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BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW112B
DATE START: 04/11/1994	DEPTH TO WATER: 3.58	LOGGED BY: KJ,DM	GROUND EL.: 7.00
DATE COMPLETED: 04/18/1994	DATE & TIME: 05/16/1994/1445	CHECKED BY:	TOTAL DEPTH: 63.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	46.5	C-25		42	42	Run 3:46.5-50ft RQD = 100%	C-25 (42in) Chlorite mica schist, similar to C-24.	
	50.0	C-26		108	108	Run 4: 50-59ft RQD = 100%	C-26 (108in) Chlorite mica schist, similar to C-25	
	59.0	C-27		48	48	Run 4: 59-63ft RQD = 100%	C-27 (48in) Chlorite mica schist, similar to C-26. EOC @ 63ft bgs. Perform packer test @ 46.3-63ft. No flow @ 20 psi(water),100psi(packer). Takes H20 (approx 2-3gal/min) @ 40psi(water), 100psi(packer) Ream hole w/6in rollerbit to 59.5ft. Backfill to 57ft. Install well. Set screen 57-47ft.	

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25&6.25in ID HSA to 10ft, a pot. conf. layer. Pull augers. Advance 10in casing to 10 ft. Telescope 8in casing & advance to 32ft. Telescope and advance 6in from 32 to 43ft. Spin&Wash technique. Cont. sampling mostly; rock @43ft. H20 @12-14'. Pot. nat. cntct. @8-10'. Screen for: Pb, Cu,PCB,Asb. Core 20'. Packer test. Set well. Screen:57-47ft.

ACAD NAME:A:\MW112B_D.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW112D
DATE START: 04/20/1994	DEPTH TO WATER: 3.90	LOGGED BY: DM	GROUND EL.: 7.00
DATE COMPLETED: 04/20/1994	DATE & TIME: 05/16/1994/1445	CHECKED BY:	TOTAL DEPTH: 42.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.0	A				Auger 10', pull & advance 10in. casing to 10ft.	SOIL AND ROCK DESCRIPTIONS FOR DEPTHS 0-42.5FT CAN BE FOUND ON BORING LOG SP-MW112B.	
	10.0	B				Telescope 6in casing. Spin & Wash to 42.5ft.		

LEGEND:

TYPE-NO. – Type of Sample
C – Rock core sample
S – Split barrel sample
BLOWS PER 6" – 140 lb. hammer falling 30" to drive a split barrel sampler; coring time per foot of rock
PEN – Penetration length of sampler
REC – Length of sample recovered
▽ – Natural groundwater table

NOTES:

MW112D REPRESENTS ONE OF THREE WELLS IN A CLUSTER. SOIL AND ROCK DESCRIPTIONS WERE RECORDED FROM THE DEEPEST BORING IN EACH CLUSTER. SEE BORING LOG SP-MW112B FOR COMPLETE SOIL AND ROCK DESCRIPTIONS.

ACAD NAME: RAYMARK\BORINGS_ALTERED\MW112D_A.DWG (8/27/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW112D
DATE START: 04/20/1994	DEPTH TO WATER: 3.90	LOGGED BY: DM	GROUND EL.: 7.00
DATE COMPLETED: 04/20/1994	DATE & TIME: 05/16/1994/1445	CHECKED BY:	TOTAL DEPTH: 42.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	16						NO RESULTS THIS PAGE	
	32							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler; coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

MW112D REPRESENTS ONE OF THREE WELLS IN A CLUSTER. SOIL AND ROCK DESCRIPTIONS WERE RECORDED FROM THE DEEPEST BORING IN EACH CLUSTER. SEE BORING LOG SP-MW112B FOR COMPLETE SOIL AND ROCK DESCRIPTIONS.

ACAD NAME: RAYMARK\BORINGS_ALTERED\MW112D_B.DWG (8/27/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW112D
DATE START: 04/20/1994	DEPTH TO WATER: 3.90	LOGGED BY: DM	GROUND EL.: 7.00
DATE COMPLETED: 04/20/1994	DATE & TIME: 05/16/1994/1445	CHECKED BY:	TOTAL DEPTH: 42.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	38.0	C				Roller bit is used and washed out.		
	42.5	D					EOB @ 42.5 ft. Set well. See well log.	

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler; coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

MW112D REPRESENTS ONE OF THREE WELLS IN A CLUSTER. SOIL AND ROCK DESCRIPTIONS WERE RECORDED FROM THE DEEPEST BORING IN EACH CLUSTER. SEE BORING LOG SP-MW112B FOR COMPLETE SOIL AND ROCK DESCRIPTIONS.

ACAD NAME: RAYMARK\BORINGS_ALTERED\MW112D_C.DWG (8/27/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW112M
DATE START: 04/19/1994	DEPTH TO WATER: 3.90	LOGGED BY: DM	GROUND EL.: 7.10
DATE COMPLETED: 04/19/1994	DATE & TIME: 05/16/1994/1445	CHECKED BY:	TOTAL DEPTH: 35.30

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.0	A				Auger 10'. Pull augers,advance 10' casing 10ft	SOIL AND ROCK DESCRIPTIONS FOR DEPTHS 0-35.3FT CAN BE FOUND ON BORING LOG SP-MW112B.	
	10.0	B				Telescope 6in casing. Spin & Wash to 35.3ft.		

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

MW112M REPRESENTS ONE OF THREE WELLS IN A CLUSTER. SOIL AND ROCK DESCRIPTIONS WERE RECORDED FROM THE DEEPEST BORING IN EACH CLUSTER. SEE BORING LOG SP-MW112B FOR COMPLETE SOIL AND ROCK DESCRIPTIONS.

ACAD NAME:A:\MW112M_A.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW112M
DATE START: 04/19/1994	DEPTH TO WATER: 3.90	LOGGED BY: DM	GROUND EL.: 7.10
DATE COMPLETED: 04/19/1994	DATE & TIME: 05/16/1994/1445	CHECKED BY:	TOTAL DEPTH: 35.30

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	16						NO RESULTS THIS PAGE	
	32							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES.

MW112M REPRESENTS ONE OF THREE WELLS IN A CLUSTER. SOIL AND ROCK DESCRIPTIONS WERE RECORDED FROM THE DEEPEST BORING IN EACH CLUSTER. SEE BORING LOG SP-MW112B FOR COMPLETE SOIL AND ROCK DESCRIPTIONS.

ACAD NAME:A:\MW112M_B.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW112M
DATE START: 04/19/1994	DEPTH TO WATER: 3.90	LOGGED BY: DM	GROUND EL.: 7.10
DATE COMPLETED: 04/19/1994	DATE & TIME: 05/16/1994/1445	CHECKED BY:	TOTAL DEPTH: 35.30

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	35.3	C					EOB @ 35.3 ft. Set well. See well log.	

LEGEND:

TYPE-NO. – Type of Sample
C – Rock core sample
S – Split barrel sample
BLOWS PER 6" – 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN – Penetration length of sampler
REC – Length of sample recovered
▽ – Natural groundwater table

NOTES:

MW112M REPRESENTS ONE OF THREE WELLS IN A CLUSTER. SOIL AND ROCK DESCRIPTIONS WERE RECORDED FROM THE DEEPEST BORING IN EACH CLUSTER. SEE BORING LOG SP-MW112B FOR COMPLETE SOIL AND ROCK DESCRIPTIONS.

ACAD NAME:A:\MW112M_C.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO:	0890	LOCATION:	STRATFORD, CT	DRILLED BY:	PENN DRILLING CO.	BORING NO:	SP-MW113B
DATE START:	04/26/1994	DEPTH TO WATER:	6.63	LOGGED BY:	KJ,JM	GROUND EL.:	7.10
DATE COMPLETED:	04/28/1994	DATE & TIME:	05/16/1994/1459	CHECKED BY:		TOTAL DEPTH:	112.50

ELEV IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.0	S-1	3 3 4 5 / 6 6 6 6	24	16	HSA to 14';pull augers, advance 8in casing 14'	S-1 (16in) silty SAND, trace gravel, root matter, leaves, twigs, brown.	SM
	2.0	S-2	6 7 5 7 / 6 6 6 6	24	24	Interval= 0204' Fill material.	S-2A (12in) silty SAND, poorly graded, brown. S-2B (12in) SILT and SAND, poorly graded, fibers, plastic pieces, consistency of a sludge-like processed waste, black.	SM
	4.0	S-3	6 9 7 8 / 6 6 6 6	24	24	Interval= 0406' Fill material.	S-3 (24in) SILT and SAND, similar to S-2B w/ green fiber laden tiles, organic matter (leaves and roots).	
	6.0	S-4	6 9 1 2 / 6 6 6 6	24	10	Interval= 0608' Fill material.	S-4 (10in) SILT and SAND, similar to S-3 w/tiles.	
	8.0	S-5	1 1 1 2 / 6 6 6 6	24	18	Interval= 0810' Fill material.	S-5 (18in) ORGANIC SILT, trace clay, trace sand, fibrous plant matter, green fiber laden tiles, gray-brown.	OL
	10.0	S-6	1 2 1 3 / 6 6 6 6	24	20	Interval= 1012' Possible nat. material.	S-6 (20in) ORGANIC SILT, similar to S-5 w/o fill.	OL
	12.0	S-7	2 2 2 2 / 6 6 6 6	24	24	Interval= 1214'	S-7 (24in) ORGANIC SILT, similar to S-6.	OL
	14.0	S-8	1 1 / 12 12	24	24	Interval= 1416' Telescope 6in casing&advance.	S-8 (24in) SILT, some clay, trace organics, root matter, reeds, dk brown to black.	OL/ML

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-14ft. Pull augers. Spin 8in casing to 29ft. Telescope 6in casing to 94ft. Perform cont. sampling 0-30ft. Advance 3in barrels w/140lb hammer. Stnd. sampling @ 33ft to 93ft. Rock likely @ 90-93ft. Cored 20ft to 112.5ft. Packer test done. Nat. mat. likely @1012ft. Set well screen 106.5 to 96.5ft. Samples screened:Pb,Cu,PCB,Asb.

ACAD NAME: RAYMARK\BORINGS_ALTERED\MW113B_A.DWG (8/27/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO:	0890	LOCATION:	STRATFORD, CT	DRILLED BY:	PENN DRILLING CO.	BORING NO:	SP-MW113B
DATE START:	04/26/1994	DEPTH TO WATER:	6.63	LOGGED BY:	KJ,JM	GROUND EL.:	7.10
DATE COMPLETED:	04/28/1994	DATE & TIME:	05/16/1994/1459	CHECKED BY:		TOTAL DEPTH:	112.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	16.0	S-9	1 1 1 1 / 6 6 6 6	24	24	Interval= 1618'	S-9 (24in) SILT, similar to S-8 w/trace gravel.	OL/ML
	18.0	S-10	1 1 1 1 / 6 6 6 6	24	24	Interval= 1820'	S-10 (24in) SILT, similar to S-8.	OL/ML
	20.0	S-11	1 1 2 3 / 6 6 6 6	24	17	Interval= 2022'	S-11 (17in) SILT, similar to S-10.	OL/ML
	22.0	S-12	1 2 2 3 / 6 6 6 6	24	24	Interval= 2224'	S-12 (24in) SILT, similar to S-11.	OL/ML
	24.0	S-13	1 1 3 3 / 6 6 6 6	24	24	Interval= 2426'	S-13 (24in) SILT, similar to S-12.	OL/ML
	26.0	S-14	1 2 3 2 / 6 6 6 6	24	24	Interval= 2628'	S-14 (24in) SILT, some clay, little sand, poorly graded.	ML
	28.0	S-15	2 2 4 6 / 6 6 6 6	24	19	Interval= 2830'	S-15 (19in) silty SAND, poorly graded, greyish black.	SM

LEGEND:

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REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-14ft. Pull augers. Spin 8in casing to 29ft. Telescope 6in casing to 94ft. Perform cont. sampling 0-30ft. Advance 3in barrels w/140lb hammer. Stnd. sampling @ 33ft to 93ft. Rock likely @ 90-93ft. Cored 20ft to 112.5ft. Packer test done. Nat. mat. likely @1012ft. Set well screen 106.5 to 96.5ft. Samples screened:Pb,Cu,PCB,Asb.

ACAD NAME:A:\MW113B_B.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW113B
DATE START: 04/26/1994	DEPTH TO WATER: 6.63	LOGGED BY: KJ,JM	GROUND EL.: 7.10
DATE COMPLETED: 04/28/1994	DATE & TIME: 05/16/1994/1459	CHECKED BY:	TOTAL DEPTH: 112.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	33.0	S-16	18 6 16 6 12 6 15 6	24	0	Interval= 3335' Stnd. sampling Grinding/Cobble	S-16 (0in) NO RECOVERY, pushed a rock.	
	38.0	S-17	12 6 10 6 12 6 20 6	24	0	Interval= 3840' Grinding/cobble	S-17 (0in) NO RECOVERY, pushed a rock.	
	43.0	S-18	16 6 20 6 35 6 33 6	24	18	Interval= 4345'	S-18 (18in) SAND, trace silt, trace gravel, poorly graded, brown.	SP

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-14ft. Pull augers. Spin 8in casing to 29ft. Telescope 6in casing to 94ft. Perform cont. sampling 0-30ft. Advance 3in barrels w/140lb hammer. Stnd. sampling @ 33ft to 93ft. Rock likely @ 90-93ft. Cored 20ft to 112.5ft. Packer test done. Nat. mat. likely @1012ft. Set well screen 106.5 to 96.5ft. Samples screened:Pb,Cu,PCB,Asb.

ACAD NAME:A:\MW113B_C.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO:	0890	LOCATION:	STRATFORD, CT	DRILLED BY:	PENN DRILLING CO.	BORING NO:	SP-MW113B
DATE START:	04/26/1994	DEPTH TO WATER:	6.63	LOGGED BY:	KJ,JM	GROUND EL.:	7.10
DATE COMPLETED:	04/28/1994	DATE & TIME:	05/16/1994/1459	CHECKED BY:		TOTAL DEPTH:	112.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	48.0	S-19	12 15 20 22 / 6 6 6 6	24	14	Interval= 4850'	S-19 (14in) SAND, trace silt, poorly graded, brown w/red-brown mottling near top of split-barrel.	SP
	53.0	S-20	17 12 26 30 / 6 6 6 6	24	24	Interval= 5355'	S-20 (24in) SAND, trace silt, poorly graded, bedding observed, brown.	SP
	58.0	S-21	12 21 25 27 / 6 6 6 6	24	12	Interval= 5860'	S-21 (12in) SAND, similar to S-20, except mottled color and no bedding visible.	SP
	63.0	S-22	10 13 15 20 / 6 6 6 6	24	20	Interval= 6365'	S-22A (12in) SILT, some sand, trace clay, poorly graded, brown to light gray.	ML
							S-22B (8in) SILT, similar to S-22A except for presence of medium sand and all gray color.	ML

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-14ft. Pull augers. Spin 8in casing to 29ft. Telescope 6in casing to 94ft. Perform cont. sampling 0-30ft. Advance 3in barrels w/140lb hammer. Stnd. sampling @ 33ft to 93ft. Rock likely @ 90-93ft. Cored 20ft to 112.5ft. Packer test done. Nat. mat. likely @1012ft. Set well screen 106.5 to 96.5ft. Samples screened:Pb,Cu,PCB,Asb.

ACAD NAME:A:\MW113B_D.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO:	0890	LOCATION:	STRATFORD, CT	DRILLED BY:	PENN DRILLING CO.	BORING NO:	SP-MW113B
DATE START:	04/26/1994	DEPTH TO WATER:	6.63	LOGGED BY:	KJ,JM	GROUND EL.:	7.10
DATE COMPLETED:	04/28/1994	DATE & TIME:	05/16/1994/1459	CHECKED BY:		TOTAL DEPTH:	112.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	63.0	S-22	10 6 13 6 15 6 20 6	24	20	Interval= 6365'	S-22A (12in) SILT, some sand, trace clay, poorly graded, brown to light gray. S-22B (8in) SILT, similar to S-22A except for presence of medium sand and all gray color.	ML ML
	68.0	S-23	25 6 70 6 87 6 100 6	24	22	Interval= 6870'	S-23A (12in) SILTY SAND, fine sand, poorly graded, brown-gray. S-23B (10in) silty sandy GRAVEL, schist rock chips brown-red.	SM GM
	73.0	S-24	17 6 28 6 39 6 51 6	24	10	Interval= 7375' Grinding/Cobble 76-78'. Loud.	S-24 (10in) silty sandy GRAVEL, poorly graded, red-brown.	GM
	78.0	S-25	8 6 8 6 6 6 8 6	24	10	Interval= 7880' 2in barrel used Grinding to 83'	S-25 (10in) SAND, trace silt, trace gravel, poorly graded, brown.	SP

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-14ft. Pull augers. Spin 8in casing to 29ft. Telescope 6in casing to 94ft. Perform cont. sampling 0-30ft. Advance 3in barrels w/140lb hammer. Stnd. sampling @ 33ft to 93ft. Rock likely @ 90-93ft. Cored 20ft to 112.5ft. Packer test done. Nat. mat. likely @1012ft. Set well screen 106.5 to 96.5ft. Samples screened:Pb,Cu,PCB,Asb.

ACAD NAME:A:\MW113B_E.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW113B
DATE START: 04/26/1994	DEPTH TO WATER: 6.63	LOGGED BY: KJ,JM	GROUND EL.: 7.10
DATE COMPLETED: 04/28/1994	DATE & TIME: 05/16/1994/1459	CHECKED BY:	TOTAL DEPTH: 112.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	83.0	S-26	25 6 35 6 37 6 50 6	24	12	Interval= 8385' 3in barrel used	S-26 (12in) SAND, trace silt, bedding visible, poorly graded, brown.	SP
	88.0	S-27	176 6 78 6 55 6 63 6	24	19	Interval= 8890' Grinding to 88' Advance casing.	S-27A (12in) sandy GRAVEL, trace silt, poorly graded, gravel/cobbles to 3in., brown. S-27B (7in) sandy GRAVEL, similar to S-27A w/ altered rock frags/chips. Cobbles to 3.5in in length.	GP
	93.0	S-28	100 6	6	0	Casing to 93'. Attempt. sample Bedrock	S-28 (0in) NO RECOVERY except few altered meta rock chips. Top of rock between 90-93ft bgs. Note: Seated 6in casing after S-28. Change water. Driller starts coring at 92.5' w/series 8 bit. Run 1 starts above last interval.	
		C-29		18	18	Run 1 C-29: 92.5'-94'	C-29 Dk. green-gray, foliated and fractured with 80° from ground surface - quartz (milky), veins 3/4-inch thick, little muscovite content.	
	94.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-14ft. Pull augers. Spin 8in casing to 29ft. Telescope 6in casing to 94ft. Perform cont. sampling 0-30ft. Advance 3in barrels w/140lb hammer. Stnd. sampling @ 33ft to 93ft. Rock likely @ 90-93ft. Cored 20ft to 112.5ft. Packer test done. Nat. mat. likely @1012ft. Set well screen 106.5 to 96.5ft. Samples screened:Pb,Cu,PCB,Asb.

ACAD NAME: RAYMARK\BORINGS_ALTERED\MW113B_F.DWG (8/27/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW113B		
DATE START: 04/26/1994	DEPTH TO WATER: 6.63	LOGGED BY: KJ,JM	GROUND EL.: 7.10		
DATE COMPLETED: 04/28/1994	DATE & TIME: 05/16/1994/1459	CHECKED BY:	TOTAL DEPTH: 112.50		

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	94.0	C-31		24	24	Run 2 = C-2A&B Tot.Time:4min+ Jam @ 2.0ft.	C-30 (24in) BEDROCK, similar to C-29 RQD=0%.	
	96.0	C-31		24	24	Run 3 = C-3A&B Tot.Time:5min Jam @ 1.8ft.	C-31 (22in) BEDROCK, similar to C-30 w/trace of red-brown staining (weathered). RQD=20%.	
	98.0	C-32		48	48	Run4=C-4AtoC-4D Tot.Time:7min Jam/Clear mat.	C-32 (48in) BEDROCK, similar to C-31, weathered rock from 100.2 to 101.0ft, soft red-brown rock. Note: Coring difficult, soft material, change bit.	
	102.0	C-33		78	78	Run5=C-5AtoC-5F Tot.Time:15min Lose H2o @ 108'	C-33A (12in) Bedrock, similar to C-32. C-33B (66in) Bedrock, white & lime-green, foliated at 80 degrees, fracture at 40 degrees to gs. High quartz vein content. Bedrock taking on water at 108ft. RQD= 84%	
	108.5	C-34		48	48	Run6=C-6AtoC-6D Tot.Time:9min Runs 1-6 = 20ft	C-34 (48in) Bedrock, similar to C-33 w/o fractures Uneven. End of corehole @ 112.5ft bgs. Performed packer tests at 94-112.5ft. At 20psi (water) and 100psi (packer), flow rate approx. 1.5gal/min. At 40psi (water), flow rate= approx. 2gal/min.	

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-14ft. Pull augers. Spin 8in casing to 29ft. Telescope 6in casing to 94ft. Perform cont. sampling 0-30ft. Advance 3in barrels w/140lb hammer. Stnd. sampling @ 33ft to 93ft. Rock likely @ 90-93ft. Cored 20ft to 112.5ft. Packer test done. Nat. mat. likely @101.2ft. Set well screen 106.5 to 96.5ft. Samples screened:Pb,Cu,PCB,Asb.

ACAD NAME: RAYMARK\BORINGS_ALTERED\MW113B_G.DWG (8/27/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW113M
DATE START: 05/02/1994	DEPTH TO WATER: 6.27	LOGGED BY: KJ	GROUND EL.: 7.10
DATE COMPLETED: 05/02/1994	DATE & TIME: 05/16/1994/1459	CHECKED BY:	TOTAL DEPTH: 38.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.0	A				4.25inID auger 5ft,pull & advance 8in cas.	NO SOIL SAMPLES COLLECTED. SEE BORING LOG SP-113B FOR SOIL DESCRIPTION INFORMATION 0-38.5FT.	
	13.5	B				8"casing,13.5' Spin&Wash.Telescope 6in,adv.		

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

MW113M REPRESENTS ONE OF TWO WELLS IN A CLUSTER. SOIL AND ROCK DESCRIPTIONS WERE RECORDED FROM THE DEEPEST BORING IN EACH CLUSTER. SEE BORING LOG SP-MW113B FOR COMPLETE SOIL AND ROCK DESCRIPTIONS.

ACAD NAME:A:\MW113M_A.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW113M
DATE START: 05/02/1994	DEPTH TO WATER: 6.27	LOGGED BY: KJ	GROUND EL.: 7.10
DATE COMPLETED: 05/02/1994	DATE & TIME: 05/16/1994/1459	CHECKED BY:	TOTAL DEPTH: 38.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	16						NO RESULTS THIS PAGE	
	32							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

MW113M REPRESENTS ONE OF TWO WELLS IN A CLUSTER. SOIL AND ROCK DESCRIPTIONS WERE RECORDED FROM THE DEEPEST BORING IN EACH CLUSTER. SEE BORING LOG SP-MW113B FOR COMPLETE SOIL AND ROCK DESCRIPTIONS.

ACAD NAME:A:\MW113M_B.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: SP-MW113M
DATE START: 05/02/1994	DEPTH TO WATER: 6.27	LOGGED BY: KJ	GROUND EL.: 7.10
DATE COMPLETED: 05/02/1994	DATE & TIME: 05/16/1994/1459	CHECKED BY:	TOTAL DEPTH: 38.50

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	38.5	C				End 6in advance	EOB @ 38.5 ft. Set well. See well log.	

LEGEND:

TYPE-NO. – Type of Sample
C – Rock core sample
S – Split barrel sample
BLOWS PER 6" – 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN – Penetration length of sampler
REC – Length of sample recovered
▽ – Natural groundwater table

NOTES:

MW113M REPRESENTS ONE OF TWO WELLS IN A CLUSTER. SOIL AND ROCK DESCRIPTIONS WERE RECORDED FROM THE DEEPEST BORING IN EACH CLUSTER. SEE BORING LOG SP-MW113B FOR COMPLETE SOIL AND ROCK DESCRIPTIONS.

ACAD NAME:A:\MW113M_C.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING	BORING NO: SP-SB1
DATE START: 04/04/1994	DEPTH TO WATER: --	LOGGED BY: KJ	GROUND EL.: 12.30
DATE COMPLETED: 04/04/1994	DATE & TIME: --/--/19--/ --	CHECKED BY:	TOTAL DEPTH: 10.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.2	S-1	30 43 29 18 / 6 6 6 3	21	21	Asphalt = 0-3in Interval= 0.2-2 Fill material.	S-1A (12in) SILTY SAND, some gravel, rock frags, asphalt pieces, gray-brown to black S-1B (9in) GRAVELLY SAND, little silt, grayish colored glue-like matter.	
	2.0	S-2	7 8 8 6 / 6 6 6 6	24	17	Interval= 0204 PID hit not sustained.	S-2 (17in) SAND, some gravel, little silt, poorly graded, metamorphic rock frags, quartz pebbles, wet, grayish-brown to black. Potential top of water. Possible fill material.	SP-SM
	4.0	S-3	6 7 4 4 / 6 6 6 6	24	24	Interval= 0406' PID hit not sustained.	S-3A (9in) SILTY SAND, some gravel, poorly graded, brown to black. Possible fill material ? S-3B (15in) PEAT, some silt, organic soil w/dry fibrous plant material, twigs, roots. Possible natural material.	SM? Pt
	6.0	S-4	7 8 5 7 / 6 6 6 6	24	6	Interval= 0608.	S-4 (6in) SAND, poorly graded, little silt, trace gravel, rock frags, twigs, brown.	SM
	8.0	S-5	7 3 3 3 / 6 6 6 6	24	24	Interval= 0810' Patched black top.	S-5A (11in) SILTY CLAYEY SAND, some gravel, organic fibers, twigs, gray-black. S-5B (13in) ORGANIC SILT, trace clay, fibrous plant material, interbeds/layers of dry peat-like material, brown to black. EOB @ 10 ft. Backfilled boring. No well installed.	SM-SC OL
	10.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-8ft. Performed continuous sampling in 2ft increments below asphalt w/3in split-barrels and 140lb hammer, 0-10ft. Screen samples for: Pb,Cu,PCB, Asbestos. Possible water table at 2-4ft. Possible natural material at 4-6ft interval. NM/NR= Not measured or recorded on log. Backfilled borehole.

ACAD NAME: RAYMARK\BORINGS_ALTERED\SP-SB1.DWG (8/25/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING	BORING NO: SP-SB2
DATE START: 04/06/1994	DEPTH TO WATER: --	LOGGED BY: KJ	GROUND EL.: 9.40
DATE COMPLETED: 04/06/1994	DATE & TIME: --/--/19--/ --	CHECKED BY:	TOTAL DEPTH: 12.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.1	S-1	7 6 17 6 23 6 8 4	22	16	Interval= 0.1-2 Asphalt=0-2in Fill material.	S-1 (16in) SILTY SAND, some gravel, poorly graded, met rock frags, concrete, asphalt, fibers, dk brown.	
	2.0	S-2	21 6 10 6 8 6 7 6	24	20	Interval= 0204' Fill material	S-2A (12in) SILTY SAND, some gravel, similar to S-1 w/ash&cinders, fibers, roots, dk brown. S-2B (8in) FILL, man-made material only, red-brown pressed fiber mats or pads.	
	4.0	S-3	4 6 17 6 24 6 31 6	24	14	Interval= 0406' Fill material	S-3A (7in) FILL, similar to S-2B. S-3B (7in) SILTY SAND, some gravel, poorly graded, met. rock frags, quartz pebble frag., brown.	
	6.0	S-4	6 6 6 6 7 6 7 6	24	0	Interval= 0608' NO RECOVERY.	S-4 (0in) NO RECOVERY, pushed large pebble.	
	8.0	S-5	5 6 4 6 3 6 4 6	24	24	Interval= 0810' Possible nat. material.	S-5 (24in) ORGANIC SILT, trace gravel, trace clay, plant fibers, twigs, rock frags., dk brown to black.	OL
	10.0	S-6	2 6 2 6 3 6 2 6	24	24	Interval= 1012' Possible nat. material.	S-6 (24in) ORGANIC SILT, trace gravel, trace clay, similar to S-5. EOB @ 12ft bgs. Backfilled boring. No well.	OL
	12.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-10ft. Performed continuous sampling in 2ft increments below asphalt w/3in split-barrels and 140lb hammer, 0-12ft. Screen samples for: Pb,Cu,PCB, Asbestos. Possible natural material at 8ft bgs. NM/NR= Not measured or recorded on log. Backfilled borehole. Patched asphalt.

ACAD NAME: RAYMARK\BORINGS_ALTERED\SP-SB2.DWG (8/25/99)

BORING LOG — BROWN & ROOT ENVIRONMENTAL

PROJECT NO:	0890	LOCATION:	STRATFORD, CT	DRILLED BY:	PENN DRILLING	BORING NO:	SP-SB3
DATE START:	04/07/1994	DEPTH TO WATER:	--	LOGGED BY:	KJ	GROUND EL.:	6.90
DATE COMPLETED:	04/07/1994	DATE & TIME:	--/--/19-- / --	CHECKED BY:		TOTAL DEPTH:	18.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.1	S-1	6 14 39 25 / 6 6 6 4	22	11	Asphalt = 0-2in Interval= 0.1-2 Fill material.	S-1 (11in) SILTY SAND, trace gravel, poorly graded met. rock frags., asphalt, brown.	
	2.0	S-2	13 14 50 / 6 6 6	18	16	Interval= 2-3.6 Fill material Hard advance.	S-2A (12in) SILTY SAND, some gravel, poorly graded rock frags., asphalt, charcoal clinkers, fiber pads, plant material, brown. S-2B (4in) FILL, man-made material, red-colored ceramic tile, wood chunks.	
	4.0	S-3	50 / 6	6	0	Interval= 4-4.5 Grinding augers Hard advance.	S-3 (0in) NO RECOVERY.	
	6.0	S-4	40 50 / 6 6 6 6	12	0	Interval= 6-7' Grinding augers Hard advance.	S-4 (0in) NO RECOVERY - pushed a cobble-sized piece of brick or slag material.	
	8.0	S-5	3 7 6 6 / 6 6 6 6	24	0	Interval= 0810' Hard advance. Augers grinding	S-5 (0in) NO RECOVERY.	
	10.0	S-6	21 50 / 6 6	12	12	Interval= 1011' Fill material. Grind/Hrd Advan	S-6 (12in) SILTY SAND, poorly graded, man-made fiber pads, large wood chunks, concrete, brick, dk brown to black. Note: Silty sand appeared smeared over fill material; resembled processed waste or sludge-like waste.	
	12.0	S-7	29 34 29 45 / 6 6 6 6	24	8	Interval= 1214' Fill material. Grind/Hrd Advan	S-7 (8in) FILL, man-made material, compressed fiber pads, wood chunks, fibers/stringers w/a smeared silty appearance, dk brown to black.	
	14.0	S-8	9 5 4 6 / 6 6 6 6	24	19	Interval= 1416' Possible nat. material.	S-8 (19in) PEAT, organic soil, fibrous and dry plant/root matter, interbeds of silt, brown.	Pt

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-16ft. Interupted attempt at cont. sampling to get through fill material. Difficult advance from surface to 14ft. Driller advanced 3in split barrels w/140lb hammer to refusal, collected sample, and augered through the fill material to the next interval. Backfilled boring. Patched blacktop.

ACAD NAME:A:\SP-SB3.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO:	0890	LOCATION:	STRATFORD, CT	DRILLED BY:	PENN DRILLING	BORING NO:	SP-SB3
DATE START:	04/07/1994	DEPTH TO WATER:	--	LOGGED BY:	KJ	GROUND EL.:	6.90
DATE COMPLETED:	04/07/1994	DATE & TIME:	--/--/19--/ --	CHECKED BY:		TOTAL DEPTH:	18.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	16.0	S-9	8 6 6 6 3 6 4 6	24	24	Interval= 1618' Possible nat. material.	S-9 (24in) PEAT, organic soil, similar to S-8.	Pt
	18.0						EOB @ 18 ft bgs. Backfilled boring. No well.	

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-16ft. Interupted attempt at cont. sampling to get through fill material. Difficult advance from surface to 14ft. Driller advanced 3in split barrels w/140lb hammer to refusal, collected sample, and augered through the fill material to the next interval. Backfilled boring. Patched blacktop.

ACAD NAME: RAYMARK\BORINGS_ALTERED\SP-SB3_B.DWG (8/25/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO:	0890	LOCATION:	STRATFORD, CT	DRILLED BY:	PENN DRILLING	BORING NO:	SP-SB4
DATE START:	04/07/1994	DEPTH TO WATER:	--	LOGGED BY:	MS	GROUND EL.:	9.50
DATE COMPLETED:	04/07/1994	DATE & TIME:	--/--/19-7 --	CHECKED BY:		TOTAL DEPTH:	14.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.1	S-1	3 9 14 17 / 6 6 6 6	24	0	Interval= 0.1-2 Asphalt 0-2in	S-1 (0in) NO RECOVERY, cobble in end of spoon.	
	2.0	S-2	6 9 14 9 / 6 6 6 6	24	5	Interval= 0204'	S-2 (5in) SILTY SAND, some gravel, well graded, brown.	SM
	4.0	S-3	15 7 6 12 / 6 6 6 6	24	12	Interval= 0406' Fill material	S-3A (0-6in) SILTY SAND, well graded, similar to S-2.	SM
							S-3B (6-12in) SANDY SILT, fibrous material, plastic-like material, dk brown.	SM
	6.0	S-4	6 6 4 4 / 6 6 6 6	24	6	Interval= 0608'	S-4 (6in) SILTY SAND, gravels to 1in, well graded, lt brown.	SM
	8.0	S-5	4 4 4 3 / 6 6 6 6	24	18	Interval= 0810' Fill material.	S-5 (18in) SANDY SILT, fibers throughout, dk brown	SM
	10.0	S-6	3 3 5 4 / 6 6 6 6	24	24	Interval= 1012' Fill material.	S-6 (24in) SANDY SILT, fibers throughout, red brick chips.	ML-SM
	12.0	S-7	3 3 4 4 / 6 6 6 6	24	24	Interval= 1214' Possible nat. material.	S-7A (0-8in) SANDY SILT, similar to S-6.	SM-ML
							S-7B (8-24in) SILT, organics (roots), black.	ML-OM
							EOB @ 14ft bgs. Backfilled boring.	
	14.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-12ft. Performed continuous sampling w/3in split-barrels and 140lb hammer to 14 ft bgs. Screen samples for: Pb,Cu,PCB,Asbestos. Possible natural material at 12-14ft interval. Backfilled boring. NM/NR= Not measured or recorded on log.

ACAD NAME: RAYMARK\BORINGS_ALTERED\SP-SB4.DWG (8/25/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING	BORING NO: SP-SB5
DATE START: 04/06/1994	DEPTH TO WATER: --	LOGGED BY: KJ	GROUND EL.: 10.30
DATE COMPLETED: 04/06/1994	DATE & TIME: --/--/19--/ --	CHECKED BY:	TOTAL DEPTH: 20.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.2	S-1	7 13 20 25 / 6 6 6 3	21	16	Interval= 0.2-2 Asphalt = 0-2in Possible fill.	S-1 (16in) SILTY SAND, some gravel, poorly graded, rock frags., brown.	
	2.0	S-2	17 31 20 32 / 6 6 6 6	24	19	Interval= 0204' Fill material.	S-2 (19in) SILTY SAND, some gravel, similar to S-1 with coal clinkers, glass, asphalt, ash&cinder, dk brown.	
	4.0	S-3	31 20 17 10 / 6 6 6 6	24	6	Interval= 0406' Possible fill.	S-3 (6in) SILTY SAND, some gravel, rock frags., dk brown.	-
	6.0	S-4	11 10 18 12 / 6 6 6 6	24	15	Interval= 0608' Fill material.	S-4A (8in) SILTY SAND, some gravel, similar to S-3 with concrete, asphalt or charcoal clinkers, rock frags. S-4B (7in) FILL, man-made material, fiber pads, glass shards, very hard red & white ceramic-like shingles, brown.	
	8.0	S-5	18 10 7 6 / 6 6 6 6	24	0	Interval= 0810' NO RECOVERY	S-5 (0in) NO RECOVERY.	
	10.0	S-6	5 5 4 5 / 6 6 6 6	24	9	Interval= 1012' Fill material.	S-6 (9in) SILTY SAND, poorly graded, black wire casings up to 10 in in length, brown.	
	12.0	S-7	4 6 6 5 / 6 6 6 6	24	22	Interval= 1214' Possible nat. material.	S-7 (22in) ORGANIC SILT, trace clay, plant fibers, interbeds of peat, brown to black.	Pt
	14.0	S-8	7 5 6 7 / 6 6 6 6	24	22	Interval= 1416' Possible nat. material.	S-8 (22in) ORGANIC SILT, trace clay, interbed of peat, plant matter, 5in thick interbed of sand and gravel.	OL

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-18ft. Performed continuous sampling w/3in split-barrels and 140lb hammer 0.25-20 ft bgs Screen samples for: Pb,Cu,PCB,Asbestos. Possible natural material at 12-14ft interval. Backfilled boring. NM/NR= Not measured or recorded on log.

ACAD NAME:A:\SP-SP5_A.DWG

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING	BORING NO: SP-SB5
DATE START: 04/06/1994	DEPTH TO WATER: --	LOGGED BY: KJ	GROUND EL.: 10.30
DATE COMPLETED: 04/06/1994	DATE & TIME: --/--/19--/ --	CHECKED BY:	TOTAL DEPTH: 20.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	SAMPLE BLOWS PER 6"	SAMPLE PEN. in.	SAMPLE REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	16.0	S-9	7 6 6 5 / 6 6 6 6	24	12	Interval= 1618' Possible nat. material.	S-9 (12in) ORGANIC SILT, trace clay, plant matter, brown.	OL
	18.0	S-10	5 7 7 4 / 6 6 6 6	24	24	Interval= 1820' Possible nat. material.	S-10 (24in) ORGANIC SILT, trace clay, fibrous plant matter, peat interbed, black to brown.	OL
							EOB @ 20 ft bgs. Backfilled boring.	
	20.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-18ft. Performed continuous sampling w/3in split-barrels and 140lb hammer 0.25-20 ft bgs Screen samples for: Pb,Cu,PCB,Asbestos. Possible natural material at 12-14ft interval. Backfilled boring. NM/NR= Not measured or recorded on log.

ACAD NAME: RAYMARK\BORINGS_ALTERED\SP-SB5_B.DWG (8/25/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING	BORING NO: SP-SB6		
DATE START: 04/06/1994	DEPTH TO WATER: --	LOGGED BY: KJ	GROUND EL.: 8.90		
DATE COMPLETED: 04/06/1994	DATE & TIME: --/--/19-/ --	CHECKED BY:	TOTAL DEPTH: 14.00		

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.1	S-1	14 10 11 7 / 6 6 6 4	22	11	Interval= 0.1-2 Fill material	S-1 (11in) SILTY SAND, some gravel, concrete, asphalt, fiber pads, leather, slag, brown.	
	2.0	S-2	7 4 4 3 / 6 6 6 6	24	18	Interval= 0204' Fill material	S-2A (7in) SILTY SAND, trace gravel, rock frags, slag, concrete, asphalt, brown. S-2B (11in) ORGANIC SILT, some sand, trace clay, roots, ash & cinders, fiber material, rock frags, brown to black.	
	4.0	S-3	10 14 7 17 / 6 6 6 6	24	6	Interval= 0406' Fill material	S-3 (6in) SILTY SAND, leather-like pieces, rock frags., ash & cinders, brown.	
	6.0	S-4	7 10 4 7 / 6 6 6 6	24	24	Interval= 0608' Fill material & Nat. contact.	S-4A (12in) SILTY SAND, trace gravel, leather-like material, glass, ash & cinders, glass, slag, sea shells, brown to black. S-4B (12in) ORGANIC SILT, trace clay, plant matter low plas., brown/black.	OL
	8.0	S-5	4 4 4 6 / 6 6 6 6	24	12	Interval= 0810' Natural mat.	S-5 (12in) ORGANIC SILT, trace clay, similar to S-4B.	OL
	10.0	S-6	7 10 4 7 / 6 6 6 6	24	15	Interval= 1012' Natural mat.	S-6 (12in) ORGANIC SILT, trace clay, similar to S-5, w/seashells.	OL
	12.0	S-7	6 4 8 6 / 6 6 6 6	24	24	Interval= 1214' Natural mat.	S-7 (24in) ORGANIC SILT, trace clay, similar to S-6. EOB @ 14ft bgs. Backfilled boring.	OL
	14.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-12ft. Performed continuous sampling w/3in split-barrels and 140lb hammer 0.25-14 ft bgs Screen samples for: Pb,Cu,PCB,Asbestos. Possible natural material at 4-6ft interval. Backfilled boring. NM/NR= Not measured or recorded on log.

ACAD NAME: RAYMARK\BORINGS_ALTERED\SP-SB6.DWG (8/25/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING	BORING NO: SP-SB7
DATE START: 05/04/1994	DEPTH TO WATER: --	LOGGED BY: KJ	GROUND EL.: 8.20
DATE COMPLETED: 05/04/1994	DATE & TIME: --/--/19--/ --	CHECKED BY:	TOTAL DEPTH: 12.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.5	S-1	10 12 13 / 6 6 6	18	12	Interval= 0.5-2 Asphlt/Othr=6in Fill material	S-1 (12in) SILTY SAND, some gravel, leather-like material or plastic, brown.	
	2.0	S-2	10 5 7 6 / 6 6 6 6	24	14	Interval= 0204' Fill material	S-2 (14in) SILTY SAND, some gravel, charcoal-like pieces, tile-like pieces, nails, dk brown.	
	4.0	S-3	5 7 6 8 / 6 6 6 6	24	22	Interval= 0406' Fill material	S-3A (11in) SILTY SAND, some gravel, similar to S-2, with seashells and like fill material, inter bed of dk brown silt (2in thick). S-3B (11in) SILTY SAND, 1-2in thick interbeds of silt, brown to black.	
	6.0	S-4	1 2 1 3 / 6 6 6 6	24	24	Interval= 0608' Possible nat. material.	S-4 (24in) ORGANIC SILT/PEAT, fibrous plant roots and interbeds of silt, trace clay, dk brown.	Pt/OL
	8.0	S-5	5 3 4 3 / 6 6 6 6	24	20	Interval= 0810' Possible nat. material.	S-5 (20in) ORGANIC SILT w/peat, similar to S-4, w/more silt than peat, trace clay.	OL
	10.0	S-6	3 3 5 7 / 6 6 6 6	24	23	Interval= 1012' Possible nat. material.	S-6 (23in) ORGANIC SILT, trace clay, trace peat, similar to S-5. EOB @ 12ft bgs. Boring backfilled.	OL
	12.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,2-10ft. Performed continuous sampling w/3in split-barrels and 140lb hammer 0.5-12 ft bgs Screen samples for: Pb,Cu,PCB,Asbestos. Possible natural material at 6-8ft interval. Backfilled boring. NM/NR= Not measured or recorded on log. Low tide, no water table indicators observed.

ACAD NAME: RAYMARK\BORINGS_ALTERED\SP-SB7.DWG (8/25/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO:	0890	LOCATION:	STRATFORD, CT	DRILLED BY:	PENN DRILLING	BORING NO:	SP-SB8
DATE START:	05/31/1994	DEPTH TO WATER:	--	LOGGED BY:	BW	GROUND EL.:	7.90
DATE COMPLETED:	05/31/1994	DATE & TIME:	--/--/19--/ --	CHECKED BY:		TOTAL DEPTH:	14.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.0	S-1	14 21 / 6 6	12	12	Interval= 0002'	S-1A (4in) ASPHALT SURFACE S-1B (8in) AGGREGATE - sand, silty sand, rock.	
	2.0	S-2	25 25 17 19 / 6 6 6 6	24	24	Interval= 0204'	S-2 SAND, various colors, pebble, rock frags.	
	4.0	S-3	13 13 34 26 / 6 6 6 6	24	24	Interval= 0406'	S-3 SAND, some gravel, poorly graded, rock frags., various colors.	
	6.0	S-4	7 10 12 6 / 6 6 6 6	24	12	Interval= 0608'	S-4 SAND, little gravel, few clay, rock frags.	
	8.0	S-5	9 5 6 7 / 6 6 6 6	24	3	Interval= 0810' Rock jammed in spoon.	S-5 CLAYEY SAND, oil-like covering, possibly start of peat layer.	
	10.0	S-6	1 3 5 2 / 6 6 6 6	24	3	Interval= 1012' Rock jammed in spoon.	S-6 Black clayey-like material with organic matter including shell fragments. Start of peat.	
	12.0	S-7	3 3 3 3 / 6 6 6 6	24	24	Interval= 1214'	S-7 SILT, organic matter (peat), brown to black. EOB @ 14ft bgs. Backfilled boring.	
	14.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25inID HSA,0-12ft. Performed continuous sampling w/3in split-barrels and 140lb hammer 0-14 ft bgs Screen samples for: Pb,Cu,PCB,Asbestos. Possible natural material at 10-12ft interval. Backfilled boring. NM/NR= Not measured or recorded on log.

ACAD NAME: RAYMARK\BORINGS_ALTERED\SP-SB8.DWG (8/25/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING	BORING NO: SP-SB9
DATE START: 05/03/1994	DEPTH TO WATER: --	LOGGED BY: BW	GROUND EL.: 8.60
DATE COMPLETED: 05/03/1994	DATE & TIME: --/--/19--/ --	CHECKED BY:	TOTAL DEPTH: 14.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	1.0	S-1	15 17 / 6 6	12	12	Interval= 1-2' Asphalt=0-4in Aggregate=4-8in	S-1 (12in) SAND, possible asbestos (reddish paper) pebbles, few rock frags.	
	2.0	S-2	17 25 69 37 / 6 6 6 6	24	24	Interval= 0204' Fill material	S-2 (24in) SAND, pebbles, brick, broken brake shoes (?).	
	4.0	S-3	7 9 11 12 / 6 6 6 6	24	12	Interval= 0406'	S-3 (12in) SAND, poorly graded, pebbles, shell material.	SP
	6.0	S-4	15 6 7 2 / 6 6 6 6	24	12	Interval= 0608' Possible nat. material	S-4 (12in) clayey SAND, poorly graded, rock frags, root-like vegetation. Possible start of peat.	SP
	8.0	S-5	5 2 3 4 / 6 6 6 6	24	10	Interval= 0810'	S-5 (10in) CLAYEY SAND, poorly graded, pebbles, minor amt of vegetation.	
	10.0	S-6	1 2 1 2 / 6 6 6 6	24	24	Interval= 1012'	S-6 (24in) Clayey-like material, gray-black with areas of red and roots. Peat layer.	Pt
	12.0	S-7	3 4 3 6 / 6 6 6 6	24	24	Interval= 1214'	S-7 (24in) Clayey-like material mixed w/roots and vegetation, peat, gray to reddish black. EOB @ 14ft bgs. Backfilled boring.	Pt
	14.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring w/4.25in ID HSA,1-12ft. Performed continuous sampling w/3in split-barrels and 140lb hammer 1-14 ft bgs Screen samples for: Pb,Cu,PCB,Asbestos. Possible natural material at 6-8ft interval. Backfilled boring. NM/NR= Not measured or recorded on log. 'Soil' column may contain process wastes which give soils a highly plastic character.

ACAD NAME: RAYMARK\BORINGS_ALTERED\SP-SB9.DWG (8/25/99)

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK			BORING NO.:	A2-SB01
PROJECT NO.:	N7491-0320			START DATE:	7-17-97
LOGGED BY:	TRACY DORGAN	TRANSCRIBED BY:	FMD	COMPLETION DATE:	7-17-97
DRILLED BY (Company/Driller):	ATL / MIKE HAWKINS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~9.5'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID ppm]
			OU3-A2-SB01-0002				0-3" = Asphalt			
0	12	1.3			Loose	Brown	3"-2" = gravelly SAND. TR. Silt, gravel is	SW	Loose, Fill.	8
	15	2.0			Med.					
	19		1115 S-1		Dense		Fine subrounded to 1." diam. SAND is f-c well graded.		Dry	
	12		-0204							
2	14	1.2							Trace Vit. clay	12
	10	2.0							Pipe or brick	
	8		1125 S-2						Dry, fill	
	2		-0406							
4	3	0.9			Very					0
	3	2.0			Loose				Black woven material @	
	3		1135 S-3						top of spoon abestos	
	4	1.55	-0608		Loose	Dark	FILL . SAND. Mostly f-m poorly graded. SAND few silt.	SP	Material below.	
6	5					Gray-br	Fine gravel largy quality of poss. Asbestos fibers.		Moist	35
	10	2.0								
	14		1145 S-4							
	1		-0810		Very Loose				Moist slightly less	18
8	1	2.0							Asbestos material	
	3	2.0								
	2		1230 S-5							
	1		-1012		Loose				In addition to loose	
10	5	1.0							asbestos one brake pad	35
	6	2.0							and gasket material	
	7		1240 S-6				brake pad + gasket material noted		noted saturated	
	1		-1214	12.3'			brake pad + gasket material noted			
12	7	0.8			Loose		peat brown fibrous vegiation debris + silt			
	4	2.0					1 piece brake pad		1 piece brake pad	85
	4		1250 S-7							
	1	1.5	-1416				asbestos material, red plastic			
14	5				Loose					
	5	2.0								
16	4		1300 S-8							

EOB @ 16'

TYPE OF DRILLING RIG:	CME-75		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4.25' I D HSA		
METHOD OF SOIL SAMPLING:	3" OD SPLIT BARREL DRIVEN WITH 300 LB HAMMER		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:	12'		
OTHER OBSERVATIONS:		BORING NO.: A2-SB01	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK			BORING NO.:	A2-SB02
PROJECT NO.:	N7491-0320			START DATE:	7-17-97
LOGGED BY:	TRACY DORGAN	TRANSCRIBED BY:	FMD	COMPLETION DATE:	7-17-97
DRILLED BY (Company/Driller):	ATL / MIKE HAWKINS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	-7.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID ppm]
0	7	1.3	OU3-A2-SB02-0002		Loose	Gray	0 - 5 = asphalt. .5-2' = SAND. mostly f-m poorly graded.	SP	Fuel oil odor @ 1' bgs cuttings	55
	12 19	1.5	0830 S-1			Dark gray	SAND. few-some fine gravel. tr. silt fill		Dry	
2	11 16	1.15	-		Loose	Light gray	SAND. mostly f-c well graded sand few fine gravel, tr. silt, trace white-grayish flat mineral or shell fragments fill.	SW	Whit-gray flat (planer) fragments maybe shell or P.A.C.M. Dry.	1000
	5 2	2.0	0840 S-2		Med. Dense					
4	1 2	2.0	-		Very	Gray	.5' = similar to S-2. .5 - 1.25' = fine SAND, poorly graded, tr. silt.		Debris inc. poss. brake pads or clutch material	450
	3 5	2.0	0850 S-3		Loose	Dark gray	1.25 -1.5' = PEAT. brown, organic rich. 1.5 - 2.0 = brake pads ? similar to ceramic or asphalt		moist damp	
6	3 5	1.8	-		Med. Dense		similar to S-3. mix of small zones (2-3" thick brown. w/fill debris). + fill. mostly sand + debris		Debris incl. cloth, metal copper wire, tile, poss. brake or clutch material and gas saturated.	7
	26 24	2.0	0910 S-							
8	7 14	1.0	-		Loose		similar to S-3 + 4. soupy due to water content. lower incl. nose of spoon contains solid wood w/nails.		Fill. (wood/nails)	35
	7 8	2.0	0930 S-		Med. Dense					
10	3 1	1.4	-	PEAT	Very Loose		.2' - similar to S-3 + 4.		Peat from 10.2	200
	1 2	2.0	0940 S-			brown	.2 - 2.0 - PEAT. brown silt, with very high organic fiber content. no fill debris in peat noted.	PT	To 12 1-piece woven cloth/sute?)	
12	2 1	2.0	-		Very Loose					0
	1 1	2.0	1000 S-7							
14	1 1	2.0	-						2 pieces metal wire in peat	56
16	1 1	2.0	1005 S-							

EOB 16'

TYPE OF DRILLING RIG:	CME-75		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4.25' I D HSA		
METHOD OF SOIL SAMPLING:	3.0" SPLIT BARREL DRIVEN WITH 300 LB. HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:	WATER @ 12' BGS MEAS. IN HSA @ 14'		
OTHER OBSERVATIONS:	P.A.C.M. = POTENTIALLY ASBESTOS CONTAINING MATERIAL	BORING NO.: A2-SB02	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A2-SB03
PROJECT NO.:	N7491-0320			START DATE:	7-18-97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	FMD	COMPLETION DATE:	7-18-97
DRILLED BY (Company/Driller):	ATL / MIKE HAWKINS			MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:	– 10.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [PID ppm]
			OU3-A2-SB03-0002				3" - Asphalt.			
0	12	1.5				Brown	3" - 2' = SAND. mostly f-c well graded sand	SW	Fill. Dry + loose	0
	14	1.5					1brake pad. Asbestos fibers noted from 1' bgs to 2'.			
	16		0740 S-1				Some fine gravel. TR. silt.			
	6		-0204							
2	9	1.7					SAND. mostly f-m poorly graded SAND.	SP	DAMD. Less asbestos	23
	9	2.0							One piece of wood.	
	6		0800 S-2				TR. fine gravel, TR. few silt. Less Asbestos than S-1.			
	3		-0406							
4	2	0.6				Brown	SAND. Mostly F-c well graded SAND.	SW	Dry-Damp.	18
	2	2.0								
	2		0810 S-3				Few little. Fine gravel TR. Asbestos.			
	4		-0608							
6	5	1.3					SAND. Similar to S-2. incld. f-coarse gravel	SP	SATURATED.	14
	19	2.0								
	10		0815 S-4							
	4		-0810							
8	7	2.0				Tan	SAND. Similar to S-3. No visable Asbestos.	SW		0
	5	2.0								
	5		0825 S-5							
	6		-1012							
10	6	1.8								
	3	2.0								
	1		0830 S-6							8 ppm
	1		-1214							
12	2	2.0		13.0'						
	1	2.0		PEAT			PEAT @ 13' brown fabric no man-made debris noted. 1			
	2		0840 S-7			Brown	piece fine rounded gravel		PEAT. No fill noted	14
	WOH		-1416							
14	WOH	2.0								
	WOH	2.0				Red				
16	1		0850 S-8			brown				36

TYPE OF DRILLING RIG:	CME-75 TRUCK MT.
METHOD OF ADVANCING BORING:	4.25' I D HSA
METHOD OF SOIL SAMPLING:	3" OD SPLIT BARREL DRIVEN WITH A 300 LB HAMMER
METHOD OF ROCK CORING:	
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	1 HR LEVEL C

BORING NO.: A2-SB03

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK		
PROJECT NO.:	N7491-0320		
LOGGED BY:	TRACY DORGAN	TRANSCRIBED BY:	FMD
DRILLED BY (Company/Driller):	ATL / PAUL MacAlloon		
GRD. SURFACE ELEVATION:	~6.50'	Elevation From:	Estimated form topo.

BORING NO.:	A2-SB04
START DATE:	8-11-97
COMPLETION DATE:	8-11-97
MON. WELL NO.:	
CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID ppm]
0.5	4 4 7 5	13" / 18"	OU3-A2-SB04-0002 1350 S-1			black lt.brn black ½ layer	S-1A = 2"-3" - Asphalt @ surface. S-1B = 8" - SAND, trace silt, trace fine rounded gravel. sand is f-m poorly graded. Fill incl. Asbestos. S-1C = SAND. mostly f-c well graded sand little – some f-c rounded gravel. black brown ½" thick organic rich layer @ contact w/S-1B. trace silt in nose	SP	moist. damp in lower 1/2. Trace asbestos in middle of sample. 1 piece white w/dark coating	56
2.5	15 19 18 17	20" / 24"	-0204 1410 S-2			brown black black black	S-2A = 3" similar to S-1C. S-2 B = 4" sandy, SILT. S-2C = 4" crushed cobble. S-2D = 9" - Poss. Asphalt shingle material or gasket.	SW	MOIST, not saturated poss. single material or gasket material.	8.5
4.5	13 15 7 5	6" / 24"	-0406 1425 S-3			black	S-3 = SAND. Mostly f-m poorly graded SAND. tr. silt. Crushed smokey quartz in nose.	SP	saturated @ 4.5'	0
6.5	5 7 5 5	14" / 24"	-0608 1430 S-4			black	S-4 = FILL. silty, SAND & FILL. trace fine subang. gravel, trace fragments.		saturated. wire on auger flights blk Tar-like substance 1.5" x1" across, tile frag. fill incl	0
8.5	10 4 2 4	2" / 24	-0810 1450 S-5			gray	Silty, SAND. mostly fine sand & silt. poor recovery.		Poor recovery	0
10.5	1 2 3 2	1.5" / 24	-1012 1500 S-6			gray brown	poor recovery		poor recovery	0 0
12.5	5 4 4 5	15 / 24	-1214 1514 S-7			black redish brown	S-7A = 5" - silty SAND & FILL debris. S-7B = 10" - SILT borderline PEAT. close to 50% org. debris (root fibers). 1 piece of rubber belt or wire in silt/PEAT, hanging out of nose.		Fill incl. Tile and metal	10.5
14.5							REFER TO NOTES			

EOB @ 14'

TYPE OF DRILLING RIG:	CME 45 SKID RIG
METHOD OF ADVANCING BORING:	4.25' I D HSA
METHOD OF SOIL SAMPLING:	3" OD SPLIT BARREL DRIVEN WITH 300 LB HAMMER
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	UPGRADE TO LEVEL C RESP. @ ~1355. FROM 0204 SPOON & 0" W/AUGERS
OTHER OBSERVATIONS:	

Note: **Attempt @ 14' finds 2.5 - 3' of slough. It seems the driller does not have a center bit or plug for the HSA. Abandon boring @ 14l backfill w/bentonite slurry.**

Tetra Tech NUS, Inc.

BORING NO.: A2-SB04

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A2-SB04A
PROJECT NO.:	N7491-0320			START DATE:	8-12-97
LOGGED BY:	TRACY DORGAN	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8-12-97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~6.5'	Elevation From:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID PPM]
0							No samples from 0-8'.		Auger to 8' before sampling refer to log for A2-SB04 for 0-8' details.	105 @ 2' above
2									grinding & chattering from ~2' – 3.5"	ground near augers & cuttings 0 in B.Z.
4										0 from cuttings
6										
8	2 2	9" / 24"	OU3-A2-SB04A-0810		Very loose	Dark brown	FILL. silty, SAND trace fine gravel. fill debris. trace plant fibers.	SM	Saturated fill includes Asbestos tile.	56
	2 5		1230 S-1				Approx. 1" of reddish-brown peat or organic rich silt In nose.			
10	2 4	17" / 24"			Loose	Red brown	S-2A = 5" Similar to S-1 S-2B = 12" - PEAT. Reddish brown Peat. Plant fibers are easily discernable. One piece green plastic found in peat.	PT	Fill similar to S-1 in S-2A Plastic noted in Peat.	405
	2 2		1245 S-2							
12	2 3	20" / 24"					S-3A = 5" – SILT. High QTY. of plant fiber but more silt than plant debris.	ML	Rubber & asbestos tile noted inside peat.	4.2
	3 3		1300 S-3				S-3B = 15" PEAT. Similar to S-2B. Asbestos tile found in PEAT. Rubber as well.	PT		
14	3 3	1" / 24"					Poor recovery, SILT similar to S-3A	ML	Asphalt shingle noted.	0.0
16	3 2		1350 S-4				1 piece asphalt shingle noted in nose.			

TYPE OF DRILLING RIG:	CME-45 SKID RIG		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4.25' I D HSA		
METHOD OF SOIL SAMPLING:	3" OD SPLIT BARREL DRIVEN WITH 300 LB HAMMER 18" DROP		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:	WATER MEAS. @ 13.2' BGS INSIDE AUGERS @ 14 BGS		
OTHER OBSERVATIONS:	LEVEL C	BORING NO.: A2-SB04A	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK			BORING NO.:	A3-SB01
PROJECT NO.:	N7491-0320			START DATE:	8-5-97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8-5-97
DRILLED BY (Company/Driller):	ATL / Mike Hawkins			MON. WELL NO.:	RAC
GRD. SURFACE ELEVATION:	~9.50'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION Root mat?	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID PID)	
	2		OU3-A3-SB01-0002				S-1a (0-6) SILT and PEAT topsoil (fibrous(org.)) nature	SM/			
	3	15/24				brown	w/some silt, trace fine sand, grass, roots, pot. asb. tiles.	PT	dry loose fill	0	0
	3						S-1b (6-15) silty SAND w/visible waste. pot. asb. tiles.				
2'	4		1403 S-1			brown	asphalt shingle material tar paper, glass, roots.	SM	dry loose fill	0	0
	3		-0204						pushed a rock. Lodged in spoon		
	3	5/24				brown	silty SAND. similar to above w/red brown fine SAND.	SM	Tip. Potential asbestos waste	0	0
	6								dry loose.		
4'	4		1415 S-								
	1		-			red	S-3 SAND- mostly fine red-brown sand no bedding no		silty sand at top of barrel		
	2	20/24				brown	visible waste some med. sand.	SP	(2 in) dry loose.	44.2	23.8
	2										
6'	2		1420 S-							12.2	0.3
	2		-			red	S-4 SAND - similar to above - mostly fine some med.				
	2	18/24				brown	sand red brown.	SP	saturated @ 14-18 inc.	0	0
	1										
8'	1		1430 S-								
	1		-0810			red	S-5a (0-10) SAND - mostly fine sand fine med. sand				
	5	20/24				brown	no bedding.	SP	saturated	0	0
	8					red					
10'	15		1435 S-			brown	S-5b (10-20) SAND f/c sand,well graded trace coarse	SW	saturated	0	1.8
	15		-1012			red	S--6a (0-8) gravelly, SAND some coarse gravel	SW	saturated	0	0
	15	20/24				brown					
	12					brown	S-6b (8-14) SAND, trace silt, trace coarse gravel tr. med sand poorly graded	SW		0	0
12'	9		1440 S-			brown	S-6c (14-20) gravel SAND similar to S-6a	SW	piece of gneiss or schist	0	0
	4		-1214				S-7 sandy GRAVEL - f/c sand, wg f/c gravel and rock		pushing a cobble at end of barrel		
	12	10/24				brown	frags. Broken, no bedding.	GW	gravel in spoon grinding	0	1.1
	26										
14	18		1550 S-								
	12		-				S-8 sandy GRAVEL similar to above coarse pieces of gravel				
	15	23/24				brown	up to 3 in. and rock frag. quartzite no bedding SR gravel	GW	saturated	0	0
	18										
16'	16		1510 S-8								

EOB 16' – 12' w/augers

TYPE OF DRILLING RIG:	CME-850 ATV TRUCK MOUNT		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4.25' I D HSA 8" OD HSA		
METHOD OF SOIL SAMPLING:	3" BARREL DRIVEN WITH 300 LB HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:	WATER IN AUGERS @ 7.70 BGS - 1540 HRS		
OTHER OBSERVATIONS:		BORING NO.: A3-SB01	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SB02
PROJECT NO.:	N7491-0320			START DATE:	8-5-97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8-5-97
DRILLED BY (Company/Driller):	ATL / Mike Hawkins			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~8.10'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID PID]	
	2		OU3-A3-SB02-0002			brown	S-1A (0-5) Silty SAND w/glass, roots, pot. asb. tiles	SM	loose dry fill	0	0
	3	19				black	S-1B - Asphalt chunks (5-11)	FILL	fill		1.7
	4						S-1C (11-19) Silty SAND w/pot. asb. tiles/pos. asphalt		pot. asb. tiles		
2'	4		1142 S-1			brown	shingles, fine coarse gravel (trace)	SM			0
	3		- 0204				S-2A (0-8) Silty SAND w/pot. asb. brake pads, tiles,		pot asb. tiles loose dry		
	3	24				brown	Twigs, glass, shingles. like material, green tiles	SM	fill	0	74.3
	3	24				brown	S-2B (8-24) silty SAND w/ pot. asb. fill, gravel asphalt		loose dry fill	0	50.2
4'	3		1200 S-2			black	chunks.	SM			
	1		-0406				S-3 SILT trace fine sand -lots of fibrous waste (man-made)		resembles soil-waste	0	272.3
	1	24				brown	pads, glass, tiles, black shiny material, degraded plastic or poly.	ML	(dry) (manufactured)		
	1	24							material.		
6'	1		1210 S-3			black					
	1		-0608				SILT, trace fine sand, numerous fibers (man-made fibrous			54.8	30.2
	1	21				black	pads black shiny material, white spaces (flaky)	ML	pot. asb. waste		
	1	24							damp only		
8'	1		1220 S-4								
			-0810			brown	S-5A -SILT trace sand, no visible waste, phragmite reeds		no waste visible	5.3	0
	1	21				black	org. fibers.	ML	damp		
	24in	24							no waste seen	6.1	0
10'			1230 S-5			brown	S-5B – PEAT, trace silt, lot org. fibers, tissue stems.	PT	damp		
	1		-1012						saturated - no	64.2	0
	1	24				black	S-6A – SILT, trace fine sand, org. fibers, stems, white specs.	ML	waste seen. org. odor		
	1								no waste seen	2.3	0
12'	1		1240 S-6			brown	S-6B - silty SAND w/org. fibers, f-m sand, reg. tissue.	SM	saturated		
	1		-1014						no waste seen	0	0
	1	20				brown	SAND - mostly fine sand tr. coarse sand, tr. org. fibers, twigs tr.	SP	saturated		
	1	24									
14'	1		1250 S-7								
	1		-1416						saturated	78.2	40.8
	1	24				brown	S-8A (0-16) SAND, mostly fine trace silt	SP	no waste		
	4									50.7	25.3
16'	5		1255 S-8			brown	S-8B (16-24) SAND f-c sand, wg, tr. silt	SW	saturated		

EOB 16' w/spoons

TYPE OF DRILLING RIG:	CME-850	BACK FILL BENT SLURRY TO 0' ON 1210 – OFF C DRILL CREW- 1230 – ON 1245	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4.25' I D HSA 8 in OD HSA		
METHOD OF SOIL SAMPLING:	3" OD SPLIT BARREL DRIVEN WITH 300 LB HAMMER		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:	WATER IN AUGERS @ 8.70 BGS 1245 HRS.		
OTHER OBSERVATIONS:	UPGRADED TO C @ 4' W/SPOONS @ 1150	BORING NO.: A3-SB02	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK	BORING NO.:	A3-SB03
PROJECT NO.:	N7491-0320	START DATE:	8-5-97
LOGGED BY:	KAYLEEN JALKUT	COMPLETION DATE:	8-5-97
DRILLED BY (Company/Driller):	ATL / Mike Hawkins	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:	~ 3.5'	CHECKED BY:	THD

TRANSCRIBED BY: FMD

ELEVATION FROM: Estimated from topo.

DEPTH (FEET)	BLOWS PER 6"	SAMPR EC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID PID]	
	WOH	9 / 24	OU3-A3-SB03-0002			Brown	S-1A - (0-8in.) PEAT. decaying veg. tissue, fibrous twigs.	PT	saturated	0	20
2'	WOH		0925 S-1			Brown	S-1B (8-9) PEAT, tr. silt, twigs, organic fibers	PT	saturated	0	0
	WOH	3 / 24	-0204			Brown	PEAT, some silt, twigs, organic fibers, tissue	PT	saturated	0	
4'	WOH		0930 S-								
	WOH	13	-0406			Brown	S-3A (0-6) PEAT some silt, twigs, fibers	PT	saturated	0	8.6
6'	WOH		0940 S-			Brown	S-3B (6-13) SILT, organic fibers reeds, twigs, TR fine sand	ML	saturated	0	
	WOH WOH	24 / 24	-0608			Black	S-4A- org. SILT - Soupy w/fibers (0-4in) S-4B (4-12 in.) Sandy SILT w/org. fibers.	OL SM	saturated saturated	0 0	
8'	1/12"		0945 S-			Brown Brown	S-4C (12-24) Silty f-m SAND w/few organic fibers.	SP SM	saturated	0	9.6
	1 2	13 / 24	-								
10'	2 1		0950 S-			Gray Brown	SAND, TR. silt, TR org. fibers, mostly f-m sand TR. coarse sand, no structure.	SP	saturated, loose	0	7.4
	2 3	24 / 24	-			Gray Brown	SAND, mostly f-m tr. coarse tr. SR. gravel up to 3 in. (2 pieces.)	SP	1x3 in. interial fine sand at base	0	
12'	4 2		1000 S-								
							EOB @ 12' w/augers & barreal running sands backfill w/bent slurry.				

TYPE OF DRILLING RIG:	CME-850 ATV RIG W/TRUCK
METHOD OF ADVANCING BORING:	4.25' I D HSA 8 IN OD HSA
METHOD OF SOIL SAMPLING:	300 LB HYDRAULIC HAMMER 3 IN BARREL 18 IN DROP
METHOD OF ROCK CORING:	
GROUNDWATER LEVELS:	WATER IN AUGERS - 0.75' BGS RUNNING SAND @ 12' ATTEMPTED 0062 2X "2-NO RECOVERIES"
OTHER OBSERVATIONS:	0204 2X 1 NO

Tetra Tech NUS, Inc.

BORING NO.: A3-SB03

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD01
PROJECT NO.:	N7491-0320			START DATE:	8-7-97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8-7-97
DRILLED BY (Company/Driller):	ATL / Mark Childs			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~ <0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP R EC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	WOR	0 / 2.0'	OU3-A3-SD01-0002				NO RECOVERY		too wet & too soft.	
2			1400 S-1							
2	1 / 1	0.3 / 2.0'	-	SAND some silt	very loose	black	fine to coarse SAND. some silt. trace f subangular gravel, trace organic material - piece of small metal.	SP	very wet	2.0 ppm
4	1 / 1		1420 S-							
4	1 / 1	0.7 / 2.0'	-		very loose	black	0.3 - top - black fine to coarse SAND.	SP	sulfide odor	9.0 ppm
6	1 / 4		1430 S-	PEAT		brown	0.4 (bottom) – PEAT	PT	drier than above	
6	WOH	2.0	-		very loose	brown	PEAT	PT	sulfide odor present	39 ppm
8			1440 S-							
8	WOH / WOH	1.7	-		very loose	brown	0.7 - PEAT (top)	PT	placed w/ above	9.0 ppm
10	WOH / 1		1500 S-	Silt And Sand		gray	brownish gray SILT and fine SAND trace organic material	OL	same	
10	8 / 8	2.0	-		med dense	gray	0.8 (top) same as above	OL	same	9.0 ppm
12	12 / 19		1520 S-	f/c SAND		brown	2' fine to coarse SAND, some fine to coarse gravel	SW	gravelly sand	
12	11 / 17	.75 / 2.0	-		dense	brown	Grayish brown fine coarse SAND, some (10-20%) fine subrounded gravel , trace organic material.	SW		0.5 ppm
14	17 / 13		1550 S-							
							Continued on second page.			

TYPE OF DRILLING RIG:	CME-45B SKID RIG ON BARGE		*Tetra Tech NUS, Inc.*
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2 IN SPLIT SPOON / 140 LB HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD01	PAGE: 1 OF 2

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK			BORING NO.:	A3-SD01
PROJECT NO.:	N7491-0320			START DATE:	8-7-97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8-7-97
DRILLED BY (Company/Driller):	ATL / Mark Childs			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~ <0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
14	20 8	1.0	OU3-A3-SD01-1416		med. dense	brown	same as above	SW		15 ppm
16	10 13	2.0	1600 S-							
16	18 12	1.0	-		med. dense	grayish brown	same as above, w/ trace silt, no organic material.	SW		7.0 ppm
18	12 11	2.0	1625 S-							
18	10 8	1.1	-		med. dense	gray	brownish gray fine to medium SAND, trace silt, trace fine rounded gravel.	SW		0.5 ppm
20	8 14		1650 S-							

TYPE OF DRILLING RIG:	CME-45B SKID RIG ON BARGE
METHOD OF ADVANCING BORING:	DRIVE AND WASH
METHOD OF SOIL SAMPLING:	2 IN SPLIT SPOON / 140 LB HAMMER
METHOD OF ROCK CORING:	
GROUNDWATER LEVELS:	

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD02
PROJECT NO.:	N7491-0320			START DATE:	8-7-97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8-7-97
DRILLED BY (Company/Driller):	ATL / Mark Childs			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~ <0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	WOR	0.35	OU3-A3-SD02-0002		very loose	black grayish	fine to medium SAND, some (10-20%) silt some (10-20%) organic material, possible piece of gasket	SM	Sulfide odor	20 ppm
2		2.0	0845 S-1				or shingle material.			
2	1 2	1.6	-0204	SILT	loose	black	top .8 f/m sand some silt, possible asbestos fibers	SM		270 ppm
4	2 2	2.0	0855 S-2			gray	bottom .8 gray SILT some (10-20%) organic material trace fine sand, trace fine rounded gravel.	OL		.5 ppm
4	2 1	1.1	-0406		very loose	black grayish	black fine to medium SAND, and SILT,	SM	Sand and silt are sand on top silt on	160 ppm
6	1 2	2.0	0910 S-3				possible asbestos fiber, trace organic material			
6	1 2	0.9	-0608		loose	black	black silty SAND, (fine to med.) trace organic material (top half of spoon mostly sand bottom - silt.	SM	Condition same not Slough on top.	180 ppm
8	2 1		0920 S-4				not slough, however			
8	5 6	1.2	-0810		med dense	brown	fine to coarse SAND, some silt, some fine subrounded gravel.	SW		5 ppm
10	5 5	2.0	0940 S-5							
10	10 13	0.15	-1012		med dense	brown	grayish brown silty SAND (fine to coarse).	SW		0 ppm
12	14 13		1005 S-6							
12	6 10	1.2	-1014		med dense	gray	brownish gray fine to coarse SAND, trace silt.	SP	Very small amount of coarse particles	0 ppm
14	12 9		1035 S-7							

TYPE OF DRILLING RIG:	CME-45B, SKID RIG ON BARGE
METHOD OF ADVANCING BORING:	DRIVE AND WASH
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON WITH 140 LB HAMMER
METHOD OF ROCK CORING:	
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: A3-SD02

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD02
PROJECT NO.:	N7491-0320			START DATE:	8-7-97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8-7-97
DRILLED BY (Company/Driller):	ATL / Mark Childs			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~ <0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
14	4 7	1.35	OU3-A3-SD02-1416		Med. Dense	gray	Same As Above (as 1214)	SP	Very small amount of coarse particles	0 ppm
16	7 10	2.0	1100 S-8							
16	7 4	1.7	-1618		Loose	gray	Same As Above with trace fine rounded gravel	SP		0 ppm
18	4 6	2.0	1130 S-9							
18	5 5	1.8	-1820		Med. Dense	brown	Same As Above grayish brown	SP		0 ppm
20	6 6	2.0	1200 S-10							

TYPE OF DRILLING RIG:	CME-45B, SKID RIG ON BARGE		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON WITH 140 LB HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD02	PAGE: 2 OF 2

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK			BORING NO.:	A3-SD03
PROJECT NO.:	N7491-0320			START DATE:	8/6/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8/6/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	W.O.R.	0.4	OU3-A3-SD03-0002		Very Loose	BL	Black fine SAND and SILT (silty sand)	SM	Slight sulfide odor	2.5 ppm
2	↓	2.0	1330 S-1						Sample is wet	
2	W.O.R.	0	-0204				No Recovery		Soil appears to be to loose and wet to collect sample	
4	↓	2.0	1340 S-2							
4	W.O.R.	0.10	-0406		Very Loose		Same as (S-1) - 0002	SM	Slight sulfide odor; sample is wet and soft	7.5 ppm
6	↓	2.0	1355 S-3							
6	W.O.R.	0	-0608				No Recovery			
8	↓	2.0	1430 S-4							
8	W.O.R.	.35	-0810		Very Loose	GR	Brownish gray, sandy SILT, some organic material	OL	Slight sulfide odor and wet	7.9 ppm
10	↓	2.0	1445 S-5						↓	
10	3 1	0.9	-1012		Loose	BR	Grayish brown. Fine to medium SAND, some (10-20%) silt, trace organic material	SP	Moist	15 ppm
12	3 3	2.0	1455 S-6							
12	4 3	0.85	-1214		Loose	GR	Brownish, gray Fine to medium SAND, trace silt, trace fine rounded gravel	SP		2.0
14	2 3	2.0	1515 S-7							
							Continued on second page			

TYPE OF DRILLING RIG:	CME-45B ON BARGE		*Tetra Tech NUS, Inc.*
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2 IN SPLIT SPOON / 140 OB HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD03	PAGE: 1 OF 2

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD03
PROJECT NO.:	N7491-0320			START DATE:	8/6/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8/6/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
14	3 4	1.05	OU3-A3-SD03-1416		Loose	GR	Brownish gray or fine to coarse SAND, trace fine rounded gravel, trace silt	SP		0 ppm
16	4 4	2.0	1535 S-8							
16	3 4	0.8	-1618		Loose	GR	Same As Above	SP	Slight sulfide odor	2.5 ppm
18	4 4	2.0	1600 S-9							
18	6 4	0.9	-1820		Loose	GR	Gray fine to coarse SAND, some silt (10-20%), trace fine rounded gravel	SP		1.5 ppm
20	2 4	2.0	1625 S-10							

TYPE OF DRILLING RIG:	CME-45B ON BARGE		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2 IN SPLIT SPOON / 140 OB HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD03	PAGE: 2 OF 2

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD04
PROJECT NO.:	N7491-0320			START DATE:	8/5/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	8/6/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	– <0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	W.O.R.	0	OU3-A3-SD04-0002				No Recovery		To soft and wet to collect	
2		2.0	1545 S-							
2	W.O.R.	1.15	-0204		Very Loose	BR	PEAT	PT	WOR - weight of rod sulfide odor, sample is wet	7.5 ppm
4		2.0	1555 S-							
4	W.O.R.	.5	-0406		Very Loose	BR	PEAT	PT	Sample is wet, sulfide odor	0 ppm
6		2.0	1610 S-							
6	W.O.R.	.25	-0608		Very Loose	BR	PEAT	PT	Sample is very wet	0 ppm
8		2.0	1620 S-							
8	W.O.R.	1.3	-0810		Very Loose	BR	PEAT	PT	Sample is wet	1.5 ppm
10		2.0	1630 S-							
10	1 1	1.5	-		Very Loose	BR	Top (.9') of spoon PEAT, trace fine subrounded gravel throughout spoon	PT	Added top portion of spoon spoon to 0810 sample bowl	3.5 ppm
12	1 5	2.0	1635 S-				bottom (.6' of spoon) - grayish brown SILT, trace fine sand, trace organic	OL		
12	8 12	0.9	-		Med. Dense	BR	Grayish brown fine to coarse SAND, some fine subrounded gravel, trace silt	SW		7.0 ppm
14	12 16	2.0	1655 S-							

TYPE OF DRILLING RIG:	CME-45 ON BARGE
METHOD OF ADVANCING BORING:	DRIVE AND WASH
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON
METHOD OF ROCK CORING:	140 LB HAMMER
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: A3-SD04

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD04
PROJECT NO.:	N7491-0320			START DATE:	8/5/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	8/6/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~ <0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID]
14	8 10	1.2	OU3-A3-SD04-1416 1715		Med. Dense	BR	Same As Above	SW	Sulfide odor	12.5
16	12 22	2.0	1715 S-							
16	28 18	0.8	-1618 8/6/97		Med. Dense	BR	Grayish brown, fine to coarse SAND, some fine rounded gravel, trace silt	SW		5.0 ppm
18	10 5	2.0	0950 S-							
18	10 12	1.05	-		Med. Dense	BR	Grayish brown, fine to coarse SAND, some fine rounded gravel (10-20%), some silt (10-20%)			
20	12 15	2.0	1015 S-							

TYPE OF DRILLING RIG:	CME-45 ON BARGE		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON / 140 LB. HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD04	PAGE: 2 OF 2

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD05
PROJECT NO.:	N7491-0320			START DATE:	8/5/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	8/5/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~ <0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	1 1	0.1	OU3-A3-SD05-0002		Very Loose	gray	Dark gray SILT, some organic materials		Slight sulfide odor	0 ppm
2	1 1	2.0	1130 S-							
2	W.O.H.	0.0	-0204		Very Loose		No Recovery			
4		2.0	1140 S-							
4	W.O.H. 1	1.45	-		Very Loose	BR	PEAT	PT	Strong sulfide odor	32 ppm
6	2 2	2.0	1152 S-3							
6	W.O.R. 1	0.5	-0608		Very Loose	BR	Grayish brown SILT, some organic material, trace fine subrounded gravel	OL		10 ppm
8	1 1	2.0	1210 S-							
8	1 1	.95	-0810		Very Loose	BR	PEAT, small piece of plastic wrapper	PT		10 ppm
10	W.O.H. 1	2.0	1225 S-							
10	W.O.H. W.O.H.	1.4	-1012		Very Loose	BR	PEAT, piece of plastic wrapper	PT		0 ppm
12	W.O.H. W.O.H.	2.0	1235 S-							
12	W.O.H. 1	2.0	-1214		Very Loose	BR	Grayish brown SILT and fine SAND, trace organic material	SM	Slight organic odor	0 ppm
14	2 2	2.0	1250 S-							

TYPE OF DRILLING RIG:	CME 45 B ON BARGE		*Tetra Tech NUS, Inc.*
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON / 140 LB. HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD05	PAGE: 1 OF 2

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK			BORING NO.:	A3-SD05
PROJECT NO.:	N7491-0320			START DATE:	8/5/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	8/5/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~ <0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = (FID)
14	2 2	1.2	OU3-A3-SD05-1416 1315		Loose	BR	Grayish brown fine to medium SAND, some (10-20%) trace fine subrounded gravel	SP		0 ppm
16	2 2	2.0	1315 S-							
16	11 5	1.1	-1618		Loose	BR	Grayish brown fine to medium SAND, trace fine rounded gravel, trace silt	SP		0 ppm
18	3 3	2.0	1345 S-							
18	7 4	1.5	-		Loose	GR	Brownish gray fine to medium SAND, some silt, trace clay, trace fine subrounded gravel	SM		0 ppm
20	3 8	2.0	1410 S-							

TYPE OF DRILLING RIG:	CME 45 B ON BARGE		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON / 140 LB. HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD05	PAGE: 2 OF 2

BORING LOG FOR: RAYMARK – OU3- FERRY CREEK
PROJECT NO.: N7491-0320
LOGGED BY: TRACY DORGAN
DRILLED BY (Company/Driller): ATL / MARK CHILDS
GRD. SURFACE ELEVATION: ~4.0'

TRANSCRIBED BY: MES
ELEVATION FROM: Estimated from topo.

BORING NO.: A3-SD06
START DATE: 8/13/97
COMPLETION DATE: 8/13/97
MON. WELL NO.:
CHECKED BY: THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	W.O.H.	2"	OU3-A3-SD06-0002		Very Loose	brown	sandy, SILT. sands are fine, phragmites, fiber and roots	SM	Poor recovery due to phrag. roots damp, wet	0.3
	1									
	1									
	1	24"	0835 S-							
2	2	4"	-			brown	SAND, some -little. silt. sand is fine to medium. poorly graded. pet. odor and sheen.	SP	Saturated	25.0
	1									
	1					dark gray	trace roots		Petroleum odor and sheen	
	1	24"	0840 S-							
4	1	8"	-0406	4'3"		dark gray brown	S-3A = 3" similar to S-2	SP	Saturated	
	1									
	1						S-3B = 5" SILT, tr. fine. sand, some plant fibers and roots (very fine)	ML	Pet. odor	7.5
	1	24"	0848 S-							
6	W.O.H.	24	-				PEAT	PT	Fiber peat. No visible asbestos or debris	10.2
	W.O.H.									
		24"	0900 S-							
8	W.O.H.	22"	-							12.0
	W.O.H.									
	1									
		24"	0910 S-							
10	W.O.H.	20"	-1012							28.0
	W.O.H.									
	W.O.H.									
	1	24"	0920 S-							
12	W.O.H.	24"	-			dark brown	SILT. mostly silt, some organic debris, grading from peat to silt (from top to bottom)	ML	Grading out of peat to silt	0.0
	W.O.H.									
	1									
	1	24"	0930 S-7							
14	W.O.H.	24"	-				decreasing organic debris			1.2
	W.O.H.					gray				
	1						very fine vegetation, debris at bottom one piece fine, gravel in silt			
	1	24"	0945 S-							

TYPE OF DRILLING RIG: 45C SKID RIG
METHOD OF ADVANCING BORING: D&W 4 in. casing
METHOD OF SOIL SAMPLING: 2 in. split barrel / 140 lb. hammer
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: A3-SD06

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK		
PROJECT NO.:	N7491-0320		
LOGGED BY:	TRACY DORGAN	TRANSCRIBED BY:	MES
DRILLED BY (Company/Driller):	ATL / MARK CHILDS		
GRD. SURFACE ELEVATION:	~4.0'	ELEVATION FROM:	Estimated from topo.

BORING NO.:	A3-SD06
START DATE:	8/13/97
COMPLETION DATE:	8/13/97
MON. WELL NO.:	
CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
16	W.O.H. 1	24"	OU3-A3-SD06-1618			gray	SILT, tr. fine sand similar to S-8		Trace wood debris no structure noted	7.0
	1 1	24"	1003 S-							
18	W.O.H. 1	24"	-1820				Sand seam at 18' 10' ½" thick			3.0
	1 1	24	1015 S-							
20							EOB @ 20' bgs			

EOB at 20ft. BGS.

TYPE OF DRILLING RIG:	45C SKID RIG
METHOD OF ADVANCING BORING:	D&W 4 in. casing
METHOD OF SOIL SAMPLING:	2 in. split barrel / 140 lb. Hammer
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK		
PROJECT NO.:	N7491-0320		
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES
DRILLED BY (Company/Driller):	ATL / MARK CHILDS		
GRD. SURFACE ELEVATION:	~0.5'	ELEVATION FROM:	Estimated form topo.

BORING NO.:	A3-SD07
START DATE:	7/31/97
COMPLETION DATE:	7/31/97
MON. WELL NO.:	
CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	W.O.H.	1.5	OU3-A3-SD07-0002		Very Loose	GR	Brownish gray SILT, little organic material, trace fine subrounded gravel, trace fine sand.	OL	Sulfide odor	1.5 ppm
2		2.0	1015 S-							
2	W.O.H.	2.0	-		Very Loose	GR	Same As Above	OL		5.5 ppm
4		2.0	1030 S-							
4	W.O.H. 1	2.0	-		Very Loose	GR	- No fine gravel	OL		5.0 ppm
6	2 2	2.0	1045 S-							
6	W.O.H. W.O.H.	1.75	-		Very Loose	GR	Same As Above - no fine gravel	OL		0 ppm
8	1 3	2.0	1100 S-							
8	3 5	0.85	-		Loose	GR	Brownish gray f/m SAND and SILT, trace rounded fine gravel	SM	Sulfide odor	0 ppm
10	4 3	2.0	1120 S-							
10	3 3	0.55	-		Loose	BR	Grayish brown f/c SAND, some silt, little fine rounded gravel	SM		0 ppm
12	6 5		1140 S-6							
12	20 10	0.9	-		Med. Dense	BR	Fine SAND, little silt (trace amount med to coarse sand) Coarse size (1"-1.25")	SP		0 ppm
14	6 4	2.0	1205 S-				Piece of quartz gravel			

TYPE OF DRILLING RIG:	CME 45B SKID RIG ON FLOATING BARGE
METHOD OF ADVANCING BORING:	DRIVE AND WASH
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON / 140 LB. HAMMER
METHOD OF ROCK CORING:	
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: A3-SD07

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD07
PROJECT NO.:	N7491-0320			START DATE:	7/31/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	7/31/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~0.5'	ELEVATION FROM:	Estimated form topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
14	15 23	1.05	OU3-A3-SD07-1416		Very Dense	BR	Fine to coarse SAND, little fine subrounded gravel, trace silt	SW	Possible piece of gravel was ahead of spoon for last portion of hammering	0 ppm
16	28 30	2.0	1230 S-8							
16	15 12	0.95	-1618		Dense	BR	Same As Above	SW		0 ppm
18	20 24	2.0	1305 S-9							
18	30 18	1.2	-1820		Med. Dense	BR	Fine to coarse SAND, some fine subrounded gravel, trace silt	SW		0 ppm
20	20 18	2.0	1335 S-							

TYPE OF DRILLING RIG:	CME 45B SKID RIG ON FLOATING BARGE
METHOD OF ADVANCING BORING:	DRIVE AND WASH
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON / 140 LB. HAMMER
METHOD OF ROCK CORING:	
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD08
PROJECT NO.:	N7491-0320			START DATE:	7/21/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	7/21/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~ <0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	Weight	1.3	OU3-A3-SD08-0002		Very Loose	GR	Brownish gray SILT, little organic material, trace fine sand, wet cigarette filter in sample	OL	Sulfide smell light (50%?)	0 ppm
2	of hammer	2.0	1745 S-1							
2	1 / 1	0.3	-0204		Very Loose	GR	Brownish gray SILT, trace organic material	ML	Sulfide smell	12 ppm
4	1 / 1	2.0	0750 S-							
4	W.O.H. / W.O.H.	1.4	-0406		Very Loose	GR	SILT, trace organic material, trace fine sand	ML	Slight sulfide smell	6 ppm
6	1 / 1	2.0	0810 S-							
6	W.O.H. / W.O.H.	1.0	-0608		Very Loose	GR	Same as above, with one piece of fine subrounded gravel, Trace organic material (wood)	ML		1.2 ppm
8	1 / 2	2.0	0835 S-							
8	1 / 1	1.8	-0810		Very Loose	GR	Same as above, to 9.0 ft. (9'-10') fine to medium SAND and SILT, reddish organic material (wood, bark) at	ML		0 ppm
10	2 / 2	2.0	0900 S-				9.4' (more sand than silt at 9.8-10.0)			
10	3 / 2	1.8	-1012		Loose	GR	Brownish fine to medium SAND, some silt, 11.5 to 12.0' fine sand and silt gradiation	ML		0 ppm
12	4 / 6	2.0	0945 S-							
12	5 / 8	1.3	-1214		Med. Dense	GR	Light gray clayey SILT f/m sand dense from 13.5-13.8	ML		0 ppm
14	9 / 14	2.0	1035 S-							

TYPE OF DRILLING RIG:	CME 45B ON BARGE		*Tetra Tech NUS, Inc.*
METHOD OF ADVANCING BORING:	DRIVE AND WASH CASING		
METHOD OF SOIL SAMPLING:	2" S.S. / 140 LB. HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:	DRILLING BELOW WATER TABLE OF FERRY CREEK WHICH IS INFLUENCED BY TIDE		
OTHER OBSERVATIONS:		BORING NO.: AS-SD08	PAGE: 1 OF 2

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD08
PROJECT NO.:	N7491-0320			START DATE:	7/21/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	7/21/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~ <0.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID]
14	3 4	1.1	OU3-A3-SD08-1416		Loose	GR	Light gray, fine to med. SAND, little silt bottom 2" contained clayey silt	SM		0
16	5 7	2.0	1340 S-8				trace (piece of) fine rounded gravel	SC		
16	8 11	1.1	-1618		Med. Dense	Light GR	0.8' of recovered sample (med) stiff -top SILT and CLAY	ML		0
18	15 32	2.0	1425				bottom - 0.3' of spoon f/c SAND, trace silt, trace from subrounded gravel	SM		
18	15 24	2.0	-1820		Very Dense	GR	Brownish gray f/m SAND, trace silt	SP	No recovery on first attempt	0
20	32 74	2.0	1520							

TYPE OF DRILLING RIG:	CME 45B ON BARGE		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DRIVE AND WASH CASING		
METHOD OF SOIL SAMPLING:	2" S.S. / 140 LB. HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:	DRILLING BELOW WATER TABLE OF FERRY CREEK WHICH IS INFLUENCED BY TIDE		
OTHER OBSERVATIONS:		BORING NO.: AS-SD08	PAGE: 2 OF 2

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD09
PROJECT NO.:	N7491-0320			START DATE:	7/29/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	7/29/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~1.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	W.O.H.	1.5	OU3-A3-SD09-0002		Very Loose	GR	Dark gray SILT, little organic material, (piece of wood, piece of shell)	OL	Sulfide odor preesent	2.5 PPM
2		2.0	0715 S-1							
2	W.O.H.	0.2	-0204		Very Loose	GR	Same As Above	OL		1.8 PPM
4		2.0	0740 S-2							
4	W.O.H. W.O.H.	0.3	-0406		Very Loose	GR	Plus trace fine sand	OL		4.5 PPM
6	2 3	2.0	0755 S-3				Fine SAND			
6	W.O.H. 1	1.9	-0608		Very Loose	GR	Brownish gray SILT, trace organic material, trace fine	OL	Less moisture in S-4 than S-1 or S-3	10.0 PPM
8	1 2	2.0	0810 S-							
8	W.O.H. 1	1.2	-0810		Very Loose	GR	Same as Above	OL		13.0 PPM
10	1 1	2.0	0830 S-5							
10	W.O.H. 1	1.25	-1012		Very Loose	GR		OL		30 PPM
12	2 2	2.0	0915 S-							
12	1 2	2.0	-1214		Loose	GR		OL		25 PPM
14	2 1	2.0	0940 S-7							

TYPE OF DRILLING RIG:	CME 45B BARGE		*Tetra Tech NUS, Inc.*
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2" S.S. / 140 LB. HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD09	PAGE: 1 OF 2

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD09
PROJECT NO.:	N7491-0320			START DATE:	7/29/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	7/29/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~1.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
14	1 1	1.3	OU3-A3-SD09-1416		Loose	GR	Same As Above	OL	Sulfide odor present	15 ppm
16	2 1	2.0	1000 S-8							
16	3 3	1.6	-1618		Loose	GR		OL		20 ppm
18	2 3	2.0	1035 S-9							
18	2 3	1.2	-1820		Loose	GR	Brownish gray SILT, trace fine sand, trace organic material. Very end of spoon (on tip) contained silt and	OL		10 ppm
20	3 2	2.0	1115				fine sand			

TYPE OF DRILLING RIG:	CME 45B BARGE		*Tetra Tech NUS, Inc.*
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2" S.S. / 140 LB. HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD09	PAGE: 2 OF 2

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD10
PROJECT NO.:	N7491-0320			START DATE:	8/4/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	8/4/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~0.5'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	W.O.R.	0.5	OU3-A3-SD10-0002		Very Loose	GR	Gray SILT, some organic material , trace f sand	OL	Weight of Rod for 2' sulfide	20 ppm
2		2.0	1110 S-1							
2	W.O.H.	1.3	-0204		Very Loose	GR	Brownish gray SILT, some organic material, trace fine sand (black decomp. leaves)	OL	Weight of hammer (WOH)	5 ppm
4		2.0	1130 S-2						sulfide odor	
4	W.O.H. W.O.H.	2.0	-0406		Very Loose	GR	Same As Above	OL		10 ppm
6	1 1	2.0	1140 S-3							
6	W.O.H. 1	0.5	-0608		Very Loose	GR	Gray SILT, trace fine rounded gravel, trace fine sand trace organic material	OL		4 ppm
8	1 1	2.0	1155 S-4							
8	W.O.H. W.O.H.	1.5	-0810		Very Loose	GR	Same As Above	OL	Sl. sulfide odor	3 ppm
10	W.O.H. 1	2.0	1210 S-5							
10	W.O.R. W.O.R.	1.75	-1012		Very Loose	GR	Brownish gray SILT, trace fine sand, some organic material	OL		20 ppm
12	W.O.H. 1	2.0	1230 S-6							
12	W.O.H. W.O.H.	0.0	-1214		Very Loose		No Recovery no evidence of reason			20 ppm
14	1 1	2.0	1245 S-7							

TYPE OF DRILLING RIG:	CME 45B
METHOD OF ADVANCING BORING:	DRIVE AND WASH
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON / 140 LB. HAMMER
METHOD OF ROCK CORING:	
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

Tetra Tech NUS, Inc.

BORING NO.: A3-SD10

BORING LOG FOR: RAYMARK – OU3- FERRY CREEK
PROJECT NO.: N7491-0320
LOGGED BY: SCOTT HARDING
DRILLED BY (Company/Driller): ATL / MARK CHILDS
GRD. SURFACE ELEVATION: ~0.5'

TRANSCRIBED BY: MES
ELEVATION FROM: Estimated from topo.

BORING NO.: A3-SD10
START DATE: 8/4/97
COMPLETION DATE: 8/4/97
MON. WELL NO.:
CHECKED BY: THD

DEPTH (FEET)	BLOWS PER 6"	SAMPREC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID)
14	W.O.H. / 1	1.8	OU3-A3-SD10 -1416		Very Loose	GR	Same As 1012 sample	OL	Sulfide odor present	30 ppm
16	W.O.H. / 1	2.0	1300 S-8						↓	
16	W.O.H. / W.O.H.	.85	-1618		Very Loose	GR	Gray SILT, trace organic material, trace fine gravel sand, Subrounded fine gravel	OL	More moisture present in this sample than in the previous one	15 ppm
18	W.O.H. / W.O.H.	2.0	1325 S-9							
18	1 / 1	1.7	-1820		Very Loose	GR	Brownish gray SILT, trace organic material, trace fine trace rounded fine gravel	OL	Slight sulfide odor	18 ppm
20	1 / 1	2.0	1340 S-10							

TYPE OF DRILLING RIG: CME 45B
METHOD OF ADVANCING BORING: DRIVE AND WASH
METHOD OF SOIL SAMPLING: 2" SPLIT SPOON / 140 LB. HAMMER
METHOD OF ROCK CORING:
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: A3-SD10

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD11
PROJECT NO.:	N7491-0320			START DATE:	7/23/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	7/24/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	–1.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
0	1 / 1	.2	OU3-A3-SD11-0002		Very Loose	GR	Dark brownish gray SILT, trace fine sand	OL	Sulfide odor present	0.3 ppm
2	1 / 1	2.0	1510 S-1							
2	1 / W.O.H.	1.1	-0204		Very Loose	GR	Brownish gray SILT, little organic material, trace fine sand Small piece of red plastic	OL		11.5 ppm
4	1 / 1	2.0	1525 S-							(after
4	W.O.H. / W.O.H.	1.7	-0406		Very Loose	GR	Same As Above, plus trace of fine subrounded gravel, piece of sea-shell	OL		40.0 ppm
6	1 / 1	2.0	1545 S-							(after mixing sand)
6	1 / 1	1.4	-0608		Very Loose	GR	Brownish gray SILT, trace organic material, trace fine	OL		12.0 ppm
8	1 / 1	2.0	1630 S-							
8	W.O.H. / W.O.H.	2.0	-0810		Very Loose	GR	Same As Above	OL	Composited S-4 and S-5	30.0 ppm
10	W.O.H. / 2	2.0	1700 S-							
10	W.O.H. / W.O.H.	1.35	-1012		Very Loose	GR		OL		90.0 ppm
12	2 / 2	2.0	1725 S-							
12	W.O.H. / W.O.H.	1.8	-1214		Very Loose	GR		OL		
14	2 / 4	2.0	1800 S-7							

TYPE OF DRILLING RIG:	CME-45 ON BARGE		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON / 140 LB. HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD11	PAGE: 1 OF 2

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	A3-SD11
PROJECT NO.:	N7491-0320			START DATE:	7/23/97
LOGGED BY:	SCOTT HARDING	TRANSCRIBED BY:	MES	COMPLETION DATE:	7/24/97
DRILLED BY (Company/Driller):	ATL / MARK CHILDS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	~1.0'	ELEVATION FROM:	Estimated from topo.	CHECKED BY:	THD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
14	2 4	2.0	OU3-A3-SD11-1416		Loose	GR	Brownish gray SILT, trace organic material, trace fine sand	OL	Wet, sulfide odor	35 ppm
16	2 2	2.0	0840 S-8							(after
16	2 1	0.8	-1618		Very Loose	GR	Same As Above	OL		37 ppm
18	2 2	2.0	0905 S-							
18	3 3	1.45	-1820		Loose	GR	Brownish gray SILT, trace organic material, trace (to little) fine sand, trace fine rounded gravel	OL	Less moisture	60 ppm
20	3 3	2.0	0920 S-							

TYPE OF DRILLING RIG:	CME-45 ON BARGE	COLLECTED S-9 AND S-10 FOR ANALYSIS	*Tetra Tech NUS, Inc.*
METHOD OF ADVANCING BORING:	DRIVE AND WASH		
METHOD OF SOIL SAMPLING:	2" SPLIT SPOON / 140 LB. HAMMER		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: A3-SD11	PAGE: 2 OF 2