JIMMY WRIGHT; H - STEVE DESHERLIA

Elev.	DESCRIPTION	Depth in feet	Sample No.	Sample Type	Sample Recovery	Penetrometer	N Values (Blows)	OVA or (HNU) readings	REMARKS
	(6) [ML] SILT; 20-30% CLAY, 2.5 YR 4/8 RED MOTTLED W/ 10YR 5/6 YELLOWISH BROWN AND 2.5Y 6/4 LT YELLOWISH BROWN; V. DENSE; NON TO SL. PLASTIC; DRY.								SS - SPLIT SPOON NR - NO RECOVERY.
	SILT/CLAYSTONE ~~[illegible]~~ WPS 4/26/92, MODERATELY CEMENTED; MOD HARD; BADLY WEATHERED; 10YR 5/6 YELLOWISH BROWN AND 2.5Y 6/4 LT. YELLOWISH BROWN.	21.5	(6)	SS			17-50-50/5"		LEL: 0
		24.0							
	(7) [CL] CLAY; 40% SILT; 75% V. FINE SAND. 7.5YR 5/4 BROWN; WPS 4/26/92 STIFF; NON-PLASTIC; DRY.								
	SILT/CLAYSTONE SAME AS SAMPLE NO. 6 BUT THE COLOR IS 5Y 6/2 OLIVE GRAY.	26.5	(7)	SS	NR		50/3"		LEL: 0
		29.0							
		31.5							
		34.0							
		36.5							

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Sampling Form

(Field Sheet)

Project Name and Number: F. McClellan SI 01-0827-03-0124-005

Sampling Crew: USA TEU

Sampling Point Number: BK-S0101/2, BK-D01, BK-W01

Sampling Location: Background

Sample Type: ☐ GW ☒ SW ☒ Soil ☒ SED ☐ Other

Date and Time Sample Collected: 13 Apr 92 SW: 1121 SOIL: 1257/1342 SED: 1416

Weather Conditions: Sunny, mid to high 70's, breezy

~~Purging Information~~ (if applicable):

~~Method:~~

~~Quantity of Water Purged:~~

~~Disposition of Purge Water:~~

~~Date and Time of Purging: Start: End:~~

~~Comments:~~

~~Groundwater:~~

~~Date and Time Collected:~~

~~Sampling Depth:~~

~~Water Level:~~

~~Sampling Method/Equipment:~~

~~Field Measurements: pH Temp: Cond: Alkalinity:~~

~~Date and Time Filtered (if applicable):~~

~~Comments:~~

Surface Water:

Date and Time Collected: 1121 13 Apr 92

Collection Method: Dip sample container into stream, face upstream

Date and Time Filtered (if applicable)

Field Measurements: pH 8.33 Temp: 75.7 Cond: 220 x10 Turbidity:

Comments:

Soils/Sediment Sampling:

	Soil		Sed
Date and Time Collected:	13 Apr 92	1257/1342	1416
Sampling Depth:	8-10"	24-28"	0-6"
Sampling Method:	trowel	power auger to 24, trowel for samples	spoon sed into vials

Comments:

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Sampling Form

(Field Sheet)

Project Name and Number: Ft McClellan SI 01-0827-03-0424-005

Sampling Crew: USA TEU

Sampling Point Number: OTA-S0101/2 OTA-S0201/2 OTADS0101

Sampling Location: Old Toxic Training Area

Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☒ Other Duplicate

Date and Time Sample Collected: 14 Apr 92 1018/1118/1205/1252

Weather Conditions: Sunny, high 70's

~~**Purging Information**~~ (if applicable):

~~Method:~~

Quantity of ~~Water Purged~~:

Disposition of Purge Water:

Date and Time of Purging: ~~Start:~~ ~~End:~~

Comments:

~~**Groundwater:**~~

~~Date~~ and Time Collected:

Sampling ~~Depth~~:

Water Level:

Sampling Method/Equipment:

Field Measurements: pH Temp: Cond: Alkalinity:

Date and Time Filtered (if ~~applicable~~):

Comments:

~~**Surface Water:**~~

~~Date~~ and Time Collected:

Collection Method:

Date and Time Filtered (if applicable)

Field Measurements: pH Temp: Cond: Turbidity:

Comments:

Soils/~~Sediment~~ Sampling:

Date and Time Collected:	1018	1118	1205	1252 14 Apr 92
Sampling Depth:	12-15"	58-60"	12-15"	62-64"
Sampling Method:	trowel	power auger bucket auger	trowel	power auger bucket auger
Comments:				

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Sampling Form

(Field Sheet)

Project Name and Number: Ft McClellan SI 01-0627-03-0124-005

Sampling Crew: TEU

Sampling Point Number: DA-S0101/2, DIASS0101, DIA-S0201/2, T5-W01, T5-D01, T5DD01

Sampling Location: Detection TID Area & T5

Sample Type: ☐ GW ☒ SW ☒ Soil ☒ SED ☐ Other

Date and Time Sample Collected: 15 Apr 92 SW: 1215 SED: 1220 SOIL: 0923-1105

Weather Conditions: low 80's, sunny, slight breeze

~~Purging Information~~ (if applicable):

~~Method:~~

Quantity of Water ~~Purged~~:

Disposition of Purge Water:

Date and Time of Purging: *Start*: ~~End~~:

Comments:

~~Groundwater~~:

~~Date~~ and Time Collected:

Sampling ~~Depth~~:

Water Level:

Sampling Method/Equipment:

Field Measurements: pH Temp: Cond: Alkalinity:

Date and Time Filtered (if ~~applicable~~):

Comments:

Surface Water:

Date and Time Collected: 15 Apr 92 1215

Collection Method: ladle into bottle

Date and Time Filtered (if applicable)

Field Measurements: pH 8.24 Temp: 70.1 Cond: 2.03x10 Turbidity:

Comments:

Soils/Sediment Sampling:

	SED	SOIL	
Date and Time Collected:	1220	0923 / 1036	0946, 1105
Sampling Depth:		12-15", 12-17"	70-76", 70-74"
Sampling Method:	~~hand~~ spoon	trowel	split spoon auger
Comments:			

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Sampling Form

(Field Sheet)

Project Name and Number: SI McClellan SI 01-0827-03-04141-005

Sampling Crew: TEU

Sampling Point Number: T5-S0201/2, S0301/2, S0401/2, D1A-S0201

Sampling Location: T5, D1A

Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☐ Other

Date and Time Sample Collected: 16 Apr 92 0940-1630

Weather Conditions: mid 70's, sunny

~~Purging Information~~ (if applicable):

~~Method:~~

Quantity of Water ~~Purged~~:

Disposition of Purge Water:

Date and Time of Purging: *Start:* ~~End:~~

Comments:

~~Groundwater~~:

~~Date and~~ Time Collected:

Sampling Depth:

Water Level:

Sampling Method/Equipment:

Field Measurements: pH Temp: Cond: Alkalinity:

Date and Time Filtered (if ~~applicable~~):

Comments:

~~Surface Water~~:

~~Date and~~ Time Collected:

Collection Method:

Date and Time Filtered (if applicable)

Field Measurements: pH Temp: Cond: Turbidity:

Comments:

Soils/~~Sediment~~ Sampling:

Date and Time Collected: 16 Apr 92 0940-1630

Sampling Depth: 12-15" 74-76" (S0402) 57-63"

Sampling Method: trowel split spoon

Comments: D1A-S0201 was resampled because original sample bottle broke during shipping

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Sampling Form
(Field Sheet)

Project Name and Number: F. McClellan SI 01-0827-03-0424-005
Sampling Crew: USA TEU
Sampling Point Number: T31-W01/SW01/D01/DD01/S0201/2
Sampling Location: T31
Sample Type: ☐ GW ☒ SW ☒ Soil ☒ SED ☐ Other:
Date and Time Sample Collected: SW: 1141 SED: 1155 SOIL: 1402 20 Apr 92
Weather Conditions: overcast, cool rain during soil sample

~~Purging Information~~ (if applicable):
~~Method:~~
~~Quantity of Water Purged:~~
~~Disposition of Purge Water:~~
~~Date and Time of Purging: Start: End:~~
~~Comments:~~

~~Groundwater:~~
~~Date and Time Collected:~~
~~Sampling Depth:~~
~~Water Level:~~
~~Sampling Method/Equipment:~~
~~Field Measurements: pH Temp: Cond: Alkalinity:~~
~~Date and Time Filtered (if applicable):~~
~~Comments:~~

Surface Water:
Date and Time Collected: 20 Apr 92 1141
Collection Method: submerge container below water surface
Date and Time Filtered (if applicable):
Field Measurements: pH 7.42 Temp: 68.4 Cond: 1.45 x10 Turbidity:
Comments:

Soils/Sediment Sampling:

	SOIL		SED
Date and Time Collected:	1402	1407	1155
Sampling Depth:	9-12"	57-60"	—
Sampling Method:	trowel	split spoon	spoon

Comments: rain began while collecting T31-S0202

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White: File Pink: Field Manager Yellow: Supervisory Geologist Goldenrod: Field Book

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Sampling Form
(Field Sheet)

Project Name and Number: Ft McClellan SI 01-0927-03-0424-005
Sampling Crew: USA TEU
Sampling Point Number: T31-S03/4/1 01/2 T5-S0101/2
Sampling Location: T31, T5
Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 22 Apr 92 0916-1543
Weather Conditions: low 80's, sunny, breezy

~~**Purging Information**~~ (if applicable):
~~Method:~~
~~Quantity of Water Purged:~~
~~Disposition of Purge Water:~~
~~Date and Time of Purging: Start: End:~~
~~Comments:~~

~~**Groundwater:**~~
~~Date and Time Collected:~~
~~Sampling Depth:~~
~~Water Level:~~
~~Sampling Method/Equipment:~~
~~Field Measurements: pH Temp: Cond: Alkalinity:~~
~~Date and Time Filtered (if applicable):~~
~~Comments:~~

~~**Surface Water:**~~
~~Date and Time Collected:~~
~~Collection Method:~~
~~Date and Time Filtered (if applicable):~~
~~Field Measurements: pH Temp: Cond: Turbidity:~~
~~Comments:~~

Soils/~~Sediment~~ Sampling:
Date and Time Collected: 22 Apr 92 0916-1545

Sampling Depth:	10-13" / 67-70"	12-15" / 67-70"	11-14" / 60-63"	13-15"	63-65"
Sampling Method:	split spoon	split spoon	travel / sp spo	travel	split sp.

Comments: approximately 2" of rain fell past 2 days

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Sampling Form
(Field Sheet)

Project Name and Number: Ft McClellan SI 01-0827-03-0424-005
Sampling Crew: USA TEU
Sampling Point Number: T38-S01 1/2/3/4 01/2, T38DS0301
Sampling Location: T38
Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 23 Apr 92 0909-1335
Weather Conditions: sunny, mid 80's, calm

~~**Purging Information**~~ (if applicable):
~~Method:~~
~~Quantity of Water Purged:~~
~~Disposition of Purge Water:~~
~~Date and Time of Purging: Start: End:~~
~~Comments:~~

~~**Groundwater:**~~
~~Date and Time Collected:~~
~~Sampling Depth:~~
~~Water Level:~~
~~Sampling Method/Equipment:~~
~~Field Measurements: pH Temp: Cond: Alkalinity:~~
~~Date and Time Filtered (if applicable):~~
~~Comments:~~

~~**Surface Water:**~~
~~Date and Time Collected:~~
~~Collection Method:~~
~~Date and Time Filtered (if applicable):~~
~~Field Measurements: pH Temp: Cond: Turbidity:~~
~~Comments:~~

Soils/Sediment Sampling:
Date and Time Collected: 23 Apr 92 0909-1335
Sampling Depth: 7-10", 9-15" 60-67"
Sampling Method: trowel split spoon
Comments: Unable to collect 5' sample at T38-S0302 ⇒ hit solid rock at 3' and entire surrounding area was "hot" during magnetometer sweep

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Sampling Form
(Field Sheet)

Project Name and Number: Ft McClellan SI 01-0927-03-0424-005
Sampling Crew: USA TEU
Sampling Point Number: T6-S03012 T24A-W01/D01/S0101,02/S0201,07
Sampling Location: T6, T24A
Sample Type: ☐ GW ☒ SW ☒ Soil ☒ SED ☐ Other:
Date and Time Sample Collected: 1120 0915, 1316 1125 24 Apr 92
Weather Conditions: high 80's, sunny, calm

~~**Purging Information**~~ (if applicable):
~~Method:~~
~~Quantity of Water Purged:~~
~~Disposition of Purge Water:~~
~~Date and Time of Purging: Start: End:~~
~~Comments:~~

~~**Groundwater:**~~
~~Date and Time Collected:~~
~~Sampling Depth:~~
~~Water Level:~~
~~Sampling Method/Equipment:~~
~~Field Measurements: pH Temp: Cond: Alkalinity:~~
~~Date and Time Filtered (if applicable):~~
~~Comments:~~

Surface Water:
Date and Time Collected: 24 Apr 92 1120
Collection Method: dip bottles below water surface
Date and Time Filtered (if applicable):
Field Measurements: pH 5.53 Temp: 71.7 Cond: 3.71x10 Turbidity:
Comments:

Soils/Sediment Sampling:

	SOIL		SED
Date and Time Collected:	0915, 0951	1316, 1515 / 1425, 1604	1125 24 Apr 92
Sampling Depth:	10-12", 60-64"	8-11", 9-12" / 50-54", 54-36"	
Sampling Method:	trowel, split sp	trowel / split spoon	spoon into bottle

Comments: fog oil smoke screen drifted over T24A (afternoon samples) several times during sampling

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Sampling Form
(Field Sheet)

Project Name and Number: Ft McClellan SI 01-0127-03-0121-005
Sampling Crew: USA TEU
Sampling Point Number: RK-D01 RI-S0101/2 RI-S0201/2
Sampling Location: RK, RI
Sample Type: ☐ GW ☐ SW ☒ Soil ☒ SED ☐ Other:
Date and Time Sample Collected: 27 Apr 92 SOIL: 1150-1320 SED: 1103
Weather Conditions: low 50's, overcast, breezy

~~Purging Information~~ (if applicable):
~~Method:~~
~~Quantity of Water Purged:~~
~~Disposition of Purge Water:~~
~~Date and Time of Purging: Start: End:~~
~~Comments:~~

~~Groundwater:~~
~~Date and Time Collected:~~
~~Sampling Depth:~~
~~Water Level:~~
~~Sampling Method/Equipment:~~
~~Field Measurements: pH Temp: Cond: Alkalinity:~~
~~Date and Time Filtered (if applicable):~~
~~Comments:~~

~~Surface Water:~~
~~Date and Time Collected:~~
~~Collection Method:~~
~~Date and Time Filtered (if applicable):~~
~~Field Measurements: pH Temp: Cond: Turbidity:~~
~~Comments:~~

Soils/Sediment Sampling:

	SED	SOIL				
Date and Time Collected:	1103	1150	1222	1250	1320	27 Apr 92
Sampling Depth:		9-12"	60-67"	9-12"	60-67	
Sampling Method:	spoon	trowel	split sp	trowel	split sp	

Comments:

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Sampling Form
(Field Sheet)

Project Name and Number: Ft. McClellan SI 01-0627-03-0124-225
Sampling Crew: USA TEU
Sampling Point Number: RJS01/2/3/4 01/02
Sampling Location: Range J
Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 28 Apr 92
Weather Conditions: Sunny, low 60's, breezy

~~**Purging Information**~~ (if applicable):
~~Method:~~
~~Quantity of Water Purged:~~
~~Disposition of Purge Water:~~
~~Date and Time of Purging: Start: End:~~
~~Comments:~~

~~**Groundwater:**~~
~~Date and Time Collected:~~
~~Sampling Depth:~~
~~Water Level:~~
~~Sampling Method/Equipment:~~
~~Field Measurements: pH Temp: Cond: Alkalinity:~~
~~Date and Time Filtered (if applicable):~~
~~Comments:~~

~~**Surface Water:**~~
~~Date and Time Collected:~~
~~Collection Method:~~
~~Date and Time Filtered (if applicable):~~
~~Field Measurements: pH Temp: Cond: Turbidity:~~
~~Comments:~~

Soils/Sediment Sampling:
Date and Time Collected: 1001, 1122, 1225 / 1034, 1149, 1251 / 1055 28 Apr 92
Sampling Depth: 8-12" 60-67", 58-64", 63-64", 3-6"
Sampling Method: trowel split spoon, trowel
Comments:

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Sampling Form
(Field Sheet)

Project Name and Number: Ft McClellan SI 01-0827-03-0424-005
Sampling Crew: USA TEU
Sampling Point Number: T6-S01/2 01/2 T31S0101, T31DW01
Sampling Location: T6, T31
Sample Type: ☐ GW ☒ SW ☒ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 1543 0944-1148, 1538 29 Apr 92
Weather Conditions: Sunny, mid 60's, breezy

~~Purging Information~~ (if applicable):
~~Method:~~
Quantity of Water ~~Purged:~~
Disposition of Purge Water:
Date and Time of Purging: Start: End:
Comments:

~~Groundwater:~~
~~Date and~~ Time Collected:
Sampling Depth:
Water Level:
Sampling Method/Equipment:
Field Measurements: pH Temp: Cond: Alkalinity:
Date and Time Filtered (if applicable):
Comments:

Surface Water:
Date and Time Collected: 29 Apr 92 1543
Collection Method: dip bottle below surface of water
Date and Time Filtered (if applicable):
Field Measurements: pH 7.80 Temp: 61.8 Cond: 1.74 x10 Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected: 0944, 1101 / 1017, 1148 / 1538 29 Apr 92
Sampling Depth: 8-11" 58-64" 60-66" 6-9"
Sampling Method: trowel split spoon trowel
Comments:

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MC CLELLAN ST / 01-0827-03-0424-005
Sampling Crew: WAYNE STONER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: SOIL CUTTINGS LF2MW1, LF2MW2, LF2MW3
Sampling Location: LAND FILL #2, MONITOR WELL #1, #2, #3
Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/6/92 MW-1 = 1720, MW-2 = 1825 MW-3 (1750)
Weather Conditions: CLEAR & SUNNY, HIGH MID 60'S

Purging Information (if applicable):
Method:
Quantity of Water Purged:
Disposition of Purge Water:
Date and Time of Purging: Start: End:
Comments:

Groundwater:
Date and Time Collected:
Sampling Depth:
Water Level:
Sampling Method/Equipment:
Field Measurements: pH Temp: Cond: Alkalinity:
Date and Time Filtered (if applicable):
Comments:

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected: 6/6/92 MW-1 = 1720, MW-2 = 1825, MW-3 = 1750
Sampling Depth: N/A.
Sampling Method: SAMPLES COLLECTED USING HAND AUGER TO REMOVE
Comments: SOILS FROM DRUMS. SOILS FROM DRUMS MIXED IN S.S. BOWLS. COMPOSITED ~~SOILS FROM~~ CUTTINGS FROM EACH WELL'S DRUMS AND NOT THE SITE. TCLP ANALYSIS
KOPS 6/18/92

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Sampling Form
(Field Sheet)

Project Name and Number: FORT McCLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STONER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: SOIL CUTTINGS, OLF-6
Sampling Location: SOIL CUTTINGS, ~~OLF-3~~ OLF WPS 6/18/92
Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 6/6/92 1126
Weather Conditions: SUNNY & WARM, MID. 60'S, CLEAR & CALM

Purging Information (if applicable):
Method: _____
Quantity of Water Purged: _____
Disposition of Purge Water: _____
Date and Time of Purging: Start: _____ End: _____
Comments: _____

Groundwater:
Date and Time Collected: _____
Sampling Depth: _____
Water Level: _____
Sampling Method/Equipment: _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____
Date and Time Filtered (if applicable): _____
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: 6/6/92 1126
Sampling Depth: N/A
Sampling Method: SAMPLES COLLECTED USING HAND AUGERS TO REMOVE
Comments: SOILS FROM CONTAINERIZED (DRUMS) SOIL CUTTINGS
SOILS FROM DRUMS MIXED IN S.S. BOWLS & PLACED IN JAR WPS 6/18/92

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Sampling Form
(Field Sheet)

Project Name and Number: FORT McCLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STOWER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: SOIL CUTTINGS OLF-7
Sampling Location: SOIL CUTTINGS CONTAINERIZED AT ~~OLF-3 & OLF-2~~ LANDFILL #3 (OLF) WPS 6/18/92
Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 6/6/92 (SAT.) 1100
Weather Conditions: SUNNY & WARM, MID. 60'S, CLEAR & CALM

Purging Information (if applicable):
Method: _____
Quantity of Water Purged: _____
Disposition of Purge Water: _____
Date and Time of Purging: Start: _____ End: _____
Comments: _____

Groundwater:
Date and Time Collected: _____
Sampling Depth: _____
Water Level: _____
Sampling Method/Equipment: _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____
Date and Time Filtered (if applicable): _____
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: 6/6/92 1100
Sampling Depth: N/A
Sampling Method: SAMPLES COLLECTED USING AUGERS TO REMOVE SOIL
Comments: FROM CONTAINERIZED SOIL CUTTINGS, DRUMS. SOILS FROM INDIVIDUAL DRUMS MIXED IN S.S. BOWLS & PLACED IN JARS, COMPOSITED SOILS FROM WELL OLF 7'S DRUMS. TCLP ANALYSIS

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MC CLELLAN, S/01-0827-03-0424-005
Sampling Crew: WAYNE STONER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: SOIL CUTTINGS OLF-8
Sampling Location: SOIL CUTTINGS CONTAINERIZED AT ~~OLF-3~~ WPS 6/18/92 OLF (LANDFILL #3)
Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/6/92 1156
Weather Conditions: CLEAR & SUNNY, MID 60'S, CLEAR & CALM

Purging Information (if applicable):
Method:
Quantity of Water Purged:
Disposition of Purge Water:

Date and Time of Purging: Start: End:
Comments:

Groundwater:
Date and Time Collected:
Sampling Depth:
Water Level:
Sampling Method/Equipment:
Field Measurements: pH Temp: Cond: Alkalinity:
Date and Time Filtered (if applicable):
Comments:

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected: 6/6/92 1156
Sampling Depth: N/A
Sampling Method: SAMPLES COLLECTED USING HAND AUGER TO REMOVE
Comments: SOIL FROM ~~CON~~ DRUMS. SOILS FROM DRUMS MIXED IN S.S. BOWLS & PLACED IN JARS. JAR. WPS 6/18/92 TCLP ANALYSIS

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STONER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: SOIL CUTTINGS OLF-9
Sampling Location: SOIL CUTTINGS CONTAINERIZED AT OLF-3 WPS 6/18/92
Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 6/6/92 1540
Weather Conditions: SUNNY & CLEAR, MID 60'S, CALM

Purging Information (if applicable):
Method: _____
Quantity of Water Purged: _____
Disposition of Purge Water: _____
Date and Time of Purging: Start: _____ End: _____
Comments: _____

Groundwater:
Date and Time Collected: _____
Sampling Depth: _____
Water Level: _____
Sampling Method/Equipment: _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____
Date and Time Filtered (if applicable): _____
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: 6/6/92 1540
Sampling Depth: N/A
Sampling Method: SAMPLES COLLECTED USING HAND AUGER TO
Comments: REMOVE SOILS FROM DRUMS. SOILS FROM DRUMS MIXED IN S.S. BOWLS. AND COMPOSITE ~~SAMPLE~~ COLLECTED TCLP ANALYSIS SAMPLE WPS 6/18/92

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN SI/01-0827-03-0924-005
Sampling Crew: WAYNE STOHLER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: SOIL CUTTINGS OLF-10
Sampling Location: SOIL CUTTINGS CONTAINERIZED AT OLF ~~X~~ WPS 6/18/92
Sample Type: ☐ GW ☐ SW ☒ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 6/6/92 1440
Weather Conditions: CLEAR & SUNNY, MID 60's, CALM

Purging Information (if applicable):
Method: _____
Quantity of Water Purged: _____
Disposition of Purge Water: _____
Date and Time of Purging: Start: _____ End: _____
Comments: _____

Groundwater:
Date and Time Collected: _____
Sampling Depth: _____
Water Level: _____
Sampling Method/Equipment: _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____
Date and Time Filtered (if applicable): _____
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: 6/6/92 1440
Sampling Depth: N/A
Sampling Method: SAMPLES COLLECTED USING HAND AUGER TO
Comments: REMOVE SOILS FROM DRUMS. SOILS FROM DRUMS MIXED IN S.S. BOWLS. AND PLACED IN SAMPLING JAR. TCLP ANALYSIS

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STOWER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLF60501
Sampling Location: WELL OLF-5 AT OLD LAND FILL #3 (OLF)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/7/92 2005 - 2042
Weather Conditions: CLOUDY & WARM

Purging Information (if applicable):
Method: READY FLO GRUNDFOS SUBMERSIBLE
Quantity of Water Purged: ~100 GAL
Disposition of Purge Water: INITIAL H_2O CLEAR BUT BECAME CLOUDY
Date and Time of Purging: Start: 6/7/92 1755 End: 2005 6/7/92
Comments: PURGED REQUIRED VOLUME

Groundwater:
Date and Time Collected: 6/7/92 2005
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE WAS COLLECTED FROM THE TOP 4' OF THE RECHARGING COLL
Water Level: H_2O AT 33.30' BTOC PRIOR TO PURGE
Sampling Method/Equipment: TEFLON BAILER (BOTTOM FILLING)
Field Measurements: pH 6.50 Temp: 66.2°F Cond: 661 Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments:

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

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Sampling Form
(Field Sheet)

Project Name and Number: FT. McCLELLAN 51/01-0827-03-0424
Sampling Crew: WAYNE STONER, MARTHA CRAMER, JOAN PENDLETON
Sampling Point Number: OLF60701, OLFD60701, OLFSG0701 (MS/MSD)
Sampling Location: WELL OLF-7 AT LAND FILL #3 (OLF)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/7/92 1200
Weather Conditions: CLOUDY, WARM & HUMID, HIGHS MID 70'S

Purging Information (if applicable):
Method: UTILIZING SUBMERSIBLE GRUNDFOS 2.5 H.P
Quantity of Water Purged: ~80 GAL.
Disposition of Purge Water: H_2O V. CLOUDY INITIALLY BUT BECOMING CLEAR WITH CONTINUED PUMPING
Date and Time of Purging: Start: 0956 @ 6/7/92 End: 1150 @ 6/7/92
Comments:

Groundwater:
Date and Time Collected: 6/7/92 1200-1330 (SAMPLE, DUPLICATE & MS/MSD)
Sampling Depth: NOT RECORDED BUT WAS THE TOP 6' OF THE RECHARGING WATER COLUMN.
Water Level: INITIAL H_2O 43.82' (BTOC) PRIOR TO PURGE.
Sampling Method/Equipment: TEFLON BAILER (BOTTOM FILLING)
Field Measurements: pH 6.6 Temp: 70°F Cond: 1420 Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments: NR - NOT RECORDED. SAMPLE # OLFDG0701 IS A DUPLICATE SAMPLE.

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

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Sampling Form
(Field Sheet)

Project Name and Number: FT. McCLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STOWER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLFG0801
Sampling Location: WELL OLF-8 AT LAND FILL #3 (OLF)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/7/92 1435
Weather Conditions: CLOUDY, WARM, CALM & HUMID, ~60-70°

Purging Information (if applicable):
Method: HAND PUMP
Quantity of Water Purged: APPROX. 40 GAL (WELL PUMPED DRY TWICE)
Disposition of Purge Water: H_2O PARTLY CLOUDY BUT BECOMES CLEAR WITH CONTINUED PURGING
Date and Time of Purging: Start: 1050 @ 6/7/92 End: 1430 @ 6/7/92
Comments: OLF 8 DIDN'T RECHARGE 95% IN 1 HOUR, PUMPED WELL DOWN TO ~39' BTOC TWICE, THEN SAMPLED.

Groundwater:
Date and Time Collected: 6/7/92 1435
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE WAS COLLECTED AT 1ST 4' OF RECHARGING WATER COLUMN.
Water Level: H_2O AT 31.36' BTOC PRIOR TO PURGE
Sampling Method/Equipment: BAILER TEFLON, BOTTOM FILLING
Field Measurements: pH 6.50 Temp: 71.3 Cond: 1070 Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments:

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

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Sampling Form
(Field Sheet)

Project Name and Number: FT. McCLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STOWER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLFGO901
Sampling Location: WELL OLF-9, ON OLD LAND FILL #3 (OLF)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/8/92
Weather Conditions: SCATTERED THUNDERSHOWERS & HEAVY RAIN.

Purging Information (if applicable):
Method: HAND PUMP USED TO PUMP H_2O
Quantity of Water Purged: APPROX. 55 GAL.
Disposition of Purge Water: H_2O INITIALLY CLEAR BUT BECAME PARTLY CLOUDY DURING PURGING.
Date and Time of Purging: Start: 1350 @ 6/8/92 End: 1500 @ 6/8/92
Comments: PUMPED CALCULATED VOLUME (5 WELL VOLUMES)

Groundwater:
Date and Time Collected: 6/8/92 1500-1550
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE WAS COLLECTED FROM TOP 4' OF THE RECHARGING H_2O COLUMN.
Water Level: INITIAL H_2O 22.76' BTOC PRIOR TO PURGE
Sampling Method/Equipment: TEFLON BAILER, BOTTOM FILLING
Field Measurements: pH 6.65 Temp: 70.0 Cond: 789 µS/cm Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments: pH METER NOT OPERATING CORRECTLY TOWARD END OF SAMPLING (PROBABLY ELECTRICAL PROBLEM CAUSED BY RAIN)

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STONER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLFW01
Sampling Location: SURFACE WATER SAMPLE SW-1 AT LANDFILL #3 (OLF)
Sample Type: ☐ GW ☒ SW ☐ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 6/9/92 1435
Weather Conditions: CLOUDY WITH SCATTERED SHOWERS

Purging Information (if applicable):
Method: _____
Quantity of Water Purged: _____
Disposition of Purge Water: _____
Date and Time of Purging: Start: _____ End: _____
Comments: _____

Groundwater:
Date and Time Collected: _____
Sampling Depth: _____
Water Level: _____
Sampling Method/Equipment: _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____
Date and Time Filtered (if applicable): _____
Comments: _____

Surface Water:
Date and Time Collected: 6/9/92 1435-1511
Collection Method: DIPPED BOTTLES INTO STREAM. SWPS 6/18/92
Date and Time Filtered (if applicable): N/A
Field Measurements: pH NR Temp: NR Cond: NR Turbidity: NR
Comments: FIELD MEASUREMENTS WERE NOT RECORDED (NR) BECAUSE HYDAC METER WAS NOT OPERATIONAL. SAMPLER WAS DOWNSTREAM OF SAMPLING POINT.

Soils/Sediment Sampling:
Date and Time Collected: _____
Sampling Depth: _____
Sampling Method: _____
Comments: _____

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STOWER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLFD01
Sampling Location: SEDIMENT SAMPLE SD-1 AT LANDFILL #3 (OLF)
Sample Type: ☐ GW ☐ SW ☐ Soil ☒ SED ☐ Other: _____
Date and Time Sample Collected: 6/9/92 1435-1511
Weather Conditions: CLOUDY WITH SCATTERED SHOWERS

Purging Information (if applicable):
Method: _____
Quantity of Water Purged: _____
Disposition of Purge Water: _____
Date and Time of Purging: Start: _____ End: _____
Comments: _____

Groundwater:
Date and Time Collected: _____
Sampling Depth: _____
Water Level: _____
Sampling Method/Equipment: _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____
Date and Time Filtered (if applicable): _____
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: 6/9/92 1435-1511
Sampling Depth: 0-.5' BLS
Sampling Method: USED A STAINLESS STEEL TROWEL TO SCOOP UP SEDIMENT AND
Comments: PUT IT INTO A STAINLESS STEEL BUCKET TO COMPOSITE IT.
VOAS WERE COLLECTED IMMEDIATELY AND NOT COMPOSITED.

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MC CLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STONER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLF60101
Sampling Location: WELL OLF-1 AT OLD LAND FILL #3 (OLF)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/9/92 1200-1239
Weather Conditions: CLOUDY, WARM (60-70'S) HUMID W SCATTERED SHOWERS

Purging Information (if applicable):
Method: READY FLO GRUNDFOS SUBMERSIBLE.
Quantity of Water Purged: APPROX. 90 GAL.
Disposition of Purge Water: V. CLOUDY (TAN COLOR) BECOMING PARTLY CLOUDY TOWARD END OF PURGING.
Date and Time of Purging: Start: 6/8/92 @ 0930 End: 6/9/92 @ 1035
Comments: INITIAL PURGING FROM 0930-0957 (DEPTH OF 36.5' BTOC)
2ND PUMPING 1300-1321 (PUMPED TO DEPTH OF 49.3' BTOC)
3RD PUMPING 1028-1035 - 6/9/92.

Groundwater:
Date and Time Collected: 6/9/92 1200-1239
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE WAS COLLECTED FROM TOP 4' OF RECHARGING WATER COLUMN.
Water Level: INITIAL H_2O OF 17.50' PRIOR TO PURGE.
Sampling Method/Equipment: TEFLON BAILER BOTTOM FILLING
Field Measurements: pH — Temp: — Cond: — Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments: pH METER NOT OPERATING CORRECTLY DURING SAMPLING OR PURGING.

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN SI/01-0827-03-0424-
Sampling Crew: WAYNE STOWER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLFG0601
Sampling Location: WELL OLF-6, LAND FILL II-3
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/9/92 1600-1650 6/10/92 0820-0845
Weather Conditions: SCATTERED SHOWERS, OVERCAST & RAINY

Purging Information (if applicable):
Method: BAILED WELL WITH TEFLON BAILER
Quantity of Water Purged: APPROX. 10 GAL.
Disposition of Purge Water: WATER CLEAR WITH RED SILT BECOMING ABUNDANT AT BOTTOM OF H_2O COLUMN
Date and Time of Purging: Start: 1120 6/8/92 End: 6/9/92 1145
Comments: WELL OLF-6, VERY SLOW RECHARGE ONLY ~ 5.8' OF H_2O IN WELL. (INITIAL BAILING TO 72' BTOC) 1120-1200, 2ND BAILING 1055-1145 (6/9/92)

Groundwater:
Date and Time Collected: 6/9/92 1600-1650, 6/10/92 0820-0845 (SEE BELOW)
Sampling Depth: BETWEEN 67'-72' BTOC
Water Level: H_2O INITIALLY AT 66.87' BTOC (PRIOR TO PURGE)
Sampling Method/Equipment: BOTTOM FILLING TEFLON BAILER
* Field Measurements: pH 7.43 Temp: 71.9° Cond: 30.3 Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments: BECAUSE OF SMALL VOLUME, NEEDED TWO SAMPLING PERIODS WERE NEEDED TO COMPLETE TOTAL CONTAINERS, 1ST SAMPLING (1600-1650 ON 6/9/92) COLLECT VOA'S, SVOC'S, & PEST. W. PCB'S) 2ND SAMPLING (0820-0845 ON 6/10/92) METALS & BREAKDOWN IN 2ND SAMPLING. * READING RECORDED DURING PURG.

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MC CLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STOWER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLF60201
Sampling Location: WELL OLF-2 OLD LAND FILL #3 (OLF)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/10/92 1700-1725
Weather Conditions: OVERCAST, SCATTERED SHOWERS.

Purging Information (if applicable):
Method: READY FLO GRUNDFOS SUBMERSIBLE
Quantity of Water Purged: 55 GAL.
Disposition of Purge Water: WATER V. CLOUDY, BECOMING CLEARER WITH INCREASED PURGING
Date and Time of Purging: Start: 6/10/92 1010 End: 6/10/92 1521
Comments: 1ST PUMPING OF WELL FROM 1010-1021 (H_2O PUMPED FROM 13.84' TO 49' BTOC) 2ND PUMPING 1453-~~1429~~ 1521

Groundwater:
Date and Time Collected: 6/10/92 1700-1725
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE WAS COLLECTED FROM TOP 4' OF RECHARGING WATER COLUMN
Water Level: H_2O LEVEL AT 13.84' BTOC BEFORE PURGE
Sampling Method/Equipment: BOTTOM FILLING TEFLON BAILER
Field Measurements: pH 5.96 Temp: 69.0°F Cond: 475 Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments: SAMPLE WAS V. CLOUDY.

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

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Sampling Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN SI / 01-0827-03-0424-005
Sampling Crew: WAYNE STONER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLFG0301, OLFDG0301 (DUPLICATE)
Sampling Location: WELL OLF-3, OLD LAND FILL #3 (OLF)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/10/92 1000-1130 1400-1410
Weather Conditions: OVERCAST, HOT & HUMID

Purging Information (if applicable):
Method: READY FLO GRUNDFOS SUBMERSIBLE
Quantity of Water Purged: APPROX. 120 GAL
Disposition of Purge Water: H_2O INITIALLY V. CLOUDY, BECOMES PARTLY CLOUDY WITH PURGING
Date and Time of Purging: Start: 6/9/92 1325 End: 6/10/92 0755
Comments: 1ST PURGING ON 6/9/92 FROM 1325-1348 (H_2O FROM 14.42' TO 46.30') PURGED 2ND & 3RD TIME 6/9/92. PURGE 4TH TIME 0745-0755 (6/10/92)

Groundwater:
Date and Time Collected: 6/10/92 1000-1130, (1ST SAMPLING) 2ND SAMPLING 1400-1410
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE WAS COLLECTED FROM TOP 4' OF WATER COLUMN.
Water Level: H_2O AT 14.42' BTOC PRIOR TO PURGE
Sampling Method/Equipment: BOTTOM FILLING TEFLON BAILER
Field Measurements: pH NR Temp: NR Cond: NR Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments: pH METER NOT OPERATIONAL

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: FT. McCLELLAN GI/01-0827-03-0424-005
Sampling Crew: WAYNE STOVER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLF60401
Sampling Location: ~~OLD~~ WELL OLF-4, OLD LAND FILL #3 (OLF)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/10/92
Weather Conditions: OVERCAST, SCATTERED SHOWERS

Purging Information (if applicable):
Method: READY FLOW GRUNDFOS SUBMERSIBLE
Quantity of Water Purged: APPROX. 53 GAL.
Disposition of Purge Water: PARTLY CLOUDY WITH BUILD-UP OF SEDIMENT AT BOTTOM OF WELL
Date and Time of Purging: Start: 6/10/92 1300 End: 6/10/92 1356
Comments: 1ST PUMPING FROM 1300-1308, PUMPED FROM 41.9 TO ~52' BTOC
2ND PUMPING 1330-1356 (42' TO 52' BTOC), PUMPED REQUIRED VOLUME

Groundwater:
Date and Time Collected: 6/10/92 1550-1625
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE COLLECTED FROM TOP 4' OF RE-CHARGING WATER COLU
Water Level: INITIAL H_2O AT 41.90 BTOC BEFORE PURGE
Sampling Method/Equipment: BOTTOM FILLING TEFLON BAILER
Field Measurements: pH 5.88 Temp: 70.4 Cond: 808 Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments: pH METER NOT OPERATIONAL DURING PURGING, FIELD MEASUREMENT AFTER SAMPLING SHOWN ABOVE.

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: FT. MC CLELLAN S/01-0827-03-0424-005
Sampling Crew: WAYNE STOWER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: LF2G0101
Sampling Location: WELL #1 ON LAND FILL #2 (LF2)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/11/92 1422-1450
Weather Conditions: OVERCAST WITH SCATTERED SHOWERS

Purging Information (if applicable):
Method: HAND PUMP
Quantity of Water Purged: APPROX. 40-45 GAL
Disposition of Purge Water: PARTLY CLOUDY WITH TANNISH TINT
Date and Time of Purging: Start: 6/4/92 1000 End: 6/11/92 1420
Comments: 1ST PUMPING 1600-1015 (17.12'-27' BTOC), 2ND PUMPING ~~1422~~ 1410-1420 (PUMPED DOWN TO 27' BTOC)

Groundwater:
Date and Time Collected: 6/11/92 1422-1450
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE WAS COLLECTED FROM TOP 4' OF RECHARGING WATER COLUMN
Water Level: INITIAL H_2O AT 17.12' BTOC
Sampling Method/Equipment: BOTTOM FILLING TEFLON BAILER
Field Measurements: pH 6.24 Temp: 66.4 Cond: 910 Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments:

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: FT. McCLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STONER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: LF2602 01
Sampling Location: MONITOR WELL #2 LAND FILL #2 (LF2)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/11/92 1743-1813
Weather Conditions: OVERCAST WITH CHANCE OF RAIN.

Purging Information (if applicable):
Method: HAND PUMPING WELL, SUBMERSIBLE NOT OPERATING
Quantity of Water Purged: ~53 GAL.
Disposition of Purge Water: CLEAR WITH SLIGHT GREY TINT.

Date and Time of Purging: Start: 6/11/92 1505 End: 6/11/92 1721
Comments: 1ST PUMPING 1505 - 1524, 2ND PUMPING 1705-1721

Groundwater:
Date and Time Collected: 6/11/92 1743-1813
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE COLLECTED FROM TOP 4' OF RECHARGED WATER COLUMN.
Water Level: INITIAL H_2O LEVEL AT 6.51' BTOC
Sampling Method/Equipment: BOTTOM FILLING TEFLON BAILER
Field Measurements: pH 7.58 Temp: 65.2 Cond: 818 Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments:

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN SI/01-0827-03-0424-005
Sampling Crew: WAYNE STOWER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: LF2G0301 & LF2D0301 (BREAKDOWN)
Sampling Location: WELL #3 ON LAND FILL #2 (LF2)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/11/92 1320-1345
Weather Conditions: ~~OVER~~ SUNNY, HUMID, HIGHS MID 60'S, CALM.

Purging Information (if applicable):
Method: READY FLO GRUNDFOS SUBMERSIBLE
Quantity of Water Purged: APPROX. 80 GAL.
Disposition of Purge Water: WATER CLEAR WITH SLIGHT GREY TINT

Date and Time of Purging: Start: 6/11/92 0923 End: 6/11/92 1315
Comments: 1ST PUMPING (0923-0935) H_2O PUMPED FROM 7.39' TO ~21'
2ND PUMPING 1106-~~1129~~ 1115, 3RD PUMPING 1125-1139
4TH PUMPING 1255-1315. PURGED REQUIRED VOLUME.

Groundwater:
Date and Time Collected: 6/11/92 1320-1345
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE WAS COLLECTED FROM TOP 4' OF RECHARGING WATER COLUMN.
Water Level: INITIAL H_2O LEVEL AT 7.39'
Sampling Method/Equipment: BOTTOM FILLING TEFLON BAILER
Field Measurements: pH 7.06 Temp: 64.8 Cond: 681 Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments: DUPLICATE BREAKDOWN SAMPLE TAKEN WITH SAMPLE FROM MONITOR WELL #3

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: FT. MC CLELLAN 51/01-0827-03-0424-005
Sampling Crew: WAYNE STONER, MARTHA CRAMER, JOHN PENDLETON
Sampling Point Number: OLF61001
Sampling Location: WELL OLF-10 OLD LAND FILL # 3 (OLF)
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 6/11/92 1604-1643
Weather Conditions: SUNNY & WARM, HIGHS IN HIGH 60'S, CALM & HUMID

Purging Information (if applicable):
Method: HAND PUMP
Quantity of Water Purged: 40-45 GAL
Disposition of Purge Water: WATER PARTLY CLOUDY, BECOMING CLEARER W. INCREASED PUMPING
Date and Time of Purging: Start: 6/10/92 0900 End: 6/11/92 0815
Comments: 1ST PURGING OF 0900-0906 (PUMPED FROM 18.95' TO 28.8 BTOC) 2ND PUMPING 1350-1400 (PUMPED DOWN TO 28'). 3RD PUMPING 6/11/92 0806-0815

Groundwater:
Date and Time Collected: 6/11/92 1604-1643
Sampling Depth: NOT RECORDED (NR) BUT SAMPLE WAS COLLECTED FROM THE TOP OF RECHARGE WATER COLUMN
Water Level: INITIAL H_2O LEVEL AT 18.95' BTOC PRIOR TO PURGE
Sampling Method/Equipment: BOTTOM FILLING TEFLON BAILER
Field Measurements: pH 6.47 Temp: 67.4 Cond: 404 Alkalinity: NR
Date and Time Filtered (if applicable): N/A
Comments:

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH Temp: Cond: Turbidity:
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

CALIBRATION FORMS

(10) 4/2/92

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Wayne P. Stoner 4/2/92

4/2/92 (11)

WEATHER: SUNNY; COOL ~50°F AND BREEZY.

FIELD PERSONNEL:
SAK - WAYNE P. STONER (WPS)
ESCORT - DON D. TUCKER (DDT)

1231 WPS AND DDT ARRIVE AT BLDG 129B TO COLLECT VOA SAMPLES. WPS AND DDT WENT TO GET pH, CONDUCTIVITY AND TEMPERATURE METER AT GMO BLDG.

~1240 WPS CHECK pH, TEMP & COND METER. CALIB pH TO:
ZERO - 7.00
SLOPE - 4.00

1255 STARTED RUNNING WATER THRU ATTACHED HOSE. WPS WILL TRY TO TAKE A READING EVERY 5 MINUTES.

1300 TEMP: 60.4°F
COND: 182
pH: 7.02

Wayne P. Stoner 4/2/92

Monitoring Equipment: 13 APR

Cond / Temp / pH meter: P/N 301353, calibrated w/ pH 7 & pH10 solutions at 0940

Minicams:

GB/VX - monitor SN 1587, made by CMS, calibrated w/ 4 ul solution of .2 ng/ul GB & .02 ng/ul VX at ~~1102~~ 1102 / 1242

HD - monitor SN 1361, made by CMS calibrated w/ 3 ul solution of 3 ng/ul HD at 1057 / 1113 / 1229 / 1233

Sample Vials

40 ml vials - B1252020 / B1218010 - water

1 l amber - H1102010 / H1167020

1 l poly C1299010

16 oz - I 1286010

Breathing space monitoring

HD - 1123, 0.07 TWA ⇒ acceptable

GB/VX 1122 0.00 TWA VX, 0.03 TWA GB ⇒ acceptable

Soil Sampling - done at stake BK-SC101/2

1st sample - 5-10"; 3/1; dry, rocky, rich top soil

1257 start monitor: 0.04 TWA HD, 0.00 TWA VX, 0.02 TWA GB

monitor probe located approximately 3" above heated samples

Monitoring Equip: 14 APR

Minicams

HD: monitor S/N 1361, made by CMS, calibrated with 3 ul solution of 3 ng/ul HD at 0909

~~LB~~

Breathing Space Monitoring

OTA: HD - 0935, 0.00TWA ⇒ acceptable

~~LB~~

~~DTA HD~~

~~LB~~

0940 : Tailgate Meeting

1018 : Samples at OTA-S0101 12-15", hard red clay taken approx 1' from original stake - original site "hot" on mag sweep; monitor 0.00TWA, probe located approximately 1' above heated sample

1[illegible]4 : Samples at OTA-S0102 58-60", hard red clay taken approx 1' from original stake - original stake "hot" on mag sweep; monitor: 0.04 TWA, probe located approximately 1" above heated sample

1205 : Samples at OTA-S0201 12-15", hard red clay taken approximately 1' from original stake - same as OTA S0101 - monitor: 0.05 TWA probe located

(20) 4/13/92

1615 WPS GOING TO LANDFILL #3 TO CHECK ON DRILLERS.

1625 WPS ARRIVES AS DRILLERS ARE LEAVING. ST IS GOING TO CHECK ON DRUMS. WPS WENT BACK TO BLDG 3228.
BILL HOUSER'S NUMBER IS 848-5754.

1700 WPS ARRIVED AT BLDG 3228. TEU PERSONNEL STILL PREPARING SAMPLES FOR SHIPMENT.

1750 WPS AND HH DEPART BASE TO GET FIELD SUPPLIES.

1900 WPS & HH ARRIVE BACK AT HOTEL.

Wayne P. Stoner 4/13/92

(21) 4/14/92

WEATHER: SUNNY, COOL ~50°F & CALM

SAIC FIELD CREW:
WAYNE P. STONER (WPS)
HEATHER A. HOWLEY (HAH)

0615 WPS AND HAH ARRIVE AT BLDG 3228.
HAH CALLED CHRIS MANIKAS (CM)
WHILE WPS CALIB. HNU AND LEL.

HNU 1126 PROBE # 1126
10.2 eV LAMP.
INITIAL READING: 50 PPM
CALIBRATED TO: 100 PPM USING 100 PPM
ISO BUTYLENE LOT # 122991-1, ADJ SPAN @ 780

LEL
ZEROED BUT NOT CALIBRATED. WPS 4/13/92
READING WAS 25 USING 30% HEXANE
LOT # 021892-D

WPS TALKED TO CM ABOUT (1) ACCESS PROBLEMS AT BOTH SITES, (2) WASTE CONTAINMENT & COSTS FOR DRILLING ACTIVITIES

Wayne P. Stoner

Monitoring Equip: 15 APR

Mini cams

HD: monitor S/N 1361 made by CMS, calibrated w/ with 3 ul of 3 ng/ul solution at 0857

GB: monitor S/N 1587 made by CMS, calibrated with 4 ul of 2 ng/ul solution at 0911

Temp / Cond / pH meter: P/N 301353 Calibrated at 1157 with pH 7 & pH 10 solutions rinsed with ASTM water

Breathing Space Monitoring

DIA: HD-0919, 0.00 TWA ⇒ acceptable

GB-0922, 0.03 TWA ⇒ acceptable

~~TS: HD-~~

~~GB~~

~~VX~~

0445 : Tailgate Meeting

1330 : Arrived changehouse to package samples for shipping

1345 : Took rinsate blanks RB005

1500 : Custody changed from David Smith to Darien Mitchell for transport to Federal Express (left at 1510)

Coolant blank temps 7°C

(26)

4/15/92

WEATHER: CLOUDY, COOL ~50°F AND CALM.

SAIC CREW:
WAYNE P. STONER (WPS)
HEATHER A. HOWLETT (HAH)

0630 WPS AND HAH ARRIVED ON BASE.

0700 WPS CALIBRATED HNU & LEL:
LEL # NO ADJUSTMENTS
CALIBRATED TO 60% LEL USING LEL GAS LOT # 27769

HNU 1126 PROBE 1126
CALIBRATED TO 100 PPM USING 100 PPM ISOBUTYLENE GAS TO SPAN @ 1.90, LOT # 102991-1

SEE MW CONSTRUCTION FORM FOR OLF 7 FOR FURTHER COMMENTS.

Wayne P. Stoner 4/15/92

(27)

4/15/92

SAFETY BRIEFING COVERED THE FOLLOWING (1) EMERGENCY PROCEDURES (2) PERSONAL H&S EQUIPMENT & (3) GENERAL PROCEDURES; SIGNATURES OF THOSE PRESENT.

Wayne P. Stoner SAIC
[illegible] CCI
Sheldon Turner EEI
Stan [illegible] EEI

1303 WPS 5/15/92
~~1331 SICK SHELDON~~ SHELDON TURNER (ST) IS TRYING TO FIX THE SEAL ON THE MUD TUB.

1331 STARTING TO DRILL AGAIN CORE ACTUALLY, 30 MIN DOWN

1900 WPS & DRILLERS DEPART SITE

Wayne P. Stoner 4/15/92

Monitor Equip:

16 APR

Minicams

HD: monitor S/N 1361 made by CMS calibrated w/ 3 µl of 3 ng/µl HD solution at 0847

GB/VX: monitor S/N 1587, made by CMS, calibrated w/ 4 µl of of .2 ng/.02 ng/µl GB/VX solution at 0932

Breathing Space Monitoring:

HD: 0857, 0.00 TWA HD ⇒ acceptable

GB/VX: 0941, 0.20 TWA VX / 0.05 TWA GB ⇒ acceptable

0910 : Tailgate Meeting

1530 : Arrived at changehouse to package samples for shipping

~~: Took rinsate blanks RBoxt1~~

1625/1645 : Custody changed from Victoria A Kost to Darren Mitchell for transport to Federal Express (left at 1647)

Coolant blank temp: 7°C

1540 : Took field blanks FABoo1

1630 : Took resample for DIA-S0261 ⇒ original bottle broke in shipment

lot #s: 1 l poly - C1263020

1 l amber - H1079025

(28)

4/16/92

WEATHER: SUNNY, COOL ~50°F AND CALM.

SAIC CREW:
WAYNE P. STONER (WPS)
HEATHER A. HOWLEY (HAH)

0700 WPS ARRIVED AT BLDG. 3228 TO CALIB. HNU & LEL.

HNU 1126 PROBE 1126
CALIB TO 100 PPM USING 100 PPM ISOBUTYLENE GAS. 122991-1-LOT # @ 7.69 SPAN.

LEL 2486
LEL 60% USING 50% LEL GAS LOT # 27169

SEE MW CONSTRUCTION FORM AND LOG FOR COMMENTS.

1700 WPS DEPARTS SITE.

Wayne P. Stoner 4/16/92

(29)

WPS
4/17/92

WEATHER: SUNNY, COOL ~50°F AND CALM.

SAIC CREW:
WAYNE P. STONER - WPS
HEATHER A. HOWLEY - HAH

0645 ~~0600~~ WPS ARRIVE ON BASE AT BLDG 3228. MEETING DRILLERS AT 0700. SEE MW CONSTRUCTION FORM AND LOG FOR COMMENTS.
WPS 4/17/92

0748 GAVE SAFETY BRIEFING ON DAY'S CONDITIONS & GENERAL SAFETY PRACTICES AND ALL SITE CONDITIONS!
WPS 4/17/92

Wayne P. Stoner SAIC
Jimmy Wright E.E.I.
Sheldon Turner EEI
Steve Dorhauer EEI

1645 WPS AND HAH DEPARTING BASE FOR AIRPORT.

Wayne P. Stoner 4/17/92

Monitor Equip: 20 APR

Minicams

HD: monitor S/N 1361, made by CMS; calibrated with 3ul of a 3ng/ul solution HD at 1339

GB: monitor S/N 1587 made by CMS; calibrated with 4 ul of a .2 ng/ul solution GB at 1210

pH meter: P/N 301253, calibrated at 1127 with pH 7 & pH 10 solutions, rinsed with ASTM water

Breathing Space Monitoring.

HD: 1401, 0.00 TWA HD ⇒ acceptable

GB 1356 0.01 TWA GB ⇒ acceptable

0830: Tailgate Meeting

~~Drill rig~~ deconned for movement to T31

~~Arrived~~ changehouse to package samples for shipping

~~Took Rinsate~~ blanks (RB004)

1347 : Custody changed from Victoria A Lost to Brian McComas for transport to Federal Express (left at 1355)

: Coolant blank temp: 7°C

30

4/20/92

WEATHER: SUNNY, WARM ~69° AND CALM

SAIC CREW:
WAYNE P. STONER - WPS
PAIGE A. DILLON PAD

0910 WPS & PAD ARRIVED AT BLDG 3228 AND BLDG 3270. PICKED UP DELIVERED SUPPLIES AND LOADED CAR TO MEET DRILLERS AT LANDFILL #3 (OLF 7).

1040 DRILLERS FINISHED REAMING THE HOLE TO TD OF 62' BLS. STARTED REAMING ~0935. 1 HOUR REAMING

NOTE: HNU CALIB TO 100 PPM USING 100 PPM 1,3 BUTYLENE SPAN @ 7.60. LOT# 122-991-1. HNU# 1126 PROBE# 1126

LEL CALIB TO 60% LEL USING 60% LEL GAS LOT# 27769. LEL# 2486

Wayne P. Stoner 4/20/92

31

4/20/92

1530 STARTED RAINING AND LIGHTNING.

1730 WPS AND PAD DEPART BASE. WEATHER MADE WORKING CONDITIONS UNSAFE.

Wayne P. Stoner 4/20/92

(82)

4/21/92

WEATHER: CLOUDY, RAINY AND WARM

SAIC CREW
WAYNE P. STONER (WPS)
PAIGE A. DILL (PAD)

0730 WPS AND PAD ARRIVE ON BASE AT BLDG 3228 TO LOAD AND CALIB EQUIPMENT.
LEL zeroed for, LEL, & Oxygen
LEL bottle w/ ~~100% Isobutylene~~ Pentane PAD 4/21/92
HNu 100ppm w/ isobutylene span @ 7.60

0915
BLDG 215 DEH. GO TO TRAFFIC CIRCLE FROM BALTZELL GATE. GO AROUND CIRCLE 3/4 AND TURN ONTO ROAD. GO ACROSS TRACKS AND PASS DOL AND BUILDING IS ON YOUR LEFT
(205) 848-3609
LONNIE SMITH.

AN WELL INSTALLATION DOCUMENTED ON LOG CONSTRUCTION FORMS
Paige A. Dill 4/21/92

(83)

4/21/92

1800 finished paperwork at DLF 7 and returned to BLDG 3228 to recharge instruments
1830 left Base for day

Paige A. Dill
4/21/92

Monitor Equip. 22 APR

Minicams

HD: monitor S/N 1361, made by CMS, calibrated with 3 µl of a 3 ng/µl solution HD at 0801, 1434

GB/VX: monitor S/N 1587, made by CMS, calibrated with 4 µl of a .2/.02 ng/µl solution GB/VX at 0909, 1433

Breathing Space Monitoring.

HD: 0812, 0.15 TWA HD ⇒ acceptable
1445, 0.11 TWA HD ⇒ acceptable

GB/VX: 0919, 0.00 TWA GB / 0.35 TWA VX ⇒ acceptable
1443, 0.02 TWA GB / 0.00 TWA VX ⇒ acceptable

0825 : Tailgate Meeting
1400 : Decanned drill rig for movement to T5
1420 : Took rinsate blanks (RB004)
1600 : Custody changed from David J Smith to Darien Mitchell for transport to Federal Express (left at 1650)
Coolant blank temp: 8°C

lot # 1 amber: H1079020

(34)

4/22/92

Weather: Clear, sunny, @ 60° F
Supposed to reach 83° F by noon

SAIC Crew: Wayne P Stoner (WPS)
Paige A Dillon (PAD)

0645 Arrive at Bldg 3228
Calibrate instruments

HNu Calib to 100ppm using 100ppm isobutylene span @ 8.00
Lot # 122991-1 HNu #1126 probe #1126

LEL calib to 60% LEL using 50% LEL gas (pentane) Lot # 27761
LEL # 2486

0710 Arrive at site OLF 6

0720 Drillers arrive and set up

An Documentation regarding site is in well construction log
Paige A Dillon 4/22/92

(35)

4/22/92

0945 DRILLERS WENT TO GET MORE AUGER.
WPS AND PAD GETTING H_2O LEVELS
OLF #4 H_2O LEVEL ~37' BLS
OLF #3 " " ~ NR

1140 DRILLERS ARRIVE BACK ON SITE FROM GETTING AUGERS, 2 HOURS DOWN

1515 DRILLERS LOST A WRENCH IN THE WELL.

1900 STEVE DESMERCIA SAIC TRIED TO FISH OUT PIPE WHILE WPS AND SHELDON TURNER FILL OUT PAPERWORK. ~~DEPART~~ DRILLERS AND SAIC PERSONNEL DEPART FOR THE DAY.

Wayne P. Stoner 4/22/92

Monitor Equip: 23 APR

Minicams:

HD: monitor S/N 1361, made by CMS; calibrated with 2 ul of a 4.54 ng/ul solution HD at 0846

GB/VX: monitor S/N 1587, made by CMS; calibrated with 4 ul of a .21/.02 ng/ul solution GB/VX at 0830

Breathing Space Monitoring:

HD: 0906, 0.08 TWA HD ⇒ acceptable

GB/VX: 0841, 0.04 TWA GB/0.00 TWA VX ⇒ acceptable

0837 : Tailgate Meeting

1432 : Custody changed from David J Smith to Darren Mitchell for transport to Federal Express (left at 1515)

Temp of cooler sent 20 Apr : 5°C

(36)

4/23/92

WEATHER: SUNNY, WARM ~ 70°F AND CALM.

SAIC CREW:
WAYNE P. STONER (WPS)
PAIGE A DILLON (PAD)

0645 WPS AND PAD ARRIVE ON BASE AND CALIB HNU AND LEL:

HNU #1126 PROBE #1126
CALIB TO 100 PPM USING 100 PPM ISOBUTYLENE GAS. INITIAL READING 95 PPM. ADJ SPAN @ 7:10. LOT # 122991-1

LEL CALIB TO 60% USING 60% LEL GAS (PENTANE). LOT # 27769

0710 ARRIVED AT SITE (LANDFILL #3) SEE MONITORING WELL CONSTRUCTION FORM FOR OLF 6 FOR DAY'S COMMENTS.

Wayne P. Stoner 4/23/92

4/23/92

(37)

~1500 LARRY HORNSBY FROM DLH (JOHNSON) CONTROLS STOPPED ON SITE AND BULL DOZED ROAD TO WELL OLF 7 TO TRY AND GET THE H2O TO DRAIN.

1830 WPS DEPARTS SITE FOR THE DAY.

Wayne P. Stoner 4/23/92

Monitor Equip: 24 APR

Minicams:

HD: monitor S/N 1361, made by CMS, calibrated with 2 ul of a 4.5 ng/ul solution HD at 0852, 1221

GB: monitor S/N 1587, made by CMS, calibrated with 4 ul of a .2 ng/ul solution GB at 0909, 1209

pH meter: PN 301353, calibrated at 1055 with pH 7 & pH 10 solutions, rinsed with ASTM water

Breathing Space Monitor

HD: 0903, 0.00 TWA HD ⇒ acceptable
1232, 0.00 TWA HD ⇒ acceptable

GB: 0919, 0.01 TWA GB ⇒ acceptable
1219, 0.03 TWA GB ⇒ acceptable

0900 : Tailgate Meeting
1600 : Took rinsate blanks (RB005)
1630 : Custody changed ~~from~~ from David J Smith to ~~Dave~~ Ryan O'Connell for transport to Federal Express (left at 1637)
Temp Coolant Blank: 7°C
lot #s 1 l amber: H0345020

(88)

4/24/92

WEATHER PARTLY CLOUDY, COOL ~ 50-60°F AND SLIGHTLY BREEZY WINDS FROM THE SOUTHWEST.

SAIC CREW –
WAYNE P. STONER (WPS)

0700 WPS ARRIVES AT BLDG 3228 ON BASE AND CALIB HNU AND LEL.

HNU # 1126 PROBE # 1126
CALIB TO 100 PPM USING 100 PPM ISOBUTYLENE CALIB GAS. SPAN ADJ @ 6.48
LOT # 122991-1

LEL # 2486 CALIB TO 60% USING 50% LEL (PENTANE). LOT # 27769

1100 BEN KEELER AND GARY BRAY ARRIVED ON SITE. WPS EXPLAINED THAT THEY NEED A METHOD TO PUMP OUT THE WELL MORE EFFECTIVELY WHEN A H_2O LEVEL IS NEEDED TO DETERMINE THE H_2O TABLE.

Wayne P. Stoner 4/24/92

(89)

4/24/92

THEY SUGGESTED USING A SMALL DOUBLE FILTERED COMPRESSOR TO PUMP ~ 125 CFM INTO THE WELL TO TRY AND LIFT OUT ALOT OF THE FLUID IN THE BOTTOM. WPS WILL TRY TO CALL JERALD LATER TODAY TO ASK HIM IF THIS IS ACCEPTABLE.

1115 BEN KEELER AND GARY BRAY DEPART SITE.

1630 MONITORING WELL OLF 6 IS GROUTED AND PROTECTIVE CASING IN PLACE.

1800 WPS AND DRILLERS DEPART THE SITE.

1830 WPS DEPARTS BASE FROM BLDG 3228.

Wayne P. Stoner 4/24/92

(40)

4/25/92

WEATHER: SUNNY, COOL ~50°F AND SLIGHTLY BREEZY.

SAIC CREW:
WAYNE P. STONER - WPS
DERRAL VANWINKLE - DVM

0700 WPS AND DVM ARRIVE ON-SITE (BLDG 3228). WPS CALIB HNU & LEL. DVM ARRIVED YESTERDAY. HE WILL BE CONDUCTING GEOPHYSICAL SURVEYS TODAY. LT McMILLEN WILL ESCORT HIM TO THE SITES NEEDING WORK.

0730 WPS ARRIVES ON SITE ~~AND~~ AT LANDFILL #3. DRILLERS ARE NOT ON-SITE.

1830 WPS DEPARTS BASE.

Wayne P. Stoner 2/25/92

(41)

4/26/92

WEATHER: SUNNY, COOL ~50°F & CALM

SAIC CREW
WAYNE P. STONER (WPS)
DERRAL VANWINKLE (DVM)

0615 WPS ARRIVES AT BLDG 3228 TO CALIB LEL AND HNU AND COMPLETE SOME PAPER WORK

HNU # 1126 PROBE 1126
CALIBRATED TO 65 PPM USING 100 PPM ISOBUTYLENE, ADJ. SPAN @ 10.0*.
LOT #
TRIED TO CALIB TO 55 PPM AS ADVISED BY HAZCO REP.
LEL # 2486 TO 25% LEL USING 30% LEL (HEXANE) LOT #.

0800 DVM ARRIVES AT BLDG 3228. WPS GOING TO SITE TO MEET DRILLERS
SEE MONITORING WELL CONSTRUCTION FORMS.

0810 WPS CHECK H2O LEVELS.

Wayne P. Stoner 4/26/92

Monitor Equip

Minicams

27 APR

HD: monitor S/N 1561, made by CMS: calibrated with 2 µl of a 4.54 ng/µl solution HD at 1107

GB/VX: monitor S/N 1587, made by CMS: calibrated with 4 µl of a .2/.07 ng/µl solution GB/VX at 1126

Breathing Space Monitor:

HD: 1154, 0.00 TWA HD ⇒ acceptable

GB/VX: 1159, 0.00 TWA GB, 0.00 TWA VX ⇒ acceptable

1042 : Tailgate meeting

1345 : Custody changed from David J Smith to Ryan P O'Connell for transport to Federal Express

Temp Coolant Blank 5°C

Monitor Equip:

28 APR

Minican

HD monitor S/N 1361 made by CMS calibrated with 2ul of a 4.54 ng/ul solution HD at 0933

Breathing Space Monitor:

HD 1000; 0.09 TWA HD ⇒ acceptable

0945 : Talgate Meeting

1310 : Custody changed from David J Smith to Ryan P O'Connell for transport to Federal Express

Temp of coolant blank 5°C

4/28/92

WEATHER: CLEAR & Cool, High expected in low 60's

SAIC CREW: Wayne Stoner (WS)
Dorval Van Winkle (DVW)
John Pendleton (JP)

Meet at change house at 07:00, wayne calibrates instruments. Talk with Lt. McMullen about sampling schedule of Range J. Question concerning the actual sampling of drums need to check back with him but believe procedure still correct. PROCEDURE CORRECT.

Dorval & JP will be finishing electromagnetic survey of T-38 training area and range 24A disposal area.

ARRIVED AT T-38, chainsaw wouldn't start. Believe fuel line is leaking or clogged. Choke either allowing to much or not enough gas. Need to return to rental shop! Stop

at Range J along way to check with TEU. Just beginning sampling. TALK with Lt.s Return to rental shop to exchange. Mechanic looks at saw but can't fix. Exchange, return to site. CLEAR two sites already gridd & remeasure some at one grid. Dorval running survey on grids. Go to fourth location & begin to lay out grid pattern. Asked to leave site at 14:40 by army personel. ARRIVED AT SITE 24A AT 15:00 TO FINISH EM CONDUCTIVITY SURVEY. FINISHED CLEARING SITE & REMEASURING OF GRID PATTERN. DORVAL BEGAN EM SURVEY AT ~~4:40~~ JP 1610.

Remarks about TEU testing on 4-24-92. Collect soil samples at T-6 to test for HD. Collect surface water sediment + soil samples at T 24A

Monitor Equip: 29 APR

Minicams:

HD: monitor S/N 1361, made by CMS; calibrated with 2 ul of a 4.54 mg/ul solution HD at 0919

pH meter: P/N 301353, calibrated at 1500 with pH 7 & pH 10 ~~sto~~ solutions, rinsed with ASTM water

Breathing Space Monitor:

HD: 0935, 0.00 TWA HD ⇒ acceptable

0904 : Tailgate meeting

1120 : Took rinsate blanks (RB007)

1200 : Custody changed from David J Smith to Ryan P O'Connell for transport to Federal Express

Temp of coolant blank 8°C

1445 : notified of additional samples requirement

1600 : Custody changed from Victoria A Kost to Ryan P O'Connell for transport of 2d shipment to Federal Express

Temp of coolant blank

(54)

Talk w Chris, talk with Heather. Told that total # of of MSDS samples are to low. Talk with Vicki & she'll take MSDS & water duplicate to send to lab by Fed. Ex on 4/28/92. Samplers & Vicki leave for site at 1445. Dorval & I preparing to leave at 1500 leave site at 1520

John D. Pendleton

(55)

5/4/92

WEATHER: SUNNY, WARM ~ 65°, AND CALM.

SAIC PERSONNEL:
WAYNE STONER (WPS)

0730 WPS ARRIVES ON BASE AND WENT TO BLDG 3228. CALIB. HNU AND LEL.

HNU # 1226 PROBE #
102 PV CAMP. CALIB TO 65 PPM USING 100 PPM ISOBUTYLENE. NO ADJ.

LEL # 2486. CALIB TO 25% LEL USING 30% LEL ± 2%. NO ADJ.

0830. WPS WENT TO LANDFILL #2, WAITING ON DRILLERS. NOTE: ON THE 5/26, 5/27 & 5/28 HNU AND LEL WERE CALIB TO STANDARDS ABOVE BUT UNDER THE FOLLOWING CONDITIONS:
HNU # 1126 PROBE # 1126
CALIB TO 65 PPM @ SPAN 10.0
LOT #

Wayne P. St 5/4/92

5/5/92

WEATHER: SUNNY; COOL ~ 50°F AND BREEZY.

SAIC PERSONNEL:
WAYNE STONER (WPS)

0730 WPS ARRIVES AT BLDG 3228 AND CALIB HNU AND LEL.

HNU #1226
CALIB TO 65 PPM USING 100 PPM ISOBUTYLENE GAS. SPAN WAS NOT ADJUSTED LOT #

LEL 2486 25% LEL USING 30% LEL GAS (HEXANE). LOT #

1145 5/5/92
~~1200~~ WPS AND DRILLERS BREAKING FOR LUNCH.

1900 DRILLERS AND WPS DEPART SITE FOR THE DAY.

Wayne P. Stoner 5/5/92

5/6/92

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Wayne P. Stoner 5/5/92

(61) (60)

5/6/92

WEATHER: PARTLY SUNNY, COLD ~40°F AND WINDY.

GAIC PERSONNEL:
WAYNE STONER

0730 WPS MET DRILLERS AT LANDFILL (LF2). WPS WENT BACK TO CALIB HNU & LEL.
HNU # 1226 CALIB TO 50 PPM USING 100 PPM ISOBUTYLENE. NO SPAN ADJ
LEL # 2486 25% USING 50% LEL GAS (HEXANE). LOT #,

0815 WPS WENT BACK TO LF2. DRILLERS DECOMM

0835 TOOK H2O LEVEL AT OLF 7. H2O LEVEL IS 43.21' BTOC
STICK UP 2.53 ALS
H2O LEVEL 40.68 BLS

1250 WPS AND DRILLERS BROKE FOR LUNCH

(62)

5/6/92

1800 WPS DEPARTS SITE. DRILLERS STILL SETTING FORMS FOR WELL PADS.
1900 WPS DEPARTS BASE AFTER PREPARING HNU & LEL FOR SHIPPING.

Wayne P. Stoner 5/6/92

5/12/92

TRAVEL BACK TO MW-1, STEVE DRILLING HOLE, BREAK DOWN PUMP. TRAVEL TO DECON AT 1735.

DECON TILL 1780, TRAVEL TO MW-2. PUMP MW-2, TOTAL OF 140 GAL. PUMPED TO DATE TAKE READING.

CONDUCTIVITY 13.64
pH 6.72
TEMP 64.9

COMPLETE BREAKDOWN, LEAVE IN HOLE, STEVE TO GO & COMPLETE DRILLING OF HOLES (WEEP HOLES) 4 REMAINING OLF, 6, 7, 8, 9.
FINISHED FOR DAY, 1830

John D. Pendleton 5/12/92

5/13/92 WED.

WEATHER: VERY OVERCAST, LARGE AMOUNT OF RAIN AT LAST NIGHT. OLF SITES ALMOST UNPASSABLE.

SAIC PERSONEL: JOHN PENDLETON
ENVIRON. EXPLORATION: STEVE DESHIEL

ARRIVE ON BASE AT 0700. STEVE NOT ON SITE YET. NO WORK DONE. CALIBRATE pH METER.
TRAVEL TO OLF-6, MEASURE H_2O 65.75' AT 0740, COMPLETE BAILING AT 0805. H_2O AT 70.80' BTOC

TRAVEL TO MW-3, H_2O LEVEL AT 7.02' BTOC. PROBLEM W. PNEUMATIC PUMP, GET PUMP GOING 0830. TOTAL OF 210 GAL PUMPED TO DATE

John D. Pendleton 5/13/92

(4)

6/4/92

RETURN KEY TO BLD. 215
DRIVE TO TRICO & BUY 1/2" TUBING &
THEN TO U ELECTRICAL SERVICE &
GET ADAPTER FOR GENERATOR.

1630 RETURN TO CHANGE HOUSE. PUT
TOGETHER PUMP & ADAPTER, MC
CREATING COOLANT BLANKS.

1700 WRITING UP SAMPLE LABELS
1740 LOAD COOLERS WITH SAMPLE
BOTTLES, TOTAL OF 6
LOADED, SPEAK W WAYNE,
DRUMS NOT BEING DELIVERED
UNTIL 1200 6-5-92

1830 CHECK SHIPPING & DEPOT,
EQUIP.

John D. Pulleth 6/12/92

(5)

JUNE 5, 1992

WEATHER: PARTLY CLOUDY HIGH: in 80s.

SAIC PERSONELL JOHN PENDLETON (JP)
MARTHA CRAMER (MC)
WAYNE STONER (WS)

0730 JP, MC, WS meet at ROYAL INN
& travel to CHANGE HOUSE

0800 JP & MC prepared labels and
prepared to SAMPLE FMP003.

0830 PICKED UP 55 GAL DRUMS.

0850 ARRIVED AT BLD 1298 (MC & JP)
CALIBRATED HYDAC

0908 BEGAN PURGING WATER FROM HOSE
COND. 2.25 us/cm
pH 8.00
Temp 22.8

6/5/92

1215 LEFT 3228 and
Went to LF3 & met
JP.

1230 JP RECEIVED CALL THAT
DRUMS ARE HERE
MC & CDS GO TO BLDG. 3270
DRUMS ARE NOT THERE.
MC & WS TRAVEL TO CAHNOB
HOUSE TO GET DRUMS. JP TO
OLF-3 TO DECON

1315 DELIVERY & DROP OFF OF DRUMS

1330 DECON OF HAND PUMP, SUBMERSIBLE
PUMP, BAILERS & SAMPLING EQUIP.

1430

TRAVEL TO LF2 MW3 TO START
PURGING. H_2O LEVEL 6.70
TD. 22.38
H_2O column: 15.68
PRECALIBRATE pH METER AGAIN AT
1458.
START PUMPING AT 1506, H_2O
V. CLEAR. GRUNDFOS SUBMERSIBLE
SET TO PUMP 1.00 gal/min

6/5/92

6/5/92

Well Time	Time	pH	COND	TEMP	COMMENTS
LF2MW3	1506	6.75	1685	68	CLEAR
	1520	7.55	1242	65.1	H2O is clear
	1545	7.40	1200	65.5	" " "
	1545	7.05	1245	65.0	
	1600	6.95	1265	65.6	

PUMP ORIGINALY SET AT 15' LOWERED
TO 20' AT 1527, PUMPING COMPLETE
AT 1602. TOTAL PUMPED ~ 40 GAL.

1608 BEGAN SAMPLING
LF2 MW3

1640 FINISHED TOOK
FINAL READINGS
COND 1235
TEMP 64.5
pH 7.05

6/5/92

(36)

6/9/92

THE HOSPITAL SAID WPS 6/9/92 HE HAD A SCRATCH CORNEA.

1007 WS ~~MDSP~~ AND JP GOING TO WELL OLF 1. OLF 1 H2O LEVEL 17.36' BTOC W/ PUMP IN THE WELL.

1026 H/DAC METER WILL NOT CALIBRATE SO WE WILL HAVE TO SAMPLE W/O IT.

1028 STARTED PUMPING WELL OLF 1

1035 STOPPED PUMPING WELL OLF 1. PURGED A TOTAL OF ~90 GALS. MOVING TO WELL OLF 6 TO BAIL IT DRY.

1055 OLF 6 WELL H2O LEVEL IS 66.78' BTOC. STARTING TO BAIL THE WELL.

Wayne P. [illegible] 6/17/92

(37)

6/9/92

1000 MC SAMPLES RB008.

~1020 ~~G~~ JB ARRIVES & HELPS MC WPS 6/17/92

1045 FINISHED COLLECTING RB008.

~1145 FINISHED PURGING OLF 6. PURGED A TOTAL OF ~10 GALS, WE WILL LET IT RECOVER WPS 6/9/92 AND SAMPLE IT LATER TODAY.

1150 GOING TO WELL OLF 1 TO SAMPLE IT.

1200 STARTED SAMPLING OLF 1.

1239 FINISHED SAMPLING WELL OLF 1. TRIED TO GET PARAMETERS READING SEE PG 28. H/DAC STILL NOT WORKING

1312 MC & JP GOING TO BBG 3228. MC WILL PREP SAMPLES. JP IS GOING TO WASH HIS BYC OUT AND PUT A TARP OVER IT.

Wayne P. [illegible] 6/17/92

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WATER LEVEL MEASUREMENTS

SAIC
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Water Level Measurements

(Field Sheet)

Measurement Team: JOHN PENDLETON

Project Number and Location: 01-0827-03-0424-005 / FT McCLELLAN

Measuring Method: INTERFACE PROBE

Measuring Point: TOP OF PVC CASING (TOC)

Well No.	Date	Time	Tape Reading		Depth to Water (ft)	Remarks
			Measure Pt.	Water Level		
OLF 6	5/10/92	0802	TOC	65.98'	63.5' BLS	BLS - Below land surface
OLF 7	5/10/92	0810	TOC	43.60'	41.05' BLS	
OLF 8	5/10/92	0816	TOC	31.07'	~~28.54' BLS~~	29.05' BLS wrs 6/22/92
OLF 9	5/10/92	0753	TOC	20.83'	18.8' BLS	
OLF 10	5/10/92	0745	TOC	16.81'	14.28' BLS	
OLF 6	5/16/92	1050	TOC	66.12'	~~63.6' BLS~~	63.6' BLS wrs 6/22/92
OLF 7	↓	1110	↓	43.50'	40.45' BLS	
OLF 8		1118		29.97'	27.95' BLS	
OLF 9		1140		21.55'	18.85' BLS	
OLF 10		1026		17.69'	15.16' BLS	
LF2mw1		0932		16.72'	14.29' BLS	
LF2mw2		1209		6.51'	3.93' BLS	
LF2mw3	5/16/92	0850	TOC	7.74'	5.0' BLS	

Measuring Point: Point where measurement was taken. Top of PVC casing (TOC); Top of Protective Steel Casing (TOSC); Land Surface (LS), etc.
Depth to Water: Measurements should be recorded to the nearest 0.01 ft. (e.g., 10.06 feet below TOC).
Remarks: Any conditions that may influence the water level measurements.

Disclaimer

Data entered on this form were obtained during field activities. All entries are preliminary in nature, do not represent SAIC's final assessment, and may be subject to revision.

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Water Level Measurements

(Field Sheet)

Measurement Team: JOHN PENDLETON

Project Number and Location: 01-0827-03-0424-005 / FT McCLELLAN

Measuring Method: INTERFACE PROBE

Measuring Point: TOP OF PVC CASING (TOC)

Well No.	Date	Time	Tape Reading		Depth to Water (ft)	Remarks
			Measure Pt.	Water Level		
OLF 1	5/17/92	1551	TOC	16.94'	—	BLS - Below land surface.
OLF 2		1553		12.69'	—	
OLF 3		1541		13.27'	—	
OLF 4		1550		40.45'	—	
OLF 5		1606		32.81'	—	
~~OLF 6~~	WPS 6/22/92					
OLF 7		1600		43.37'	40.82' BLS	
OLF 8		1604		30.59'	~~28.87 BLS~~	28.87 BLS 6/22/92 WPS
OLF 9	5/17/92	1546	TOC	21.68'	18.98' BLS	

Measuring Point: Point where measurement was taken. Top of PVC casing (TOC); Top of Protective Steel Casing (TOSC); Land Surface (LS), etc.
Depth to Water: Measurements should be recorded to the nearest 0.01 ft. (e.g., 10.06 feet below TOC).
Remarks: Any conditions that may influence the water level measurements.

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Water Level Measurements

(Field Sheet)

Measurement Team: JOHN PENDLETON

Project Number and Location: 01-0827-03-0424-005 / FT. McCLELLAN

Measuring Method: INTERFACE PROBE

Measuring Point: TOP OF PVC CASING (TOC)

Well No.	Date	Time	Tape Reading		Depth to Water (ft)	Remarks
			Measure Pt.	Water Level		
OLF 1	6/4/92	1409	TOC	17.09'	—	BLS - Below land surface
OLF 2		1434		13.91'	—	
OLF 3		1337		14.05'	—	
OLF 4		1351		41.45'	—	
OLF 5		1422		33.00'	—	
OLF 6		1358		66.45	~~63.87~~ 63.9' BLS WDS 6/22/92	
OLF 7		1417		43.54'	40.99' BLS	
OLF 8		1424		31.08'	29.06' BLS	
OLF 9		1342		22.72'	20.0' BLS	
OLF 10		1329		18.58'	16.05' BLS	
LF2MW1		1449		16.78'	14.35' BLS	
LF2MW2		1443		6.95'	4.35' BLS	
LF2MW3	6/4/92	1452	TOC	7.60'	4.9' BLS	

Measuring Point: Point where measurement was taken. Top of PVC casing (TOC); Top of Protective Steel Casing (TOSC); Land Surface (LS), etc.
Depth to Water: Measurements should be recorded to the nearest 0.01 ft. (e.g., 10.06 feet below TOC).
Remarks: Any conditions that may influence the water level measurements.

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Water Level Measurements

(Field Sheet)

Measurement Team: JOHN PENDLETON

Project Number and Location: 01-0827-03-0424-005 / FT McCLELLAN

Measuring Method: INTERFACE PROBE

Measuring Point: ~~B~~ TOP OF PVC CASING (TOC)

Well No.	Date	Time	Tape Reading		Depth to Water (ft)	Remarks
			Measure Pt.	Water Level		
OLF 1	6/12/92	0836	TOC	16.23	—	BLS - Below land surface
OLF 2		0743		13.39	—	
OLF 3		0752		15.75	—	
OLF 4		0812		42.23'	—	
OLF 5		0905		33.24'	—	
OLF 6		0825		66.79'	~~64.24' BLS~~ 64.3' BLS	
OLF 7		0851		43.78'	41.23' BLS	
OLF 8		0859		31.33'	29.31' BLS	
OLF 9		0758		19.57'	16.9' BLS	
OLF 10		0732		20.23'	17.70' BLS	
LF2MW1		0937		17.22'	14.79' BLS	
LF2MW2		0958		6.32'	3.74' BLS	
LF2MW3	6/12/92	0949	TOC	7.25'	4.5' BLS	

Measuring Point: Point where measurement was taken. Top of PVC casing (TOC); Top of Protective Steel Casing (TOSC); Land Surface (LS), etc.
Depth to Water: Measurements should be recorded to the nearest 0.01 ft. (e.g., 10.06 feet below TOC).
Remarks: Any conditions that may influence the water level measurements.

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WELL DEVELOPMENT FORMS

SAIC
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Well Development Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN 01-0827-03-0424

Well Number and Location: ~~OLF~~ LF2MW1, LAND FILL #2 MONITOR WELL #1

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/11/92 15.[redacted]15' Pumping: _____ Final: _____

Total Well Depth: Initial: _____ Final: 6/11/92 0950 28.78' BTOC

Date and Time: Begin: 5/11/92 1735 Completed: 5/16/92 1000

Development: Method(s): HAND PUMP USED TO PUMP WELL 2-3 TIMES PER DAY

Total Quantity of Water Removed: 260 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°~~C~~ F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/11/92						
1735-1750	1-2 GAL/min	NR	NR	NR	V. DARK BROWN	LARGE % OF SILT REMOVED
1850-1900	1-2 GAL/min	NR	NR	NR		
5/12/92	(TOTAL PUMPED) / (TOTAL TIME)					
0842-0945	1-2 GAL/min	—	—	—	V. DARK BROWN	
1300-1320	1-2 GAL/min	—	—	—	"	
1700-1720	1-2 GAL/min	69.6	946	6.84	TANISH BROWN	H_2O BECOMING CLEARER
5/13/92						
0940-0955	1-2 GAL/min	64.2	1224	6.21	TANISH COLOR	
1420-1435	1-2 GAL/min	—	1216	6.21		
5/14/92						
1000-1020	~1 GAL/min	69.0	865	6.81	P. CLOUDY TAN COLOR	
1755-1810	1-2 GAL/min	—	924	6.69		

*gallons per minute or bailer capacity

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Well Development Form

(Field Sheet)

Project Name and Number: FT. McCLELLAN 01-0827-03-0424

Well Number and Location: LFZMW1, LAND FILL #2 MONITOR WELL #1

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION INC.

Water Levels/Time: Initial: 5/11/92 15.15' Pumping: _____ Final: _____

Total Well Depth: Initial: _____ Final: 6/11/92 0950 28.78' BTOC

Date and Time: Begin: 5/11/92 1735 Completed: 5/16/92 1000

Development: Method(s): HAND PUMP USED TO PUMP WELL 2-3 TIMES PER DAY

Total Quantity of Water Removed: 260 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°~~C~~ F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/15/92						
0750-0810	1-2 GAL/min	—	1186	6.79	P. CLOUDY	TAN TINT STILL APPARENT
1200-1230	1-2 GAL/min	—	1194	6.82	"	
5/16/92						
0930-1000	1-2 GAL/min	—	1161	6.75	CLEAR	SMALL % SUSPENDED SOLIDS

*gallons per minute or bailer capacity

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Well Development Form

(Field Sheet)

Project Name and Number: FT. MCCLELLAN 01-0827-03-0424

Well Number and Location: LF-2, LAND FILL #2 MONITOR WELL #2

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIRN. EXPLORATION

Water Levels/Time: Initial: 5/11/92 5.71' BTOC 1510 Pumping: _____ Final: _____

Total Well Depth: Initial: 5/11/92 1510 26.20' BTOC Final: 6/11/92 1140 25.22' BTOC

Date and Time: Begin: 5/11/92 1515 Completed: 5/16/92 1620

Development: Method(s): HAND PUMP USED TO PUMP WELL 2-3 TIMES/DAY. H_2O CLARITY REQUIRED PUMPING LARGE VOLUME.

Total Quantity of Water Removed: 360 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/11/92						
1515-1530	1-2 GAL/min	NR	NR	NR	V. DARK GREY	H_2O V. DARK GREY LARGE % OF GREY FINES IN SOLN.
1630-1645	1-2 GAL/min	NR	NR	NR	"	
5/12/92	(TOTAL VOLUME) (TOTAL TIME)					
~~0925~~ 0920-0935	1-2 GAL/min	—	—	—	-	
1405-1420	" "	—	1362	6.21	LT. GREY	
~~1700~~-1810 1755	" "	64.9	1364	6.72	LT. GREY	
5/13/92						
0900-0915	1-2 GAL/MIN	61.0	1331	6.83		
1445-1500	1-2 GAL/MIN	—	1221	6.71		
5/14/92						
0900-0930	1-2 GAL/min	63.0	1331	6.81	P. CLOUDY	
1530-1550	1-2 GAL/MIN	—	—	—	P. CLOUDY	
~~1835~~-1900 1850	1-2 GAL/MIN	—	1321	6.79	P. CLOUDY	

*gallons per minute or bailer capacity

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An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: FT. MC CLELLAN 01-0827-03-0424

Well Number and Location: LF-2, LAND FILL #2, MONITOR WELL #2

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIRON. EXPLORATION

Water Levels/Time: Initial: 5/11/92 1510 5.71' BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: 5/11/92 1510 26.20' BTOC Final: 6/11/92 1140 25.22' BTOC

Date and Time: Begin: 5/11/92 1515 Completed: 5/16/92 1620

Development: Method(s): HAND PUMP USED TO PUMP WELL 2-3 TIMES / DAY. H_2O CLARITY PROBLEM BECAUSE OF V. FINE GREY FORMATION

Total Quantity of Water Removed: 360 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°~~C~~ F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/15/92						
0640-0700	1-2 GAL/MIN	—	1164	6.81	P. CLOUDY LT. GREY	
0930-1000	" " "	—	—	—	" "	
1140-1150	" " "	—	—	—	" "	
5/16/92						
1210-1230	1-2 GAL/MIN	—	—	—		
1315-1335	" " "	—	860	6.78	CLEAR	
1600-1620	" " "	—	895	6.81	CLEAR	

*gallons per minute or bailer capacity

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Well Development Form
(Field Sheet)

Project Name and Number: FT. McCLELLAN 01-0827-03-0424

Well Number and Location: LF2MW3, MONITOR WELL #3, LAND FILL #2

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/11/92 1000 6.86' BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: _____ Final: 6/11/92 0900 22.43' BTOC

Date and Time: Begin: 5/11/92 1015 Completed: 5/17/92 1835

Development: Method(s): INITIAL BAIL OF WELL TO REMOVE FINE SILT AT BOTTOM. USE PNEUMATIC PUMP, REPLACE W. HAND PUMP WHEN N_2 WAS DEPLETED

Total Quantity of Water Removed: 420 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/11/92						
1080-1200	BAIL WELL (~20 GAL/100min)	—	—	—	DK. GREY (LARGE % FINES)	BAIL WELL TO REMOVE GREY FINES (WELL SERGED TO PUT SILT INTO SUSP.)
1600-~~1630~~ ~1720	PNEUMATIC PUMP (~50 GAL/80min)	—	—	—	" "	
5/12/92						
0900~1015	PNEUMATIC PUMP (~50 GAL/75min)	—	—	—	DK. GREY	
~1030-1130	PNEUMATIC PUMP	—	—	—	LT. GREY	
1130~1230	" "	—	—	—	LT. GREY	
1330-1420	" "	67.9	896	6.94	LIGHT GREY	
1645~1720	" "	69.3	994	6.71	" "	
5/13/92						
0830-0930	PNEUMATIC PUMP	—	—	—	LT. GREY	
1100-1120	" "	—	—	—	" "	
1230-1245	" "	—	1241	6.71	" "	
1410-1440	" "	—	—	—	" "	

*gallons per minute or bailer capacity

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Well Development Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN 01-0827-03-0424

Well Number and Location: LF2MW3, MONITOR WELL #3, LAND FILL #2

Development Crew: WAYNE STOWER, JOHN PENDLETON, Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/11/92 1000 6.86' BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: _____ Final: 6/11/92 0900 22.43' BTOC

Date and Time: Begin: 5/11/92 1015 Completed: 5/17/92 1835

Development: Method(s): INITIAL BAIL OF WELL TO REMOVE FINE GREY SILT AT BOTTOM OF WELL. USE PNEUMATIC PUMP, REPLACE W. HAND PUMP WHEN N_2 WAS DEPLETED.

Total Quantity of Water Removed: 420 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/14/92						
1010-1040	PNEUMATIC	—	—	—	LT. GREY	H_2O STILL CONTAINING LARGE % OF GREY FINES
1600-1630	HAND PUMP	—	—	—	" "	
1825-1845	1-2 GAL/min	—	—	—	" "	
	" " "					
5/15/92						
0840-0900	HAND PUMP 1-2 GAL/min	—	—	—	LT. GREY	
1116-1130	1-2 GAL/min	—	—	—	" "	
5/16/92						
0850~0950 ~~0930-1040~~	PNEUMATIC PUMP	—	1086	6.36	LT. GREY	
1100 - ~1215	" "					
1340 - 1415	" "	—	986	6.64	H_2O CLEAR, LAST FOOT CLOUDY	
5/17/92						
0710-1000	PNEUMATIC PUMP	—				
1530-1545	HAND PUMP	—				SMALL % OF GREY FINES STILL IN LAST FOOT
1820-1835	HAND PUMP		876 942	6.71 6.74	H_2O CLEAR	

*gallons per minute or bailer capacity

SAIC
An Employee-Owned Company

Well Development Form
(Field Sheet)

Project Name and Number: FT. MC CLELLAN 01-0827-03-0424

Well Number and Location: OLF-6, OLD LAND FILL #3

Development Crew: WAYNE STONER JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/9/92 0945 65.53' BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: 5/9/92 0945 69.76' BTOC Final: 6/8/92 1105 72.65' BTOC

Date and Time: Begin: 5/9/92 1100 Completed: 5/17/92 1810

Development: Method(s): INITIAL PUMPING OF WELL ACCOMPLISHED WITH PNEUMATIC PUMP, CONTINUED DEVELOPMENT W BOTTOM FILLING TEFLON BAILER.

Total Quantity of Water Removed: 120 gals

TOTAL VOLUME OF H_2O REMOVED FROM WELL LOW BECAUSE OF LOW VOLUME OF H_2O IN WELL. WELL BAILED 2/4 TIMES/DAY

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/9/92						
1100-1200 (DEPTH ~69')	PNEUMATIC PUMP (INTERMITTANT PUMPING, ~1-2 GAL PER HOUR)	—	—	—	DARK, THICK RED SILT W H_2O	INITIAL PUMPING AFTER SERGING PRODUCED LARGE % OF RED SILT, SMALL AMT. H_2O
1220-1230	PUMP ~2 GAL	—	—	—	"	"
1410-1430 (DEPTH ~69')	PUMP ~3 GAL	—	—	—	DARK, THICK RED SILT W H_2O	MATERIAL TO THICK FOR READING.
5/10/92						
0930-0950	PUMP ~5 GAL	—	—	—	"	"
1310-1322 (DEPTH ~69')	" " "	—	—	—	"	"
5/11/92						
0755-0820	PUMP ~5 GAL	—	—	—	—	H_2O MUCH CLEARER IN TOP FEW FEET OF COLUMN.
0940-1000	" " "	71.4	574	6.81	H_2O V. CLOUDY	
1300-1325	" " "	72.4	430	6.75	H_2O CLEAR AT TOP OF COLUMN	
1345-1355 (DEPTH ~69')	" " "	—	—	—		REMOVE PNEUMATIC PUMP

*gallons per minute or bailer capacity

SAIC
An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: FT. McCLELLAN 01-0827-03-0424

Well Number and Location: OLF-6, OLD LAND FILL #3

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/9/92 0945 65.53' BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: 5/9/92 0945 69.76' BTOC Final: 6/8/92 72.65'

Date and Time: Begin: 5/9/92 1100 Completed: 5/17/92 1810

Development: Method(s): PUMPED FOR FIRST 3 DAYS W PNEUMATIC PUMP THEN CONTINUED DEVELOPMENT WITH BOTTOM FILLING TEFLON BAILER

Total Quantity of Water Removed: 120 gals

TOTAL VOLUME OF H_2O REMOVED FROM WELL LOW BECAUSE OF LOW VOLUME OF H_2O IN WELL. WELL BAILED 2-4 TIMES / DAY

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements: Temp (°F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	Remarks (Including Sand Production)
5/12/92						
1145-1220	BAIL ~5 GAL	—	—	—	CLEAR-V. CLOUDY	H_2O CLEAR IN TOP 3-4' OF COLUMN, SILT AT BOTTOM
1605-1625	" " "	71.0	682	6.66	" "	
5/13/92						
0740-0805	BAIL ~5 GAL	—	—	—	CLEAR-V. CLOUDY	
1300-1320	" " "	—	—	—	" "	
1715-1735	" " "	—	—	—	" "	
5/14/92						
0745-0810	BAIL ~5 GAL/25 min	65.2	398	6.45	CLEAR-V. CLOUDY	H_2O CLEAR, SILT IN BOTTOM 2 FEET
1220-1240	" " /20 min	—	—	—	" "	
1700-1720	" " "					
5/15/92						
0600-0620	BAIL ~5 GAL/20 min	—	—	—	CLEAR-V. CLOUDY	TOLD THAT WE NEED TO SERGE WELL AT LEAST FEW MORE TIMES, SHOULD RECOVER AT MIN. 120 GAL
1300-1315	" " /15 "	—	—	—		
5/16/92						
1050-1100	BAIL ~5 GAL/10 min	—	—	—	SERGE WELL V. CLOUDY	
1505-1525	" " " /20 min	—				
5/17/92			662	4.36		- SERGE WELL -
0830-0900	BAIL ~5 GAL/30 min	—	—	—		
1100-1130	" " " /30 min	—	—	—		
1750-1810	" " " /20 min	—	545 491 605	6.45 6.52 6.39	CLEAR W SMALL % RED SILT	

*gallons per minute or bailer capacity

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Well Development Form

(Field Sheet)

Project Name and Number: FT. McCLELLAN 01-0827-03-0424

Well Number and Location: OLF-7, OLD LAND FILL #3

Development Crew: WAYNE STOWER, JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/6/92 0835 43.21 BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: 5/6/92 ~~43.21'~~ NOT RECORD BTOC Final: 6/7/92 0915 63.63' BTOC

Date and Time: Begin: 5/5/92 Completed: 5/9/92 0925

Development: Method(s): PNEUMATIC PUMP USED TO DEVELOP WELL. LARGE VOLUME TAKEN FROM WELL TO MEET 5X VOLUME RULE & TO CLEAN H_2O TO SATISFACTION

Total Quantity of Water Removed: 690 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements: Temp (°~~C~~ F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	Remarks (Including Sand Production)
5/5/92	PNEUMATIC PUMP USED TO REMOVE 55 GAL	—	—	—	V. DARK BROWN	NO READINGS TAKEN, H_2O VERY DARK & NEED TO REMOVE LARGE VOLUME.
5/7/92	PNEUMATIC PUMP USED TO REMOVE FIVE 55 GAL. DRUMS	—	—	—		
5/8/92 0830-0945	PNEUMATIC PUMP USED TO REMOVE 4 55 GAL DRUMS OF H_2O	—	—	—	H_2O STILL V. DARK.	
1615-1710	60 GAL/55 min	—	—	—	H_2O TANISH	
1820-1900	60 GAL/40 min	—	—	—		LARGE AMT. OF SAND (~2-3 CUPS) FOUND IN PUMP (NO SAND SEEN IN PUMP AFTER INITIAL CLEANING)

*gallons per minute or bailer capacity

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An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: FT. MCCLELLAN 01-0827-03-0424

Well Number and Location: OLF-7, OLD LAND FILL #3

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/6/92 0835 43.21' BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: NOT RECORDED Final: 6/7/92 0915 63.63' BTOC

Date and Time: Begin: 5/5/92 Completed: 5/9/92 0925

Development: Method(s): WELL PUMPED WITH PNEUMATIC PUMP, LARGE VOLUME H_2O TAKEN FROM WELL TO MEET 5 TIMES VOLUME RULE & ASSURE GOOD CLARITY.

Total Quantity of Water Removed: 690 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°~~C~~ F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/9/92						
0830-~~0835~~ 0925		(0830) 59.5	1794	6.72	CLEAR W SMALL % TAN CLOUD	NO SAND SEEN W/ PUMP.
		(0845) 59.0	1721	6.05		
		(0850) 61.2	1880	6.12	P. CLOUDY	
		(0900) 61.0	1550	6.10		
		(0910) 61.0	1600	6.10		
		(0922) 61.0	1604	6.08		

*gallons per minute or bailer capacity

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An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: FT. MC CLELLAN 01-0827-03-0424

Well Number and Location: OLF-8, OLD LAND FILL # 3

Development Crew: WAYNE STOWER, JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/8/92 1245 29.60' BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: 5/8/92 1245 44.7 BTOC Final: 6/7/92 1220 44.41' BTOC

Date and Time: Begin: 5/8/92 1445 Completed: 5/12/92 0810

Development: Method(s): HAND PUMP, WELL PUMPED A LARGE VOLUME BECAUSE H_2O WOULDN'T CLEAR-UP

Total Quantity of Water Removed: ~~320~~ 420 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/8/92						
1445-1510	~1-2 GAL/min	64.7	1772	7.52	DK. BROWN	
1545-1605	~1-2 GAL/min	62.5	1585	7.50	DK. BROWN	
1615-1618	" "	—	—	—	" "	
1625-1627	" "	62.2	488	7.52	" "	
1645-1700	" "	—	—	—	" "	
1800-1810	" "	62.4	1020	7.50	" "	
1850-1900	" "	—	—	—	—	
(PUMP SET AT ~42-43' BTOC)						
5/9/92						
0830-0845	~1-2 GAL/min	—	—	—	—	NO READINGS
0930-0945	" "	—	—	—	—	TAKEN UNTIL
1205-1213	" "	—	—	—	—	H_2O CLARITY
1310-1323	" "	—	—	—	—	BECAME BETTER
1440-1450	" "	—	—	—	—	

*gallons per minute or bailer capacity

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Well Development Form

(Field Sheet)

Project Name and Number: FT. MCCLELLAN 01-0827-03-0424

Well Number and Location: OLF-8, OLD LAND FILL #3

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIRN. EXPLORATION

Water Levels/Time: Initial: 5/8/92 1245 29.60' BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: 5/8/92 1245 44.7' BTOC Final: ~~5/12~~ 6/7/92 1220 44.41 BTOC

Date and Time: Begin: 5/8/92 1445 Completed: 5/12/92 0810

Development: Method(s): HAND PUMPED, WELL H_2O CLARITY TOOK A LONG TIME TO CLEAR-UP

Total Quantity of Water Removed: ~~320~~ 420 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/9/92						
1540-1545	1-2 GAL/MIN	—	—	—	—	NO READINGS TAKEN UNTIL H_2O CLARITY BECAME BETTER
1836-1842	" " "	—	—	—	—	
5/10/92						
0905-0913	1-2 GAL/MIN	62.40	887	6.39	P. CLOUDY	
1045-1055	" " "	65.8	786	6.71	- CLOUDY	
1200-1207	" " "	64.5	726	6.67	P. CLOUDY	
1300-1310	" " "	66.1	772	6.56	"	
1700-1710	" " "	—	—	—	"	
5/11/92						
0745-0755	1-2 GAL/MIN	61.0	605	7.52	P. CLOUDY	
1310-1325	" " "	70.5	~~665~~ 650	6.65	"	
1910-1922	" " "	65.2	675	6.64	CLEAR	
5/12/92						
0800-0810	1-2 GAL/MIN	—	—	—	CLEAR	

*gallons per minute or bailer capacity

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Well Development Form
(Field Sheet)

Project Name and Number: FT. MCCLELLAN 01-0827-03-0424

Well Number and Location: OLF-9, OLD LAND FILL #3

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIRN. EXPLORATION

Water Levels/Time: Initial: 5/7/92 1226 19.73 BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: 5/7/92 1226 32.46 BTOC Final: 6/8/92 ~~1645~~ 1350 32.67' BTOC

Date and Time: Begin: 5/7/92 1530 Completed: 5/8/92 0945

Development: Method(s): HAND PUMP USED TO DEVELOP WELL

Total Quantity of Water Removed: 240 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements: Temp (°F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	Remarks (Including Sand Production)
5/7/92						
1530 - 1810	1-2 GAL/min	(1230) 59.8	2500		V. CLOUDY	
		(1250) 60.4	2110			
		(1805) 59.2	2010			
		(1810) 59.7	2100		CLOUDY	
5/8/92		59.9	2140		P. CLOUDY	
0850-0945	1-2 GAL/min ~(0850-0915) ~(0930-0945)	(0856)	2100	6.18	P. CLOUDY	
		(0907) 61.8	2130	6.41		
		(0914) 62.1	1980	6.30		
		(0930) 62.8	1980	6.20	CLEAR	
		(0938) 63.4	1940	6.25		
		(0943) 63.3	1970	6.20		

*gallons per minute or bailer capacity

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Well Development Form

(Field Sheet)

Project Name and Number: FT. MCCLELLAN 01-0827-03-0424

Well Number and Location: OLF-10, OLD LAND FILL #3

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/8/92 1050 15.60' Pumping: _____ Final: _____

Total Well Depth: Initial: 5/8/92 1050 30.20' Final: 6/10/92 0830 30.23' BTOC

Date and Time: Begin: 5/8/92 1115 Completed: 5/17/92 ~~1840~~ 1900

Development: Method(s): WELL DEVELOPED WITH BAILER & HAND PUMP. (PNEUMATIC PUMP USED ON 17TH) SEE BELOW & ATTACHED

Total Quantity of Water Removed: 300 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/8/92 1115-1130	HAND PUMP AT RATE OF 1-2 GAL/min (20 GAL/15 min)	70.3 66.4	1600 1220	6.55 6.20	V. CLOUDY W BROWN COLOR	-SERGE WELL-
1148-1151	" "	—	—	—	V. CLOUDY	
5/9/92 1900-1935	BAIL WELL (~25 GAL/35 min)	—	—	—	V. CLOUDY	
5/10/92 1035-1100	BAIL WELL (~20 GAL/[illegible])	—	—	—	V. CLOUDY	
1745-1845	BAIL WELL (~25 GAL/60 min)	—	—	—	V. CLOUDY	
5/11/92 0800-0935	BAIL WELL (~30 GAL/90 min) INTERMITTANT BAILING	64.2	605	6.54	V. CLOUDY	

*gallons per minute or bailer capacity

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Well Development Form
(Field Sheet)

Project Name and Number: FT. McCLELLAN 01-0827-03-0424

Well Number and Location: OLF-10, OLD LAND FILL #3

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/8/92 1050 15.60' Pumping: _____ Final: _____

Total Well Depth: Initial: 5/8/92 1050 30.20' Final: 6/10/92 0830 30.23' BTOC

Date and Time: Begin: 5/8/92 1115 Completed: 5/17/92 ~~1840~~ 1900

Development: Method(s): WELL DEVELOPED W BAILER & HAND PUMP. (PNEUMATIC PUMP USED ON 17TH) SEE ATTACHED

Total Quantity of Water Removed: 300 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°~~C~~ F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/12/92						
1105-1135	HAND PUMP	67.5	862	6.60	CLOUDY	H2O BEGINS CLEAR- BECOMES CLOUDY TOWARD BOTTOM.
1230-1240	" " (~1-2 GAL/min)	—	—	—	V. CLOUDY	
1540-1555	(~1-2 GAL/min)	~~893~~ 68.6	893	6.82	V. CLOUDY	
5/13/92						
1045-1055	HAND PUMP (~1-2 GAL./min)	64.3	650	6.45	CLOUDY	
1800-1820	(~1-2 GAL/min)	—	—	—	"	
5/14/92						
0825-0840	HAND PUMP (1-2 GAL/min)	64.5	486	6.51	CLOUDY	
1145-1220	" "	—	—	—	"	
1415-1430	" "	—	—	—	"	
5/15/92						
0715-0735	HAND PUMP (1-2 GAL/min)		1212	6.80	CLOUDY	
1050-1110		—	—	—	CLOUDY	

*gallons per minute or bailer capacity

SAIC
An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: FT. MCCLELLAN 01-0827-03-0424

Well Number and Location: OLF-10, OLD LAND FILL #3

Development Crew: WAYNE STONER, JOHN PENDLETON Driller (if applicable): ENVIORN. EXPLORATION

Water Levels/Time: Initial: 5/8/92 1050 15.60' BTOC Pumping: _____ Final: _____

Total Well Depth: Initial: 5/8/92 1050 30.20' Final: 6/10/92 0830 30.23' BTOC

Date and Time: Begin: 5/8/92 1115 Completed: 5/17/92 1900

Development: Method(s): WELL DEVELOPED W. BAILER & HAND PUMP. (PNEUMATIC PUMP USED ON 17TH) SEE BELOW.

Total Quantity of Water Removed: 300 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°~~C~~ F)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
5/16/92						
1030-1040	1-2 GAL/min	—	—	—	CLOUDY	
1145-1150	" "	—	—	—	CLOUDY	
1430-1445	" "	—	1176	6.76	CLOUDY	
1545-1600	—	—	—	—	"	
5/17/92						
0800-0820	HAND PUMP 1-2 GAL/min	—	—	—	P. CLOUDY	
1040-1050	" "	—	—	—	P. CLOUDY	
1400-1430	INSTALL PNEUMATIC PUMP (LESS THAN 1 GAL/min)	—	—	—	" "	
1840-1900	PNEUMATIC PUMP.	—	692	6.46	P. CLODY	
		—	674	6.40	"	
		—	750	6.54	"	

*gallons per minute or bailer capacity

SAMPLING FORMS