

NOTES:

1. Installed on 04/30/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

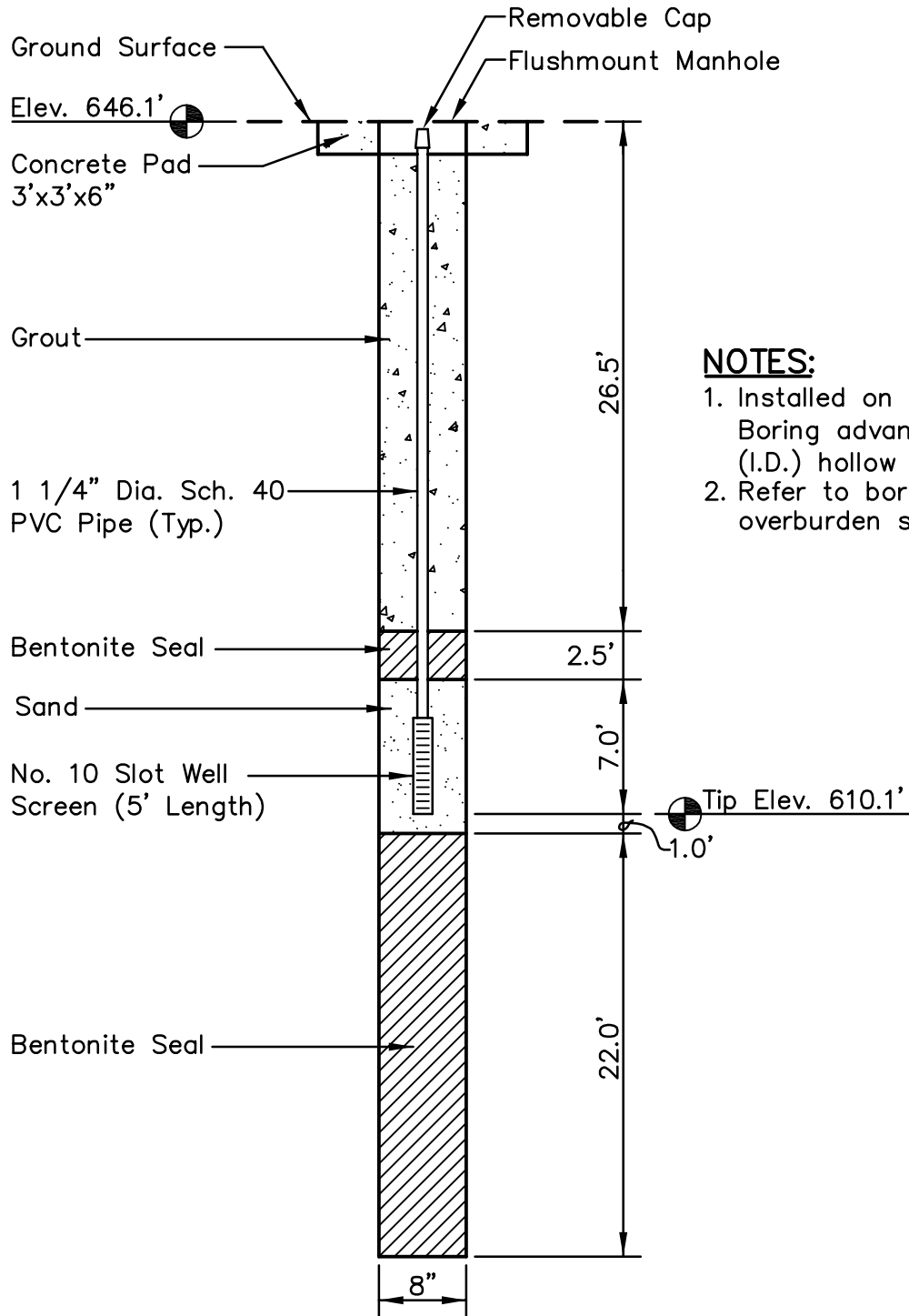
Northing: 1,596,738.06
 Easting: 523,522.10
 Ground Elevation: 635.8 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-62 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 09/28/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ62.DWG



NOTES:

1. Installed on 05/14/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ63.DWG

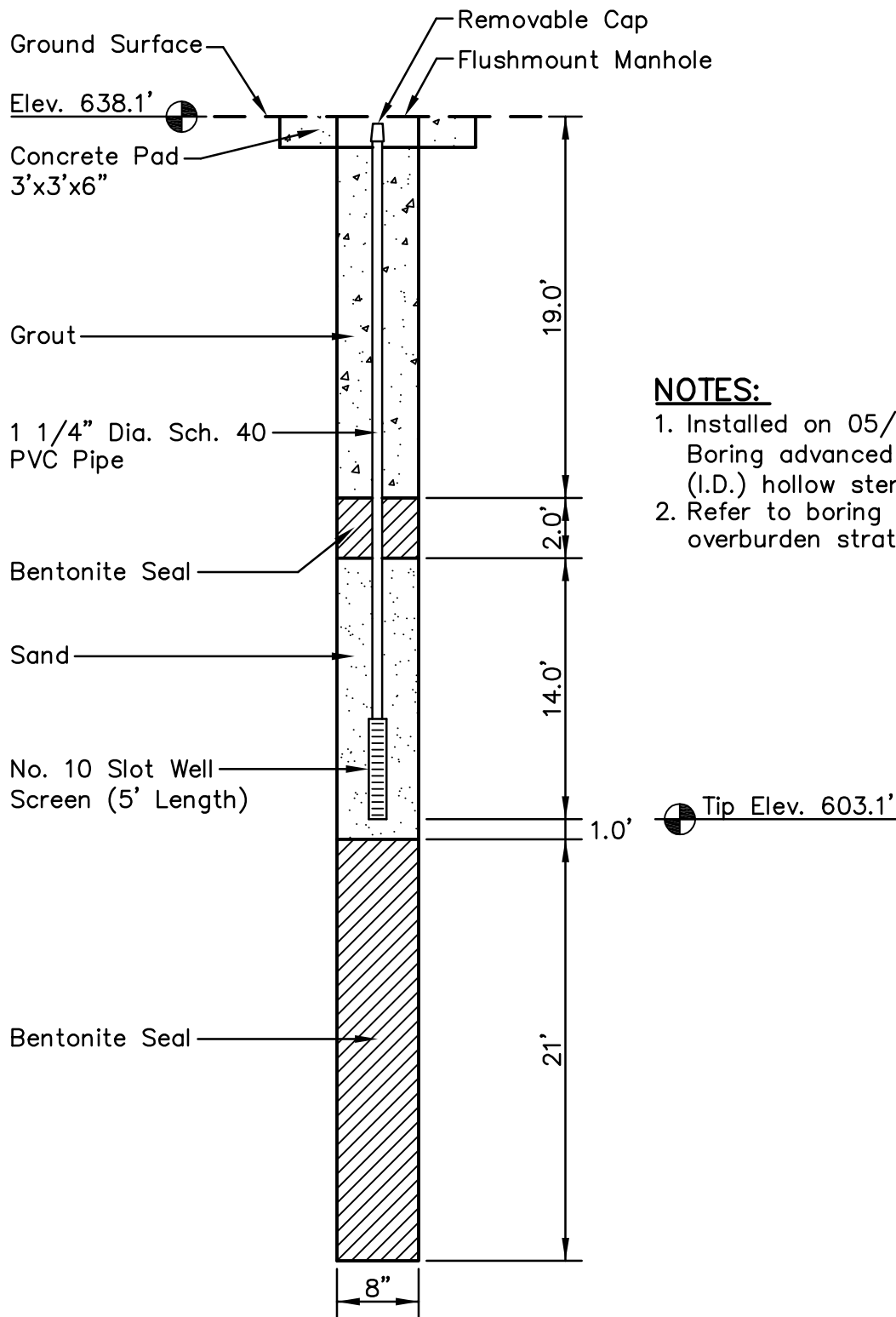
LOCATION:

Northing: 1,597,711.75
 Easting: 525,777.53
 Ground Elevation: 646.1 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-63 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 05/19/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ64.DWG

LOCATION:

Northing: 1,597,643.04
Easting: 525,718.08
Ground Elevation: 638.1 feet

Locations to be provided by
TVA, Power Systems
Operations, Surveying and
Project Services.

Horizontal Datum: NAD 27
Vertical Datum: NGVD29

**PIEZOMETER STN-64
MAIN ASH POND
WIDOWS CREEK FOSSIL PLANT**



Stantec

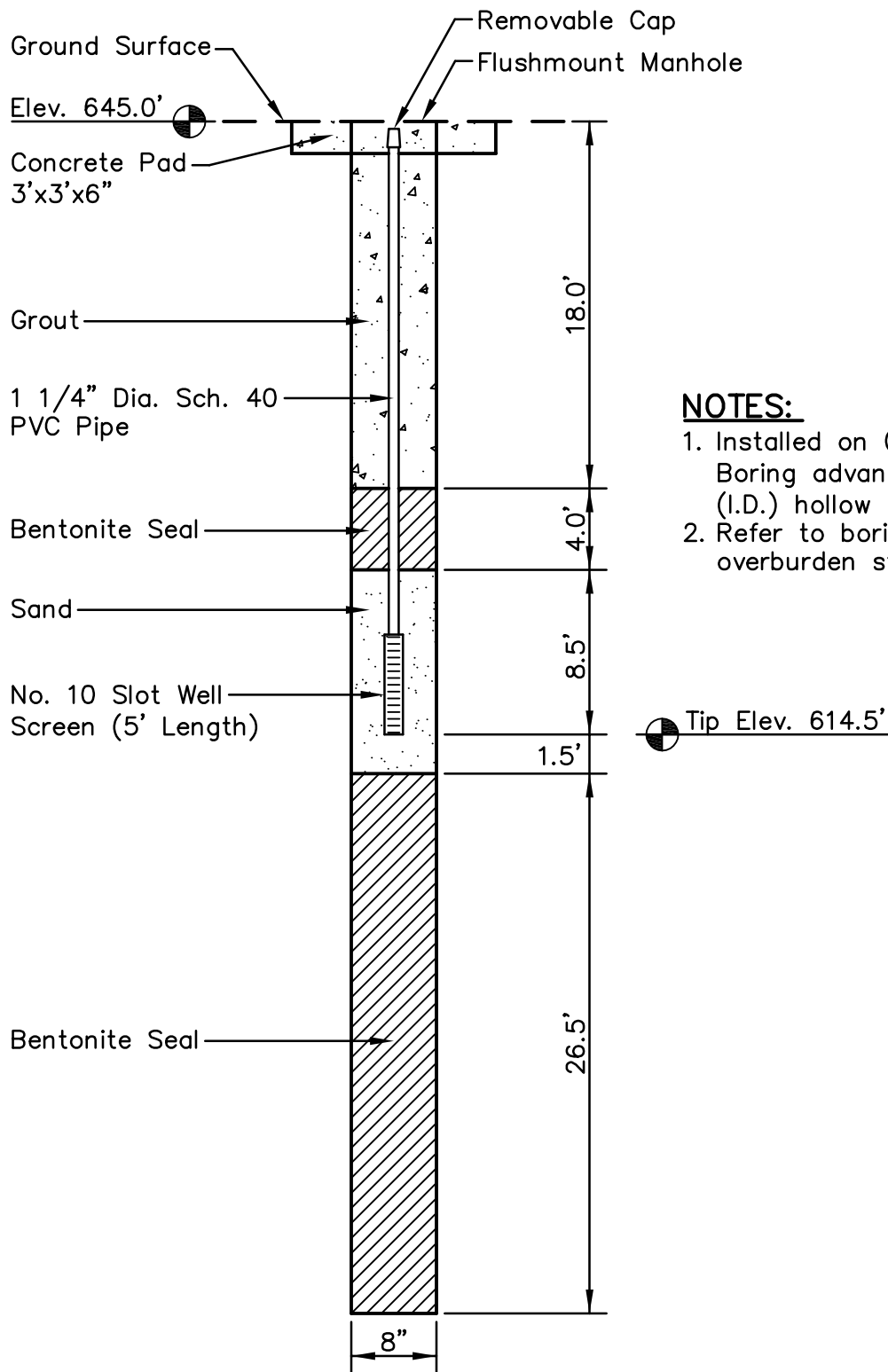
Stantec Consulting
Services Inc.
1409 N. Forbes Rd.
Lexington, Kentucky
40511-2050
859-422-3000

www.stantec.com

DRAWN BY	TJ	DATE	JUNE, 2009	REVISED	
CHECKED BY	GKA	PROJ. NO.	175569036	1.	3.
CHECKED BY	RDF	SCALE	NTS	2.	4.

SHEET

1 OF 1



NOTES:

1. Installed on 05/18/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

Northing: 1,597,882.01
 Easting: 526,948.33
 Ground Elevation: 645.0 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

**PIEZOMETER STN-65
 MAIN ASH POND
 WIDOWS CREEK FOSSIL PLANT**



Stantec

Stantec Consulting
 Services Inc.
 1409 N. Forbes Rd.
 Lexington, Kentucky
 40511-2050
 859-422-3000

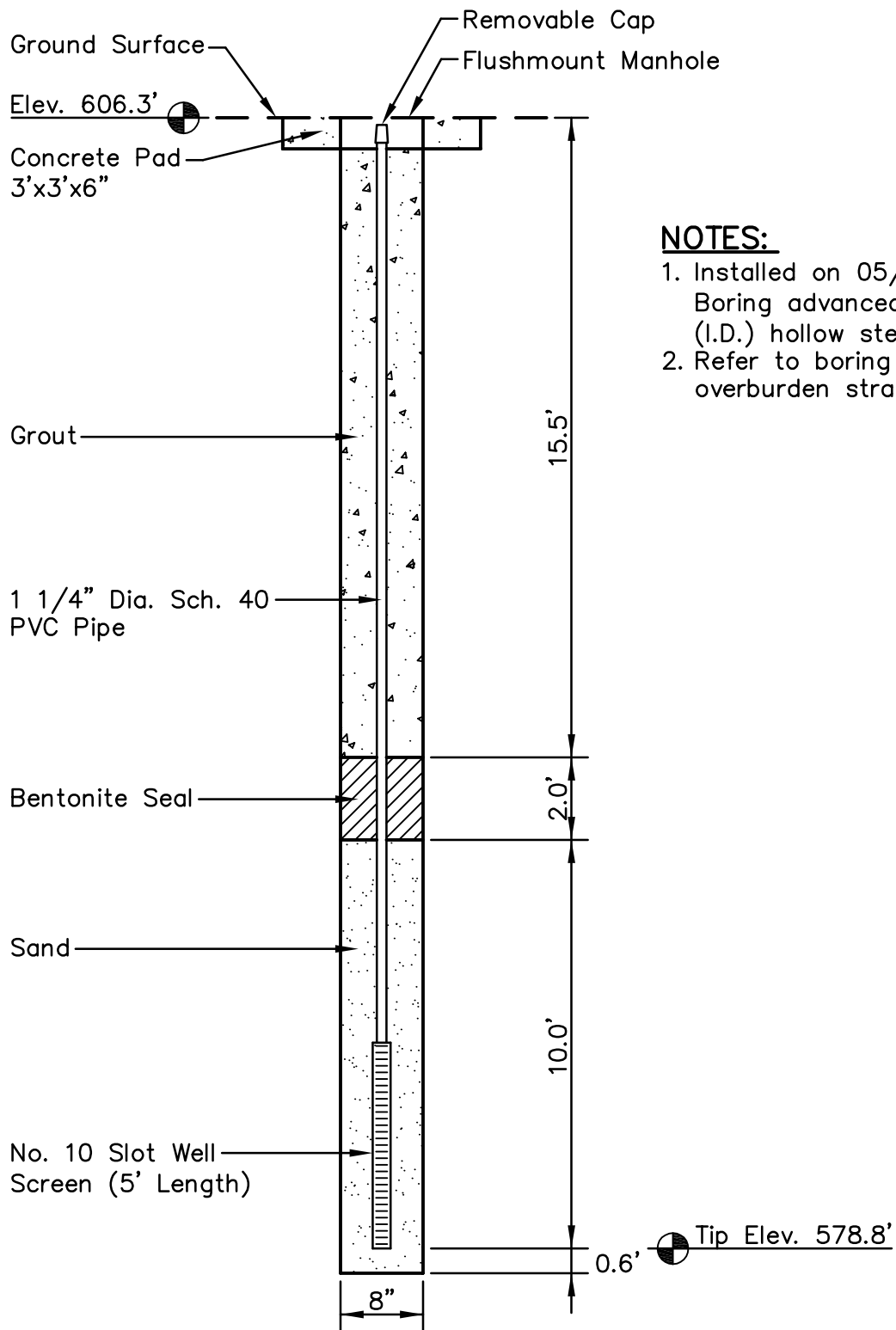
www.stantec.com

DRAWN BY	TJ	DATE	JUNE, 2009	REVISED	
CHECKED BY	GKA	PROJ. NO.	175569036	1.	3.
CHECKED BY	RDF	SCALE	NTS	2.	4.

SHEET

1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
 V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ65.DWG



NOTES:

1. Installed on 05/21/2009.
Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

Northing: 1,597,739.24
 Easting: 527,065.17
 Ground Elevation: 606.3 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

**PIEZOMETER STN-66
 MAIN ASH POND
 WIDOWS CREEK FOSSIL PLANT**



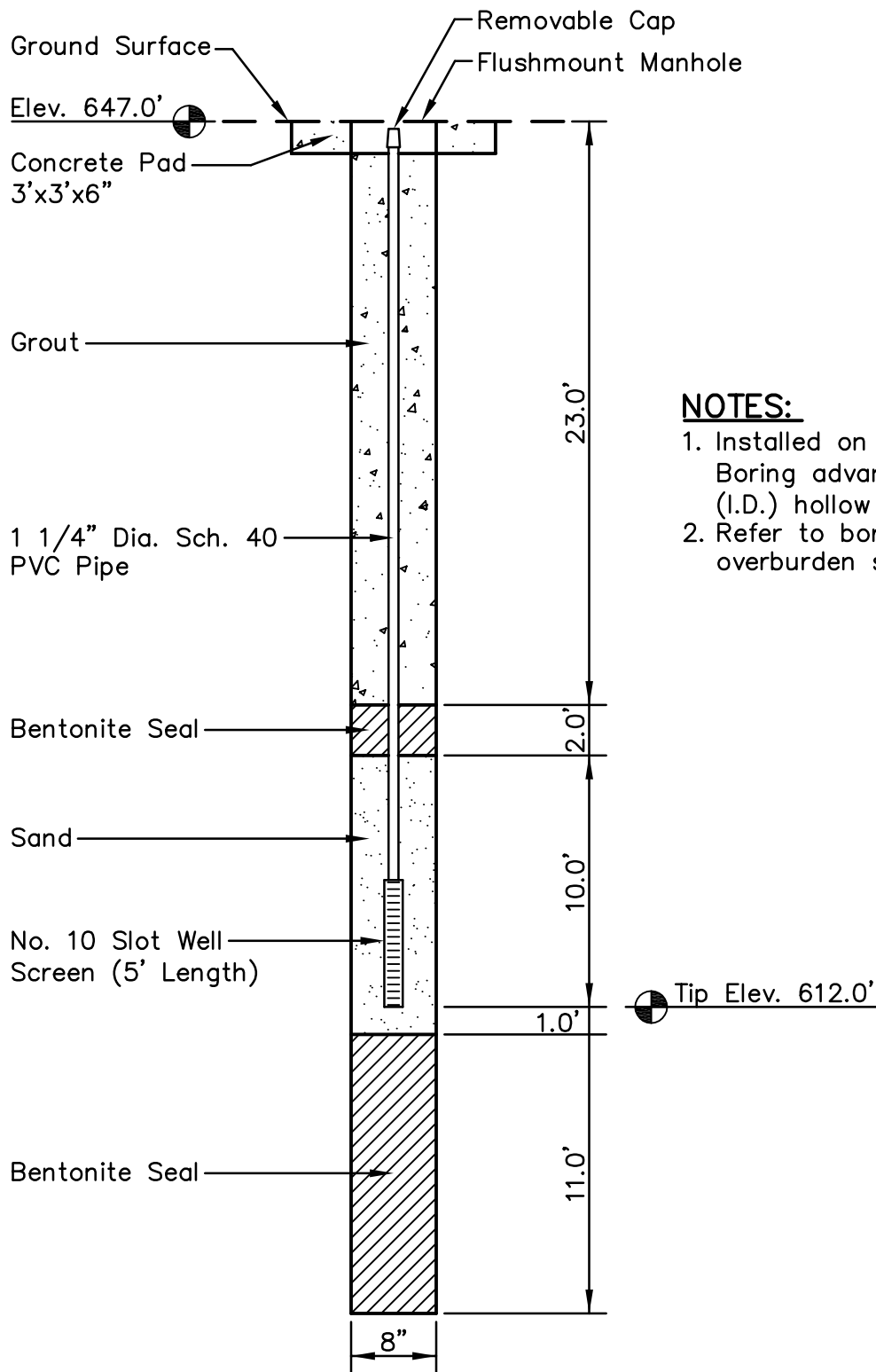
Stantec

Stantec Consulting
 Services Inc.
 1409 N. Forbes Rd.
 Lexington, Kentucky
 40511-2050
 859-422-3000
 www.stantec.com

DRAWN BY	TJ	DATE	JUNE, 2009	REVISED	
CHECKED BY	GKA	PROJ. NO.	175569036	1.	3.
CHECKED BY	RDF	SCALE	NTS	2.	4.

SHEET
1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
 V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ66.DWG



NOTES:

1. Installed on 05/19/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

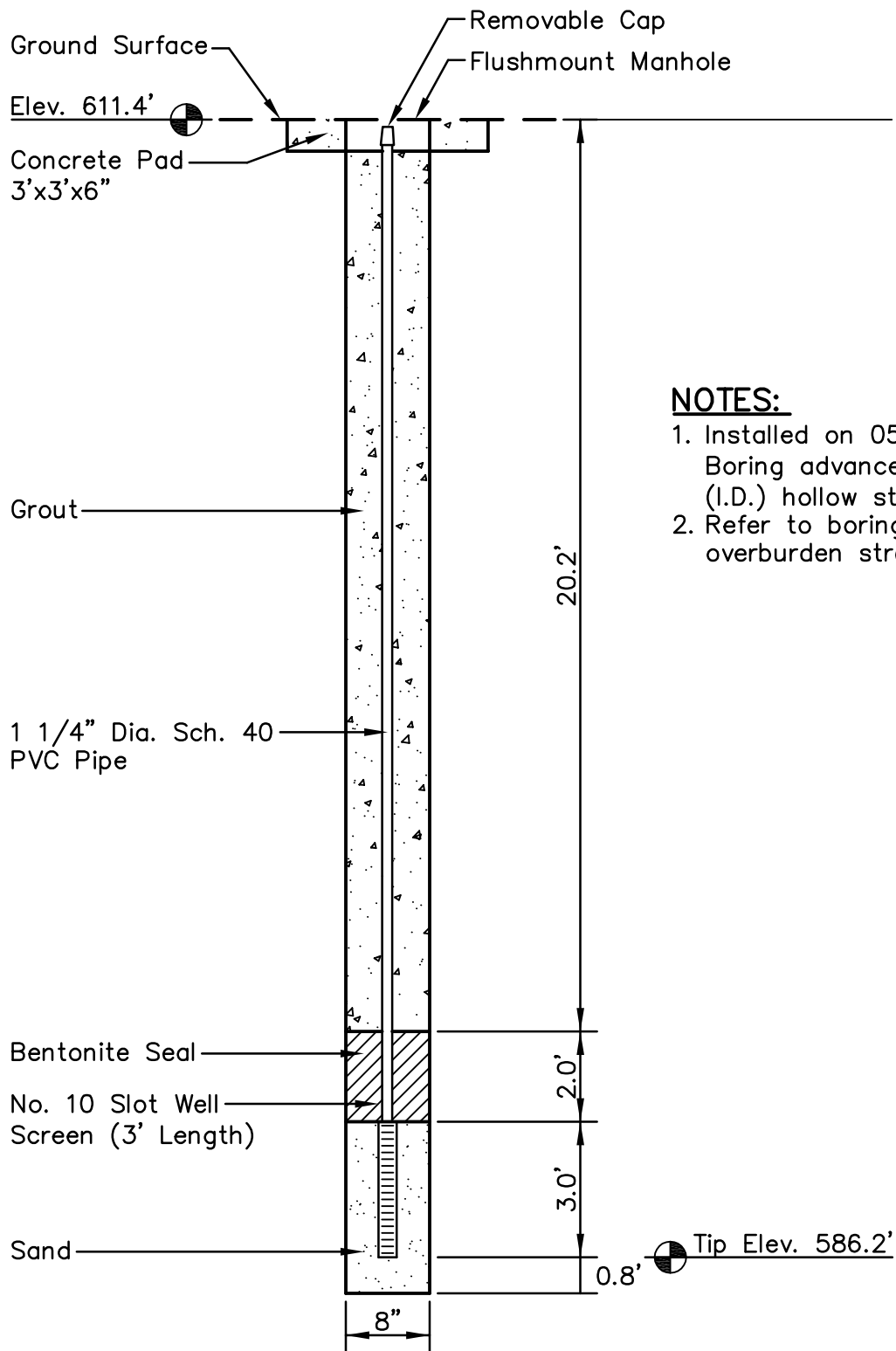
PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ67.DWG

LOCATION:

Northing: 1,598,989.40
 Easting: 526,868.90
 Ground Elevation: 647.0 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-67 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
REVISED		SHEET	
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 05/20/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

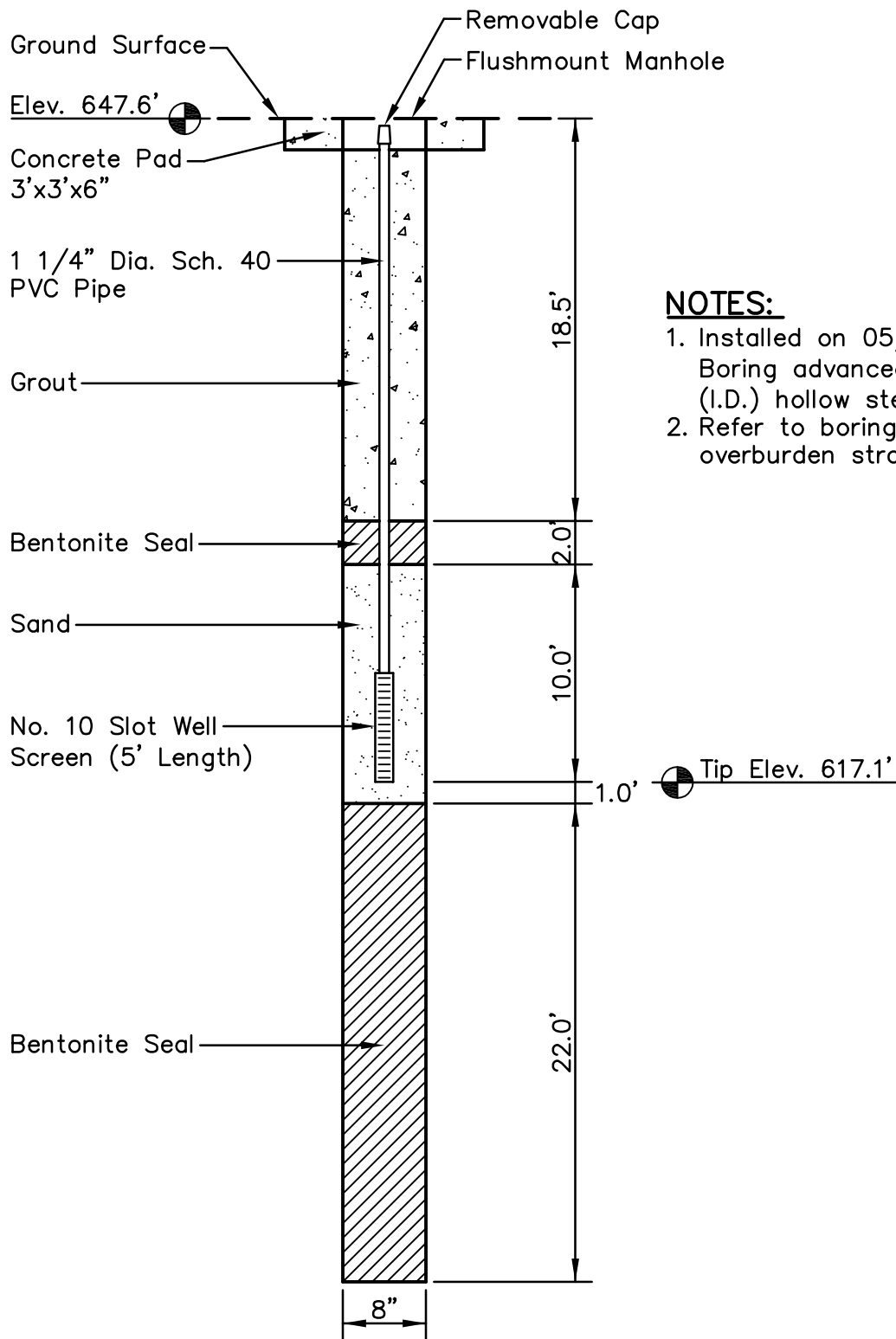
LOCATION:

Northing: 1,599,083.70
 Easting: 526,995.04
 Ground Elevation: 611.4 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-68 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
REVISED		SHEET	
1.		3.	
2.		4.	
1 OF 1			

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
 V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ68.DWG



NOTES:

1. Installed on 05/20/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ69.DWG

LOCATION:

Northing: 1,599,634.03
Easting: 526,360.91
Ground Elevation: 647.6 feet

Locations to be provided by
TVA, Power Systems
Operations, Surveying and
Project Services.

Horizontal Datum: NAD 27
Vertical Datum: NGVD29

**PIEZOMETER STN-69
MAIN ASH POND
WIDOWS CREEK FOSSIL PLANT**



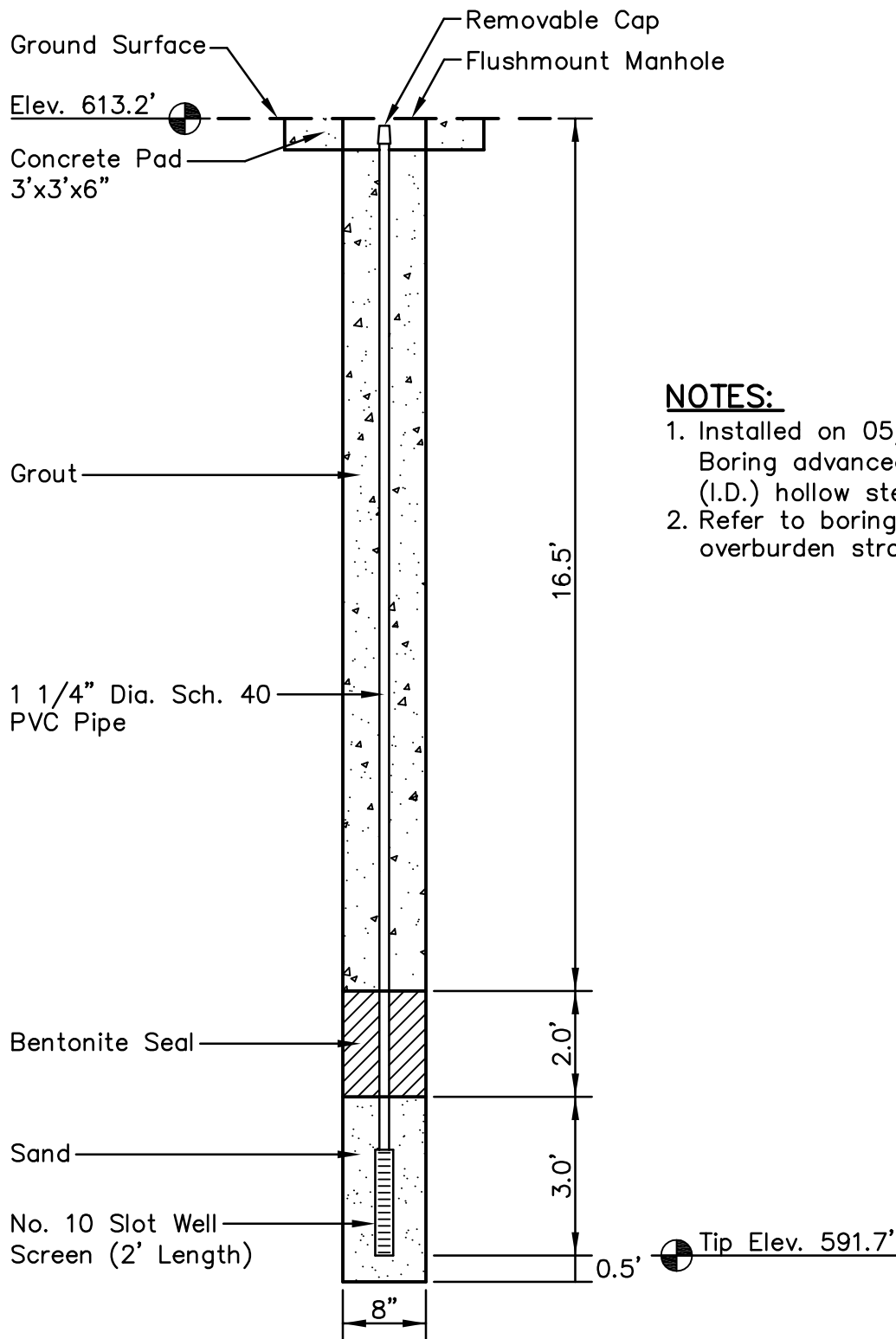
Stantec

Stantec Consulting
Services Inc.
1409 N. Forbes Rd.
Lexington, Kentucky
40511-2050
859-422-3000

www.stantec.com

DRAWN BY	TJ	DATE	JUNE, 2009	REVISED	
CHECKED BY	GKA	PROJ. NO.	175569036	1.	3.
CHECKED BY	RDF	SCALE	NTS	2.	4.

SHEET
1 OF 1



NOTES:

1. Installed on 05/21/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

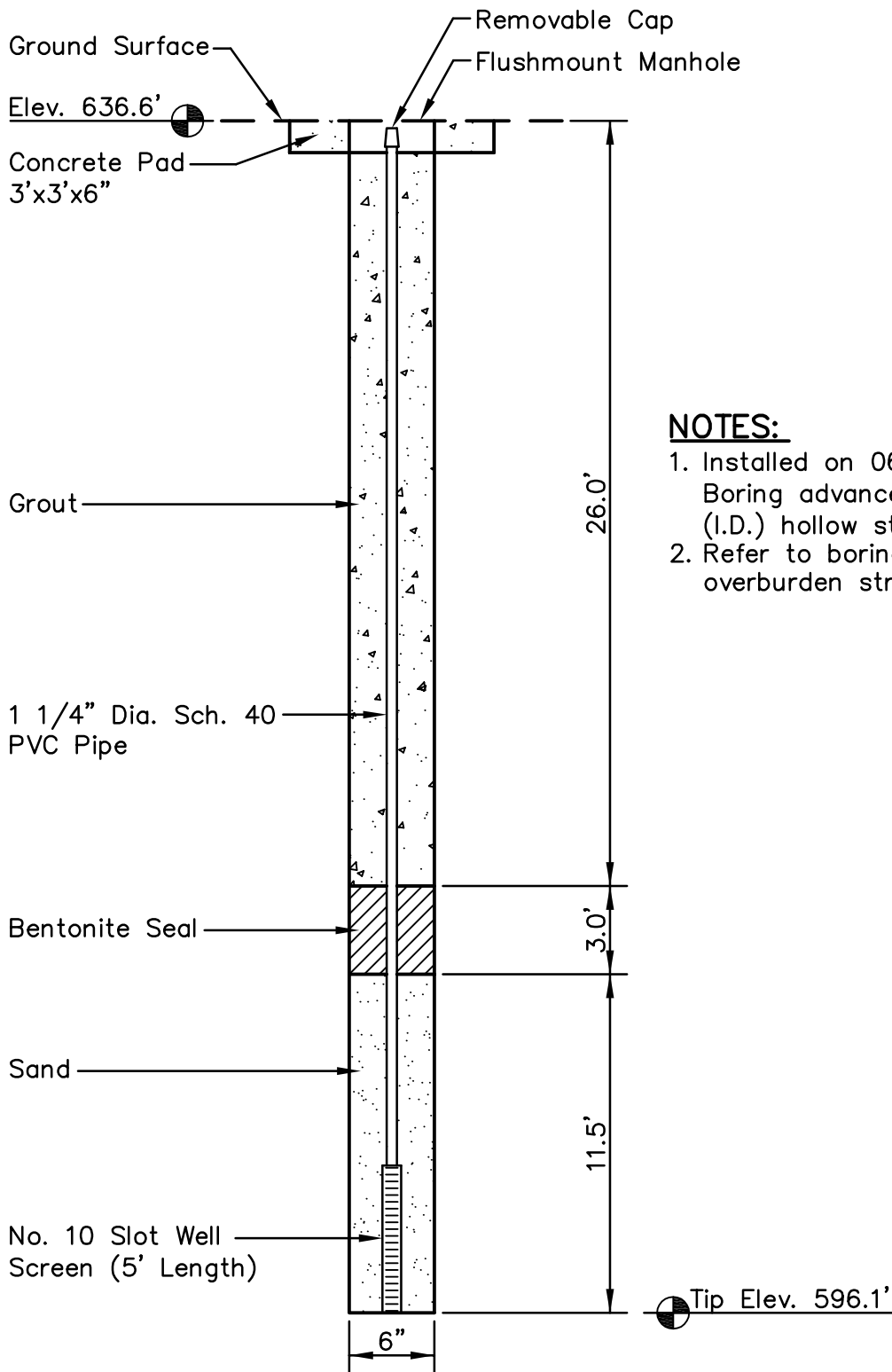
LOCATION:

Northing: 1,599,720.32
 Easting: 526,482.78
 Ground Elevation: 613.2 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-70 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
 V: \1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ70.DWG



NOTES:

1. Installed on 06/03/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ72.DWG

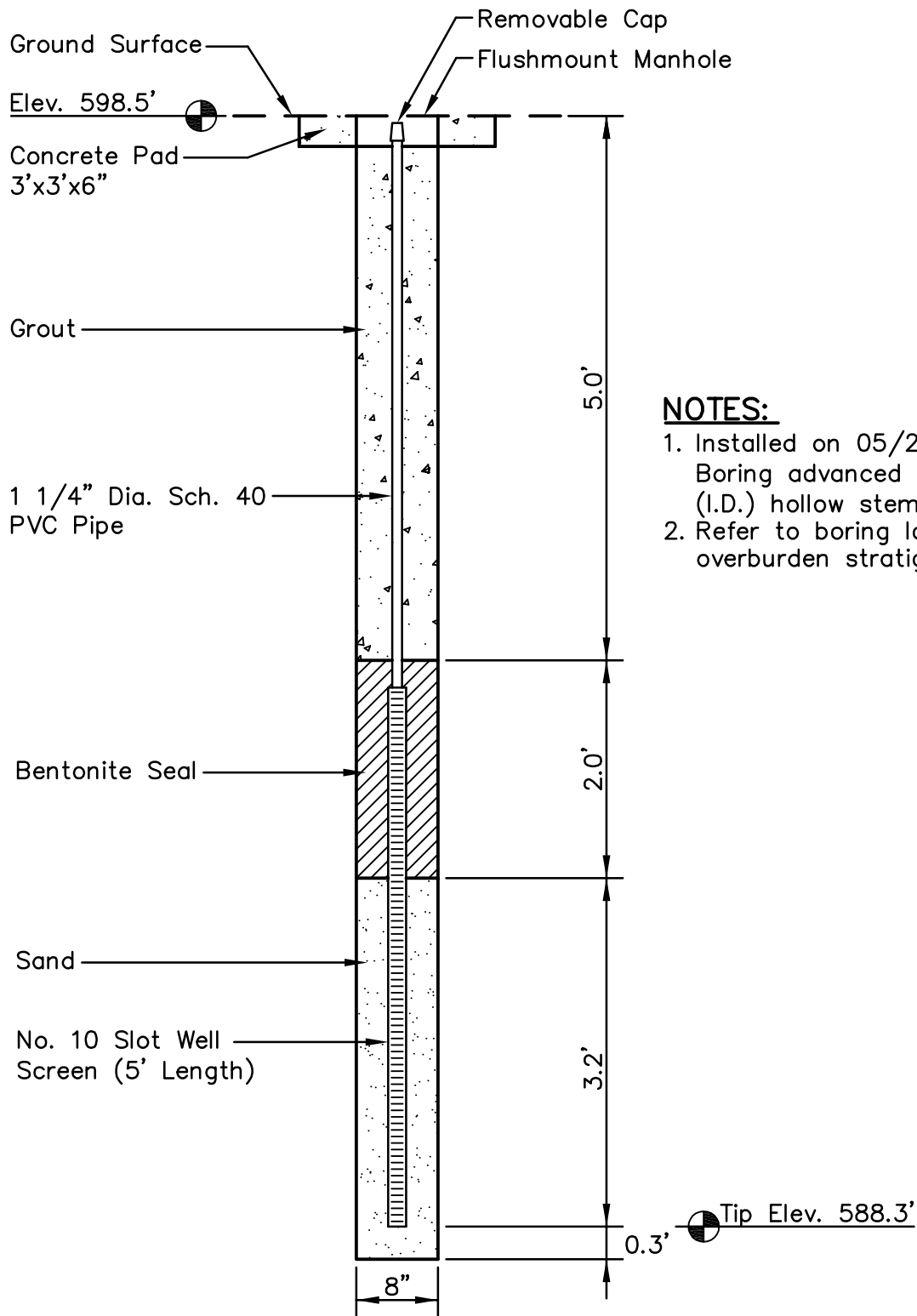
LOCATION:

Northing: 1,601,431.11
Easting: 525,775.34
Ground Elevation: 636.6 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
Vertical Datum: NGVD29

PIEZOMETER STN-72 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
REVISED		1.	3.
SHEET		2.	4.
			1 OF 1



NOTES:

1. Installed on 05/26/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ73.DWG

LOCATION:

Northing: 1,601,547.86
 Easting: 525,835.71
 Ground Elevation: 598.5 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

**PIEZOMETER STN-73
 MAIN ASH POND
 WIDOWS CREEK FOSSIL PLANT**



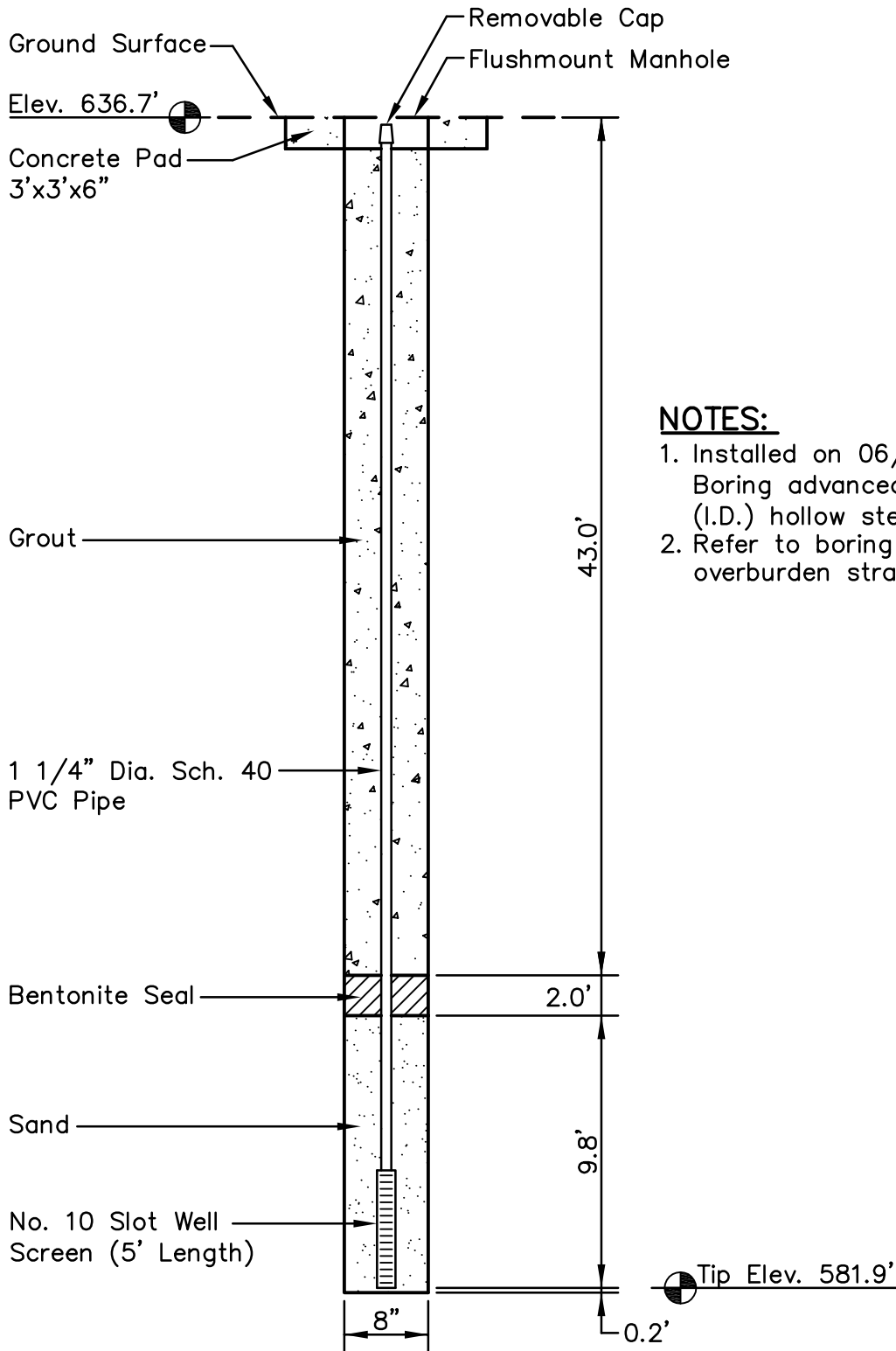
Stantec

Stantec Consulting
 Services Inc.
 1409 N. Forbes Rd.
 Lexington, Kentucky
 40511-2050
 859-422-3000

www.stantec.com

DRAWN BY	TJ	DATE	JUNE, 2009	REVISED	
CHECKED BY	GKA	PROJ. NO.	175569036	1.	3.
CHECKED BY	RDF	SCALE	NTS	2.	4.

**SHEET
 1 OF 1**



NOTES:

1. Installed on 06/03/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

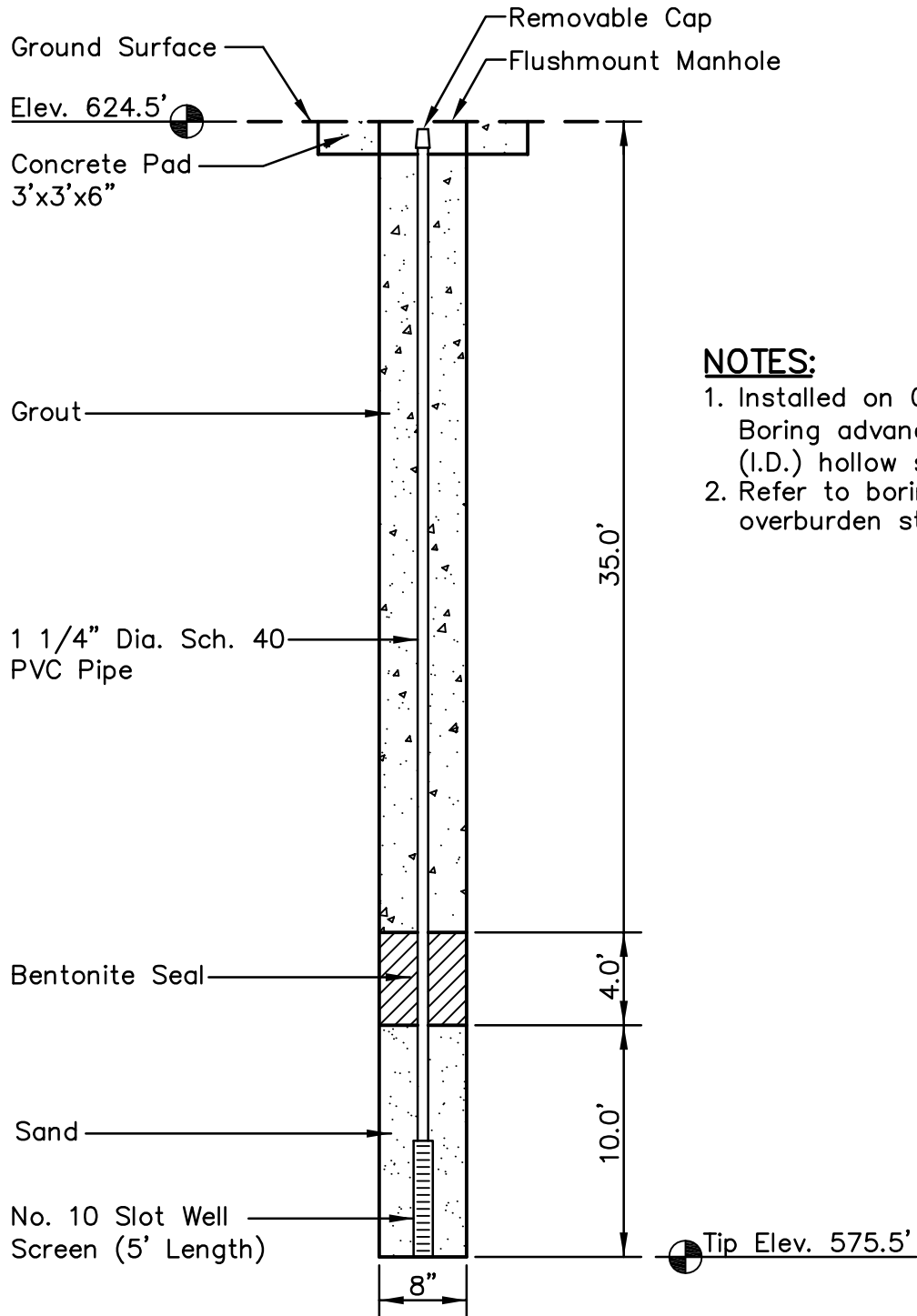
Northing: 1,601,484.15
 Easting: 524,146.73
 Ground Elevation: 636.7 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-75 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
 V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ75.DWG



NOTES:

1. Installed on 05/28/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ76.DWG

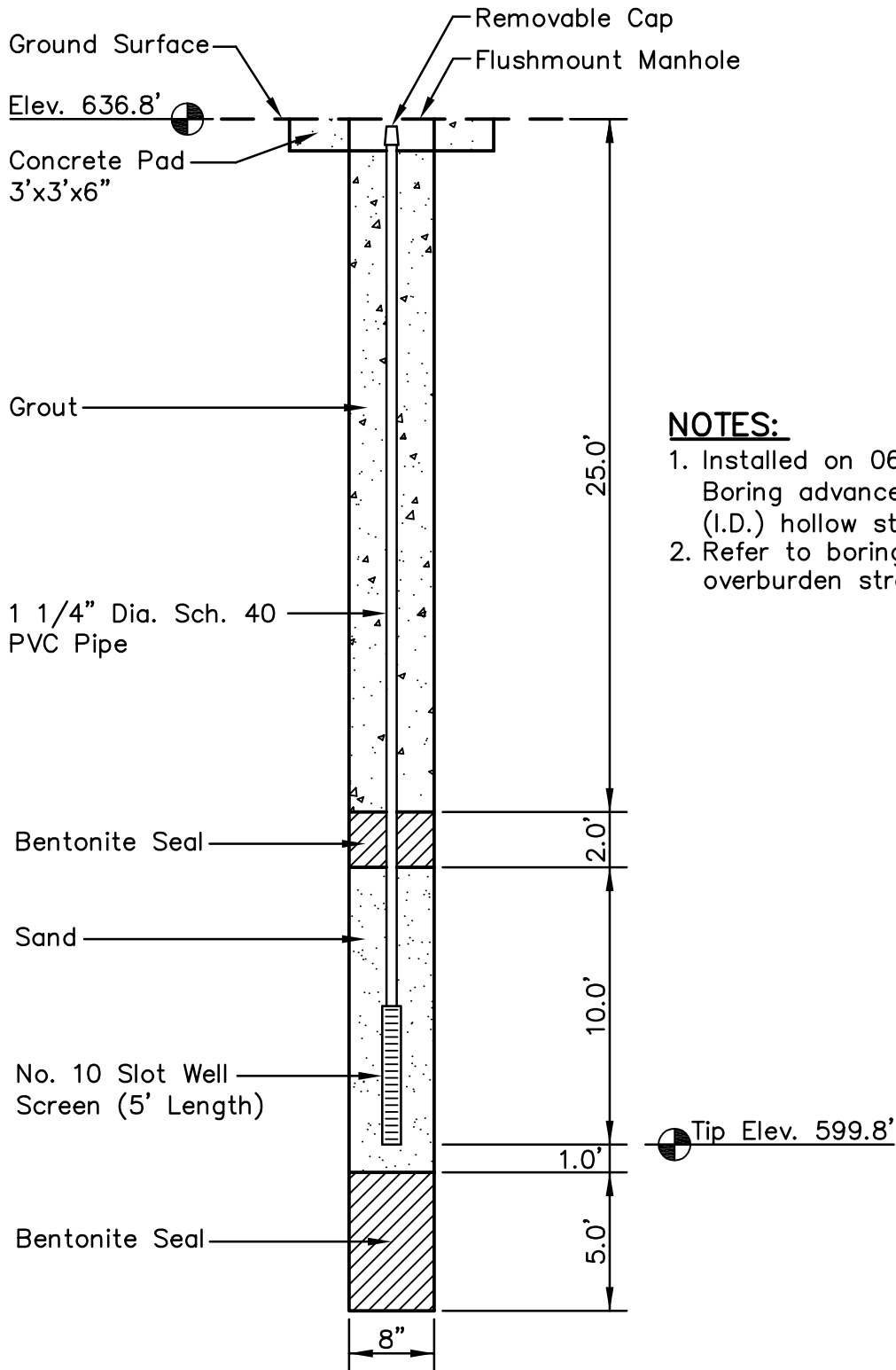
LOCATION:

Northing: 1,601,519.77
 Easting: 524,124.64
 Ground Elevation: 624.5 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-76 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 06/02/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

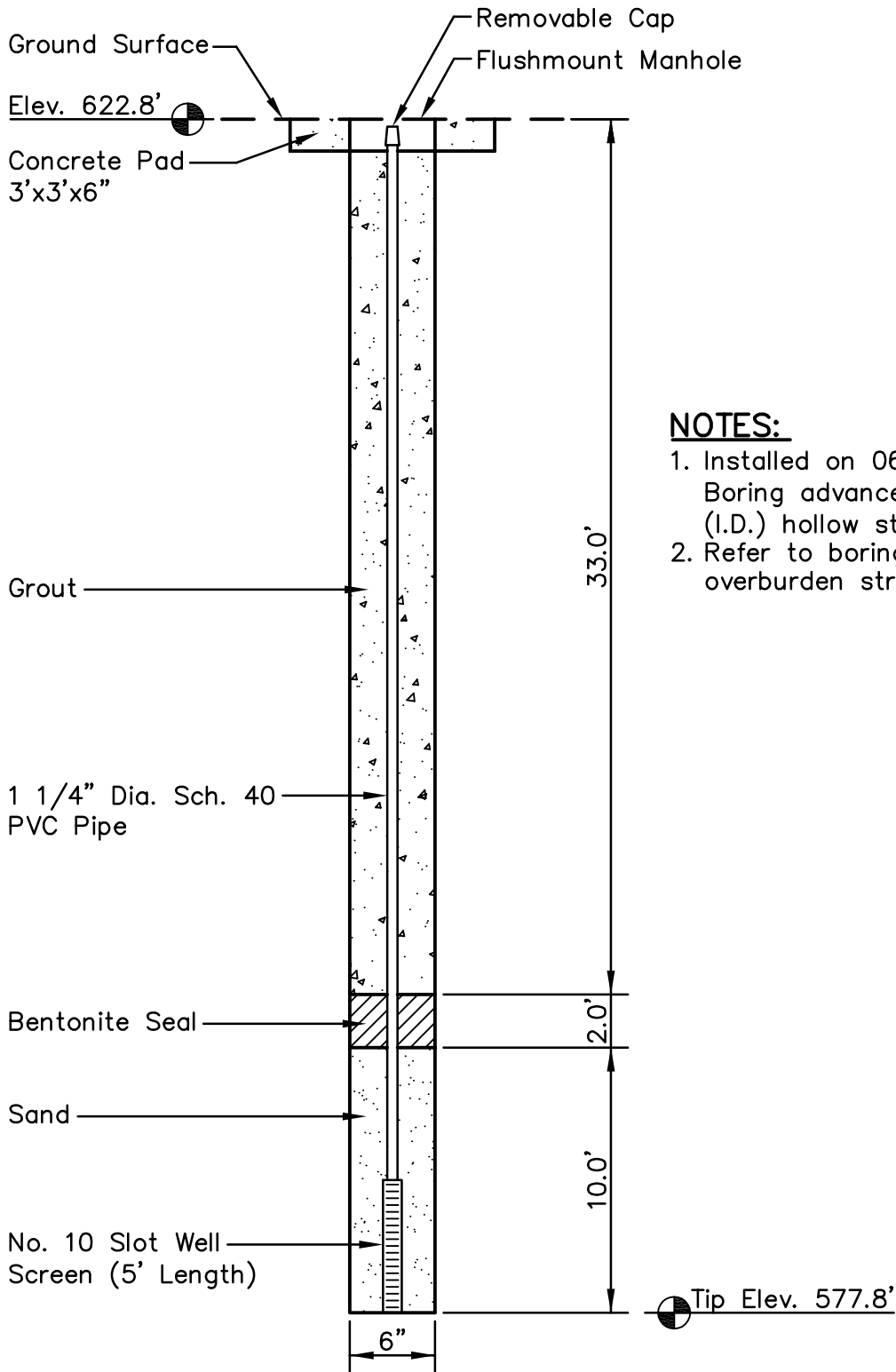
Northing: 1,599,698.13
 Easting: 523,281.12
 Ground Elevation: 636.8 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-78 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ78.DWG



NOTES:

1. Installed on 06/02/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

Northing: 1,599,704.87
 Easting: 523,225.13
 Ground Elevation: 622.8 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

**PIEZOMETER STN-79
 MAIN ASH POND
 WIDOWS CREEK FOSSIL PLANT**



Stantec

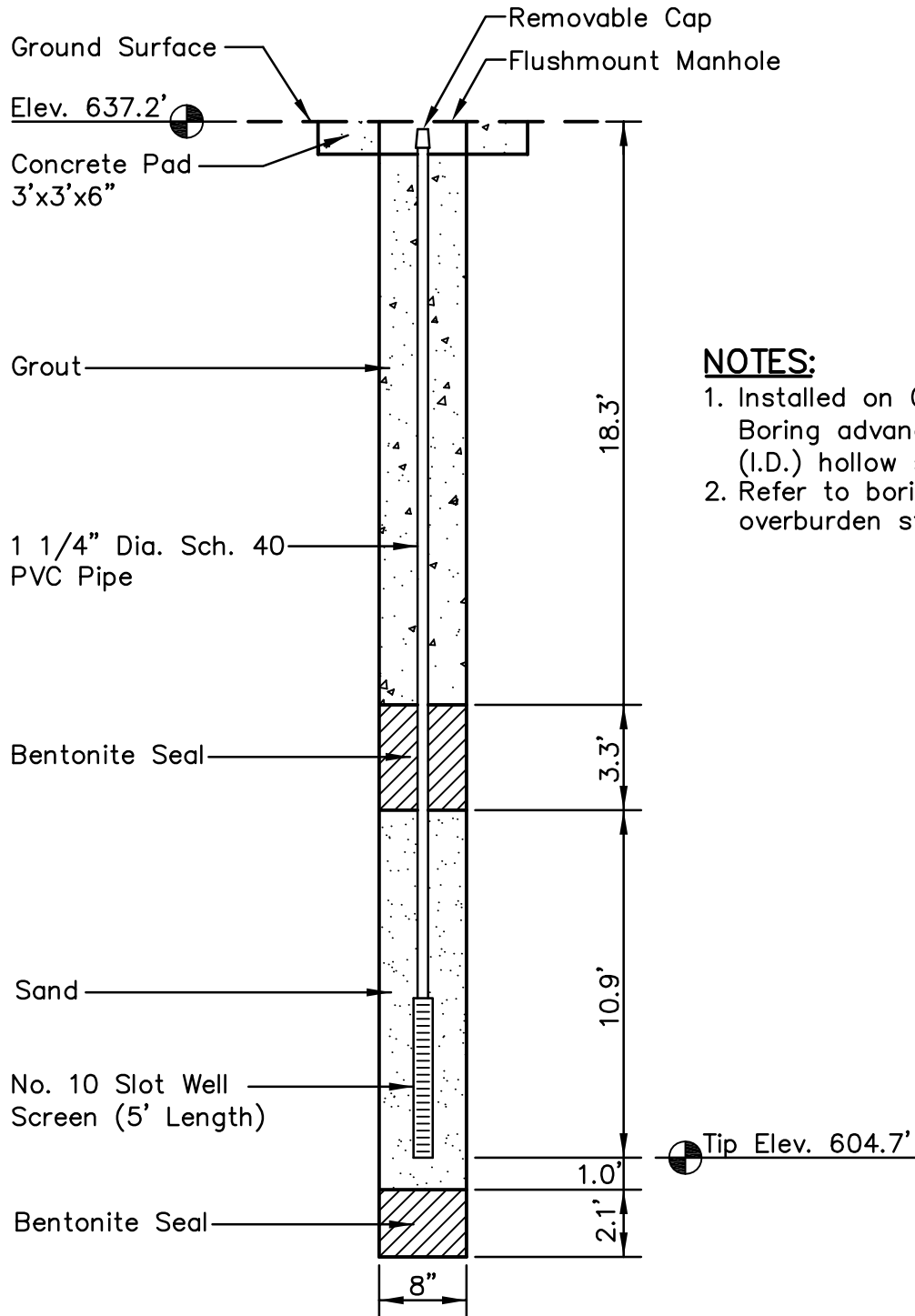
Stantec Consulting
 Services Inc.
 1409 N. Forbes Rd.
 Lexington, Kentucky
 40511-2050
 859-422-3000

www.stantec.com

DRAWN BY	TJ	DATE	JUNE, 2009	REVISED	
CHECKED BY	GKA	PROJ. NO.	175569036	1.	3.
CHECKED BY	RDF	SCALE	NTS	2.	4.

SHEET
1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
 V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ79.DWG



NOTES:

1. Installed on 05/28/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ80.DWG

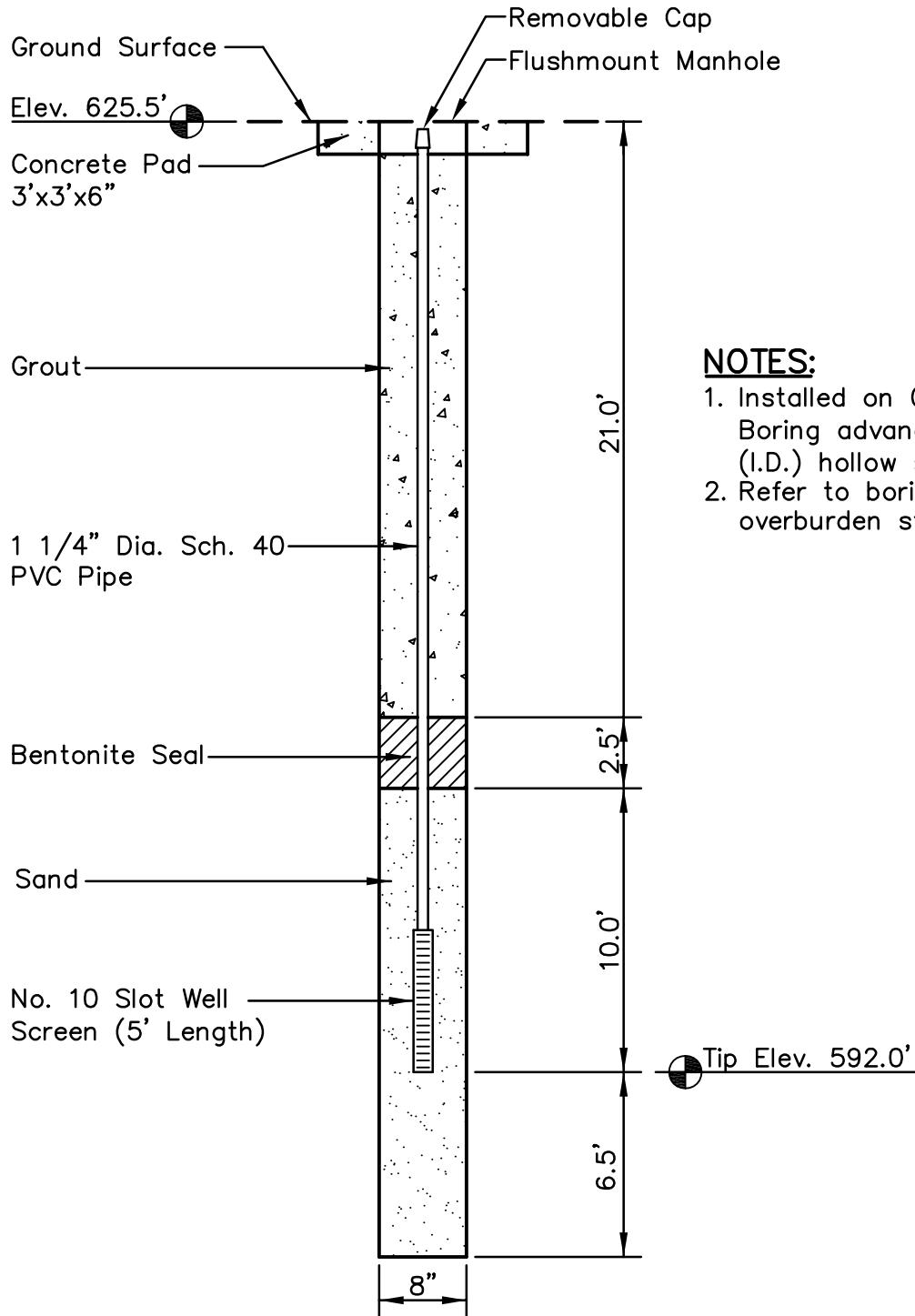
LOCATION:

Northing: 1,598,668.65
 Easting: 523,078.85
 Ground Elevation: 637.2 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-80 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
<b style="font-size: 2em; vertical-align: middle;">Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 05/29/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

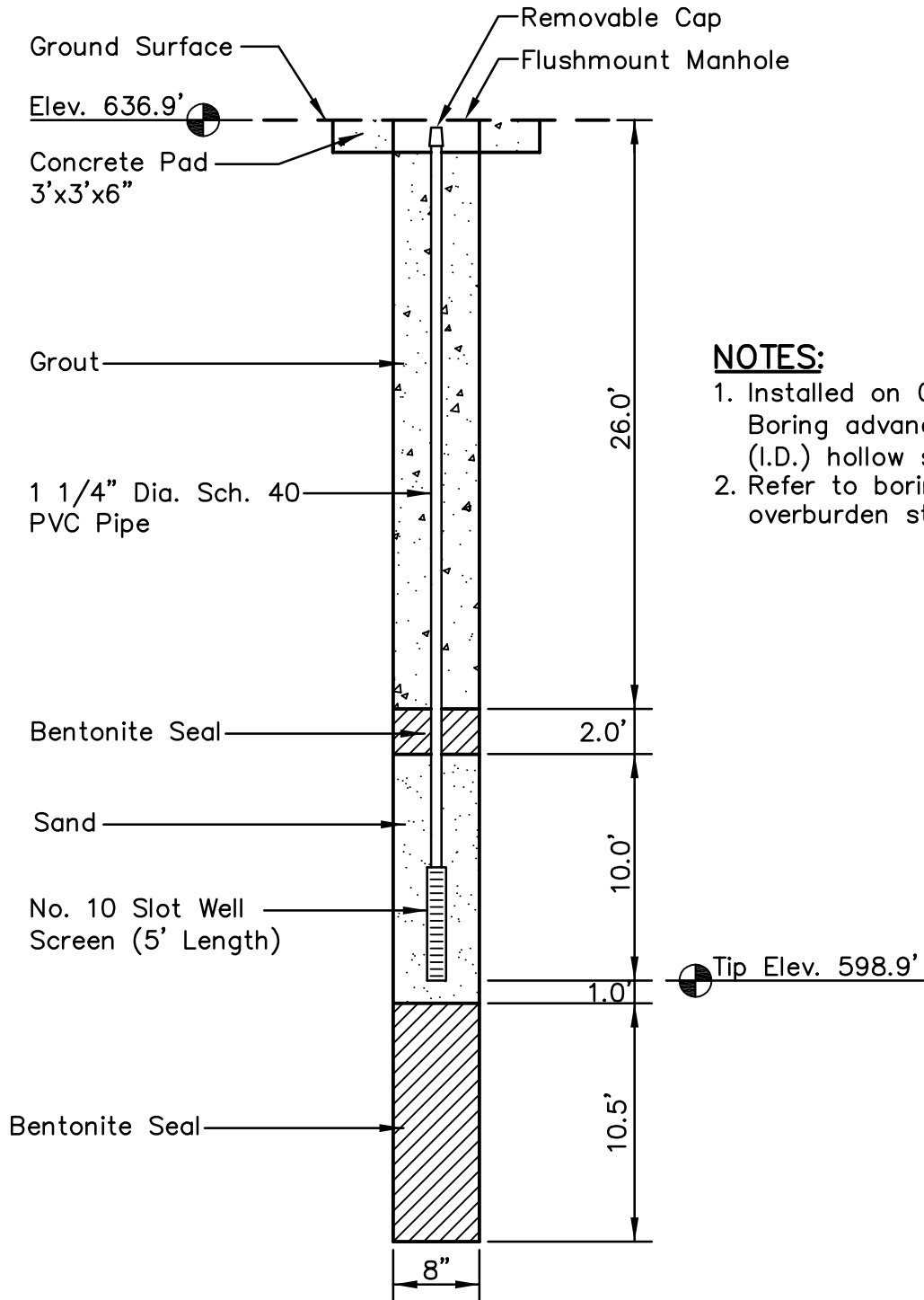
Northing: 1,598,675.68
 Easting: 523,024.04
 Ground Elevation: 625.5 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-81 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ81.DWG



NOTES:

1. Installed on 05/28/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ82.DWG

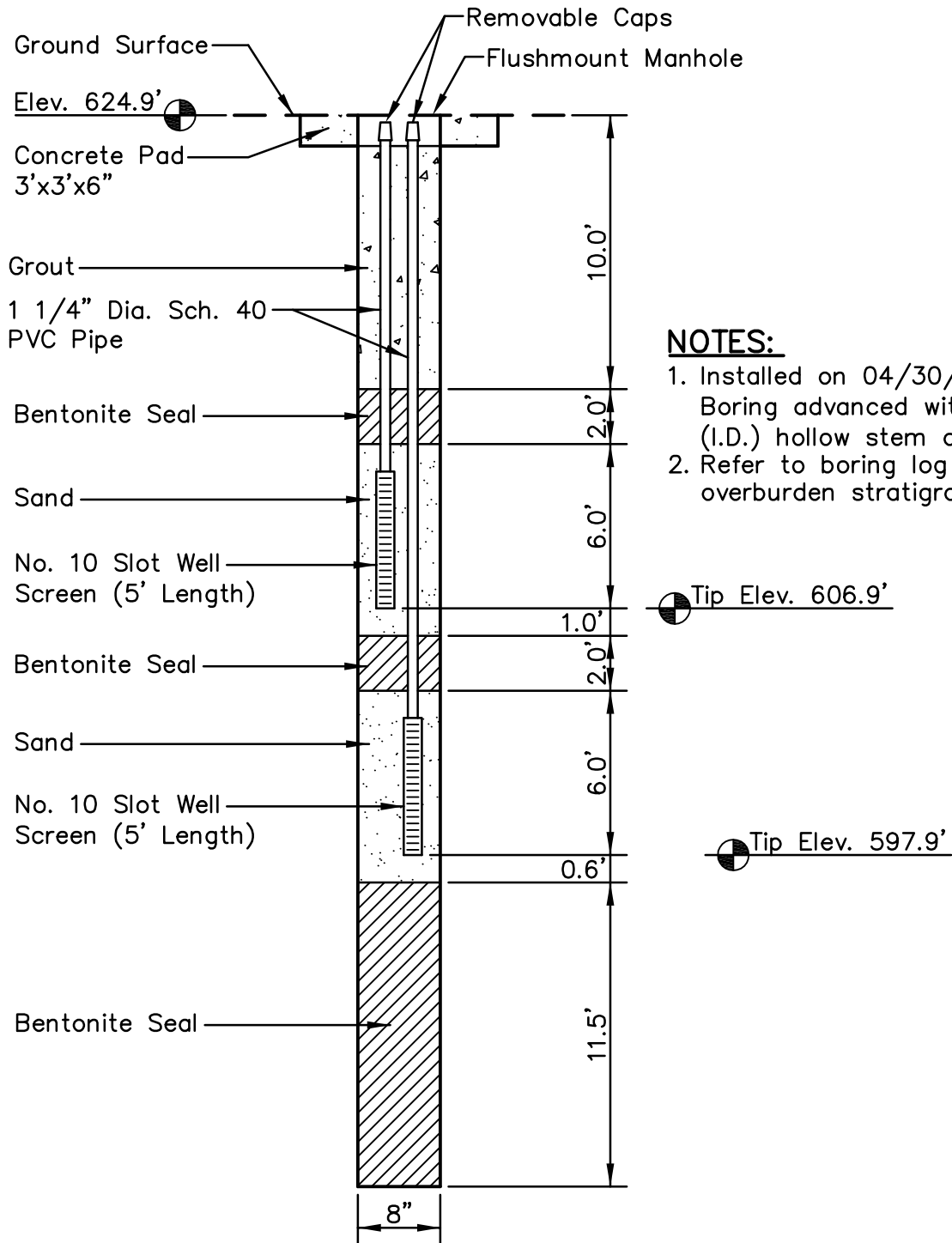
LOCATION:

Northing: 1,597,723.52
 Easting: 522,758.91
 Ground Elevation: 636.9 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-82 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 04/30/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

Northing: 1,597,747.83
 Easting: 522,694.61
 Ground Elevation: 624.9 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

**PIEZOMETER STN-83
 MAIN ASH POND
 WIDOWS CREEK FOSSIL PLANT**



Stantec

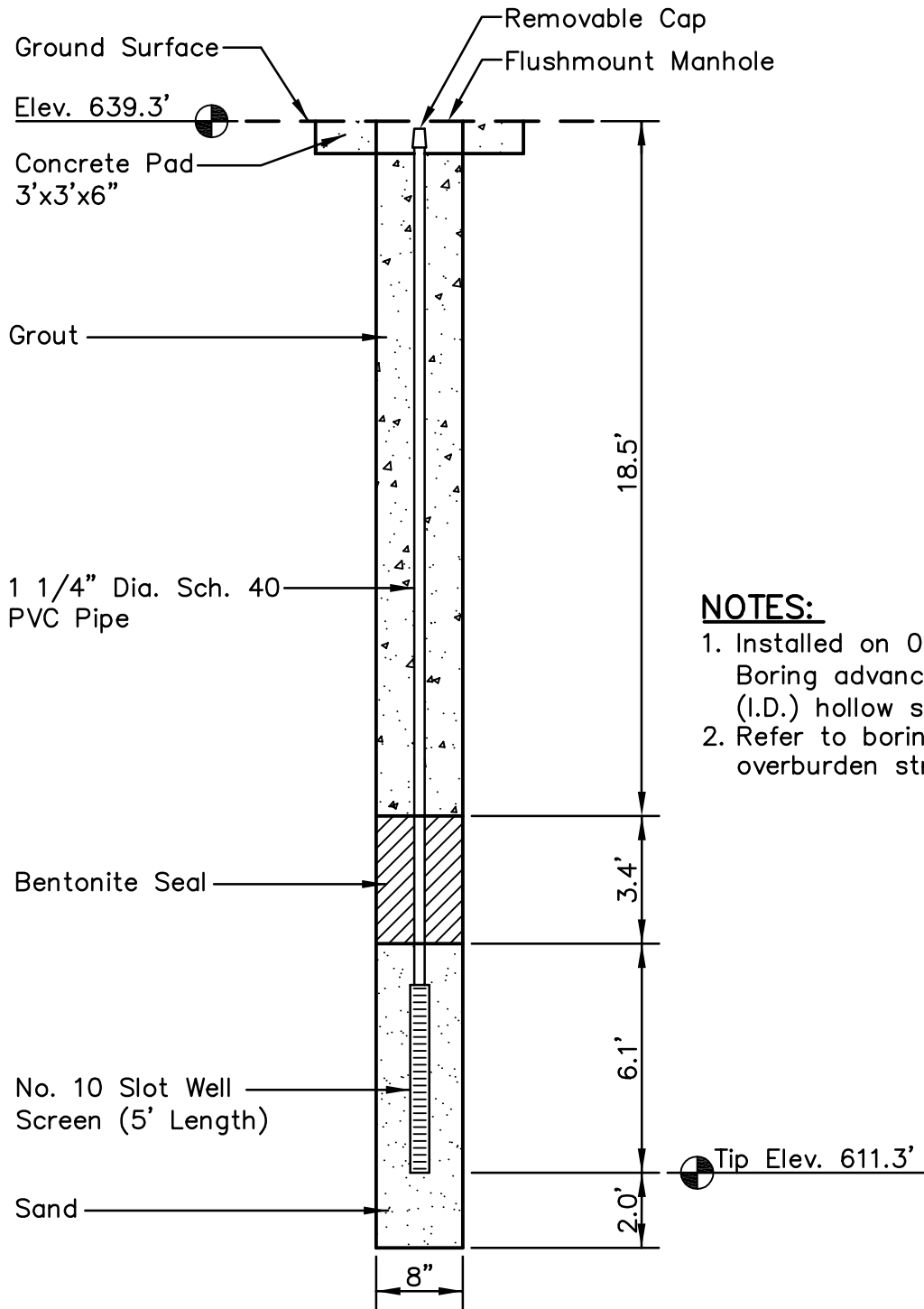
Stantec Consulting
 Services Inc.
 1409 N. Forbes Rd.
 Lexington, Kentucky
 40511-2050
 859-422-3000

www.stantec.com

DRAWN BY	TJ	DATE	JUNE, 2009	REVISED	
CHECKED BY	GKA	PROJ. NO.	175569036	1.	3.
CHECKED BY	RDF	SCALE	NTS	2.	4.

SHEET
1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ83.DWG



NOTES:

1. Installed on 04/28/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

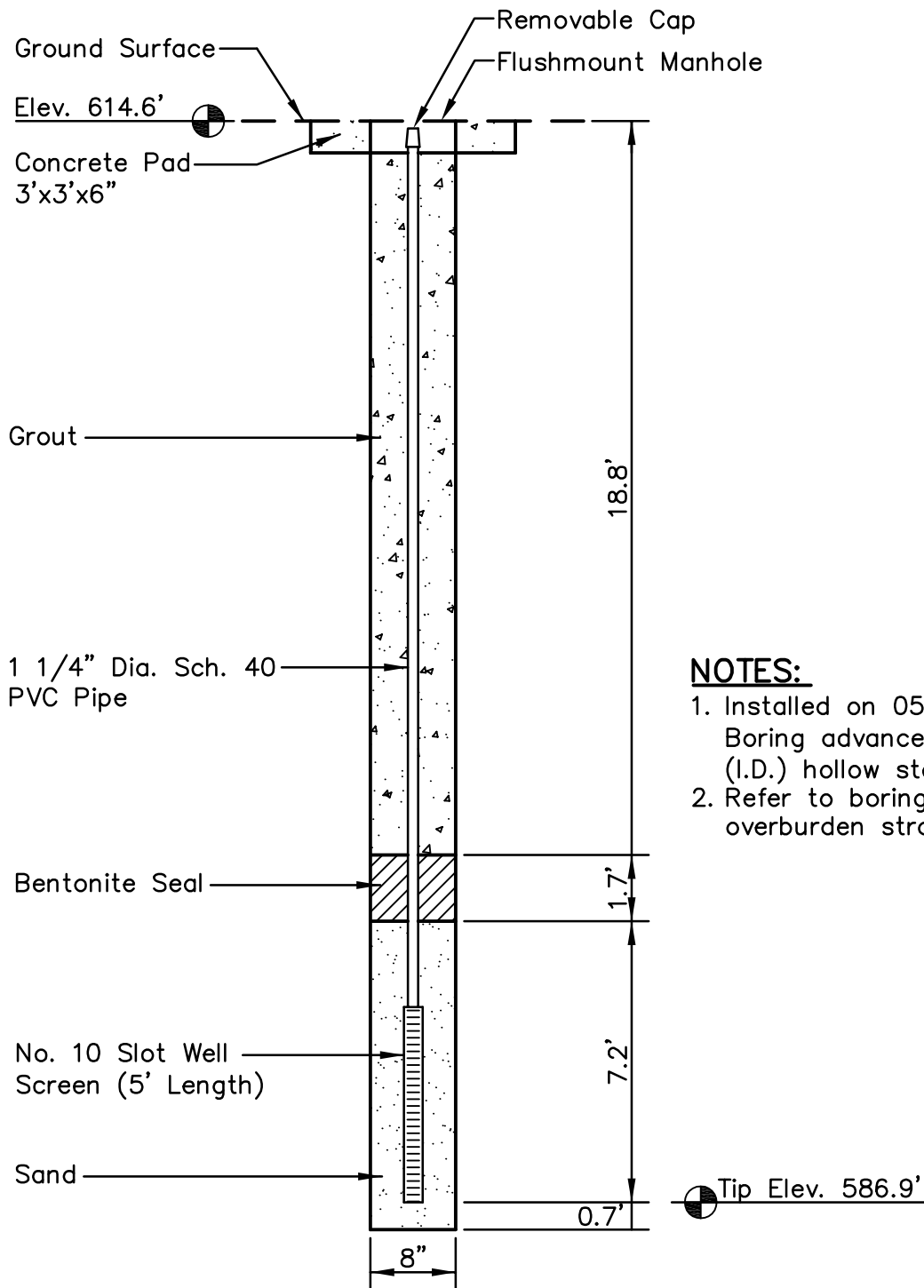
PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ84.DWG

LOCATION:

Northing: 1,596,588.04
 Easting: 523,031.04
 Ground Elevation: 639.3 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-84 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 05/04/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ85.DWG

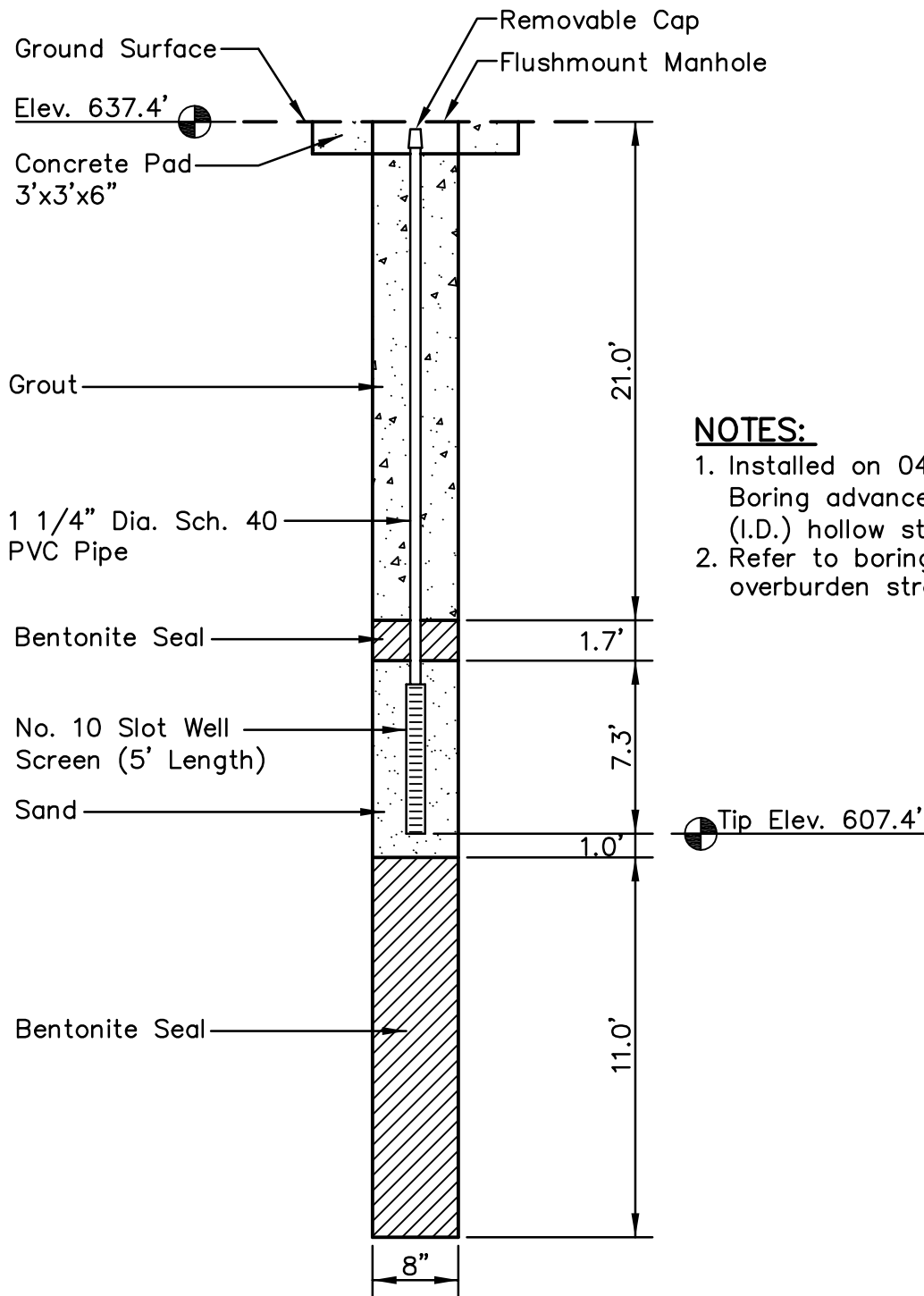
LOCATION:

Northing: 1,596,520.75
 Easting: 523,008.44
 Ground Elevation: 614.6 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-85 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 04/29/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

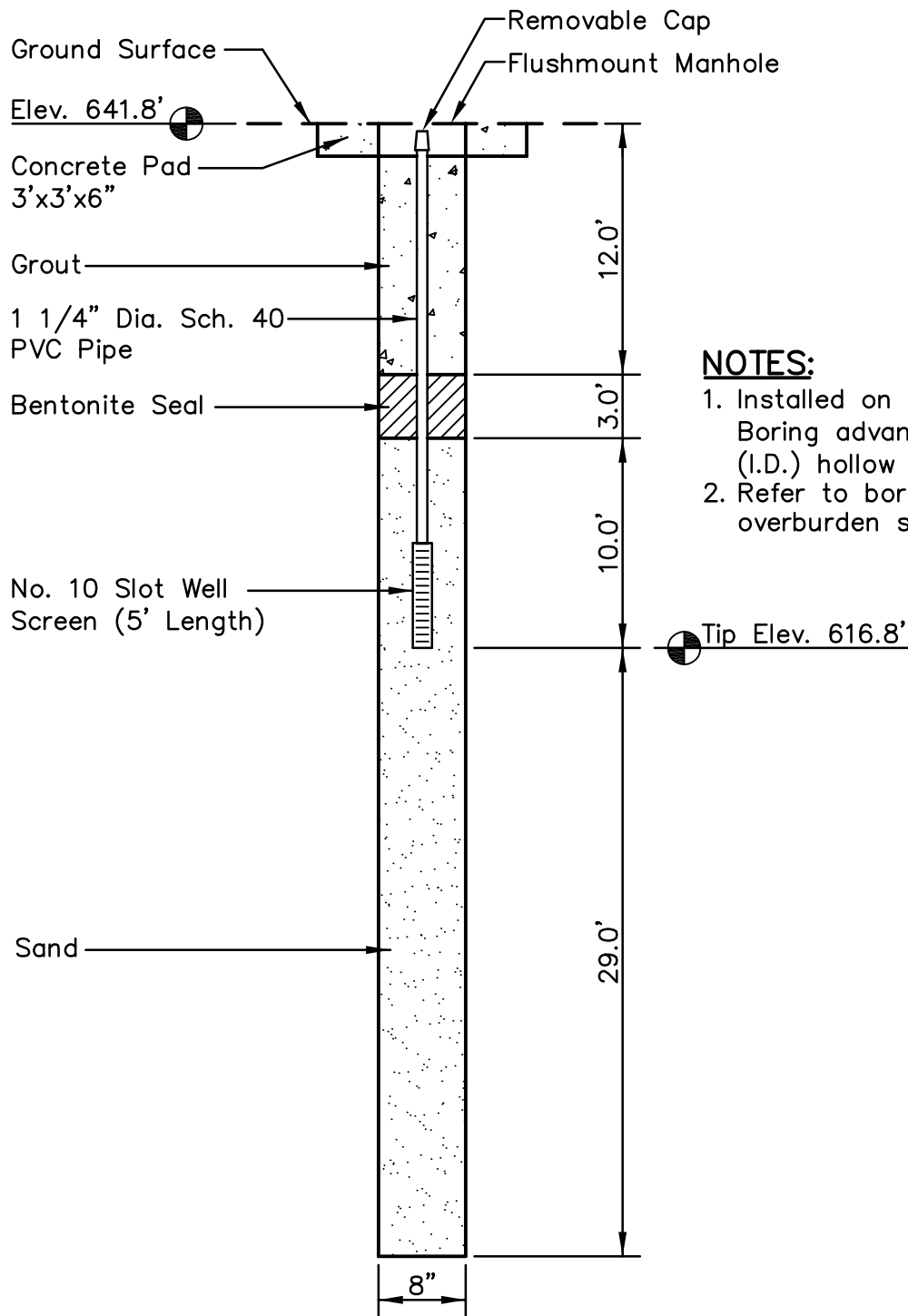
PLOT DATE: 09/28/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ87.DWG

LOCATION:

Northing: 1,596,587.84
 Easting: 523,211.07
 Ground Elevation: 637.4 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-87 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 06/22/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

Northing: 1,598,456.37
 Easting: 524,812.06
 Ground Elevation: 641.8 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

**PIEZOMETER STN-93
 MAIN ASH POND
 WIDOWS CREEK FOSSIL PLANT**



Stantec

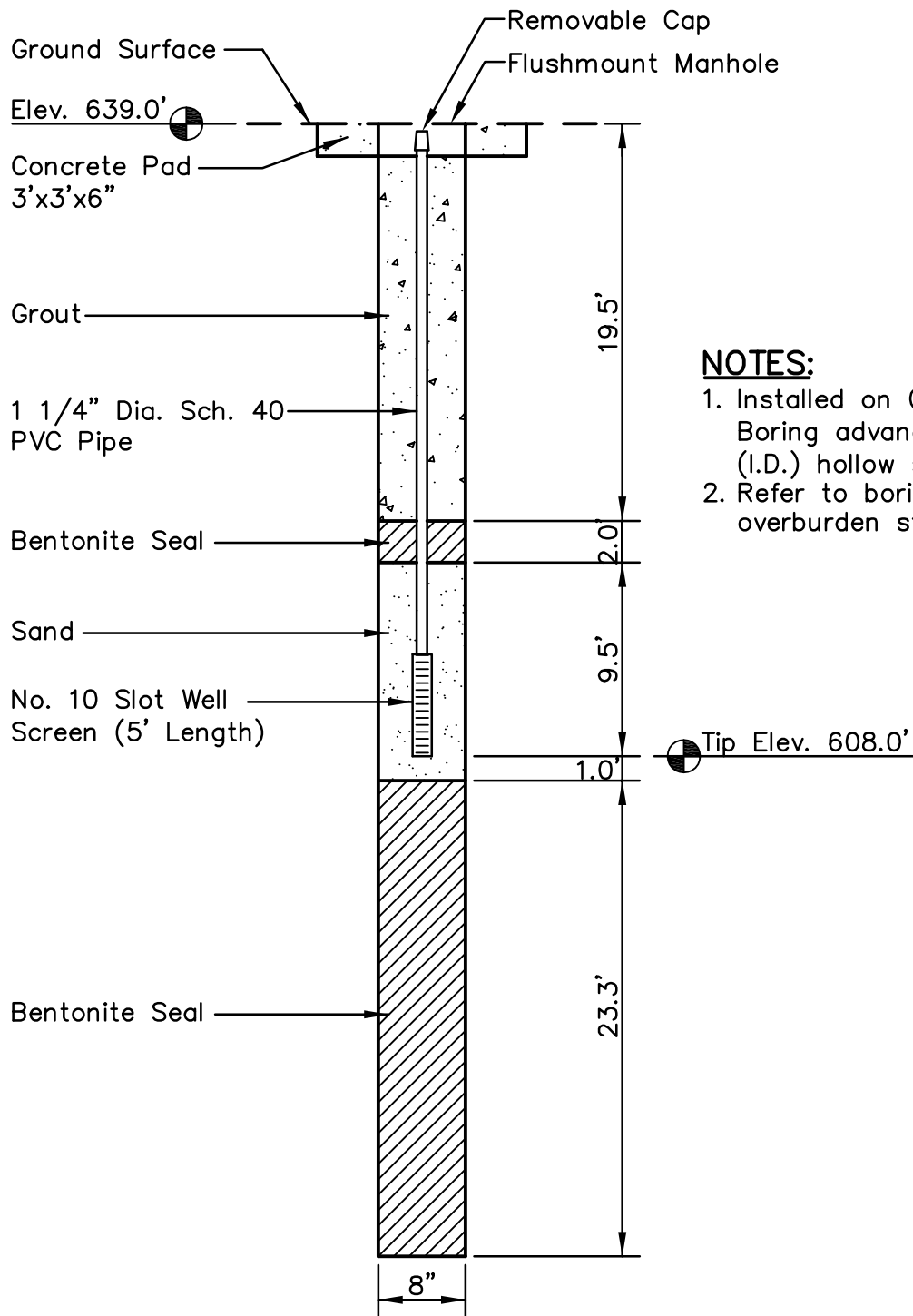
Stantec Consulting
 Services Inc.
 1409 N. Forbes Rd.
 Lexington, Kentucky
 40511-2050
 859-422-3000

www.stantec.com

DRAWN BY	RWE	DATE	JUNE, 2009	REVISED	
CHECKED BY	GKA	PROJ. NO.	175569036	1.	3.
CHECKED BY	RDF	SCALE	NTS	2.	4.

SHEET
1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
 V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ93.DWG



NOTES:

1. Installed on 06/24/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ94.DWG

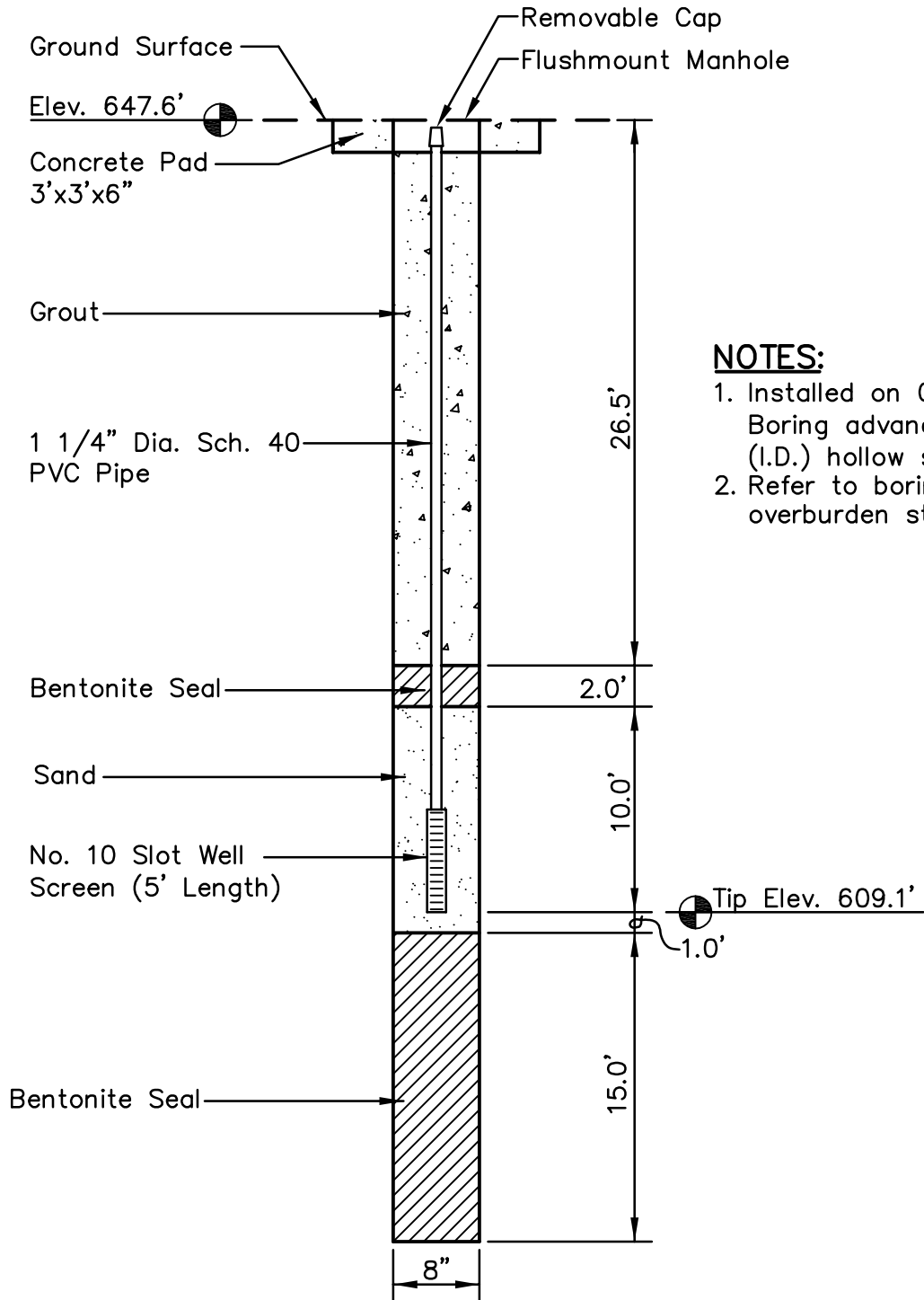
LOCATION:

Northing: 1,598,399.46
 Easting: 524,769.64
 Ground Elevation: 639.0 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-94 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	RWE	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 06/16/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: 1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ96.DWG

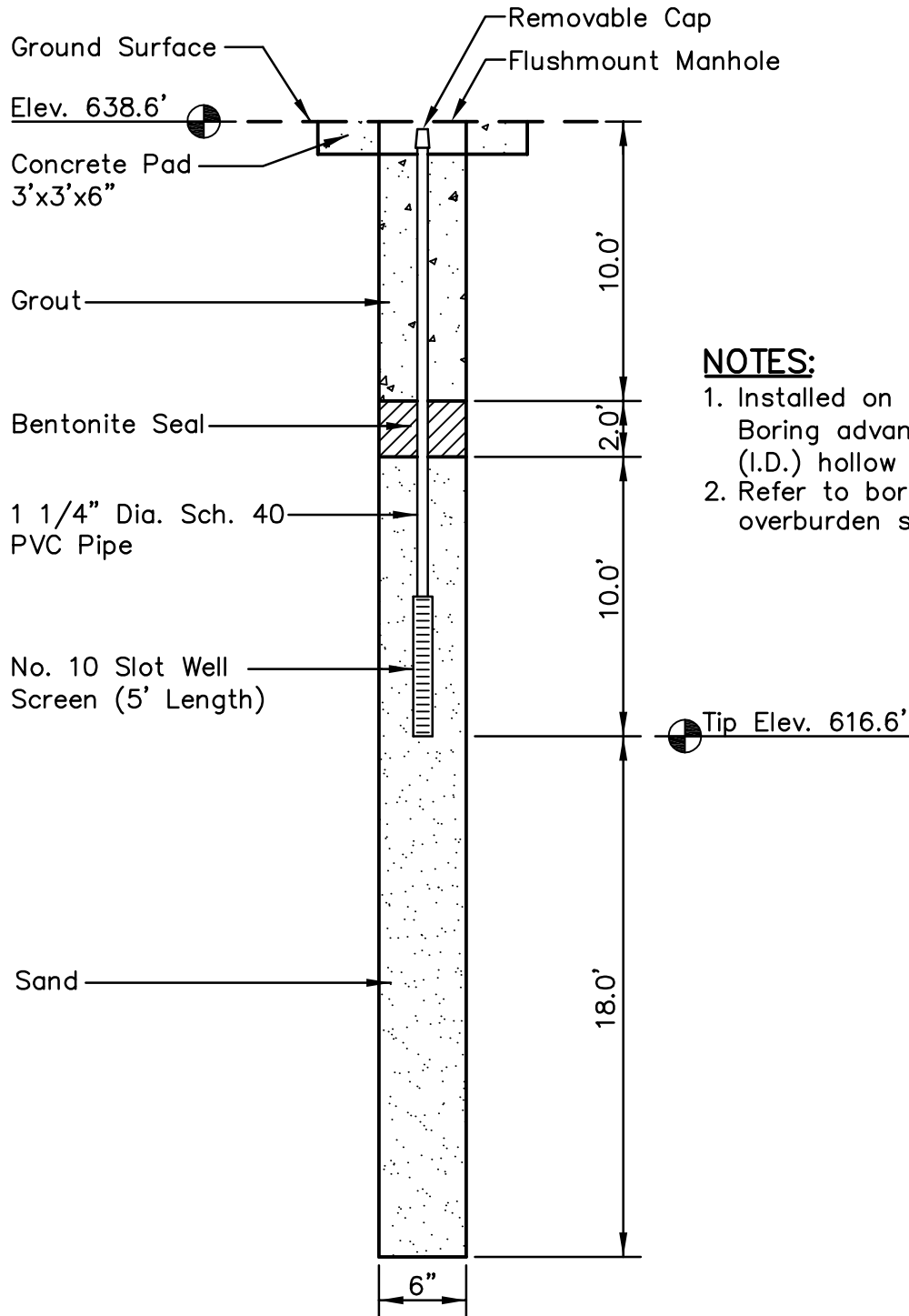
LOCATION:

Northing: 1,597,293.44
 Easting: 526,298.58
 Ground Elevation: 647.6 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-96 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 06/17/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ97.DWG

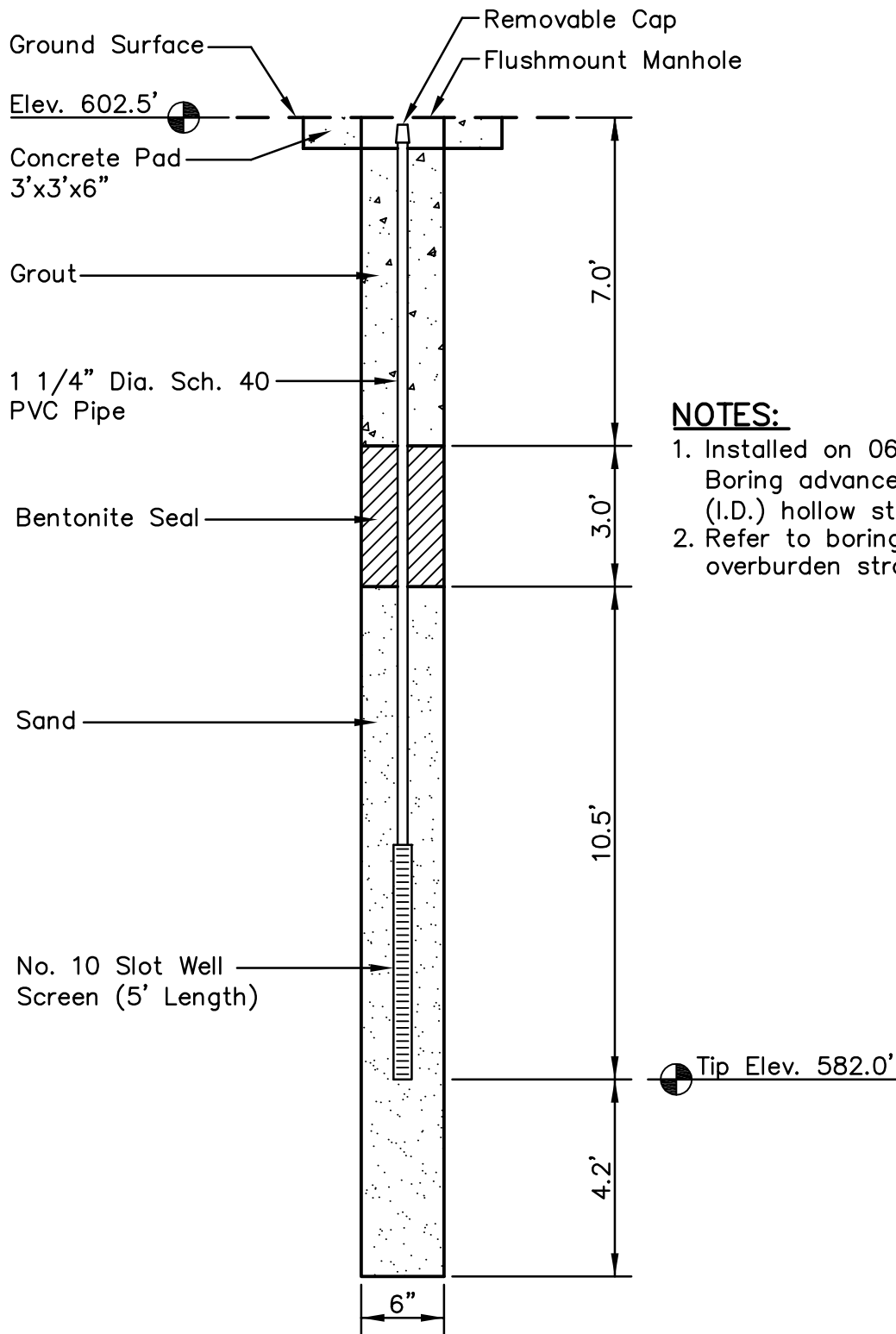
LOCATION:

Northing: 1,597,191.88
 Easting: 526,271.27
 Ground Elevation: 638.6 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-97 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 06/04/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ98.DWG

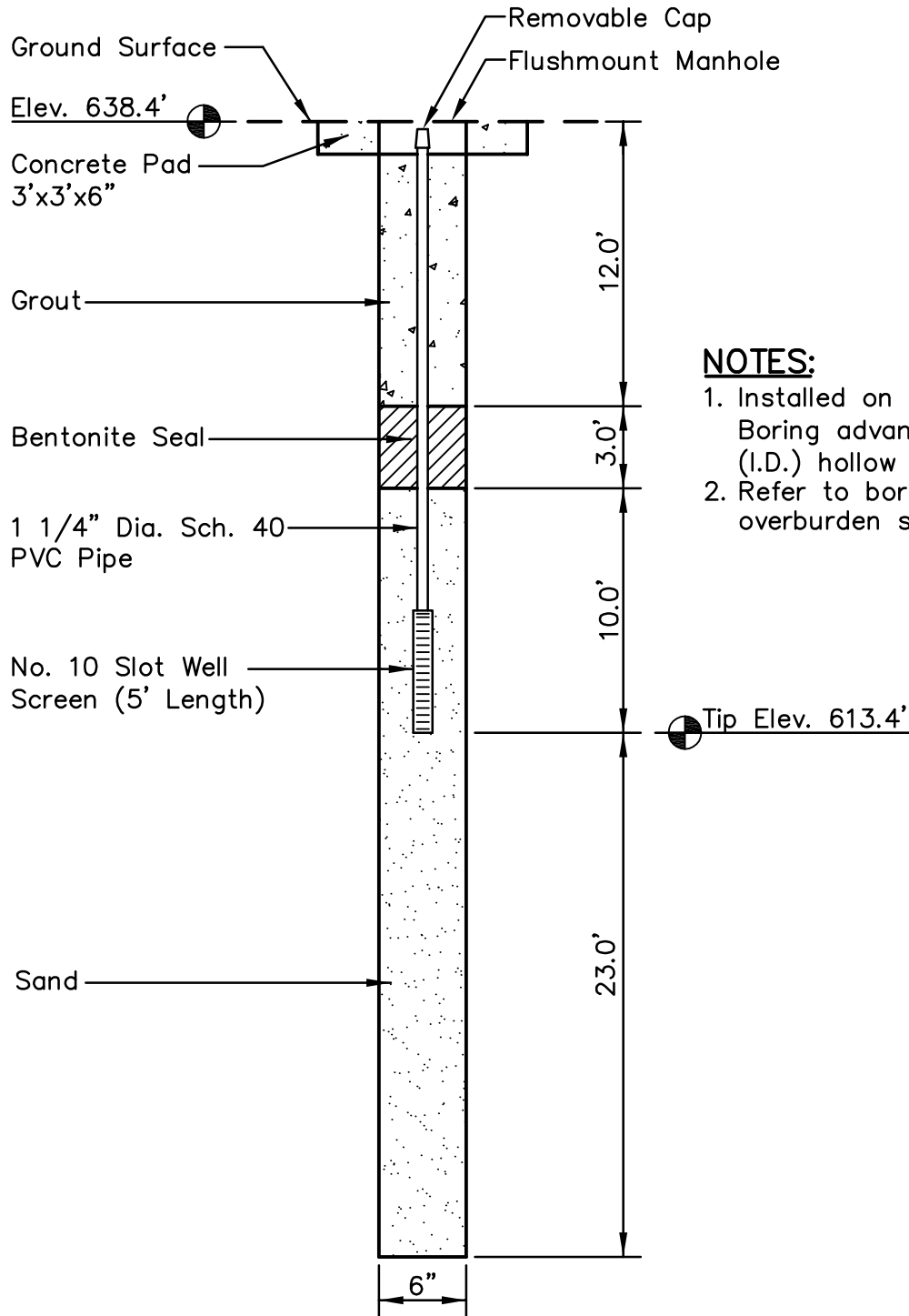
LOCATION:

Northing: 1,597,091.52
 Easting: 526,250.22
 Ground Elevation: 602.5 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-98 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 06/17/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ99.DWG

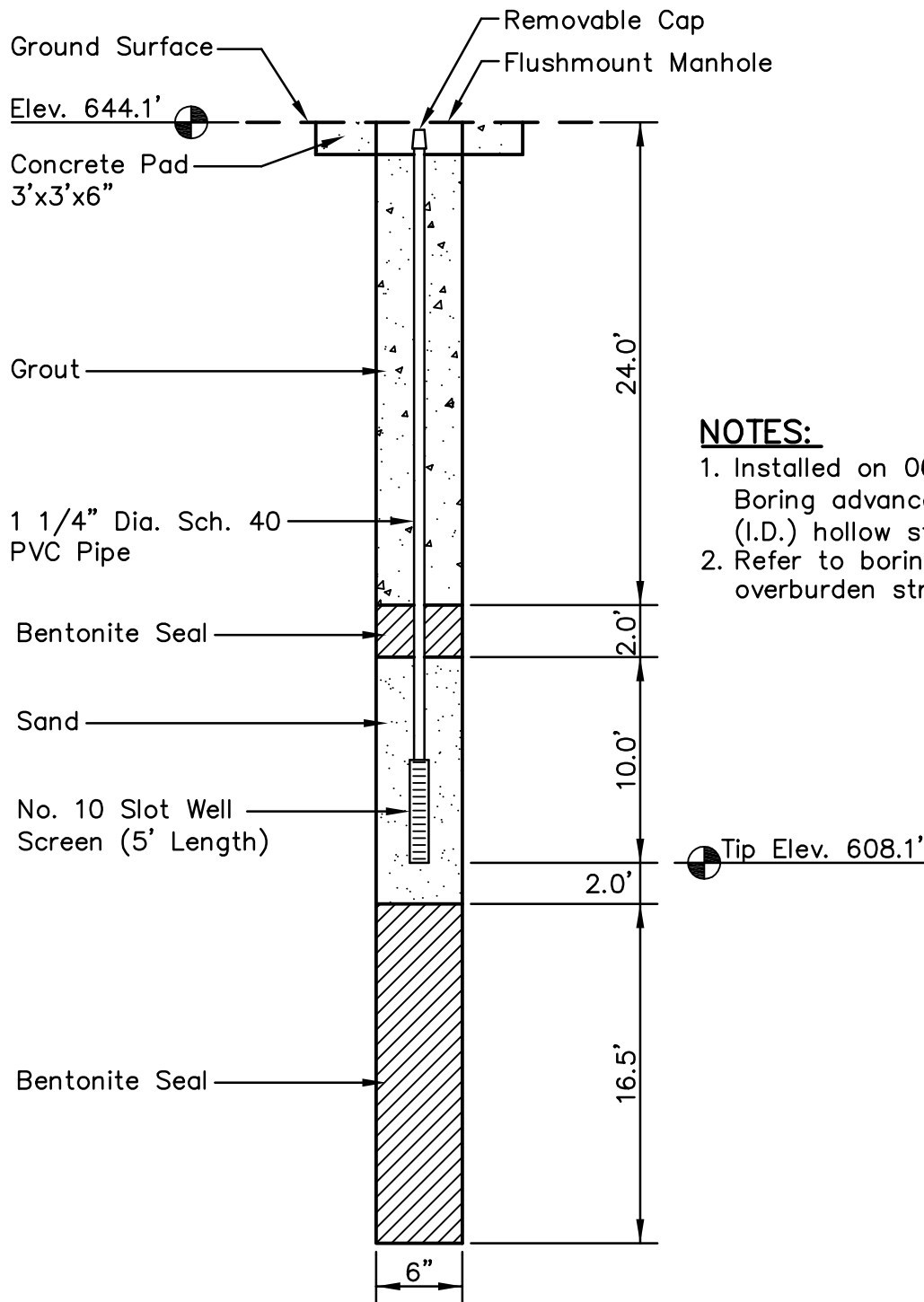
LOCATION:

Northing: 1,597,803.36
Easting: 526,989.76
Ground Elevation: 638.4 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
Vertical Datum: NGVD29

PIEZOMETER STN-99 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 06/03/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ100.DWG

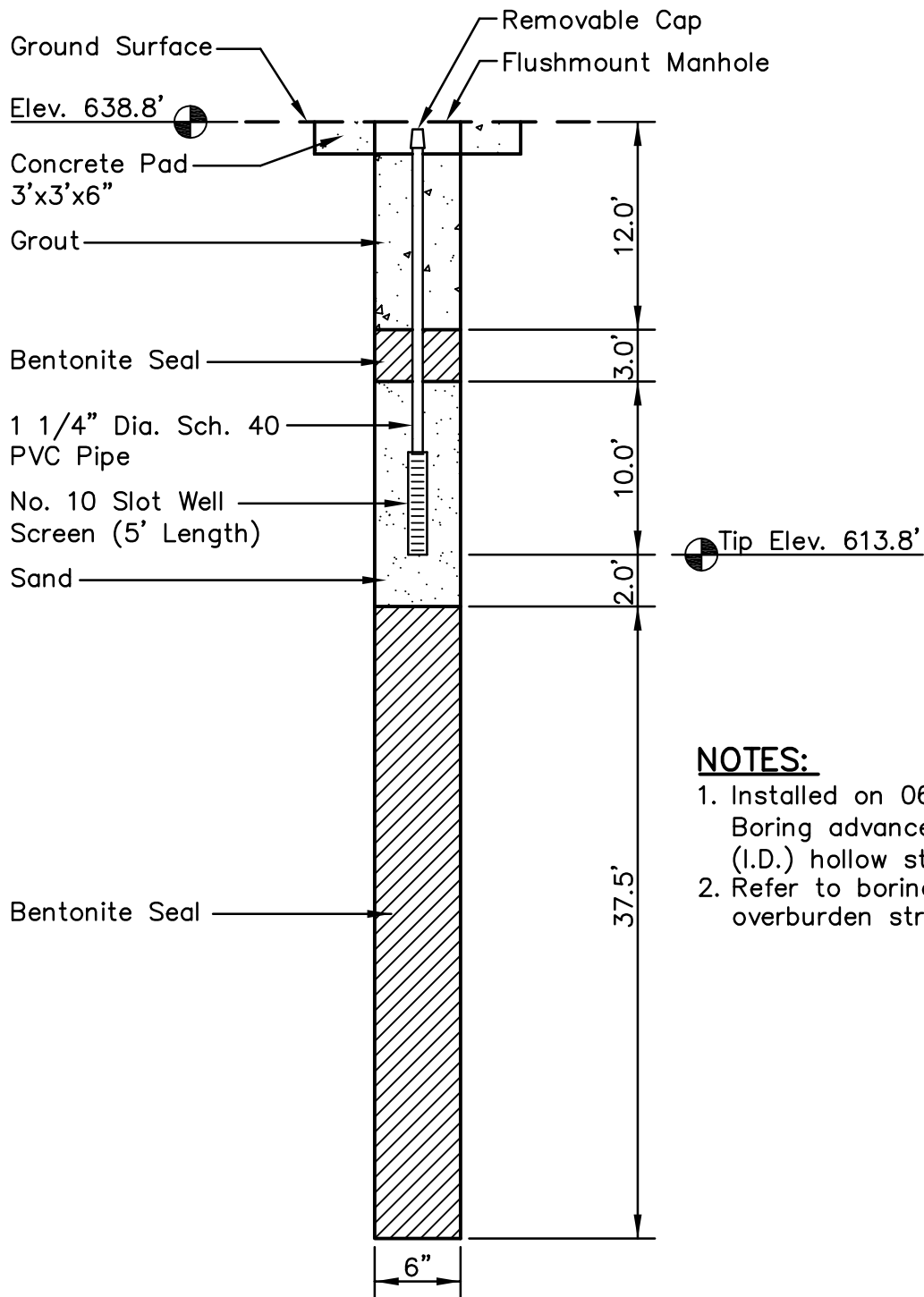
LOCATION:

Northing: 1,598,327.99
 Easting: 527,385.44
 Ground Elevation: 644.1 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-100 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 06/12/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

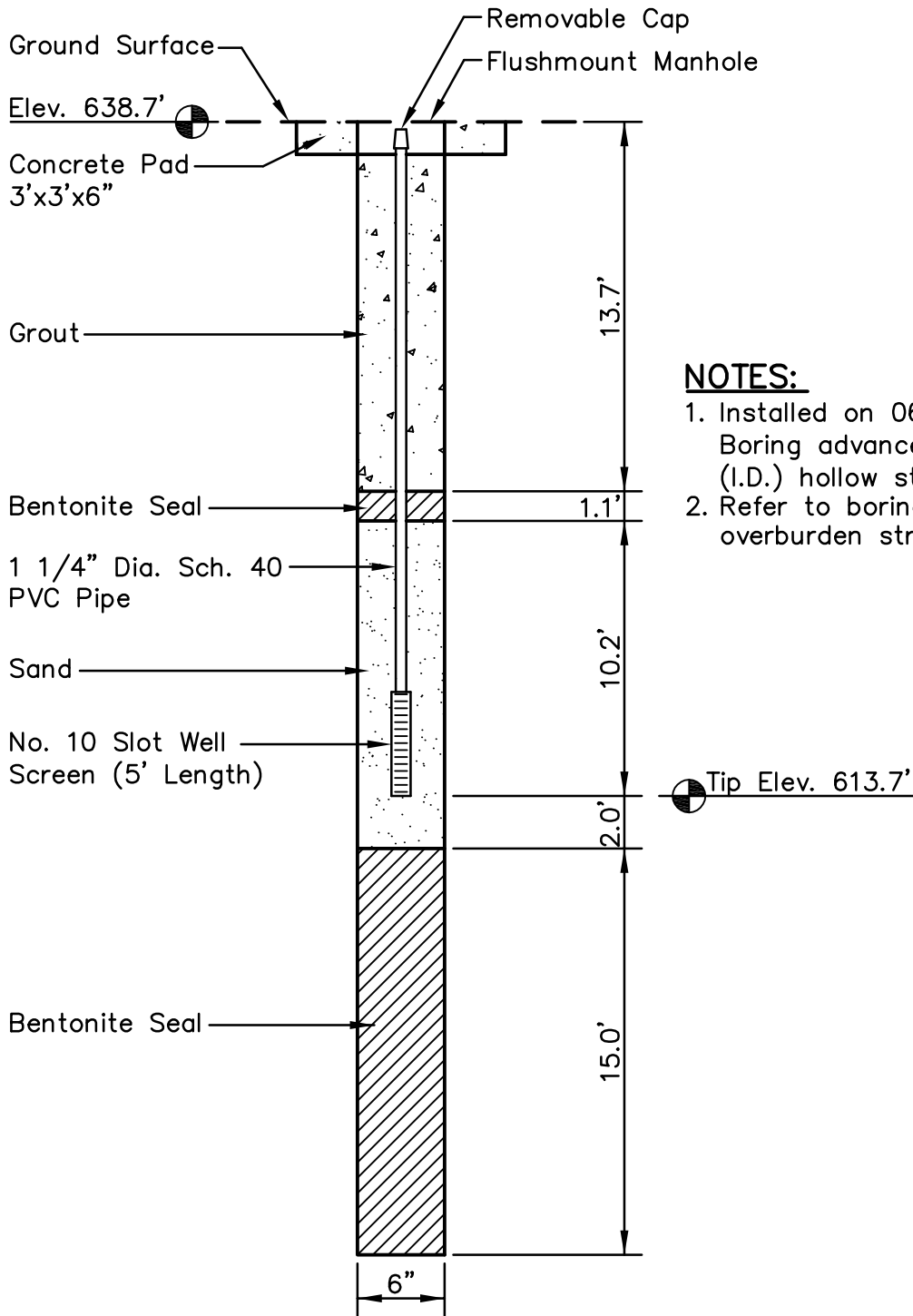
PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ101.DWG

LOCATION:

Northing: 1,598,404.27
 Easting: 527,426.83
 Ground Elevation: 638.8 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-101 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 06/10/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

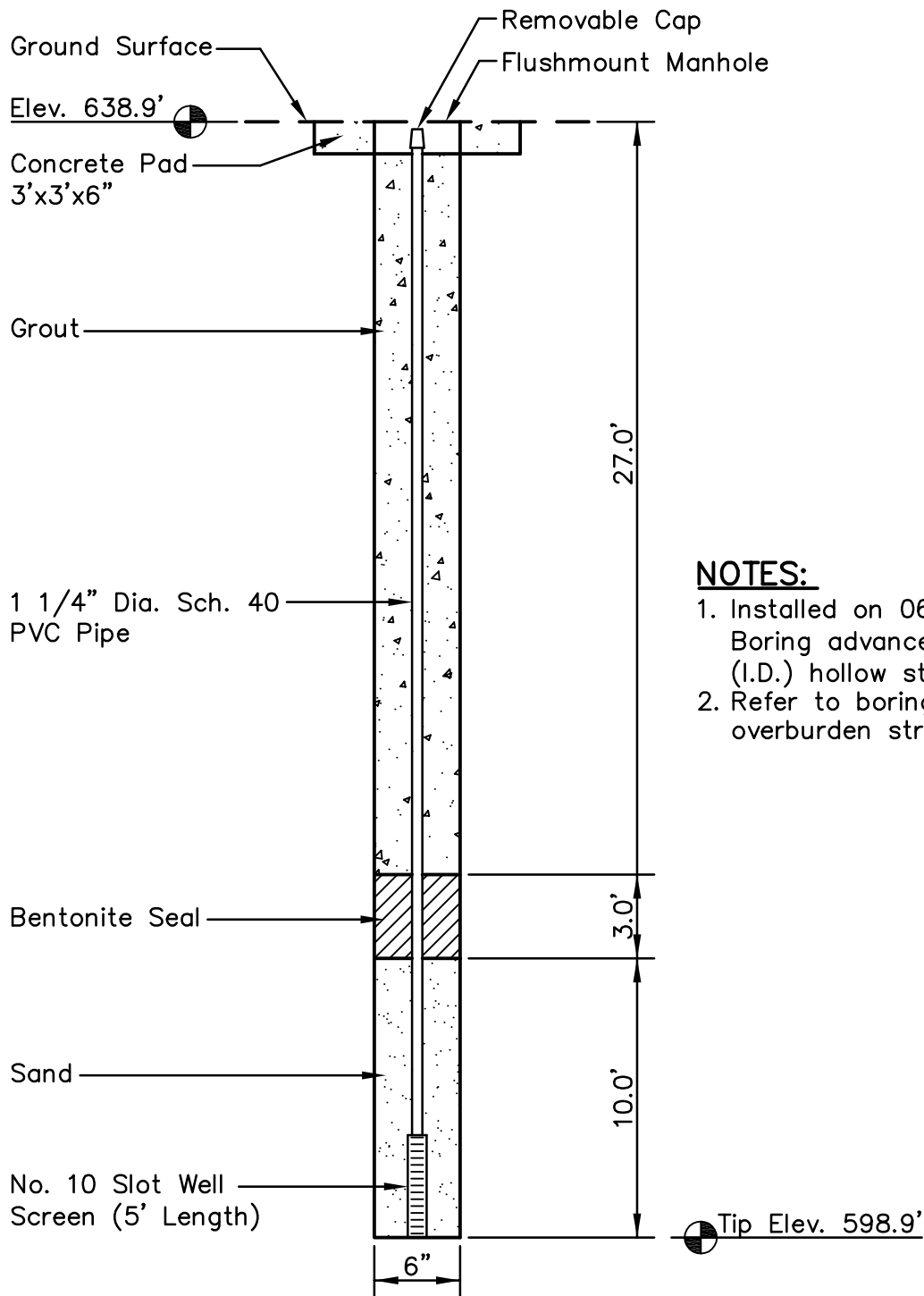
Northing: 1,599,036.48
 Easting: 526,931.27
 Ground Elevation: 638.7 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-102 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ102.DWG



NOTES:

1. Installed on 06/09/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

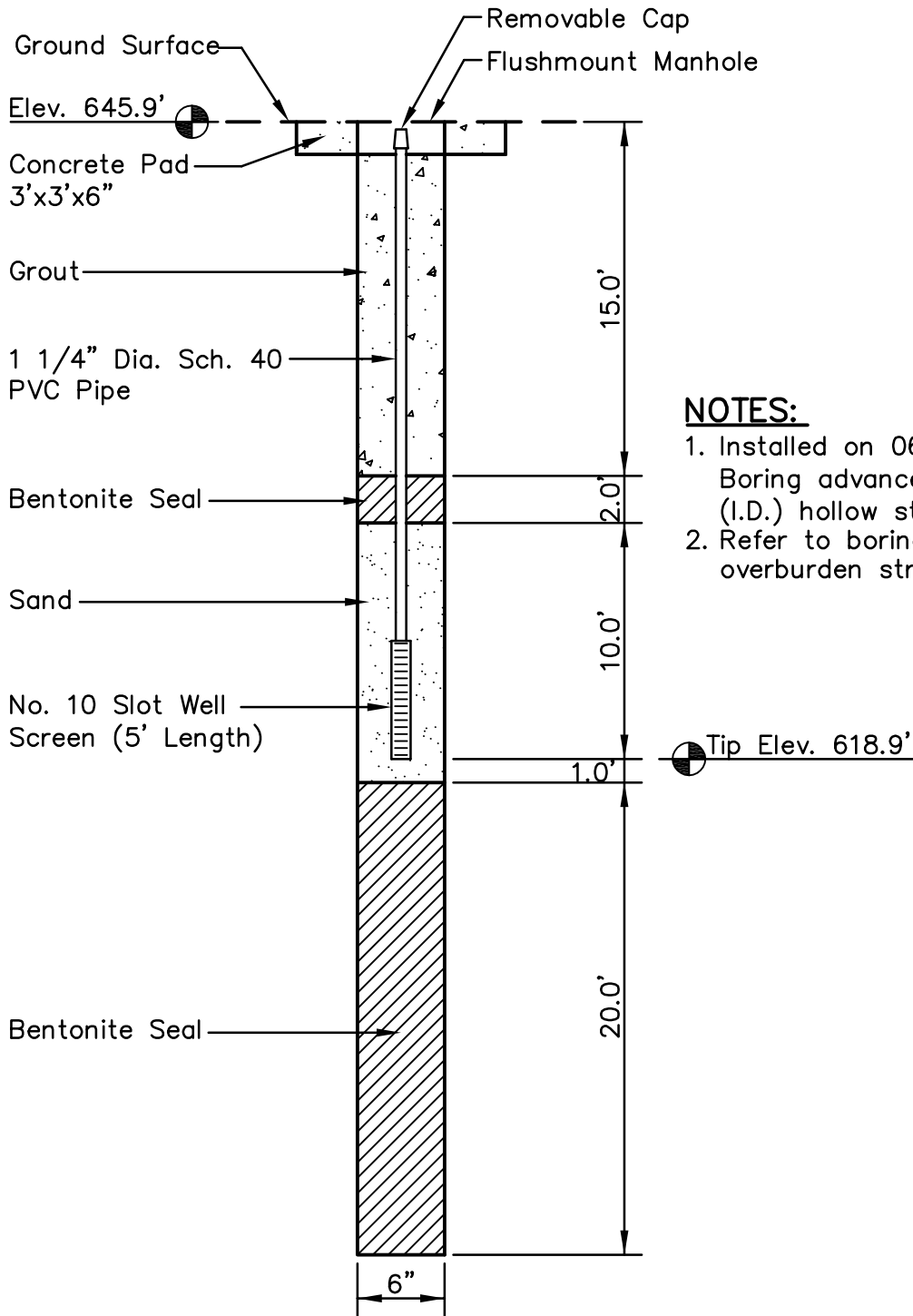
PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ103.DWG

LOCATION:

Northing: 1,599,683.17
 Easting: 526,424.24
 Ground Elevation: 638.9 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-103 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
REVISED		1.	3.
REVISED		2.	4.
SHEET			1 OF 1



NOTES:

1. Installed on 06/09/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

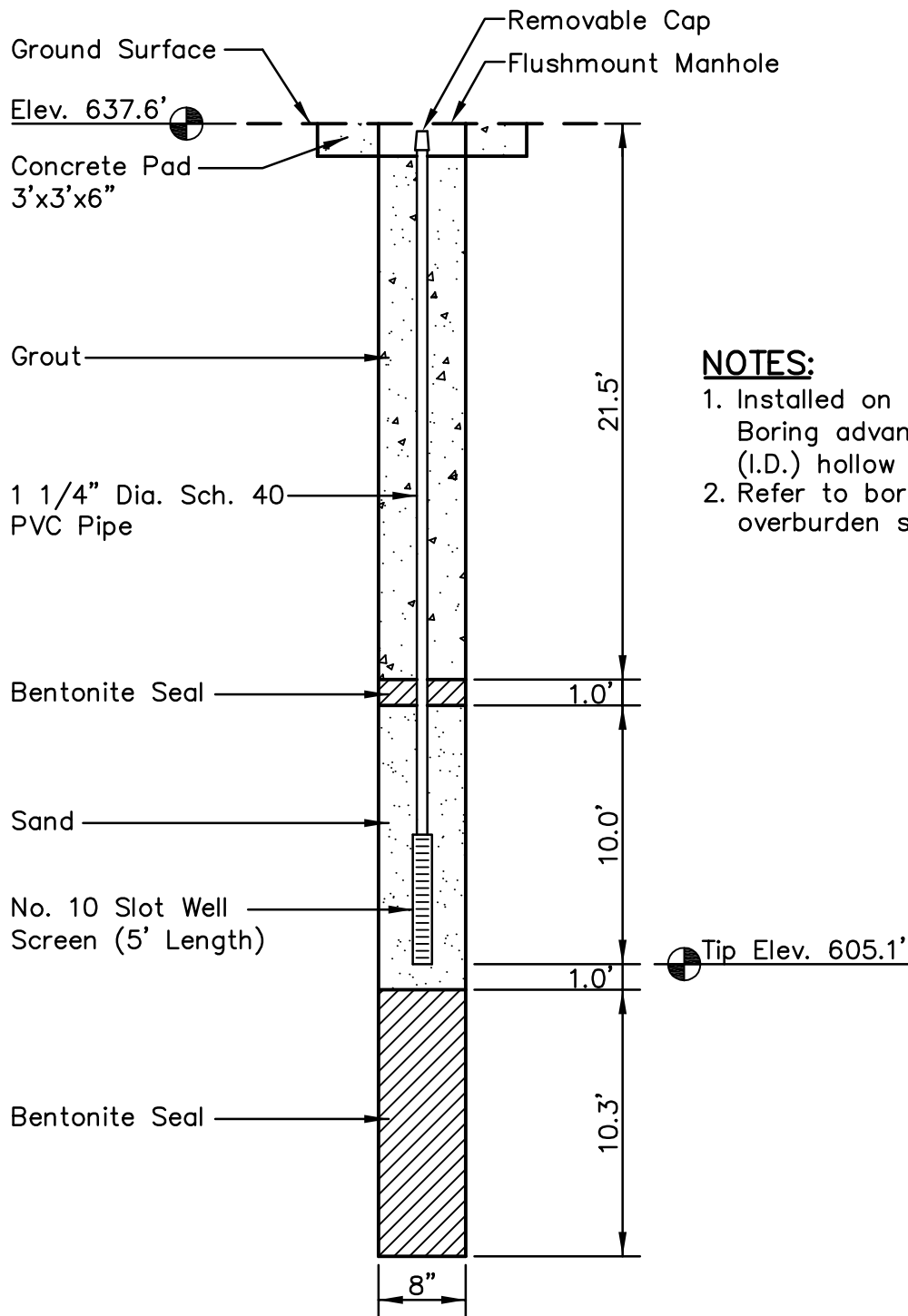
Northing: 1,600,046.74
 Easting: 525,695.62
 Ground Elevation: 645.9 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-104 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
 V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ104.DWG



NOTES:

1. Installed on 06/23/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

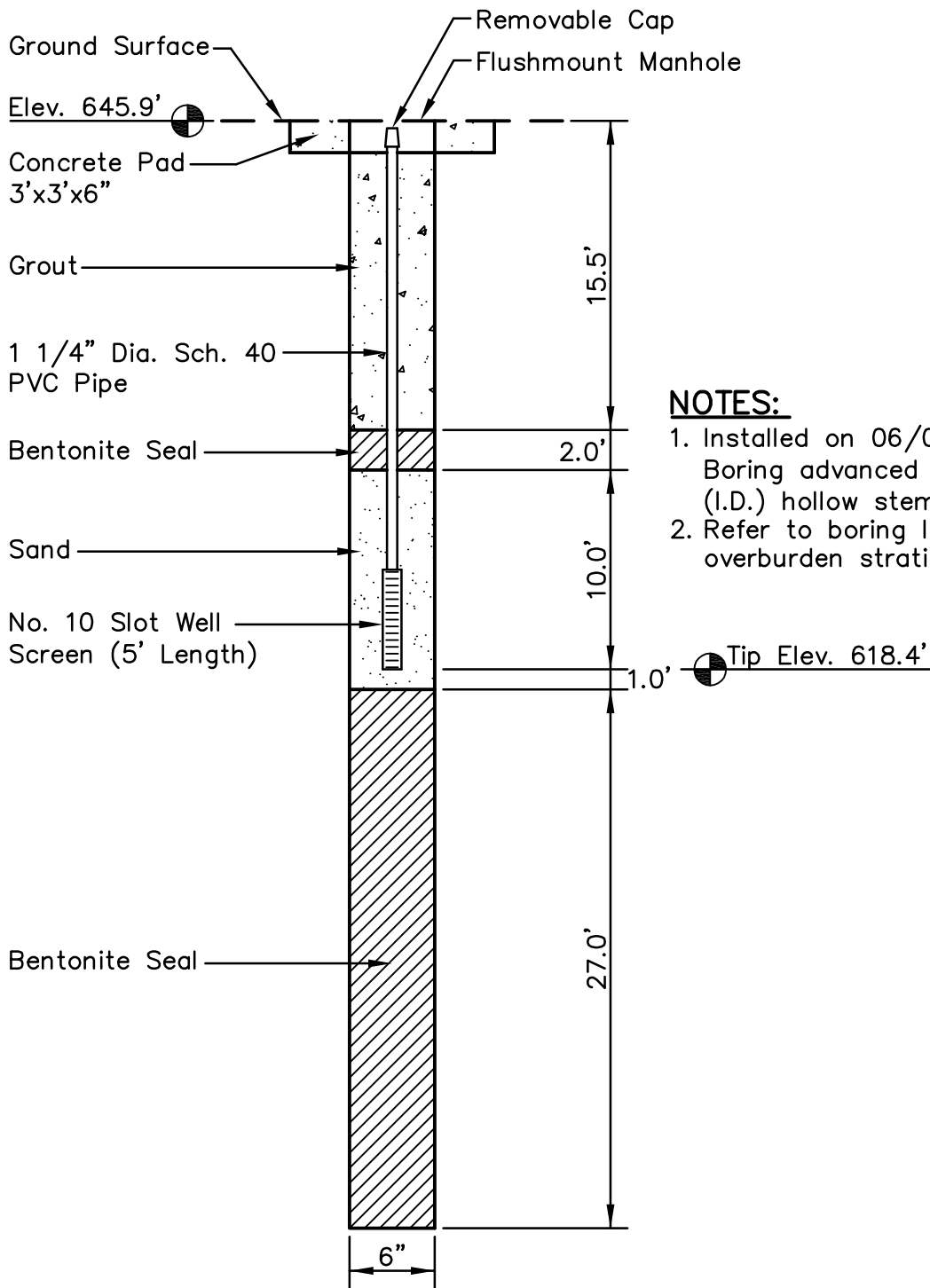
Northing: 1,600,094.28
 Easting: 525,640.41
 Ground Elevation: 637.6 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-105 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	RWE	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
 V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ105.DWG



NOTES:

1. Installed on 06/09/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

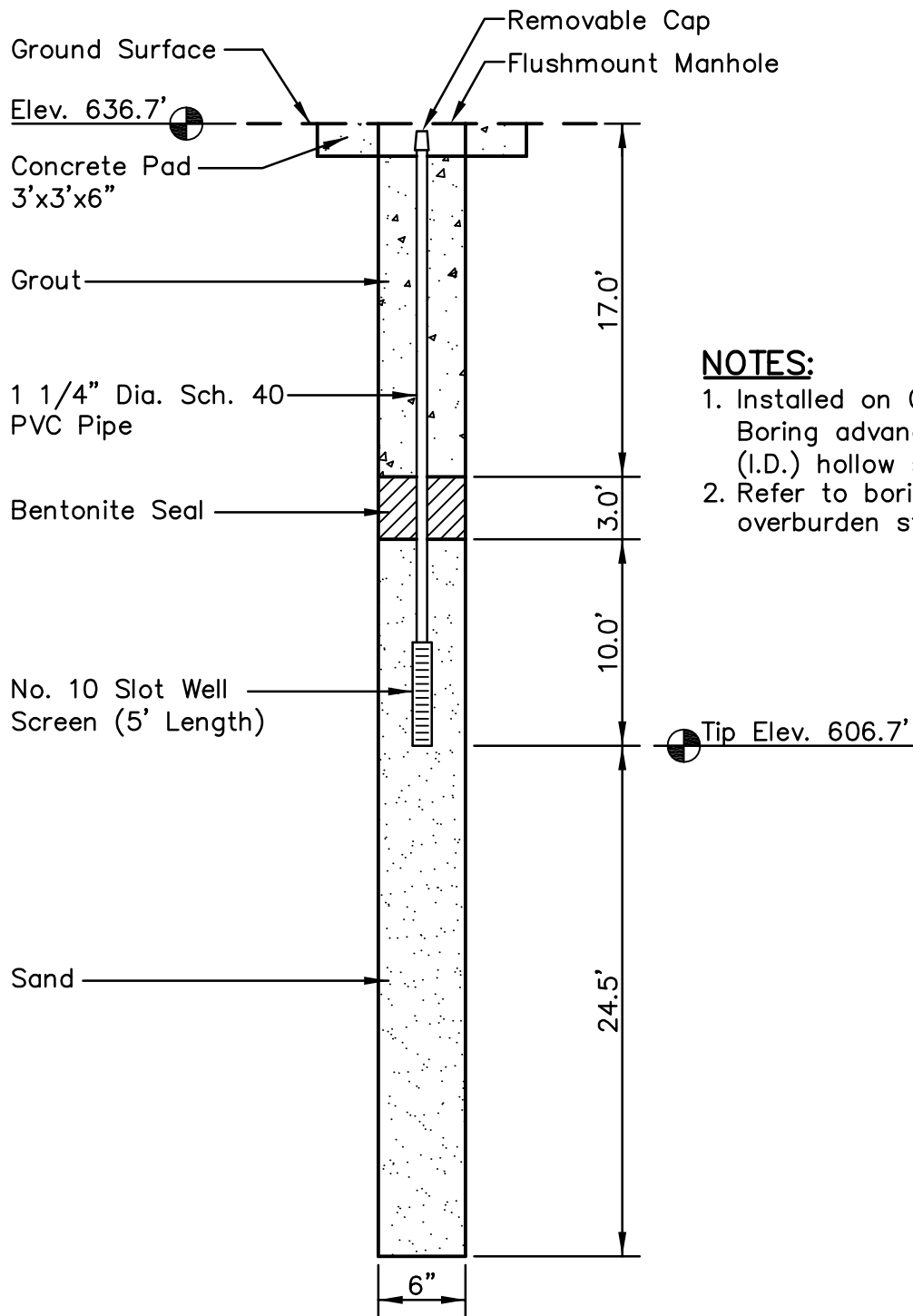
LOCATION:

Northing: 1,599,340.05
 Easting: 524,994.72
 Ground Elevation: 645.9 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-106 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ106.DWG



NOTES:

1. Installed on 06/23/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

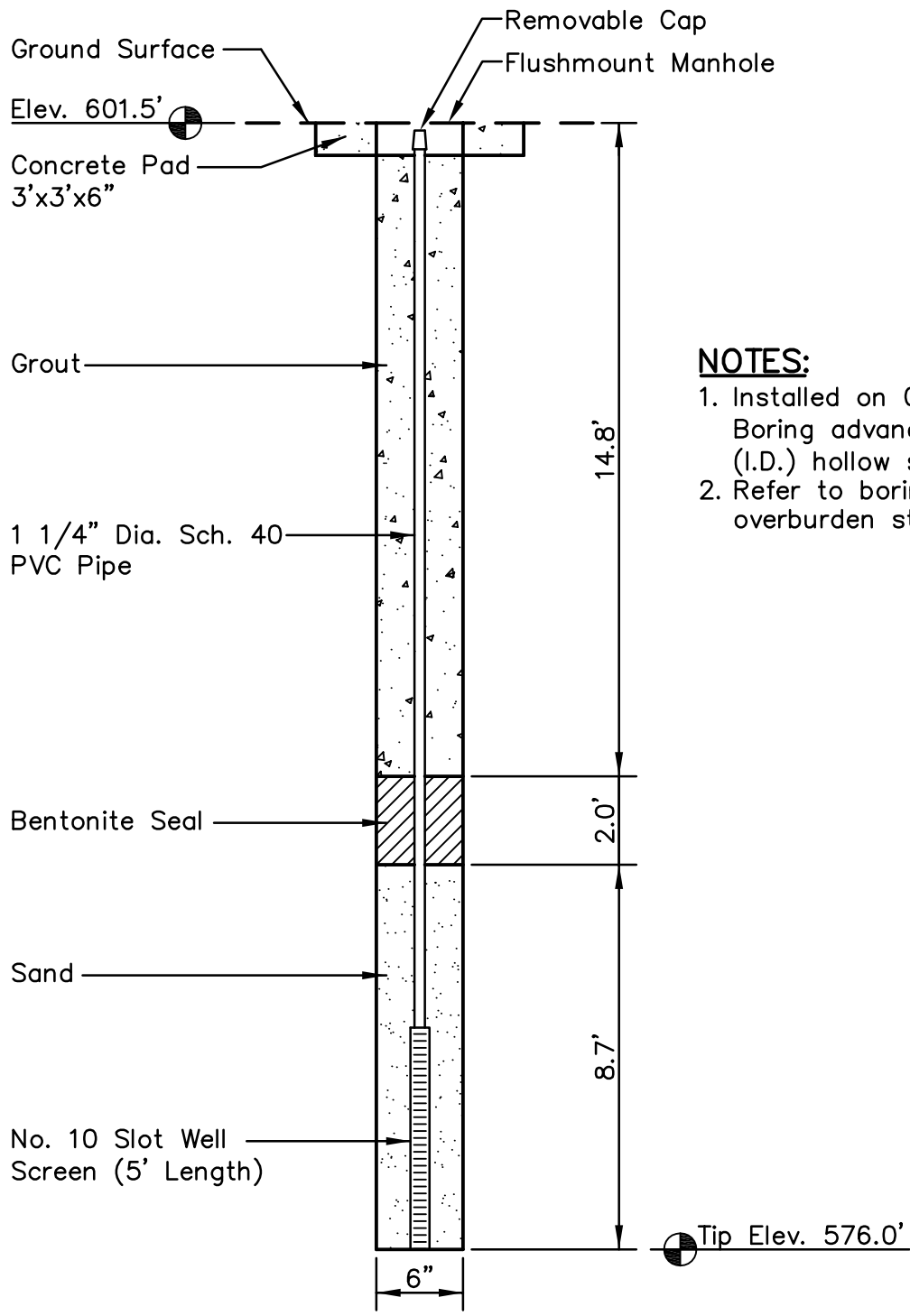
Northing: 1,599,407.02
 Easting: 524,937.35
 Ground Elevation: 636.7 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-107 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	RWE	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
 V: \1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ107.DWG



NOTES:

1. Installed on 06/23/2009. Boring advanced with 3.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden stratigraphy.

LOCATION:

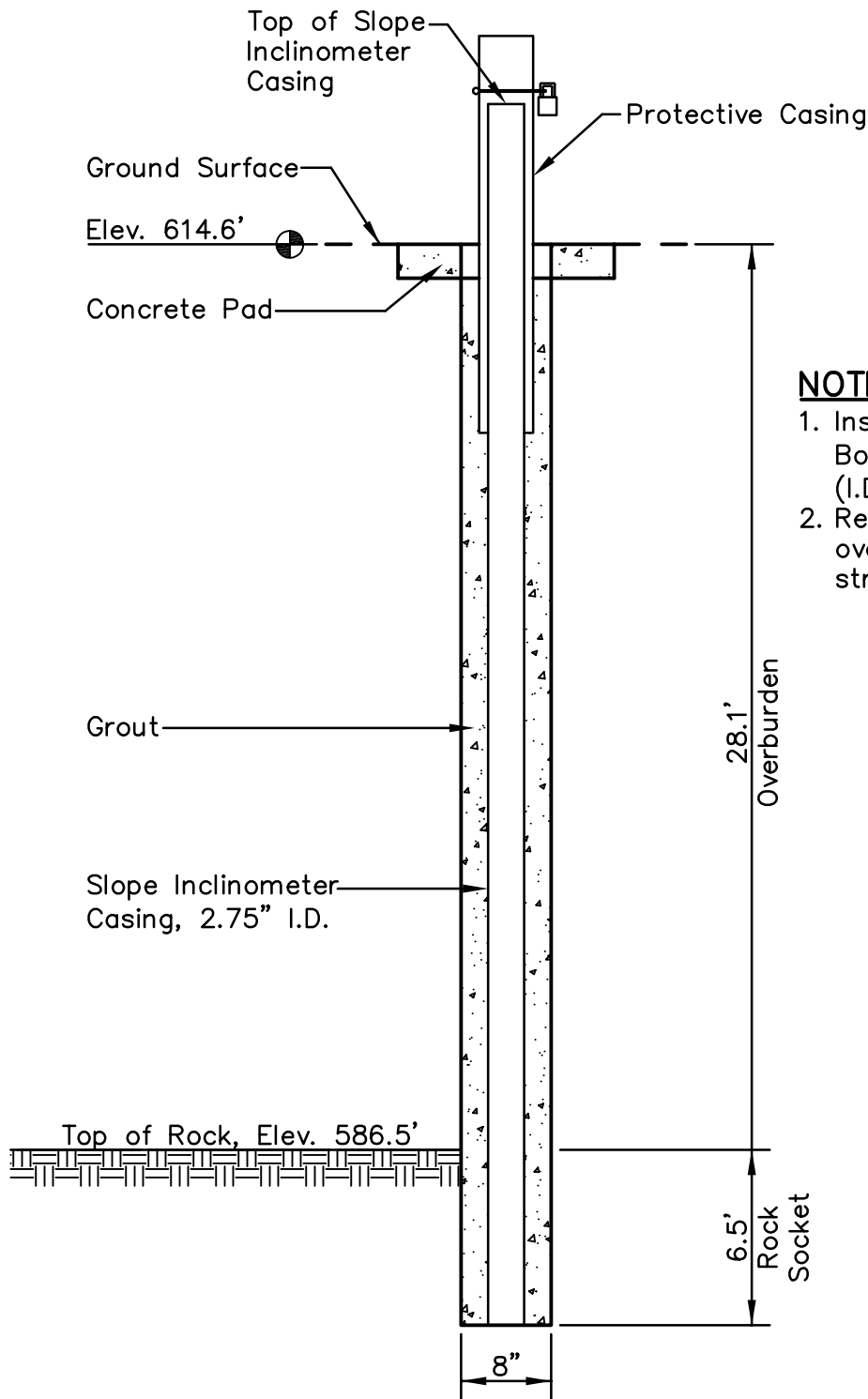
Northing: 1,597,658.11
 Easting: 527,138.21
 Ground Elevation: 601.5 feet

Locations to be provided by TVA, Power Systems Operations, Surveying and Project Services.

Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

PIEZOMETER STN-108 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	RWE	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

PLOT DATE: 09/28/2009 USER: GRAHAM, DAVE V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ108.DWG



NOTES:

1. Installed on 05/05/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden and rock stratigraphy.

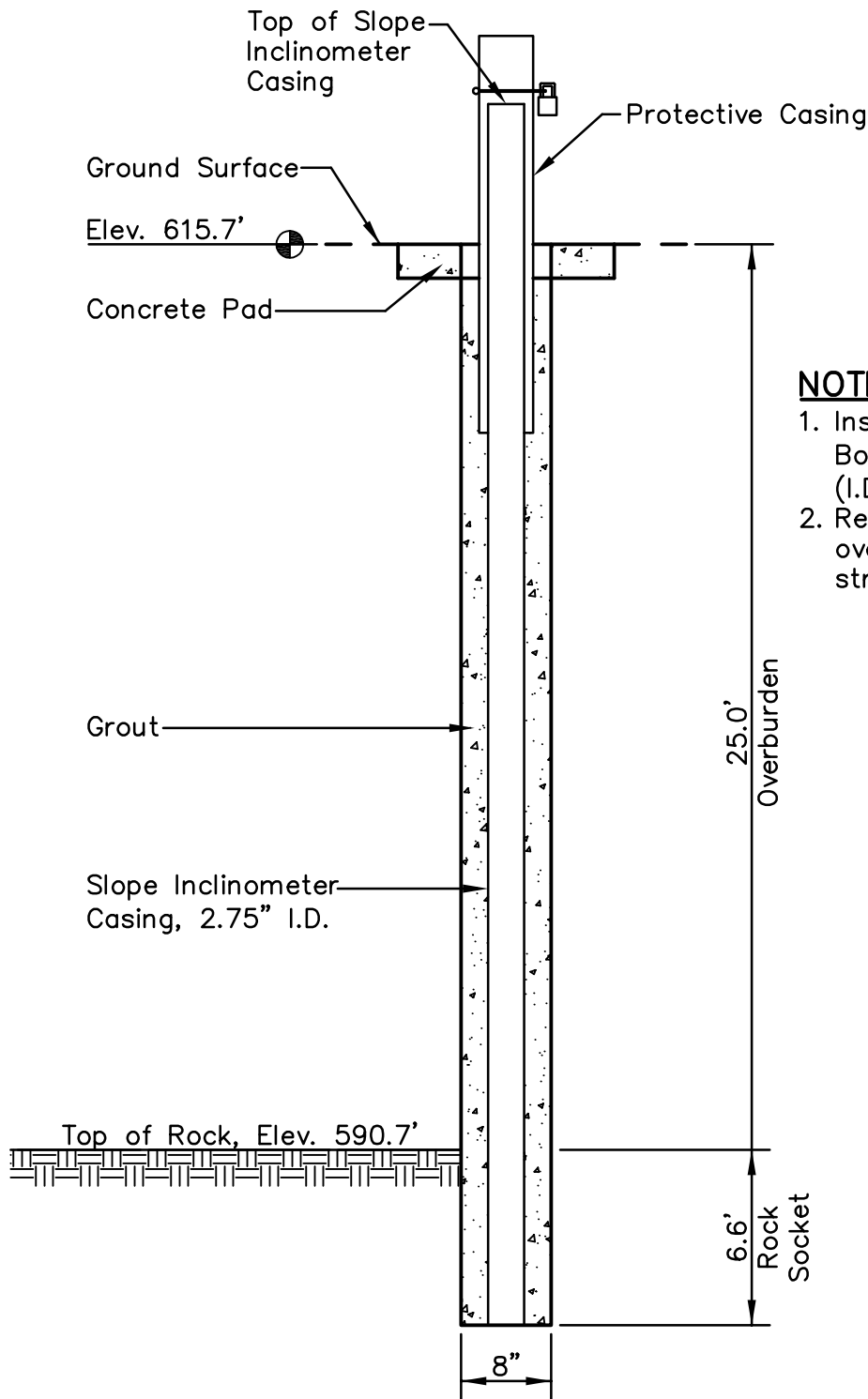
PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
V: \\1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ86.DWG

LOCATION:

Northing: 1,596,518.52
 Easting: 523,011.92
 Ground Elevation: 614.6 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

SLOPE INCLINOMETER STN-86 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1



NOTES:

1. Installed on 05/05/2009. Boring advanced with 4.25" (I.D.) hollow stem augers.
2. Refer to boring log for overburden and rock stratigraphy.

PLOT DATE: 07/16/2009 USER: GRAHAM, DAVE
V: \1755\ACTIVE\175569036\GEO\TECHNICAL\DRAWING\INSTRUMENTS\69036C-WCF-301-PZ88.DWG

LOCATION:

Northing: 1,596,511.64
 Easting: 523,232.37
 Ground Elevation: 615.7 feet

Locations to be provided by
 TVA, Power Systems
 Operations, Surveying and
 Project Services.
 Horizontal Datum: NAD 27
 Vertical Datum: NGVD29

SLOPE INCLINOMETER STN-88 MAIN ASH POND WIDOWS CREEK FOSSIL PLANT			
Stantec		Stantec Consulting Services Inc. 1409 N. Forbes Rd. Lexington, Kentucky 40511-2050 859-422-3000 www.stantec.com	
DRAWN BY	TJ	DATE	JUNE, 2009
CHECKED BY	GKA	PROJ. NO.	175569036
CHECKED BY	RDF	SCALE	NTS
		REVISED	SHEET
		1.	3.
		2.	4.
			1 OF 1

Project No.	175569036	Location	N 1596738.06, E 523522.10		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-62	Total Depth	37.9 ft
Location	Jackson County, AL	Surface Elevation	635.8 ft.		
Project Type	Geotechnical Exploration	Date Started	4/29/09	Completed	4/30/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	16.6 ft
Logged By	Josh Bell	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
635.8'	0.0'	Top of Hole							
635.6'	0.2'	Top Soil							
633.8'	2.0'	Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.5 - 2.0	1.5	8-13-15	16	Piezometer installed, tip at 23.0 ft.
		Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, and a mix of ash, coal cinders \ slag		SPT-2	2.5 - 4.0	1.5	30-24-30	20	
				SPT-3	5.5 - 7.0	1.5	9-9-14	13	SPT #4, the last interval was driven on a limestone remnant
				SPT-4	7.5 - 9.0	1.5	18-22-57	18	
				BAG-1 SPT-5	7.0 - 15.0 10.5 - 12.0	1.5	30-48-50	-- 15	Sandy zone from 10.4 ft. - 10.8 ft.
				SPT-6	12.5 - 14.0	1.5	39-50-30	14	
				SPT-7	15.5 - 17.0	1.0	1-WOH-1	18	Wet at 16.6 ft.
				SPT-8	17.5 - 19.0	1.5	1-1-3	18	
				SPT-9	20.5 - 22.0	1.5	2-8-22	18	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
		Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, and a mix of ash, coal cinders \ slag (Continued)		SPT-10	22.5 - 24.0	1.5	10-19-24	25	22.9 ft., sand with silt and no gravel below this depth
			SPT-11	25.5 - 27.0	1.5	8-10-10	33	Drilling mud added to boring at 25.0 ft.	
			SPT-12	27.5 - 29.0	1.0	7-6-6	39	Coal from 28.5 ft. - 29.0 ft.	
			SPT-13	30.5 - 32.0	1.5	2-1-1	21	Clay from 31.6 ft. - 32.0 ft.	
			BAG-1	30.0 - 35.0			--		
			SPT-14	32.5 - 34.0	1.2	1-2-2	26	Clay from 33.5 ft. - 34.0 ft.	
599.4'	36.4'		SPT-15	35.5 - 37.0	1.2	2-3-5	19		
598.3'	37.5'		SPT-16	37.0 - 37.5	0.5	50+	27		
597.9'	37.9'		SPT-17	37.5 - 37.9	0.0	50+	--		
			Residual Fat Clay, tan to red, moist, medium stiff to very stiff, wih chert fragments and occassional manganese concretions						SPT #14 and #15 the sample was split
			Limestone (augered)						
			Auger Refusal / Bottom of Hole						
			Top of Rock = 37.9' Elevation (597.9')						

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597711.75, E 525777.53	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-63	Total Depth 59.0 ft
Location	Jackson County, AL	Surface Elevation	646.1 ft.	
Project Type	Geotechnical Exploration	Date Started	5/13/09	Completed 5/14/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 21.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks	
Elevation	Depth		Rock Core							RQD
646.1'	0.0'	Top of Hole								
		Silty Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.5 - 2.0	1.4	4-5-8	22		
				SPT-2	2.5 - 4.0	1.5	15-13-14	16		
				SPT-3	5.5 - 7.0	1.5	1-1-1	21		
				BAG-1	5.0 - 10.0	5.0		--	SPT #3, the spoon advanced to a depth of 9.0', sampling was resumed at 10.0'	
634.1'	12.0'			SPT-4	10.5 - 12.0	1.5	WOH-3-2	21		
			Silt with Sand (Bottom Ash), light gray to black, moist to wet, loose to medium dense		SPT-5	12.5 - 14.0	1.5	25-27-21	4	
					SPT-6	15.5 - 17.0	1.5	10-10-12	6	
					SPT-7	17.5 - 19.0	1.5	5-4-1	13	
				SPT-8	20.5 - 22.0	1.5	10-12-14	37	Wet at 21.0'	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No. <u>175569036</u>		Location <u>N 1597711.75, E 525777.53</u>						
Project Name <u>Widows Creek Fossil Plant (TVA)</u>		Boring No. <u>STN-63</u> Total Depth <u>59.0 ft</u>						
Lithology		Overburden Rock Core	Sample # RQD	Depth Run	Rec. Ft. Rec. Ft.	Blows Rec. %	Mois.Cont. % Run Depth	Remarks
Elevation	Depth							
620.6'	25.5'	Silt with Sand (Bottom Ash), light gray to black, moist to wet, loose to medium dense (Continued)	SPT-9	22.5 - 24.0	1.5	4-8-9	33	
		Silt (Fly Ash), light gray to black, wet, very loose to loose	SPT-10	25.5 - 27.0	1.5	WOH	15	
			SPT-11	27.5 - 29.0	1.5	WOH	31	
			SPT-12	30.5 - 32.0	1.0	WOH	2	
			BAG-2	30.0 - 35.0	5.0		--	
			SPT-13	32.5 - 34.0	1.0	WOH	47	
			SPT-14	35.5 - 37.0	1.5	WOH- WOH-1	42	
			SPT-15	37.5 - 39.0	1.5	WOH	42	
			SPT-16	40.5 - 42.0	1.5	WOH	39	
			SPT-17	42.5 - 44.0	1.5	WOH	28	
		SPT-18	45.5 - 47.0	1.5	WOH	38		

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597711.75, E 525777.53	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-63	Total Depth 59.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
594.6'	51.5'	Silt (Fly Ash), light gray to black, wet, very loose to loose <i>(Continued)</i>		SPT-19	47.5 - 49.0	1.5	WOH	42	SPT #20 the samples were split
				SPT-20	50.5 - 52.0	1.5	WOH- WOH-7	37	
587.1'	59.0'	Residual Lean Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-21	52.5 - 54.0	1.1	13-14-16	26	
				SPT-22	55.5 - 57.0	1.5	11-14-15	28	
				SPT-23	57.5 - 59.0	1.5	12-13-15	27	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.		175569036			Location		N 1597643.04, E 525718.08		
Project Name		Widows Creek Fossil Plant (TVA)			Boring No.		STN-64	Total Depth 58.5 ft	
Location		Jackson County, AL			Surface Elevation		638.1 ft.		
Project Type		Geotechnical Exploration			Date Started		5/19/09	Completed 5/20/09	
Supervisor		Kip Anderson Driller S. Wilkes			Depth to Water		20.0 ft	Date/Time 5/19/09	
Logged By		C. Millhollin			Depth to Water		N/A	Date/Time N/A	
Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
638.1'	0.0'	Top of Hole							
635.1'	3.0'	Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.0 - 1.5	1.0	10-18-40	14	
				SPT-2	1.5 - 3.0	1.0	28-32-13	11	
621.6'	16.5'	Fill: Fat Clay, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-3	3.0 - 4.5	0.5	5-7-3	36	
				SPT-4	4.5 - 6.0	1.0	5-7-6	27	
				SPT-5	6.0 - 7.5	0.4	4-3-3	28	
				SPT-6	7.5 - 9.0	1.0	4-4-5	30	
				SPT-7	9.0 - 10.5	0.7	3-4-5	32	
				SPT-8	10.5 - 12.0	0.8	8-8-9	29	
				SPT-9	12.0 - 13.5	0.2	4-4-5	31	
				SPT-10	13.5 - 15.0	1.3	5-8-8	31	
				SPT-11	15.0 - 16.5	1.3	3-4-5	32	
			618.1'	20.0'	Silt with Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments		SPT-12	16.5 - 18.0	
	SPT-13	18.0 - 19.5				1.0	4-5-6	26	
	SPT-14	19.5 - 21.0				1.0	5-6-6	29	
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-15	21.0 - 22.5	0.8	5-6-6	23	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No. <u>175569036</u>		Location <u>N 1597643.04, E 525718.08</u>	
Project Name <u>Widows Creek Fossil Plant (TVA)</u>		Boring No. <u>STN-64</u> Total Depth <u>58.5 ft</u>	

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
608.1'	30.0'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments <i>(Continued)</i>		SPT-16	22.5 - 24.0	1.1	9-10-11	26	
				SPT-17	24.0 - 25.5	1.5	2-3-5	31	
				SPT-18	25.5 - 27.0	1.4	5-7-7	30	
				SPT-19	27.0 - 28.5	0.9	9-12-12	27	
				SPT-20	28.5 - 30.0	1.3	10-11-13	24	
				SPT-21	30.0 - 31.5	1.0	8-10-11	27	
				SPT-22	31.5 - 33.0	0.8	12-12-14	32	
				SPT-23	33.0 - 34.5	0.8	9-12-13	28	
				SPT-24	34.5 - 36.0	0.9	12-15-16	28	
				SPT-25	36.0 - 37.5	1.2	9-12-13	29	SPT #25 very stiff
	SPT-26	37.5 - 39.0	1.5	19-20-24	26				
	SPT-27	39.0 - 40.5	1.5	10-12-14	26				
	SPT-28	40.5 - 42.0	0.7	5-7-10	26				
	SPT-29	42.0 - 43.5	0.5	9-12-14	25	Wet at 42.0'			
	SPT-30	43.5 - 45.0	1.0	12-14-14	29				
	SPT-31	45.0 - 46.5	1.5	6-8-10	30				

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
581.1'	57.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions (Continued)		SPT-32	46.5 - 48.0	1.5	6-7-10	34	SPT #33 very stiff
				SPT-33	48.0 - 49.5	1.5	5-10-11	29	
				SPT-34	49.5 - 51.0	0.9	6-6-9	25	
				SPT-35	51.0 - 52.5	1.5	8-11-12	24	
				SPT-36	52.5 - 54.0	1.5	7-7-9	19	
				SPT-37	54.0 - 55.5	1.5	5-5-6	22	
				SPT-38	55.5 - 57.0	1.5	7-9-10	28	
				SPT-39	57.0 - 58.5	0.2	50+	22	
579.6'	58.5'	Limestone (augered)							
Auger Refusal / Bottom of Hole Top of Rock = 57.0' Elevation (581.1')									

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597882.01, E 526948.33	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-65	Total Depth 59.0 ft
Location	Jackson County, AL	Surface Elevation	645.0 ft.	
Project Type	Geotechnical Exploration	Date Started	5/18/09	Completed 5/18/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 22.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
645.0'	0.0'	Top of Hole							
		Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.5 - 2.0	1.5	31-40-28	18	
				SPT-2	2.5 - 4.0	1.5	16-16-28	17	
				SPT-3	5.5 - 7.0	1.5	16-24-19	18	
				SPT-4	7.5 - 9.0	1.5	16-16-15	39	
				ST-1	10.0 - 12.0	0.8		17	
				SPT-5	12.5 - 14.0	1.5	32-42-50+	22	SPT #5 split into two samples
630.0'	15.0'	Silty Sand (Bottom Ash), black, moist, loose to medium dense		SPT-6	15.5 - 17.0	1.3	15-18-13	14	
				BAG-1	15.0 - 20.0	5.0		--	
				SPT-7	17.5 - 19.0	1.5	7-10-15	17	
625.0'	20.0'	Silt (Fly Ash), black, moist to wet, very loose to loose		ST-2	20.0 - 22.0	0.0		--	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
		Silt (Fly Ash), black, moist to wet, very loose to loose (Continued)							Wet at 22.0'
				SPT-8	22.5 - 24.0	1.0	WOH- WOH-1	19	
				SPT-9	25.5 - 27.0	1.5	WOH- WOH-3	20	
				SPT-10	27.5 - 29.0	1.5	WOH- WOH-2	17	Blow back at 29.0'
				SPT-11	30.5 - 32.0	1.5	WOH	22	
				ST-3	32.0 - 34.0	1.2		21	
				SPT-12	35.5 - 37.0	1.5	WOH	38	
				BAG-2	30.0 - 45.0	15.0		--	
				SPT-13	37.5 - 39.0	1.5	WOH	53	
				SPT-14	40.5 - 42.0	1.5	WOH	82	
				SPT-15	42.5 - 44.0	1.5	WOH	80	
				ST-4	45.0 - 47.0	2.0		69	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597882.01, E 526948.33	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-65	Total Depth 59.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
591.8'	53.2'	Silt (Fly Ash), black, moist to wet, very loose to loose <i>(Continued)</i>		SPT-16	47.5 - 49.0	1.5	WOH-4-5	67	SPT #18 split into two samples
				SPT-17	50.5 - 52.0	1.5	1-5-7	33	
				SPT-18	52.5 - 54.0	1.2	12-13-16	35	
586.0'	59.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-19	55.5 - 57.0	1.5	10-13-17	26	
				SPT-20	57.5 - 59.0	1.3	13-17-14	28	
			No Refusal / Bottom of Hole						

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597739.24, E 527065.17		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-66	Total Depth	28.1 ft
Location	Jackson County, AL	Surface Elevation	606.3 ft.		
Project Type	Geotechnical Exploration	Date Started	5/21/09	Completed	5/21/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	20.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
606.3'	0.0'	Top of Hole							
604.8'	1.5'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	1.3	2-6-12	20	
		Lean Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-2	1.5 - 3.0	1.3	8-12-16	21	
				SPT-3	3.0 - 4.5	1.4	9-11-14	19	
				SPT-4	4.5 - 6.0	1.5	13-7-8	21	
				SPT-5	6.0 - 7.5	1.5	9-9-12	24	
				SPT-6	7.5 - 9.0	1.1	11-14-12	25	
				SPT-7	9.0 - 10.5	1.5	7-6-8	23	
				SPT-8	10.5 - 12.0	1.5	7-9-12	23	
				SPT-9	12.0 - 13.5	1.5	10-16-18	23	
				SPT-10	13.5 - 15.0	1.2	10-16-8	24	
				SPT-11	15.0 - 16.5	1.5	3-4-7	25	
				SPT-12	16.5 - 18.0	1.5	5-11-9	26	
				SPT-13	18.0 - 19.5	1.5	10-10-11	28	
				SPT-14	19.5 - 21.0	1.5	5-7-7	26	Wet at 20.0'
				SPT-15	21.0 - 22.5	1.5	3-4-4	38	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597739.24, E 527065.17	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-66	Total Depth 28.1 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
581.3'	25.0'	Lean Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-16	22.5 - 24.0	1.5	4-4-5	--	SPT #19 split into two samples
				SPT-17	24.0 - 25.5	1.2	6-6-4	33	
578.9'	27.4'	Silt, light gray to black, moist to wet, loose to medium dense		SPT-18	25.5 - 27.0	1.5	9-2-3	35	
578.2'	28.1'	Limestone (augered)		SPT-19	27.0 - 28.1	1.0	8-50-50+	35	

Auger Refusal /
Bottom of Hole

Top of Rock = 27.4'
Elevation (578.9')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598989.40, E 526868.90	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-67	Total Depth 47.0 ft
Location	Jackson County, AL	Surface Elevation	647.0 ft.	
Project Type	Geotechnical Exploration	Date Started	5/19/09	Completed 5/19/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 20.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
647.0'	0.0'	Top of Hole							
		Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.0 - 1.5	1.5	5-12-26	20	Wet at 20.0'
				SPT-2	1.5 - 3.0	1.2	15-14-21	16	
				SPT-3	3.0 - 4.5	1.3	11-16-19	24	
				SPT-4	4.5 - 6.0	1.5	4-8-10	18	
				SPT-5	6.0 - 7.5	1.5	12-20-18	16	
				SPT-6	7.5 - 9.0	1.5	14-8-8	32	
636.0'	11.0'		ST-1	9.0 - 11.0	1.5		36		
		Silty Sand with Gravel (Bottom Ash), tan to red, moist, medium to coarse		SPT-7	11.0 - 12.5	1.5	12-23-23	13	
				SPT-8	12.5 - 14.0	1.5	12-15-19	22	
				SPT-9	14.0 - 15.5	1.1	10-12-16	26	
				SPT-10	15.5 - 17.0	1.1	3-3-4	21	
				SPT-11	17.0 - 18.5	1.1	2-5-5	18	
627.0'	20.0'		SPT-12	18.5 - 20.0	1.1	3-4-3	26		
		Silt (Fly Ash), light gray to black, moist to wet, loose to medium dense		ST-2	20.0 - 22.0	1.0		--	
				SPT-13	22.0 - 23.5	1.0	WOH	58	
				SPT-14	23.5 - 25.0	1.0	WOH	53	
				SPT-15	25.0 - 26.5	0.0	WOH	--	
				SPT-16	26.5 - 28.0	1.5	WOH	48	
			SPT-17	28.0 - 29.5	1.5	WOH	31		

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598989.40, E 526868.90	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-67	Total Depth 47.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
603.9'	43.1'	Silt (Fly Ash), light gray to black, moist to wet, loose to medium dense <i>(Continued)</i>		SPT-18	29.5 - 31.0	1.5	WOH	41	
				SPT-19	31.0 - 32.5	1.5	1-WOH	78	
				SPT-20	32.5 - 34.0	1.5	1-2-3	40	
				SPT-21	34.0 - 35.5	1.5	1-2-1	35	
				SPT-22	35.5 - 37.0	1.5	1-WOH	44	
				SPT-23	37.0 - 38.5	1.0	WOH	39	SPT #23 WOH advanced spoon to depth of 40.5', sampling resumed at 40.5'
				ST-3	40.5 - 42.5	1.7		57	
600.0'	47.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-24	42.5 - 44.0	1.5	5-7-15	28	SPT #24 split into two samples
				SPT-25	44.0 - 45.5	0.6	4-4-6	20	
				SPT-26	45.5 - 47.0	1.5	13-14-15	30	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599083.70, E 526995.04		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-68	Total Depth	27.0 ft
Location	Jackson County, AL	Surface Elevation	611.4 ft.		
Project Type	Geotechnical Exploration	Date Started	5/20/09	Completed	5/20/09
Supervisor	Kip Anderson	Driller	S. Wilkes	Depth to Water	24.0 ft
Logged By	G. Budd	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
611.4'	0.0'	Top of Hole							
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	1.0	2-3-5	23	
				SPT-2	1.5 - 3.0	0.6	7-7-7	23	
				SPT-3	3.0 - 4.5	1.2	4-3-3	22	SPT #3, 4, & 5 contained limestone and gravel fill
				SPT-4	4.5 - 6.0	0.0	50+	21	SPT # 3 and 4 chert fragments in shoe
				SPT-5	6.0 - 7.5	1.0	24-11-7	23	SPT #6 chert pebbles
603.9'	7.5'	Residual Sandy Lean Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-6	7.5 - 9.0	1.0	7-7-7	27	
				SPT-7	9.0 - 10.5	0.3	17-17-9	25	
				SPT-8	10.5 - 12.0	1.0	13-13-10	23	
				SPT-9	12.0 - 13.5	1.0	12-13-12	23	
				SPT-10	13.5 - 15.0	0.9	11-7-8	28	
				SPT-11	15.0 - 16.5	1.2	10-10-10	27	SPT #11 - 18 very stiff
				SPT-12	16.5 - 18.0	1.5	2-4-8	29	
				SPT-13	18.0 - 19.5	1.5	10-10-12	29	SPT #13 -15 silty clay
				SPT-14	19.5 - 21.0	1.5	5-5-5	33	
				SPT-15	21.0 - 22.5	1.4	9-9-11	28	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599083.70, E 526995.04	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-68	Total Depth 27.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
585.4'	26.0'	Residual Sandy Lean Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-16	22.5 - 24.0	0.7	8-13-12	31	Wet at 24.0'
				SPT-17	24.0 - 25.5	1.0	6-6-5	37	
				SPT-18	25.5 - 27.0	0.4	5-40-50+	37	
584.4'	27.0'	Limestone (augered)							

Auger Refusal /
Bottom of Hole

Top of Rock = 26.0'
Elevation (585.4')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599634.03, E 526360.91	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-69	Total Depth 53.5 ft
Location	Jackson County, AL	Surface Elevation	647.6 ft.	
Project Type	Geotechnical Exploration	Date Started	5/20/09	Completed 5/20/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 15.5 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
647.6'	0.0'	Top of Hole							
		Silty Sand (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.0 - 1.5	1.2	3-4-17	17	
				SPT-2	1.5 - 3.0	1.5	5-10-10	21	
				SPT-3	3.0 - 4.5	1.5	15-10-10	37	
				SPT-4	4.5 - 6.0	1.5	8-5-6	22	
				SPT-5	6.0 - 7.5	1.5	10-10-7	33	
				SPT-6	7.5 - 9.0	1.5	7-9-7	26	
				SPT-7	9.0 - 10.5	1.3	7-3-3	32	
637.1'	10.5'	Silt (Fly Ash), light gray to black, moist to wet, loose to medium dense		SPT-8	10.5 - 12.0	1.5	3-22-24	38	SPT #10 split into two samples
				SPT-9	12.0 - 13.5	1.0	20-22-21	32	
634.1'	13.5'	Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-10	13.5 - 15.0	1.5	8-13-10	30	Wet at 15.5'
633.6'	14.0'			SPT-11	15.0 - 16.5	1.5	5-6-9	17	
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-12	16.5 - 18.0	1.5	6-8-3	17	SPT #12 split into two samples
630.6'	17.0'			SPT-13	18.0 - 19.5	1.0	6-8-7	32	
		Sandy Silt (Fly Ash), light gray to black, moist to wet, loose to medium dense		SPT-14	19.5 - 21.0	1.5	1-WOH-WOH	43	
				BAG-1	18.0 - 25.0 21.0 - 22.5	7.0 1.3	WOH	-- 39	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks	
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth		
		Sandy Silt (Fly Ash), light gray to black, moist to wet, loose to medium dense (Continued)		SPT-15					SPT #15 WOH advanced spoon to depth of 26.0', sampling resumed at 26.0'	
				SPT-16	26.0 - 27.5	1.5	WOH	38		
				SPT-17	27.5 - 29.0	1.5	WOH	42		
				SPT-18	29.0 - 30.5	1.5	WOH	35		
				SPT-19	30.5 - 32.0	1.0	WOH	41		
				SPT-20	32.0 - 33.5	1.5	WOH-4-4	32		
				SPT-21	33.5 - 35.0	1.5	1-1-1	46		
611.6'	36.0'			SPT-22	35.0 - 36.5	1.5	4-4-5	45	SPT #22 split into two samples	
610.6'	37.0'		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-23	36.5 - 38.0	1.5	6-5-4	23	SPT #23 split into two samples
			Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		ST-1	38.0 - 40.0	0.0		--	
606.1'	41.5'			SPT-24	40.0 - 41.5	1.0	2-2-1	22		
				SPT-25	41.5 - 43.0	1.0	1-6-4	24		
604.6'	43.0'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-26	43.0 - 44.5	1.0	4-1-2	24		
		Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-27	44.5 - 46.0	1.0	4-1-2	21		
601.6'	46.0'									

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599634.03, E 526360.91	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-69	Total Depth 53.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
600.1'	47.5'	Silt (Fly Ash), light gray to black, moist to wet, loose to medium dense <i>(Continued)</i> Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-28	46.0 - 47.5	1.5	2-1-2	24	
				SPT-29	47.5 - 49.0	0.9	6-7-9	17	
				SPT-30	49.0 - 50.5	1.5	4-8-12	23	
				SPT-31	50.5 - 52.0	1.1	7-10-13	21	
594.1'	53.5'			SPT-32	52.0 - 53.5	1.5	6-11-18	21	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599720.32, E 526482.78	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-70	Total Depth 22.5 ft
Location	Jackson County, AL	Surface Elevation	613.3 ft.	
Project Type	Geotechnical Exploration	Date Started	5/21/09	Completed 5/21/09
Supervisor	Kip Anderson Driller S. Wilkes	Depth to Water	N/A	Date/Time N/A
Logged By	G. Budd	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois. Cont. %	Remarks
Elevation	Depth		Rock Core						
613.3'	0.0'	Top of Hole							
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	1.1	2-4-4	28	1" Topsoil
610.3'	3.0'		SPT-2	1.5 - 3.0	0.8	3-4-6	23		SPT #2 has some limestone fill
		Residual Clayey Sand, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-3	3.0 - 4.5	0.5	6-6-8	18	
			SPT-4	4.5 - 6.0	0.9	5-6-7	23		
			SPT-5	6.0 - 7.5	0.6	5-7-8	27		Moist to wet below 9.0'
			SPT-6	7.5 - 9.0	0.8	6-7-7	27		
			SPT-7	9.0 - 10.5	1.0	3-5-11	24		Perched water table from 9.0' to 10.0'
			SPT-8	10.5 - 12.0	1.2	11-14-16	20		
			SPT-9	12.0 - 13.5	1.0	15-15-20	19		SPT #9 very stiff
			SPT-10	13.5 - 15.0	0.5	4-4-5	22		SPT #10 stiff to soft
			SPT-11	15.0 - 16.5	1.2	3-3-4	24		SPT #11 has some soft clay
			SPT-12	16.5 - 18.0	1.0	6-10-12	16		Perched water table from 16.0' to 16.5'
			SPT-13	18.0 - 19.5	1.5	12-15-14	18		SPT #13 very stiff
			SPT-14	19.5 - 21.0	1.5	8-8-8	19		
591.8'	21.5'				SPT-15	21.0 - 22.5	0.8	16-50+	18

Auger Refusal /
Bottom of Hole

Top of Rock = 21.5'
Elevation (591.8')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1600703.43, E 526190.05		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-71	Total Depth	43.0 ft
Location	Jackson County, AL	Surface Elevation	636.6 ft.		
Project Type	Geotechnical Exploration	Date Started	5/26/09	Completed	5/26/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	32.5 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
636.6'	0.0'	Top of Hole							
		Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag							Boring backfilled with grout
631.6'	5.0'	Fill: Fat Clay with Sand, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	5.0 - 6.5	1.5	5-5-7	23	
				SPT-2	10.0 - 11.5	0.8	2-3-4	22	
				SPT-3	15.0 - 16.5	0.9	5-3-5	32	
				SPT-4	16.5 - 18.0	1.1	6-7-10	26	
				SPT-5	18.0 - 19.5	1.5	8-11-11	19	
				SPT-6	19.5 - 21.0	1.2	4-6-9	19	
				SPT-7	21.0 - 22.5	1.2	3-4-8	19	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No. <u>175569036</u>		Location <u>N 1600703.43, E 526190.05</u>							
Project Name <u>Widows Creek Fossil Plant (TVA)</u>		Boring No. <u>STN-71</u> Total Depth <u>43.0 ft</u>							
Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
603.1'	33.5'	Fill: Fat Clay with Sand, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments <i>(Continued)</i>		SPT-8	22.5 - 24.0	1.5	3-6-8	23	
				SPT-9	24.0 - 25.5	1.5	10-9-14	18	
				SPT-10	25.5 - 27.0	1.5	4-7-10	19	
				SPT-11	27.0 - 28.5	1.5	9-18-22	16	
				SPT-12	28.5 - 30.0	1.5	14-17-17	13	
				ST-1	30.0 - 32.0	1.4		17	
				SPT-13	32.0 - 33.5	1.5	6-7-7	24	
593.6'	43.0'	Residual Sandy Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-14	33.5 - 35.0	1.2	3-5-5	26	
				SPT-15	35.0 - 36.5	1.2	2-3-5	19	
				SPT-16	36.5 - 38.0	1.5	4-6-8	18	
				SPT-17	38.0 - 39.5	1.5	6-9-13	20	
				ST-2	39.5 - 41.5	1.7		18	
	SPT-18	41.5 - 43.0	1.2	11-14-16	18				
		No Refusal / Bottom of Hole							

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1601431.11, E 525775.34		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-72	Total Depth	40.5 ft
Location	Jackson County, AL	Surface Elevation	636.6 ft.		
Project Type	Geotechnical Exploration	Date Started	6/3/09	Completed	6/3/09
Supervisor	Kip Anderson	Driller	S. Wilkes	Depth to Water	N/A
Logged By	G. Budd	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
636.6'	0.0'	Top of Hole							
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	0.4	10-7-6	16	
				SPT-2	1.5 - 3.0	0.6	6-6-7	27	
				SPT-3	3.0 - 4.5	0.9	9-9-10	24	
				SPT-4	4.5 - 6.0	0.3	6-8-10	25	
				SPT-5	6.0 - 7.5	0.7	10-11-9	25	
				SPT-6	7.5 - 9.0	1.0	15-13-13	24	
				SPT-7	9.0 - 10.5	1.0	7-7-10	22	
				SPT-8	10.5 - 12.0	1.0	9-10-13	27	
				SPT-9	12.0 - 13.5	1.5	14-14-17	26	Wet from 12.0' to 12.5'
623.1'	13.5'	Silt with Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments		SPT-10	13.5 - 15.0	1.3	6-7-9	26	Organics noted at 13.5'
				SPT-11	15.0 - 16.5	1.0	10-20-27	15	
				SPT-12	16.5 - 18.0	0.9	16-32-36	14	
				ST-1	18.0 - 20.0	1.4		16	
616.6'	20.0'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-13	20.0 - 21.5	1.1	10-6-3	21	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1601431.11, E 525775.34		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-72	Total Depth	40.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
605.1'	31.5'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments <i>(Continued)</i>		SPT-14	21.5 - 23.0	0.8	2-3-5	25	
				SPT-15	23.0 - 24.5	1.1	6-8-8	16	
				SPT-16	24.5 - 26.0	0.3	5-6-8	20	
				SPT-17	26.0 - 27.5	1.5	6-8-12	18	
				SPT-18	27.5 - 29.0	1.5	11-11-11	17	
				SPT-19	30.0 - 31.5	0.2	6-9-12	16	
596.1'	40.5'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-20	31.5 - 33.0	1.0	11-12-13	17	Bag #1 - 30.0 - 33.0'
				SPT-21	33.0 - 34.5	1.5	13-13-13	17	
				SPT-22	34.5 - 36.0	0.3	15-11-9	19	Wet at 37.5' 10' into residual soil/clay, piezometer was set
				SPT-23	36.0 - 37.5	0.2	15-14-14	12	
				SPT-24	37.5 - 39.0	1.2	15-12-12	17	
				SPT-25	39.0 - 40.5	1.5	10-15-16	20	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1601547.86, E 525835.71	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-73	Total Depth 11.0 ft
Location	Jackson County, AL	Surface Elevation	598.5 ft.	
Project Type	Geotechnical Exploration	Date Started	5/26/09	Completed 5/26/09
Supervisor	Kip Anderson Driller S. Wilkes	Depth to Water	10.5 ft	Date/Time 5/26/09
Logged By	G. Budd	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
598.5'	0.0'	Top of Hole							
		Residual Clayey Sand with Gravel, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-1	0.0 - 1.5	1.0	6-9-10	18	SPT #1 contains organics, mottled, and dry SPT #4 damp SPT #5 contains abundant chert fragments SPT #6 contains manganese concretions
				SPT-2	1.5 - 3.0	1.0	8-8-9	18	
				SPT-3	3.0 - 4.5	0.8	6-5-4	19	
				SPT-4	4.5 - 6.0	0.7	4-4-7	18	
				SPT-5	6.0 - 7.5	0.9	6-12-20	13	
				SPT-6	7.5 - 9.0	0.8	12-15-17	19	
				SPT-7	9.0 - 10.5	0.7	5-6-5	20	
588.0'	10.5'								
587.5'	11.0'	Limestone (augered)		SPT-8	10.5 - 11.0	0.2	50+	25	

Auger Refusal /
Bottom of Hole

Top of Rock = 10.5'
Elevation (588.0')

Project No.	175569036	Location	N 1601909.12, E 524916.33		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-74	Total Depth	51.5 ft
Location	Jackson County, AL	Surface Elevation	635.7 ft.		
Project Type	Geotechnical Exploration	Date Started	6/4/09	Completed	6/4/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	17.5 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
635.7'	0.0'	Top of Hole							
		Fill: Fat Clay, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	1.0	4-5-6	23	
				SPT-2	1.5 - 3.0	1.5	4-5-7	26	
				SPT-3	3.0 - 4.5	1.1	7-7-8	28	
				SPT-4	4.5 - 6.0	1.3	4-6-6	22	
				SPT-5	6.0 - 7.5	1.4	6-11-15	23	
				SPT-6	7.5 - 9.0	1.3	16-15-18	27	
				ST-1	9.0 - 11.0	2.0		27	
				SPT-7	11.0 - 12.5	1.4	3-3-4	27	Bag #1 - 10.0 -12.0'
				SPT-8	12.5 - 14.0	1.5	7-11-14	25	Bag #2 - 22.0-25.0'
				SPT-9	14.0 - 15.5	1.2	7-8-11	23	
619.6'	16.1'	Silty Sand (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-10	15.5 - 17.0	1.5	10-18-16	23	
				SPT-11	17.0 - 18.5	1.5	4-6-7	28	
				SPT-12	18.5 - 20.0	1.5	1-1-1	28	
				SPT-13	20.0 - 21.5	1.5	WOH	29	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No. <u>175569036</u>		Location <u>N 1601909.12, E 524916.33</u>						
Project Name <u>Widows Creek Fossil Plant (TVA)</u>		Boring No. <u>STN-74</u> Total Depth <u>51.5 ft</u>						
Lithology		Overburden Rock Core	Sample # RQD	Depth Run	Rec. Ft. Rec. Ft.	Blows Rec. %	Mois.Cont. % Run Depth	Remarks
Elevation	Depth							
613.2'	22.5'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments	SPT-14	21.5 - 23.0	1.5	1-4-10	34	
			SPT-15	23.0 - 24.5	1.5	7-6-7	24	
			ST-2	24.5 - 26.5	2.0		18	
			SPT-16	26.5 - 28.0	1.2	2-3-6	20	
			SPT-17	28.0 - 29.5	0.9	4-4-6	26	
605.7'	30.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions	SPT-18	29.5 - 31.0	1.5	4-5-5	22	
			SPT-19	31.0 - 32.5	1.2	5-7-12	23	
			SPT-20	32.5 - 34.0	1.3	8-10-19	20	
			SPT-21	34.0 - 35.5	1.0	9-10-9	21	
			SPT-22	35.5 - 37.0	1.5	7-5-6	35	Bag #3 - 34.0-37.0'
			ST-3	40.0 - 42.0	2.0		19	
			SPT-23	45.0 - 46.5	1.5	6-7-9	22	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1601909.12, E 524916.33	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-74	Total Depth 51.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>							
584.7'	51.0'			SPT-24	50.0 - 51.5	1.5	25-19-7	24	
584.2'	51.5'	Limestone (dolomite), gray, micro-crystalline grained, gray weathered seam							
		Auger Refusal / Bottom of Hole							
		Top of Rock = 51.0' Elevation (584.7')							

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1601484.15, E 524146.73		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-75	Total Depth	55.0 ft
Location	Jackson County, AL	Surface Elevation	636.7 ft.		
Project Type	Geotechnical Exploration	Date Started	6/3/09	Completed	6/3/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	50.8 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
636.7'	0.0'	Top of Hole							
635.2'	1.5'	Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag Fill: Fat Clay with Sand, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	0.6	6-2-4	14	
				SPT-2	1.5 - 3.0	1.0	5-8-12	26	
				SPT-3	3.0 - 4.5	1.2	12-13-16	28	
				SPT-4	4.5 - 6.0	0.9	5-6-8	28	
				SPT-5	6.0 - 7.5	1.2	8-8-10	28	
				SPT-6	7.5 - 9.0	1.5	9-8-8	26	
				SPT-7	9.0 - 10.5	1.3	5-4-5	25	
				SPT-8	10.5 - 12.0	1.3	4-4-5	30	
				SPT-9	12.0 - 13.5	1.2	12-14-14	21	
				SPT-10	13.5 - 15.0	1.3	10-15-15	25	
				SPT-11	15.0 - 16.5	0.9	5-4-4	18	
620.2'	16.5'	Clayey Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments		SPT-12	16.5 - 18.0	1.2	37-50+-50+	17	
				SPT-13	18.0 - 19.5	1.4	30-50+-50+	16	
				SPT-14	19.5 - 21.0	1.5	13-9-16	17	Bag #1 - 19.0-22.0'
				SPT-15	21.0 - 22.5	1.5	7-13-15	20	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
610.2'	26.5'	Clayey Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments <i>(Continued)</i>		SPT-16	22.5 - 24.0	1.5	11-12-11	20	Bag #2 - 34.0-37.0'
				SPT-17	24.0 - 25.5	1.5	5-4-6	30	
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		ST-1	25.5 - 27.5	1.7		14	
				SPT-18	27.5 - 29.0	1.5	4-6-7	18	
				SPT-19	29.0 - 30.5	1.5	8-9-10	20	
				SPT-20	30.5 - 32.0	1.5	9-5-8	17	
				SPT-21	32.0 - 33.5	1.5	8-11-12	17	
				SPT-22	33.5 - 35.0	1.5	9-8-12	16	
				ST-2	35.0 - 37.0	1.8		18	
				SPT-23	37.0 - 38.5	1.2	4-7-9	21	
				SPT-24	38.5 - 40.0	1.5	12-12-3	20	
				SPT-25	40.0 - 41.5	1.5	6-7-7	20	
				SPT-26	41.5 - 43.0	1.5	6-8-10	18	
				SPT-27	43.0 - 44.5	1.5	10-9-12	19	
				SPT-28	44.5 - 46.0	1.5	5-6-8	19	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1601484.15, E 524146.73		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-75	Total Depth	55.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
584.7'	52.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-29	46.0 - 47.5	1.3	3-3-5	20	Wet at 50.8'
				SPT-30	47.5 - 49.0	1.5	5-6-7	20	
				SPT-31	49.0 - 50.5	1.5	7-7-8	22	
				SPT-32	50.5 - 52.0	1.5	6-5-6	18	
582.7'	54.0'	Weathered Limestone and gravel		SPT-33	52.0 - 53.5	1.5	11-14-14	23	
581.7'	55.0'	Limestone (augered)		SPT-34	53.5 - 55.0	0.8	13-19-49	23	

Auger Refusal /
Bottom of Hole

Top of Rock = 54.0'
Elevation (582.7')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1601519.77, E 524124.64		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-76	Total Depth	49.5 ft
Location	Jackson County, AL	Surface Elevation	624.5 ft.		
Project Type	Geotechnical Exploration	Date Started	5/27/09	Completed	5/28/09
Supervisor	Kip Anderson	Driller	S. Wilkes	Depth to Water	37.5 ft
Logged By	G. Budd	Depth to Water	N/A	Date/Time	5/27/09
				Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois. Cont. %	Remarks
Elevation	Depth		Rock Core						
624.5'	0.0'	Top of Hole							
		Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	0.9	2-2-2	29	Piezometer installed - tip at 49.0'
				SPT-2	1.5 - 3.0	0.9	6-6-6	17	
				SPT-3	3.0 - 4.5	0.8	5-7-9	17	
				SPT-4	4.5 - 6.0	1.0	4-4-7	21	
618.5'	6.0'	Fill: Lean Clay With Sand, tan to red, moist to dry, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-5	6.0 - 7.5	1.3	6-9-10	14	Limestone / chert remnants
				SPT-6	7.5 - 9.0	0.7	14-14-15	16	
				SPT-7	9.0 - 10.5	1.0	3-4-6	19	
				SPT-8	10.5 - 12.0	0.8	6-7-11	16	
				SPT-9	12.0 - 13.5	1.2	15-17-18	14	
				SPT-10	13.5 - 15.0	1.1	4-6-8	20	
				SPT-11	15.0 - 16.5	0.9	3-5-7	16	
				BAG-1	15.0 - 17.0			18	
				SPT-12	16.5 - 18.0	1.3	7-10-12	16	
				SPT-13	18.0 - 19.5	1.5	11-12-13	18	
				SPT-14	19.5 - 21.0	1.5	5-8-9	20	
			SPT-15	21.0 - 22.5	1.4	9-11-11	19	presence of manganese	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks	
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth		
587.0'	37.5'	Fill: Lean Clay With Sand, tan to red, moist to dry, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-16	22.5 - 24.0	1.0	7-10-11	20	chert rubble	
				SPT-17	24.0 - 25.5	1.1	4-6-11	20		
				SPT-18	25.5 - 27.0	0.6	13-13-14	14		
				SPT-19	27.0 - 28.5	0.3	16-18-21	16		
				SPT-20	28.5 - 30.0	1.5	10-18-24	18		
				SPT-21	30.0 - 31.5	0.3	13-18-20	20		
				SPT-22	31.5 - 33.0	0.5	3-7-9	18		
				SPT-23	33.0 - 34.5	0.8	11-14-16	20		
				SPT-24	34.5 - 36.0	1.5	4-5-6	17		clay with fine sand and gray and brown mottlee
				SPT-25	36.0 - 37.5	1.5	6-6-7	20		
584.0'	40.5'	Gravel With Sand, gray, moist, medium dense		SPT-26	37.5 - 39.0	1.0	4-6-10	19	sand and gravel	
				SPT-27	39.0 - 40.5	1.0	8-6-7	14		
		Residual Lean Clay With Sand, gray to red, moist to wet, soft to stiff, with some chert		SPT-28	40.5 - 42.0	0.7	25-8-4	19		
				SPT-29	42.0 - 43.5	0.6	3-2-5	50		
				SPT-30	43.5 - 45.0	0.7	2-2-1	46		
				SPT-31	45.0 - 46.5	0.7	WOH-8-4	40		

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1601519.77, E 524124.64	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-76	Total Depth 49.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
		Residual Lean Clay With Sand, gray to red, moist to wet, soft to stiff, with some chert <i>(Continued)</i>		SPT-32	46.5 - 48.0	1.5	3-3-2	37	
575.5'	49.0'		SPT-33	48.0 - 49.5	0.7	2-3-50+	42		
575.0'	49.5'	Limestone (augered)							

Auger Refusal /
Bottom of Hole

Top of Rock = 49.0'
Elevation (575.5')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1600807.87, E 523621.02		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-77	Total Depth	51.5 ft
Location	Jackson County, AL	Surface Elevation	636.1 ft.		
Project Type	Geotechnical Exploration	Date Started	6/2/09	Completed	6/2/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	23.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
636.1'	0.0'	Top of Hole							
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	1.2	8-8-12	21	Bag #1 - 6.0 ft. to 9.0 ft.
			SPT-2	1.5 - 3.0	1.1	7-9-16	25		
			SPT-3	3.0 - 4.5	1.4	13-12-12	25		
			SPT-4	4.5 - 6.0	1.5	5-5-8	23		
			SPT-5	6.0 - 7.5	1.2	7-7-10	26		
			SPT-6	7.5 - 9.0	1.3	9-10-8	28		
			SPT-7	9.0 - 10.5	1.5	5-7-8	29		
			SPT-8	10.5 - 12.0	1.5	5-6-12	31		
			SPT-9	12.0 - 13.5	1.5	10-10-13	26		
			SPT-10	13.5 - 15.0	1.2	12-14-14	27		
			SPT-11	15.0 - 16.5	1.3	2-4-7	24		
618.6'	17.5'		SPT-12	16.5 - 18.0	1.5	13-50+-50+	26		
616.6'	19.5'	SPT-13	18.0 - 19.5	1.5	27-31-32	21			
		SPT-14	19.5 - 21.0	0.5	30-28-32	23			
614.1'	22.0'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments							

F:\MSM_LEGACY_175569036 BORINGS\GPI_FMSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
610.1'	26.0'	Silt with Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments <i>(Continued)</i>		ST-1	21.0 - 23.0	2.0		23	Bag #2 - 22.0 ft. to 24.0 ft. Wet at 23.0 ft.
				SPT-15	23.0 - 24.5	1.5	2-3-3	23	
				SPT-16	24.5 - 26.0	1.5	3-4-6	35	
602.6'	33.5'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-17	26.0 - 27.5	0.9	4-4-6	19	
				SPT-18	27.5 - 29.0	1.0	6-7-8	20	
				SPT-19	29.0 - 30.5	1.1	5-5-9	24	
				SPT-20	30.5 - 32.0	1.5	5-6-7	21	
				SPT-21	32.0 - 33.5	1.5	3-4-6	24	
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-22	33.5 - 35.0	1.4	5-5-6	18	
				SPT-23	35.0 - 36.5	0.7	5-3-5	24	
				SPT-24	36.5 - 38.0	1.5	7-8-8	20	
				ST-2	38.0 - 40.0	2.0		21	
				SPT-25	43.5 - 45.0	1.5	3-3-4	23	
								Bag #3 - 45.0 ft. to 48.0 ft.	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1600807.87, E 523621.02		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-77	Total Depth	51.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
586.3'	49.8'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-26	48.5 - 50.0	1.5	14-20-13	19	
584.6'	51.5'	Limestone (augered)		SPT-27	50.0 - 51.5	0.3	4-12-20	21	

Auger Refusal /
Bottom of Hole

Top of Rock = 49.8'
Elevation (586.3')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599698.13, E 523281.12		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-78	Total Depth	43.0 ft
Location	Jackson County, AL	Surface Elevation	636.8 ft.		
Project Type	Geotechnical Exploration	Date Started	6/1/09	Completed	6/1/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	22.2 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
636.8'	0.0'	Top of Hole							
635.3'	1.5'	Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	0.7	6-8-11	19	
				SPT-2	1.5 - 3.0	0.9	5-11-11	28	
				SPT-3	3.0 - 4.5	0.9	12-14-14	27	
				SPT-4	4.5 - 6.0	1.5	5-6-12	25	
				SPT-5	6.0 - 7.5	1.2	11-12-14	25	
				SPT-6	7.5 - 9.0	1.2	16-16-15	24	
				SPT-7	9.0 - 10.5	0.8	7-9-9	19	Bag #1 - 8.0 - 11.0'
				ST-1	10.5 - 12.5	1.7		24	
				SPT-8	12.5 - 14.0	0.7	4-5-4	25	
				SPT-9	14.0 - 15.5	1.0	5-5-6	26	
				SPT-10	15.5 - 17.0	1.1	10-12-15	24	
619.2'	17.6'	Silty Sand with Gravel (Bottom Ash), light gray to black, moist to wet, loose to medium dense		SPT-11	17.0 - 17.8	1.0	12-50+	27	
				SPT-12	17.8 - 18.0	0.2	50+	10	
				SPT-13	18.0 - 19.5	1.5	28-50-50	12	
				SPT-14	19.5 - 21.0	1.5	21-20-5	12	
				SPT-15	21.0 - 22.5	1.5	9-4-2	12	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No. <u>175569036</u>		Location <u>N 1599698.13, E 523281.12</u>	
Project Name <u>Widows Creek Fossil Plant (TVA)</u>		Boring No. <u>STN-78</u> Total Depth <u>43.0 ft</u>	

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
612.8'	24.0'	Silty Sand with Gravel (Bottom Ash), light gray to black, moist to wet, loose to medium dense <i>(Continued)</i>		SPT-16	22.5 - 24.0	1.5	2-2-2	19	
				SPT-17	24.0 - 25.5	1.5	2-2-1	19	
606.8'	30.0'	Sandy Silt (Weak Sedimented Flyash), light gray to black, moist to wet, loose		ST-2	25.5 - 27.5	0.0		--	Bag #2 - 25.0 - 28.0' ST2A - No Recovery
				SPT-18	27.5 - 29.0	1.5	1-2-3	64	
				SPT-19	29.0 - 30.5	1.5	3-5-6	31	
				SPT-20	30.5 - 32.0	0.9	3-3-5	21	
600.8'	36.0'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-21	32.0 - 33.5	1.5	3-6-8	21	SPT-19 was split into two samples
				SPT-22	33.5 - 35.0	1.5	1-3-5	36	
				SPT-23	35.0 - 36.5	1.5	4-6-10	21	
				ST-3	36.5 - 38.5	1.4		24	
				SPT-24	38.5 - 40.0	0.8	6-14-19	24	
				SPT-25	40.0 - 41.5	1.5	5-7-11	25	
593.8'	43.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-26	41.5 - 43.0	1.5	10-10-11	19	
			No Refusal / Bottom of Hole						

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599704.87, E 523225.13		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-79	Total Depth	45.0 ft
Location	Jackson County, AL	Surface Elevation	622.8 ft.		
Project Type	Geotechnical Exploration	Date Started	6/2/09	Completed	6/2/09
Supervisor	Kip Anderson	Driller	S. Wilkes	Depth to Water	27.5 ft
Logged By	G. Budd	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
622.8'	0.0'	Top of Hole							
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	0.9	4-8-8	17	Organics noted from 1.5 ft. to 6.0 ft.
			SPT-2	1.5 - 3.0	0.8	8-12-14	18		
			SPT-3	3.0 - 4.5	0.7	12-6-5	16		
			SPT-4	4.5 - 6.0	0.6	7-7-8	25		
			SPT-5	6.0 - 7.5	0.8	4-5-5	21		
			SPT-6	7.5 - 9.0	1.5	8-10-11	23		
			SPT-7	9.0 - 10.5	1.0	7-6-6	17		
			SPT-8	10.5 - 12.0	0.6	8-11-12	19		
			SPT-9	12.0 - 13.5	1.1	10-12-13	18		
			SPT-10	13.5 - 15.0	0.6	10-12-13	19		
			ST-1	15.0 - 17.0	1.8		17		
			SPT-11	17.0 - 18.5	0.9	8-9-9	19		
			SPT-12	18.5 - 20.0	1.2	9-13-15	21		
601.3'	21.5'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-13	20.0 - 21.5	1.2	5-7-8	19	Organics noted from 21.5 ft. to 24.5 ft.
			SPT-14	21.5 - 23.0	1.0	10-12-14	20		
			SPT-15	23.0 - 24.5	1.0	5-10-12	21		
			SPT-16	24.5 - 26.0	1.5	8-10-12	24		
			SPT-17	26.0 - 27.5	1.5	8-10-11	29		
			SPT-18	27.5 - 29.0	1.5	8-10-10	31		
								Wet at 27.5 ft.	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599704.87, E 523225.13	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-79	Total Depth 45.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
577.8'	45.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-19	29.0 - 30.5	1.5	6-6-7	32	
				SPT-20	30.5 - 32.0	1.0	5-7-9	33	
				SPT-21	32.0 - 33.5	1.5	8-8-8	41	
				SPT-22	33.5 - 35.0	0.9	7-9-11	36	
				SPT-23	35.0 - 36.5	0.3	6-8-9	37	
				SPT-24	36.5 - 38.0	0.7	9-11-12	44	
				SPT-25	38.0 - 39.5	1.0	12-13-14	41	
				SPT-26	39.5 - 41.0	1.5	6-8-10	33	
				SPT-27	41.0 - 42.5	1.1	5-6-6	37	
				SPT-28	42.5 - 44.0	1.5	6-8-8	36	
				SPT-29	44.0 - 45.5	0.0	50+	--	

Auger Refusal /
Bottom of Hole

Top of Rock = 45.0'
Elevation (577.8')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598668.65, E 523078.85	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-80	Total Depth 51.0 ft
Location	Jackson County, AL	Surface Elevation	637.2 ft.	
Project Type	Geotechnical Exploration	Date Started	5/27/09	Completed 5/27/09
Supervisor	Kip Anderson Driller S. Bradford	Depth to Water	22.0 ft	Date/Time 5/27/09
Logged By	B. Smiley	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
637.2'	0.0'	Top of Hole							
635.7'	1.5'	Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	1.0	4-2-4	17	SPT-1 -- sample split
		Fill: Fat Clay, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-2	1.5 - 3.0	1.3	7-8-8	33	Piezometer installed - tip set at 32.3'
				SPT-3	3.0 - 4.5	0.9	7-8-10	33	
				SPT-4	4.5 - 6.0	1.4	5-3-5	35	
				SPT-5	6.0 - 7.5	1.1	5-6-7	39	
				SPT-6	7.5 - 9.0	1.2	8-9-10	27	
				SPT-7	9.0 - 10.5	1.2	6-8-8	32	
				ST-1	10.5 - 12.5	1.5		27	
				SPT-8	12.5 - 14.0	1.3	2-8-8	28	
				SPT-9	14.0 - 15.5	1.3	7-8-10	21	
				SPT-10	15.5 - 17.0	1.5	3-5-4	19	
				SPT-11	17.0 - 18.5	1.2	4-5-6	21	
				SPT-12	18.5 - 20.0	1.3	7-8-7	27	
615.2'	22.0'			ST-2	20.0 - 22.0	0.9		21	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598668.65, E 523078.85	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-80	Total Depth 51.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
600.2'	37.0'	Silt with Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments <i>(Continued)</i>		SPT-13	22.0 - 23.5	1.5	1-1-1	51	Water added to boring
				SPT-14	23.5 - 25.0	1.4	WOH-1-1	44	
				SPT-15	25.0 - 26.5	1.3	WOH-1-1	47	
				SPT-16	26.5 - 28.0	1.3	WOH-1-2	42	
				ST-3	28.0 - 30.0	1.5		43	
				ST-4	30.0 - 32.0	2.0		38	
				SPT-17	32.0 - 33.5	0.9	1-1-1	36	
				SPT-18	33.5 - 35.0	1.5	1-1-WOH	43	
				ST-5	35.0 - 37.0	1.8		33	
			597.2'	40.0'	Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-19	37.0 - 38.5	
	SPT-20	38.5 - 40.0				0.7	3-4-4	23	
	SPT-21	40.0 - 41.5				0.7	2-1-4	25	
	SPT-22	41.5 - 43.0				0.7	2-2-4	24	
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-23	43.0 - 44.5	0.8	3-3-5	23	
				SPT-24	44.5 - 46.0	1.1	2-4-6	21	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598668.65, E 523078.85	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-80	Total Depth 51.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
586.2'	51.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-25	46.0 - 47.5	0.8	8-11-13	17	
				ST-6	47.5 - 49.5	1.8		20	
				SPT-26	49.5 - 51.0	1.5	8-11-14	23	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598675.68, E 523024.04		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-81	Total Depth	41.0 ft
Location	Jackson County, AL	Surface Elevation	625.5 ft.		
Project Type	Geotechnical Exploration	Date Started	5/28/09	Completed	5/28/09
Supervisor	Kip Anderson	Driller	S. Wilkes	Depth to Water	18.5 ft
Logged By	G. Budd	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
625.5'	0.0'	Top of Hole							
625.3'	0.2'	Topsoil							
		Fill: Fat Clay With Gravel, light gray, damp to wet, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	0.8	3-4-5	32	Piezometer installed, tip set at 33.5 ft.
			SPT-2	1.5 - 3.0	0.9	11-11-10	16		
			SPT-3	3.0 - 4.5	1.0	2-3-3	17		
			SPT-4	4.5 - 6.0	0.6	3-4-4	23		
			SPT-5	6.0 - 7.5	0.4	4-4-5	24		
			SPT-6	7.5 - 9.0	0.6	4-4-4	18		
			SPT-7	9.0 - 10.5	0.3	1-2-2	21		
			SPT-8	10.5 - 12.0	1.0	1-1-2	21		
			SPT-9	12.0 - 13.5	1.2	3-3-3	22		
			SPT-10	13.5 - 15.0	0.8	1-2-2	26		
			SPT-11	15.0 - 16.5	1.5	2-2-3	25		
			SPT-12	16.5 - 18.0	1.2	3-3-4	24		
607.5'	18.0'	Silt with Sand (Bottom Ash), light gray to black, moist to wet, loose to medium dense		SPT-13	18.0 - 19.5	1.5	3-3-3	30	
			SPT-14	19.5 - 21.0	0.5	WOH-1-1	35		
			SPT-15	21.0 - 22.5	1.5	1-1-1	31		

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598675.68, E 523024.04		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-81	Total Depth	41.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
598.0'	27.5'	Silt with Sand (Bottom Ash), light gray to black, moist to wet, loose to medium dense <i>(Continued)</i>		SPT-16	22.5 - 24.0	1.5	1-1-1	34	
				SPT-17	24.0 - 25.5	1.0	WOH- WOH-WOH	60	
				ST-1	25.5 - 27.5	0.0		--	
584.5'	41.0'	Residual Sandy Lean Clay, tan to red, moist, medium stiff to very stiff, wih chert fragments and occassional manganese concretions		SPT-18	27.5 - 29.0	1.0	1-2-2	24	
				SPT-19	29.0 - 30.5	1.0	7-7-7	19	
				SPT-20	30.5 - 32.0	1.0	5-7-8	23	
				SPT-21	32.0 - 33.5	1.0	5-9-10	19	
				SPT-22	33.5 - 35.0	0.7	2-4-6	20	
				SPT-23	35.0 - 36.5	1.0	8-9-11	18	
				SPT-24	36.5 - 38.0	1.2	6-8-12	28	
				SPT-25	38.0 - 39.5	1.2	9-8-9	30	
				SPT-26	39.5 - 41.0	0.6	9-50+	32	

Auger Refusal /
Bottom of Hole

Top of Rock = 40.0'
Elevation (585.5')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597723.52, E 522758.91		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-82	Total Depth	49.5 ft
Location	Jackson County, AL	Surface Elevation	636.9 ft.		
Project Type	Geotechnical Exploration	Date Started	5/27/09	Completed	5/28/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	23.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
636.9'	0.0'	Top of Hole							
635.4'	1.5'	Sand with Gravel (Bottom Ash), gray to black, dry, medium to coarse grained, loose to medium dense, with zones silty, and a mix of ash, coal cinders \ slag Fill: Fat Clay With Gravel, light gray, damp to wet, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	0.8	4-3-3	12	Piezometer installed - tip set at 38.0'
				SPT-2	1.5 - 3.0	0.7	5-6-8	22	
				SPT-3	3.0 - 4.5	1.5	9-11-12	30	
				SPT-4	4.5 - 6.0	1.5	3-4-6	21	
				SPT-5	6.0 - 7.5	1.5	7-10-11	29	
				ST-1	7.5 - 9.5	1.4	--	--	
				SPT-6	9.5 - 11.0	1.5	3-7-12	28	
				SPT-7	11.0 - 12.5	1.5	5-8-16	25	
				SPT-8	12.5 - 14.0	1.4	14-18-20	25	
				SPT-9	14.0 - 15.5	1.2	14-14-16	22	
619.9'	17.0'	Silt with Sand (Bottom Ash), light gray to black, moist to wet, loose to medium dense		SPT-10	15.5 - 17.0	1.2	8-16-16	21	SPT #10 split into two samples
				SPT-11	17.0 - 18.5	1.1	16-10-20	20	
				SPT-12	18.5 - 20.0	1.5	10-11-9	40	
				ST-2	20.0 - 22.0	1.5		22	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597723.52, E 522758.91		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-82	Total Depth	49.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks			
Elevation	Depth		Rock Core							RQD	Run	Rec. Ft.
593.9'	43.0'	Silt with Sand (Bottom Ash), light gray to black, moist to wet, loose to medium dense <i>(Continued)</i>		SPT-13	22.0 - 23.5	1.5	3-2-3	51				
				BAG-1	22.0 - 25.0			34				
				SPT-14	23.5 - 25.0	1.5	1-2-7	47				
				SPT-15	25.0 - 26.5	1.5	2-3-2	38				
				SPT-16	26.5 - 28.0	1.5	1-5-7	45				
				SPT-17	28.0 - 29.5	1.5	1-2-5	50				
				SPT-18	29.5 - 31.0	1.5	2-3-6	34				
				SPT-19	31.0 - 32.5	1.5	3-5-8	33				
				SPT-20	32.5 - 34.0	1.5	3-2-5	36				
				SPT-21	34.0 - 35.5	1.5	8-11-10	38				
				SPT-22	35.5 - 37.0	1.5	2-1-2	31				
				SPT-23	37.0 - 38.5	1.5	WOH- WOH-2	38				
				BAG-2	38.0 - 40.0	1.5	1-1-WOH	34				
				SPT-24	38.5 - 40.0			42				
							ST-3	40.0 - 42.0	2.0		26	
							SPT-25	42.0 - 43.5	1.5	5-5-6	16	SPT #25 split into two samples
					Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-26	43.5 - 45.0	1.0	5-5-9	18	
							SPT-27	45.0 - 46.5	0.7	2-2-4	26	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597723.52, E 522758.91		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-82	Total Depth	49.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
587.4'	49.5'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-28	46.5 - 48.0	1.2	4-5-10	21	
				SPT-29	48.0 - 49.5	1.5	12-15-23	19	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597747.83, E 522694.61		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-83	Total Depth	39.1 ft
Location	Jackson County, AL	Surface Elevation	624.9 ft.		
Project Type	Geotechnical Exploration	Date Started	4/30/09	Completed	4/30/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	12.0 ft
Logged By	Josh Bell	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
624.9'	0.0'	Top of Hole							
624.7'	0.2'	Topsoil							
		Fill: Clayey Sand, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.5 - 2.0	1.5	9-9-10	19	Piezometer installed, tip at 25.0 ft.
				SPT-2	2.5 - 4.0	1.3	10-9-9	16	
				SPT-3	5.5 - 7.0	1.5	3-3-6	18	
				SPT-4	7.5 - 9.0	0.7	4-3-4	17	
				BAG-1	8.0 - 12.0			--	
				ST-1	10.0 - 12.0	1.1		18	
				SPT-5	12.5 - 14.0	0.1	WOH-WOH-2	53	
				SPT-6	15.5 - 17.0	1.5	1-1-2	46	
		Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, with zones silty, a mix of ash, coal cinders \ slag		SPT-7	17.5 - 19.0	1.5	2-1-1	38	6.1 ft., moist to wet
				SPT-8	20.5 - 22.0	1.4	3-2-1	41	
612.9'	12.0'								

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
597.3'	27.6'	Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, with zones silty, a mix of ash, coal cinders \ slag (Continued)		SPT-9	22.5 - 24.0	1.5	1-1-1	40	SPT #9 and #11 the samples were split
				SPT-10	25.5 - 27.0	1.5	1-1-1	43	
591.7'	33.2'	Fill: Fat Clay With Gravel, light gray, damp to wet, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-11	27.5 - 29.0	1.5	WOH- WOH-WOH	38	
				SPT-12	30.5 - 32.0	1.5	2-3-3	22	
				SPT-13	32.5 - 34.0	0.8	4-6-8	19	
585.8'	39.1'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-14	35.5 - 37.0	1.5	11-12-14	18	
				SPT-15	37.5 - 39.0	1.5	4-4-5	20	
		Auger Refusal / Bottom of Hole							
		Top of Rock = 39.1' Elevation (585.8')							

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1596588.04, E 523031.04		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-84	Total Depth	42.0 ft
Location	Jackson County, AL	Surface Elevation	639.3 ft.		
Project Type	Geotechnical Exploration	Date Started	4/28/09	Completed	4/28/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	22.1 ft
Logged By	Josh Bell	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
639.3'	0.0'	Top of Hole							
636.9'	2.4'	Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.5 - 2.0	1.5	4-13-12	15	Piezometer installed, tip at 23.0 ft.
		Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, with zones silty, a mix of ash, coal cinders slag		SPT-2	2.5 - 4.0	1.5	8-12-12	14	
				SPT-3	5.5 - 7.0	1.5	8-5-7	12	SPT #3 and #4 the samples were split
				SPT-4	7.5 - 9.0	1.5	10-9-11	18	
				ST-1	10.0 - 12.0	1.5		19	
				SPT-5	12.5 - 14.0	1.5	9-9-11	8	14.0 ft., the sand becomes more coarse
				SPT-6	14.5 - 16.0	1.5	26-27-25	12	
				SPT-7	17.5 - 19.0	1.5	22-28-17	12	
				ST-2	20.0 - 22.0	1.5		16	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.		175569036			Location		N 1596588.04, E 523031.04		
Project Name		Widows Creek Fossil Plant (TVA)			Boring No.		STN-84	Total Depth 42.0 ft	
Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
608.4'	30.9'	Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, with zones silty, a mix of ash, coal cinders slag (Continued)		SPT-8	22.5 - 24.0	1.5	35-40-40	19	Wet at 22.1 ft. Below 22.5 ft., gravel is present
				SPT-9	25.5 - 27.0	1.5	75-72-43	16	
				SPT-10	27.5 - 29.0	1.5	49-37-27	18	
605.8'	33.5'	Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-11	30.5 - 32.0	1.5	12-10-13	21	
				SPT-12	32.5 - 34.0	1.5	5-5-6	22	
597.3'	42.0'	Residual Fat Clay With Sand, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-13	35.5 - 37.0	1.5	8-9-10	29	
				SPT-14	37.5 - 39.0	1.1	5-8-11	32	
				ST-3	40.0 - 42.0	2.0		20	
		No Refusal / Bottom of Hole							

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1596520.75, E 523008.44	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-85	Total Depth 28.4 ft
Location	Jackson County, AL	Surface Elevation	614.6 ft.	
Project Type	Geotechnical Exploration	Date Started	5/4/09	Completed 5/4/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 26.0 ft
Logged By	Josh Bell	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
614.6'	0.0'	Top of Hole							
		Ditch Fill: Bottom Ash, with Rip-Rap (Drill Access Road)							Piezometer installed, tip at 27.7 ft.
609.6'	5.0'								
		Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	5.5 - 7.0	1.4	4-3-4	26	
				SPT-2	7.5 - 9.0	1.5	5-7-9	31	
605.6'	9.0'								
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-3	10.5 - 12.0	1.5	6-7-7	27	From 12 ft. - 14 ft. the soil is gray in color
				SPT-4	12.5 - 14.0	1.5	8-10-12	27	
				SPT-5	17.5 - 19.0	1.1	12-50+	24	Below 17 ft. the soil is red in color
				SPT-6	20.5 - 22.0	1.5	4-6-11	32	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1596520.75, E 523008.44	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-85	Total Depth 28.4 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
587.6'	27.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-7	22.5 - 24.0	1.5	9-12-4	35	
586.2'	28.4'		Limestone (augered)		SPT-8	27.0 - 27.4	0.1	50+	6

Auger Refusal /
Bottom of Hole

Top of Rock = 28.0'
Elevation (586.6')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1596518.52, E 523011.92	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-86	Total Depth 37.1 ft
Location	Jackson County, AL	Surface Elevation	614.6 ft.	
Project Type	Geotechnical Exploration	Date Started	5/5/09	Completed 5/5/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 26.0 ft
Logged By	Josh Bell	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
614.6'	0.0'	Top of Hole							
609.6'	5.0'	Ditch Fill: Bottom Ash, with Rip-Rap (Drill Access Road)							
605.6'	9.0'	Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments							
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions							
				ST-1	15.0 - 17.0	2.0		24	From 15 ft. - 17 ft. the soil is tan to red in color

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1596518.52, E 523011.92	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-86	Total Depth 37.1 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
586.5'	28.1'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		ST-2	24.0 - 26.0	2.0		46	Began Core
577.5'	37.1'	Limestone, gray, fine to micro-crystalline grained, medium bedded, with shale stringers and dolomitic zones		48%	9.0	9.0	100	37.1	SI installed; bottom at 34.6 ft.

Bottom of Hole

Base of Weathered Rock = 28.8'

Top of Rock = 28.1'
Elevation (586.5')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1596587.84, E 523211.07		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-87	Total Depth	42.0 ft
Location	Jackson County, AL	Surface Elevation	637.4 ft.		
Project Type	Geotechnical Exploration	Date Started	4/29/09	Completed	4/29/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	22.9 ft
Logged By	Josh Bell	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
637.4'	0.0'	Top of Hole							
637.1'	0.3'	Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.5 - 2.0	1.5	3-6-18	18	Piezometer installed, tip at 25.0 ft. Clay from 5.0 ft. - 5.5 ft. Becomes silty at 7.4 ft.
		Silty Sand (Bottom Ash), gray to black, moist, fine to medium grained, loose to medium dense, with zones silty, and a mix of ash, coal cinders \ slag		SPT-2	2.5 - 4.0	1.5	25-23-20	13	
				SPT-3	5.5 - 7.0	1.5	6-5-4	10	
				SPT-4	7.5 - 9.0	1.5	3-4-5	10	
				SPT-5	10.5 - 12.0	1.5	8-7-8	27	
				SPT-6	12.5 - 14.0	1.5	14-11-10	16	
				SPT-7	15.5 - 17.0	1.5	17-26-38	22	
				SPT-8	17.5 - 19.0	1.5	29-56-69	22	
				SPT-9	20.5 - 22.0	1.5	25-44-50+	19	
620.4'	17.0'	Silt with Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders / fragments							

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
612.4'	25.0'	Silt with Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders / fragments <i>(Continued)</i>		SPT-10	22.0 - 22.3	0.3	50+	18	Wet at 22.9 ft.
609.3'	28.1'	Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, with zones silty, and a mix of ash, coal cinders \ slag		SPT-11	25.5 - 27.0	1.5	11-12-15	21	
606.4'	31.0'	Silt with Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders / fragments		SPT-12	27.5 - 29.0	1.5	13-15-9	29	SPT #12, #13, #14 and #15 the samples were split
605.4'	32.0'	Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-13	30.5 - 32.0	1.5	7-5-5	17	
604.3'	33.1'	Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, with zones silty, and a mix of ash, coal cinders \ slag		SPT-14	32.5 - 34.0	1.5	3-4-2	17	Water added to boring at 35.0 ft.
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-15	35.5 - 37.0	1.4	WOH-WOH-WOH	22	
				ST-1	37.0 - 39.0	1.0		18	
595.4'	42.0'			SPT-16	40.5 - 42.0	1.5	7-11-14	21	
		No Refusal / Bottom of Hole							

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1596511.64, E 523232.37		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-88	Total Depth	33.3 ft
Location	Jackson County, AL	Surface Elevation	615.7 ft.		
Project Type	Geotechnical Exploration	Date Started	5/5/09	Completed	5/5/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	11.0 ft
Logged By	Josh Bell	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
615.7'	0.0'	Top of Hole							
		Ditch Fill: Bottom Ash with Rip-Rap (Drill Access Road)							
610.7'	5.0'								
		Silt with Sand (Bottom Ash), gray to black, moist, fine to medium grained, loose to medium dense, with occasional coal cinders / fragments		SPT-1	5.5 - 7.0	1.3	13-4-4	25	
				SPT-2	7.5 - 9.0	1.3	7-6-7	14	
603.7'	12.0'			SPT-3	10.5 - 12.0	0.5	WOH-WOH-2	20	
		Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-4	12.5 - 14.0	1.1	3-3-9	21	
				SPT-5	15.5 - 17.0	1.0	8-11-12	24	
597.2'	18.5'			SPT-6	17.5 - 19.0	1.5	11-8-9	18	
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-7	20.5 - 22.0	1.5	5-9-14	26	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
590.4'	25.3'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-8	22.5 - 24.0	1.5	20-18-50+	25	
				SPT-9	25.0 - 25.3	0.3	50+	14	Began Core
582.4'	33.3'	Limestone, gray, fine to micro-crystalline grained, medium bedded, with shale stringers and dolomitic zones							45° fracture from 27.3 ft to 27.5 ft. SI installed; bottom at 31.6 ft.
				11%	8.0	8.0	100	33.3	
Bottom of Hole Base of Weathered Rock = 25.8' Top of Rock = 25.0' Elevation (590.7')									

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597963.81, E 524804.60	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-89	Total Depth 65.8 ft
Location	Jackson County, AL	Surface Elevation	636.3 ft.	
Project Type	Geotechnical Exploration	Date Started	5/7/09	Completed 5/7/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 13.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
636.3'	0.0'	Top of Hole							
631.3'	5.0'	Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, with zones silty, and a mix of ash, coal cinders \ slag	SPT-1	0.5 - 2.0	1.5	30-20-16	9		
			SPT-2	2.0 - 2.8	0.8	72-50+	9		
		Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments	SPT-3	5.5 - 7.0	1.5	4-6-9	19		
			SPT-4	7.5 - 9.0	1.0	3-5-6	24		
			ST-1	10.0 - 12.0	0.0	--			
			SPT-5	12.5 - 14.0	1.5	7-16-13	16		
			ST-2	15.0 - 17.0	2.0		23		
			SPT-6	17.5 - 19.0	0.6	1-1-8	23		
ST-3	20.0 - 22.0	2.0		27					
614.3'	22.0'								

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.		175569036			Location		N 1597963.81, E 524804.60			
Project Name		Widows Creek Fossil Plant (TVA)			Boring No.		STN-89	Total Depth 65.8 ft		
Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks	
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth		
		Silt with Sand (Bottom Ash), gray to black, moist, fine to medium grained, loose to medium dense, with occasional coal cinders / fragments (Continued)		SPT-7	22.5 - 24.0	1.5	14-20-27	21		
				SPT-8	25.5 - 27.0	1.5	12-11-14	22		
				SPT-9	27.5 - 29.0	1.5	16-21-22	20		
				SPT-10	30.5 - 32.0	1.5	9-12-12	22		
				SPT-11	32.5 - 34.0	1.5	7-6-9	22	Split Sample	
				SPT-12	35.5 - 37.0	1.0	5-7-9	22		
				SPT-13	37.5 - 39.0	1.5	5-6-8	24		
595.4'	40.9'			ST-4	40.0 - 42.0	1.8		20		
			Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-14	42.5 - 44.0	1.5	6-8-11	25	
					SPT-15	45.5 - 47.0	1.5	3-4-6	24	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-16	47.5 - 49.0	1.5	6-8-9	27	
				SPT-17	50.5 - 52.0	1.5	7-7-7	26	
				SPT-18	52.5 - 54.0	1.5	3-3-2	23	
581.1'	55.2'			SPT-19	55.0 - 55.2	0.2	50+	26	Began Core
570.5'	65.8'	Limestone (dolomite), gray, micro-crystalline grained, thin to medium bedded, with occasional dolomitic and argillaceous zones							
Bottom of Hole									
Top of Rock = 55.2' Elevation (581.1')									

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597204.13, E 525851.47	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-90	Total Depth 47.4 ft
Location	Jackson County, AL	Surface Elevation	613.2 ft.	
Project Type	Geotechnical Exploration	Date Started	5/7/09	Completed 5/7/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 12.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
613.2'	0.0'	Top of Hole							
		Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, with zones silty, and a mix of ash, coal cinders \ slag		SPT-1	0.5 - 2.0	1.2	12-18-16	3	
				SPT-2	2.5 - 4.0	1.5	8-9-16	6	
				ST-1	5.0 - 7.0	1.0		46	
605.0'	8.2'	Fill: Fat Clay With Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-3	8.5 - 10.0	1.5	13-6-9	20	Split Sample
				ST-2	10.0 - 12.0	2.0		23	
				SPT-4	12.5 - 14.0	1.4	3-6-6	28	
				SPT-5	15.5 - 17.0	2.0	2-3-4	22	
596.9'	16.3'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, wih chert fragments and occassional manganese concretions		SPT-6	17.5 - 19.0	1.3	2-4-4	24	Split Sample
				ST-3	20.0 - 22.0	0.8		18	
				SPT-7	22.5 - 24.0	0.3	WOH-1-2	32	
				SPT-8	25.5 - 27.0	0.3	WOH	28	
				SPT-9	27.5 - 29.0	1.5	1-3-3	33	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.		175569036			Location		N 1597204.13, E 525851.47		
Project Name		Widows Creek Fossil Plant (TVA)			Boring No.		STN-90	Total Depth 47.4 ft	
Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
577.7'	35.5'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-10	30.5 - 32.0	1.5	WOH- WOH-3	30	Began Core
				SPT-11	32.5 - 34.0	1.5	3-3-4	26	
				SPT-12	35.0 - 35.5	0.5	WOH-50+	22	
570.4'	42.8'	Shale, green to blue, weathered		6%	7.3	2.3	32	42.8	
565.8'	47.4'	Limestone (dolomite), gray microcrystalline, thin to medium bedded, occasional dolomitic and argillaceous zones		100%	4.6	4.1	89	47.4	
Bottom of Hole Top of Rock = 35.5' Elevation (577.7')									

Project No.	175569036	Location	N 1596746.75, E 523027.94		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-91	Total Depth	19.0 ft
Location	Jackson County, AL	Surface Elevation	641.1 ft.		
Project Type	Geotechnical Exploration	Date Started	4/28/09	Completed	4/28/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	6.2 ft
Logged By	Josh Bell	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
641.1'	0.0'	Top of Hole							
		Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, with zones silty, and a mix of ash, coal cinders \ slag		SPT-1	0.5 - 2.0	1.5	8-10-9	20	Boring backfilled with grout
				SPT-2	2.5 - 4.0	1.5	13-9-8	16	
				SPT-3	5.5 - 7.0	1.5	3-4-5	27	Approximately 7 ft. to the pipe invert
				SPT-4	7.5 - 9.0	1.5	5-9-8	26	Approximately 9 ft. to the pool elevation
				SPT-5	10.5 - 12.0	1.5	5-6-9	28	
				SPT-6	12.5 - 14.0	1.5	12-15-17	17	
				SPT-7	15.5 - 17.0	1.5	7-3-2	19	silt lense from 16.7 ft. - 17.0 ft.
				SPT-8	17.5 - 19.0	1.5	1-10-12	35	silt lense from 18.0 ft. - 18.4 ft. clay parting from 18.4 ft. - 18.7 ft.
622.1'	19.0'	No Refusal / Bottom of Hole							

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1596741.80, E 522972.41	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-92	Total Depth 19.5 ft
Location	Jackson County, AL	Surface Elevation	640.1 ft.	
Project Type	Geotechnical Exploration	Date Started	4/27/09	Completed 4/27/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 6.3 ft
Logged By	Josh Bell	Depth to Water	N/A	Date/Time 4/27/09
				Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
640.1'	0.0'	Top of Hole							
		Sand with Gravel (Bottom Ash), gray to black, moist, medium to coarse grained, loose to medium dense, with zones silty, a mix of ash, coal cinders slag		SPT-1	0.5 - 2.0	1.2	4-4-3	10	Boring backfilled with grout
				SPT-2	2.5 - 4.0	1.1	2-4-5	15	
				SPT-3	5.5 - 7.0	1.5	5-4-3	22	Below 6.3 ft. the soil becomes damp to wet
				SPT-4	7.5 - 9.0	1.5	6-7-13	29	Below 7.0 ft, soil grades to fine silt with ash
				SPT-5	10.5 - 12.0	1.0	9-4-5	24	Soil becomes more coarse below 9.5 ft.
				SPT-6	12.5 - 14.0	1.5	13-7-2	18	
				SPT-7	16.5 - 18.0	1.5	3-15-17	19	SPT #6 and #7 the samples were split
				SPT-8	18.0 - 19.5	1.5	25-43-8	18	
620.6'	19.5'	No Refusal / Bottom of Hole							

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598456.37, E 524812.06		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-93	Total Depth	54.0 ft
Location	Jackson County, AL	Surface Elevation	641.8 ft.		
Project Type	Geotechnical Exploration	Date Started	6/22/09	Completed	6/22/09
Supervisor	Kip Anderson	Driller	M. Wethington	Depth to Water	9.5 ft
Logged By	G. Budd	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
641.8'	0.0'	Top of Hole							
641.3'	0.5'	Coal refuse and gravel (access road)		SPT-1	0.0 - 1.5	1.0	8-27-50	12	
		Sand with Gravel (Bottom Ash), gray to black, dry to saturated, coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders slag		SPT-2	1.5 - 3.0	0.7	50+-39-39	9	
			SPT-3	3.0 - 4.5	1.3	50+-41-49	19		
			SPT-4	4.5 - 6.0	1.2	12-37-50	11		
			SPT-5	6.0 - 7.5	1.5	36-30-28	14		
			SPT-6	7.5 - 9.0	1.0	22-29-22	16		
			SPT-7	9.0 - 10.5	1.2	10-9-10	15	Wet at 9.5'	
			SPT-8	10.5 - 12.0	0.9	7-5-2	14	Bag-1: 9' to 12'	
			SPT-9	12.0 - 13.5	1.5	2-2-4	15		
			SPT-10	13.5 - 15.0	0.9	3-2-2	14		
			SPT-11	15.0 - 16.5	0.9	2-2-2	15		
			SPT-12	16.5 - 18.0	1.5	2-2-3	15		
			SPT-13	18.0 - 19.5	1.0	2-2-1	18		
			SPT-14	19.5 - 21.0	1.2	1-1-1	23		
			SPT-15	21.0 - 22.5	1.5	1-1-1	20		

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
602.8'	39.0'	Sand with Gravel (Bottom Ash), gray to black, dry to saturated, coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders slag <i>(Continued)</i>		SPT-16	22.5 - 24.0	0.6	1-50+-27	19	
				SPT-17	24.0 - 25.5	0.5	1-4-2	22	
				SPT-18	25.5 - 27.0	0.7	2-3-1	26	
				SPT-19	27.0 - 28.5	1.0	1-1-1	18	
				SPT-20	28.5 - 30.0	0.3	1-1-1	13	
				ST-1	30.0 - 32.0	2.0		12	
				SPT-21	32.0 - 33.5	0.0	WOH	--	SPT-21 No Recovery
				SPT-22	33.5 - 35.0	1.5	WOH	40	
				SPT-23	35.0 - 36.5	1.5	7-7-6	15	
				SPT-24	36.5 - 38.0	1.5	3-4-6	16	
				SPT-25	38.0 - 39.5	1.5	4-4-3	15	
				ST-2	39.5 - 41.5	0.0		--	ST-2 No Recovery. Hit rock and gravel
				SPT-26	41.5 - 43.0	0.3	2-2-2	24	
				SPT-27	43.0 - 44.5	0.4	4-5-7	23	
				SPT-28	44.5 - 46.0	0.8	3-9-9	23	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598456.37, E 524812.06	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-93	Total Depth 54.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
587.8'	54.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-29	46.0 - 47.5	0.5	9-11-14	17	
				SPT-30	47.5 - 49.0	0.7	8-11-13	19	
				ST-3	49.0 - 51.0	2.0		24	
				SPT-31	51.0 - 52.5	1.5	6-8-9	23	
				SPT-32	52.5 - 54.0	1.0	9-14-13	24	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598399.46, E 524769.64	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-94	Total Depth 55.7 ft
Location	Jackson County, AL	Surface Elevation	639.0 ft.	
Project Type	Geotechnical Exploration	Date Started	6/24/09	Completed 6/24/09
Supervisor	Kip Anderson Driller S. Wilkes	Depth to Water	16.0 ft	Date/Time 6/24/09
Logged By	G. Budd	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
639.0'	0.0'	Top of Hole							
		Fill: Fat Clay with Gravel, tan to red, dry to moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	0.4	1-1-2	21	
				SPT-2	1.5 - 3.0	1.0	17-39-20	8	
				SPT-3	3.0 - 4.5	0.7	9-14-20	21	
				SPT-4	4.5 - 6.0	1.0	3-3-5	22	
				SPT-5	6.0 - 7.5	0.9	3-5-6	24	
				SPT-6	7.5 - 9.0	1.2	5-7-7	28	
				SPT-7	9.0 - 10.5	0.5	2-2-3	18	
				SPT-8	10.5 - 12.0	1.5	3-5-6	22	
				SPT-9	12.0 - 13.5	1.1	7-9-10	33	
				SPT-10	13.5 - 15.0	1.3	10-12-13	30	
622.0'	17.0'			ST-1	15.0 - 17.0	2.0		23	Wet at 16'
		Sand with Gravel (Bottom Ash), gray to black, saturated, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders slag		SPT-11	17.0 - 18.5	1.1	10-12-11	29	Ash in bottom of ST-1
619.5'	19.5'			SPT-12	18.5 - 20.0	1.2	3-4-6	27	
		Residual Fat Clay, tan to red, moist to wet, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-13	20.0 - 21.5	0.4	5-7-7	23	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No. <u>175569036</u>		Location <u>N 1598399.46, E 524769.64</u>						
Project Name <u>Widows Creek Fossil Plant (TVA)</u>		Boring No. <u>STN-94</u> Total Depth <u>55.7 ft</u>						
Lithology		Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth	Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
			SPT-14	21.5 - 23.0	0.3	2-3-5	27	Abundant Manganese concretions
			SPT-15	23.0 - 24.5	0.7	5-7-9	27	
			ST-2	24.5 - 26.5	2.0		25	
			SPT-16	26.5 - 28.0	1.0	3-3-4	27	
			SPT-17	28.0 - 29.5	1.5	3-4-6	27	
			SPT-18	29.5 - 31.0	1.5	6-7-8	26	
			SPT-19	31.0 - 32.5	1.1	5-6-8	27	
			SPT-20	32.5 - 34.0	1.5	7-9-11	22	
			SPT-21	34.0 - 35.5	1.3	6-9-9	21	
			SPT-22	35.5 - 37.0	1.1	9-11-13	30	
			SPT-23	37.0 - 38.5	1.4	13-13-13	36	
			SPT-24	38.5 - 40.0	1.4	4-5-7	24	
			SPT-25	40.0 - 41.5	1.1	2-4-7	21	
			SPT-26	41.5 - 43.0	1.5	8-10-10	23	
			SPT-27	43.0 - 44.5	1.5	9-13-14	20	
			SPT-28	44.5 - 46.0	1.5	9-10-12	21	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598399.46, E 524769.64	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-94	Total Depth 55.7 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
586.5'	52.5'	Residual Fat Clay, tan to red, moist to wet, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-29	46.0 - 47.5	1.0	5-8-8	24	
				SPT-30	47.5 - 49.0	1.3	5-6-6	28	
				ST-3	49.0 - 51.0	2.0		25	
				SPT-31	51.0 - 52.5	1.5	4-5-6	21	
583.5' 583.3'	55.5' 55.7'	Silty Clayey Sand, brown to gray, wet, fine grained		SPT-32	52.5 - 54.0	1.5	3-4-6	23	
				SPT-33	54.0 - 55.5	1.5	6-4-2	25	
				SPT-34	55.5 - 55.7	0.2	50+	19	

Limestone (augered)

Auger Refusal /
Bottom of Hole

Top of Rock = 55.7'
Elevation (583.3')

Project No.	175569036	Location	N 1597646.20, E 525820.45		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-95	Total Depth	55.5 ft
Location	Jackson County, AL	Surface Elevation	645.4 ft.		
Project Type	Geotechnical Exploration	Date Started	6/17/09	Completed	6/17/09
Supervisor	Kip Anderson	Driller	M. Wethington	Depth to Water	15.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
645.4'	0.0'	Top of Hole							
		Sand with Gravel (Bottom Ash), gray to black, dry, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.0 - 1.5	1.1	3-6-6	21	
				SPT-2	1.5 - 3.0	1.3	11-11-13	18	
				SPT-3	3.0 - 4.5	1.5	12-14-11	32	
				SPT-4	4.5 - 6.0	1.5	5-5-5	29	
639.4'	6.0'	Silt with Sand (Bottom Ash), light gray to black, moist, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments		SPT-5	6.0 - 7.5	1.5	7-11-12	37	
				SPT-6	7.5 - 9.0	1.5	6-5-6	42	
				SPT-7	9.0 - 10.5	1.5	5-10-7	39	
				SPT-8	10.5 - 12.0	1.5	7-10-18	26	
				SPT-9	12.0 - 13.5	1.5	18-18-13	23	
				SPT-10	13.5 - 15.0	1.2	4-4-3	18	Bag #1 13' to 16'
				SPT-11	15.0 - 16.5	1.2	2-2-2	25	Wet at 15'
				SPT-12	16.5 - 18.0	1.5	2-1-5	42	
				SPT-13	18.0 - 19.5	1.2	11-25-42	33	
				SPT-14	19.5 - 21.0	1.5	4-8-8	34	
				SPT-15	21.0 - 22.5	1.5	5-5-8	38	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
622.9'	22.5'	Silt (Fly Ash), light gray to black, wet, loose to medium dense		SPT-16	22.5 - 24.0	1.0	4-2-2	40	
			SPT-17	24.0 - 25.5	1.3	WOH	55		
			ST-1	25.5 - 27.5	1.9	--			
617.9'	27.5'	Silt (Fly Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments		SPT-18	27.5 - 29.0	0.9	4-9-11	35	
			SPT-19	29.0 - 30.5	1.5	7-14-18	31		
			ST-2	30.5 - 32.5	1.3	29			
			SPT-20	32.5 - 34.0	1.4	4-6-7	29		
			SPT-21	34.0 - 35.5	1.5	3-6-7	30		
			ST-3	35.5 - 37.5	0.6	--		Bag #2 35'-38'	
606.9'	38.5'	Silt (Fly Ash), light gray to black, wet, loose to medium dense		SPT-22	37.5 - 39.0	1.5	WOH-1-2	43	SPT-22 split into two samples
			SPT-23	39.0 - 40.5	1.0	5-2-3	45		
			ST-4	40.5 - 42.5	--			ST-4 No Recovery	
			SPT-24	42.5 - 44.0	1.0	WOH	36		
			SPT-25	44.0 - 45.5	1.0	WOH	40		
				ST-5	45.5 - 47.5	0.9	--		

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597646.20, E 525820.45		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-95	Total Depth	55.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
595.6'	49.8'	Silt (Fly Ash), light gray to black, wet, loose to medium dense <i>(Continued)</i>		SPT-26	47.5 - 49.0	1.3	WOH	56	SPT-27 split into two samples
				SPT-27	49.0 - 50.5	1.5	3-7-12	51	
592.9'	52.5'	Silt (Fly Ash) with Clay Fill, gray to black, moist to damp, loose to medium dense		ST-6	50.5 - 52.5	2.0		--	
				SPT-28	52.5 - 54.0	1.3	5-9-11	28	Soil Boring Only - No PZ
589.9'	55.5'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-29	54.0 - 55.5	1.2	8-13-16	29	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597293.44, E 526298.58		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-96	Total Depth	54.5 ft
Location	Jackson County, AL	Surface Elevation	647.6 ft.		
Project Type	Geotechnical Exploration	Date Started	6/16/09	Completed	6/16/09
Supervisor	Kip Anderson	Driller	M. Wethington	Depth to Water	23.5 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
647.6'	0.0'	Top of Hole							
644.6'	3.0'	Sand with Gravel (Bottom Ash), gray to black, dry, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders slag		SPT-1	0.0 - 1.5	1.5	8-13-15	20	
				SPT-2	1.5 - 3.0	1.3	13-11-8	21	
631.4'	16.2'	Silt with Sand (Bottom Ash), light gray to black, dry to moist, fine to medium grained, dense to very dense, with occasional coal cinders fragments		SPT-3	3.0 - 4.5	1.2	14-37-37	13	
				SPT-4	4.5 - 6.0	1.5	24-33-32	20	
				SPT-5	6.0 - 7.5	1.5	27-29-24	18	
				SPT-6	7.5 - 9.0	1.5	16-17-17	30	
				SPT-7	9.0 - 10.5	1.3	12-10-15	33	
				SPT-8	10.5 - 12.0	1.5	19-25-23	16	
				SPT-9	12.0 - 13.5	1.2	30-15-21	17	
				SPT-10	13.5 - 15.0	1.3	18-14-7	20	
				SPT-11	15.0 - 16.5	0.9	4-6-6	25	
				SPT-12	16.5 - 18.0	1.3	6-7-9	19	
	SPT-13	18.0 - 19.5	1.5	6-5-6	26				
	SPT-14	19.5 - 21.0	1.5	6-8-5	23				
	SPT-15	21.0 - 22.5	1.1	5-6-8	24				

Bag #1 16' to 19'

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
623.6'	24.0'	Silt (Fly Ash), light gray to black, wet, loose to medium dense		SPT-16	22.5 - 24.0	1.5	13-9-11	26	Wet at 23.5
			SPT-17	24.0 - 25.5	1.1	2-4-3	23		
615.6'	32.0'	Silt with Sand (Bottom Ash), light gray to black, wet, fine to medium grained, dense to very dense, with occasional coal cinders fragments		ST-1	25.5 - 27.5	2.0		--	
				SPT-18	27.5 - 29.0	1.1	WOH	27	
				SPT-19	29.0 - 30.5	1.5	1-1-1	42	
				SPT-20	30.5 - 32.0	1.2	1-3-2	27	
				SPT-21	32.0 - 33.5	1.4	2-3-2	23	
				SPT-22	33.5 - 35.0	1.0	5-4-6	23	
604.1'	43.5'			ST-2	35.0 - 37.0	2.0		--	
				SPT-23	37.0 - 38.5	1.5	3-2-2	19	
				SPT-24	38.5 - 40.0	1.5	6-6-8	41	
				SPT-25	40.0 - 41.5	1.5	5-5-4	20	
602.1'	45.5'	Sandy Lean Clay, light gray to black, wet, loose to medium dense		SPT-26	41.5 - 43.0	1.5	5-3-2	20	
				SPT-27	43.0 - 44.5	1.5	WOH	38	SPT-27 split into two samples Bag #2 43' to 46'
				ST-3	44.5 - 46.5	0.0		--	ST-3 No recovery

F:\MSM_LEGACY\175569036 BORINGS.GPJ_F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597293.44, E 526298.58	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-96	Total Depth 54.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
593.1'	54.5'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-28	46.5 - 48.0	1.5	5-8-6	26	SPT - 28 split into two samples
				SPT-29	48.0 - 49.5	0.7	10-9-14	28	
				SPT-30	49.5 - 51.0	1.2	9-10-15	28	
				SPT-32	51.0 - 52.5	0.8	11-11-12	26	
				ST-4	52.5 - 54.5	2.0		--	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597191.88, E 526271.27		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-97	Total Depth	42.0 ft
Location	Jackson County, AL	Surface Elevation	638.6 ft.		
Project Type	Geotechnical Exploration	Date Started	6/17/09	Completed	6/17/09
Supervisor	Kip Anderson	Driller	S. Wilkes	Depth to Water	19.5 ft
Logged By	G. Budd	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois. Cont. %	Remarks
Elevation	Depth		Rock Core						
638.6'	0.0'	Top of Hole							
637.1'	1.5'	Crushed Limestone (access road)		SPT-1	0.0 - 1.5	0.1	9-5-4	2	
		Fill: Fat Clay with Gravel, tan to red, dry to moist to wet, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-2	1.5 - 3.0	1.0	4-5-6	28	
			SPT-3	3.0 - 4.5	0.8	6-6-7	26		
			SPT-4	4.5 - 6.0	1.0	3-3-4	26		
			SPT-5	6.0 - 7.5	1.2	4-6-6	25		
			SPT-6	7.5 - 9.0	0.7	7-7-8	25		
			SPT-7	9.0 - 10.5	1.3	4-5-6	25		
			SPT-8	10.5 - 12.0	0.9	4-4-5	31		
			SPT-9	12.0 - 13.5	1.5	3-3-3	33		
			SPT-10	13.5 - 15.0	1.0	2-3-4	29		
			SPT-11	15.0 - 16.5	0.9	5-7-8	24	Traces of gray bottom ash noted	
			SPT-12	16.5 - 18.0	1.1	7-9-12	20		
			SPT-13	18.0 - 19.5	1.0	8-10-11	21		
			ST-1	19.5 - 21.5	1.9		--		Wet at 19.5'

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
612.6'	26.0'	Fill: Fat Clay with Gravel, tan to red, dry to moist to wet, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments <i>(Continued)</i>		SPT-14	21.5 - 23.0	0.9	2-2-2	28	
				SPT-15	23.0 - 24.5	1.0	1-1-2	30	
				SPT-16	24.5 - 26.0	0.5	1-1-2	28	
606.1'	32.5'	Silt (Fly Ash), light gray to black, dry, loose to medium dense		SPT-17	26.0 - 27.5	1.0	7-9-9	21	
				SPT-18	27.5 - 29.0	0.7	9-12-14	24	
				ST-2	29.0 - 31.0	1.9	--	--	
				SPT-19	31.0 - 32.5	1.4	5-12-13	27	Traces of fly ash from 31' to 32'
596.6'	42.0'	Residual Fat Clay with Sand, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-20	32.5 - 34.0	1.5	9-9-9	29	Wood and roots noted in SPT-20
				SPT-21	34.0 - 35.5	1.2	8-8-10	32	
				SPT-22	35.5 - 37.0	1.5	4-4-6	29	
				SPT-23	37.0 - 38.5	1.5	4-4-5	29	
				SPT-24	38.5 - 40.0	1.1	5-7-8	27	
				ST-3	40.0 - 42.0	2.0	--	--	
		No Refusal / Bottom of Hole							

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597091.52, E 526250.22	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-98	Total Depth 24.7 ft
Location	Jackson County, AL	Surface Elevation	602.5 ft.	
Project Type	Geotechnical Exploration	Date Started	6/4/09	Completed 6/4/09
Supervisor	Kip Anderson Driller S. Wilkes	Depth to Water	10.5 ft	Date/Time 6/4/09
Logged By	G. Budd	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois. Cont. %	Remarks
Elevation	Depth		Rock Core						
602.5'	0.0'	Top of Hole							
601.0'	1.5'	Crushed stone (Roadway Fill)		SPT-1	0.0 - 1.5	0.3	27-24-18	4	Boring located ~50 yards from creek
		Residual: Lean Clay, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments	SPT-2	1.5 - 3.0	1.3	16-15-14	20		
			SPT-3	3.0 - 4.5	0.2	4-5-6	29		
			SPT-4	4.5 - 6.0	0.9	5-7-7	26	2' adjacent to STN-18, ST-2 was collected from 5.0-7.0'	
			SPT-5	6.0 - 7.5	0.3	7-7-7	29		
			SPT-6	7.5 - 9.0	1.2	3-3-4	29		
			SPT-7	9.0 - 10.5	0.6	4-5-6	30	2' adjacent to STN-18, ST-3 was collected from 10.0-12.0' Wet at 10.5'	
			SPT-8	10.5 - 12.0	0.9	2-2-3	34		
			SPT-9	12.0 - 13.5	1.0	5-5-6	33		
			SPT-10	13.5 - 15.0	1.0	6-6-8	33		
			SPT-11	15.0 - 16.5	1.5	5-6-6	32		
			SPT-12	16.5 - 18.0	1.0	6-6-7	26		
		ST-1	18.0 - 20.0	2.0		30			
SPT-13	20.0 - 21.5	0.5	3-2-4	27					

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597091.52, E 526250.22	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-98	Total Depth 24.7 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
		Residual: Lean Clay, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments <i>(Continued)</i>		SPT-14	21.5 - 23.0	0.5	3-3-3	28	
				SPT-15	23.0 - 24.5	0.7	3-3-7	38	
578.0'	24.5'			SPT-16	24.5 - 24.7	0.2	50+/-0.1	16	
577.8'	24.7'	Limestone (Augered)							
		Auger Refusal / Bottom of Hole							
		Top of Rock = 24.5' Elevation (578.0')							

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597803.36, E 526989.76	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-99	Total Depth 48.0 ft
Location	Jackson County, AL	Surface Elevation	638.4 ft.	
Project Type	Geotechnical Exploration	Date Started	6/16/09	Completed 6/16/09
Supervisor	Kip Anderson Driller S. Wilkes	Depth to Water	19.5 ft	Date/Time 6/16/09
Logged By	G. Budd	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois. Cont. %	Remarks
Elevation	Depth		Rock Core						
638.4'	0.0'	Top of Hole							
636.4'	2.0'	Coal Refuse (access road) and gravel		SPT-1	0.0 - 1.5	0.9	5-8-25	19	
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments	SPT-2	1.5 - 3.0	0.7	13-4-5	25		
			SPT-3	3.0 - 4.5	0.9	7-6-5	25		
			SPT-4	4.5 - 6.0	0.6	4-2-3	26		
			SPT-5	6.0 - 7.5	0.9	4-5-6	30		
			SPT-6	7.5 - 9.0	0.8	7-7-5	27		
			SPT-7	9.0 - 10.5	1.0	3-4-5	29		
			SPT-8	10.5 - 12.0	1.2	3-5-6	27		
			SPT-9	12.0 - 13.5	1.1	8-8-8	22		
			SPT-10	13.5 - 15.0	1.2	7-8-9	22		
			SPT-11	15.0 - 16.5	0.2	5-50+	20	SPT-11 0.2' Auger past rock to 16.5'	
		SPT-12	16.5 - 18.0	1.0	3-3-3	22			
		619.4'	19.0'	SPT-13	18.0 - 19.5	1.5	4-4-7	22	
		Fill: Fat Clay with Gravel, dark brown to gray, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		ST-1	19.5 - 21.5	1.5	--	--	
			SPT-14	21.5 - 23.0	0.9	2-4-4	28		
			SPT-15	23.0 - 24.5	0.6	3-4-5	28		
			SPT-16	24.5 - 26.0	0.4	3-3-5	27		
			SPT-17	26.0 - 27.5	0.8	2-2-4	26		
			SPT-18	27.5 - 29.0	1.2	4-6-7	25		

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597803.36, E 526989.76	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-99	Total Depth 48.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
600.3'	38.1'	Fill: Fat Clay with Gravel, dark brown to gray, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments <i>(Continued)</i>		ST-2	29.0 - 31.0	2.0		--	
				SPT-19	31.0 - 32.5	1.0	3-5-7	24	
				SPT-20	32.5 - 34.0	0.9	7-7-13	24	
				SPT-21	34.0 - 35.5	1.0	13-16-18	22	
				SPT-22	35.5 - 37.0	1.0	3-3-6	26	
				SPT-23	37.0 - 38.5	1.1	6-9-10	22	
			590.4'	48.0'	Residual Lean Clay, brown to gray, moist to wet, medium stiff to very stiff		SPT-24	38.5 - 40.0	0.9
	ST-3	40.0 - 42.0				2.0		--	
	SPT-25	42.0 - 43.5				1.3	4-7-10	25	
	SPT-26	43.5 - 45.0				1.0	8-12-13	28	
	SPT-27	45.0 - 46.5				0.6	9-12-15	26	
	SPT-28	46.5 - 48.0				0.8	4-6-7	26	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598327.99, E 527385.44	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-100	Total Depth 54.5 ft
Location	Jackson County, AL	Surface Elevation	644.1 ft.	
Project Type	Geotechnical Exploration	Date Started	6/10/09	Completed 6/10/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 21.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
644.1'	0.0'	Top of Hole							
635.1'	9.0'	Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.0 - 1.5	1.2	7-12-20	16	
				SPT-2	1.5 - 3.0	1.2	10-40-50	35	
				SPT-3	3.0 - 4.5	0.8	50+-50-50+	12	
				SPT-4	4.5 - 6.0	1.5	25-21-25	16	
				SPT-5	6.0 - 7.5	1.5	33-42-50	16	
				SPT-6	7.5 - 9.0	1.4	37-33-36	20	
632.1'	12.0'	Silt with Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments		SPT-7	9.0 - 10.5	1.5	7-11-12	31	
				SPT-8	10.5 - 12.0	1.5	5-7-18	35	
624.6'	19.5'	Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-9	12.0 - 13.5	1.5	48-50+-47	12	
				SPT-10	13.5 - 15.0	1.5	48-49-35	28	
				SPT-11	15.0 - 16.5	1.3	5-10-9	32	
				SPT-12	16.5 - 18.0	1.4	8-11-11	30	Clay mix noted from 17.0 ft. to 19.5 ft.
				SPT-13	18.0 - 19.5	1.5	7-5-7	30	
	Silt with Sand (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments	SPT-14	19.5 - 21.0	1.3	7-8-7	35			
	SPT-15	21.0 - 22.5	1.3	6-17-14	42	Wet at 21.0 ft.			

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
621.6'	22.5'	Silt (Fly Ash), light gray to black, moist to wet, very loose to loose							
			SPT-16	22.5 - 24.0	1.5	6-5-3	25		
			SPT-17	24.0 - 25.5	1.0	WOH	23		
			SPT-18	25.5 - 27.0	1.3	1-1-WOH	43		
			SPT-19	27.0 - 28.5	1.5	WOH	35		
			SPT-20	28.5 - 30.0	1.5	WOH	34		
			ST-1	30.0 - 32.0	2.0		21		
			SPT-21	32.0 - 33.5	1.5	WOH	88		Bag #1 - 33.0 ft. to 36.0 ft.
			ST-2	33.5 - 35.5	2.0		107		
			SPT-22	35.5 - 37.0	1.5	WOH	99		
			SPT-23	37.0 - 38.5	1.5	WOH	99		
			SPT-24	38.5 - 40.0	1.5	WOH	78		
			SPT-25	40.0 - 41.5	1.3	WOH	99		
			SPT-26	41.5 - 43.0	1.5	WOH	104		
			SPT-27	43.0 - 44.5	1.5	WOH	40		
597.6'	46.5'		ST-3	44.5 - 46.5	1.5		87		

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No. <u>175569036</u>	Location <u>N 1598327.99, E 527385.44</u>
Project Name <u>Widows Creek Fossil Plant (TVA)</u>	Boring No. <u>STN-100</u> Total Depth <u>54.5 ft</u>

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
589.6'	54.5'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-28	46.5 - 48.0	1.0	2-4-6	31	
				SPT-29	48.0 - 49.5	0.9	4-4-5	36	
				ST-4	49.5 - 51.5	2.0		32	
				SPT-30	51.5 - 53.0	1.3	5-5-7	30	
				SPT-31	53.0 - 54.5	0.6	5-7-7	28	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09



SUBSURFACE LOG

Project No.	175569036	Location	N 1598404.27, E 527426.83	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-101	Total Depth 64.5 ft
Location	Jackson County, AL	Surface Elevation	638.8 ft.	
Project Type	Geotechnical Exploration	Date Started	6/10/09	Completed 6/11/09
Supervisor	Kip Anderson Driller S. Wilkes	Depth to Water	19.5 ft	Date/Time 6/11/09
Logged By	G. Budd	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
638.8'	0.0'	Top of Hole							
637.3'	1.5'	Crushed stone (Roadway Fill)		SPT-1	0.0 - 1.5	1.0	19-18-13	10	SPT #2 - No ash fragments
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-2	1.5 - 3.0	1.1	6-7-9	33	
				SPT-3	3.0 - 4.5	0.9	8-9-9	26	
				SPT-4	4.5 - 6.0	0.5	6-3-4	29	
				SPT-5	6.0 - 7.5	1.0	4-6-7	27	
				SPT-6	7.5 - 9.0	0.9	7-7-9	35	
				SPT-7	9.0 - 10.5	0.5	2-2-3	27	
				SPT-8	10.5 - 12.0	0.7	6-7-7	22	
				SPT-9	12.0 - 13.5	1.0	7-10-10	22	
				SPT-10	13.5 - 15.0	1.1	3-5-8	26	
				SPT-11	15.0 - 16.5	0.7	8-10-13	22	
				SPT-12	16.5 - 18.0	0.8	2-3-5	24	
				SPT-13	18.0 - 19.5	1.5	6-7-10	25	
				ST-1	19.5 - 21.5	1.5		30	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598404.27, E 527426.83
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-101 Total Depth 64.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
595.8'	43.0'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments <i>(Continued)</i>		SPT-14	21.5 - 23.0	0.5	2-2-3	26	
				SPT-15	23.0 - 24.5	0.8	4-6-8	26	
				SPT-16	24.5 - 26.0	1.0	4-7-7	22	
				SPT-17	26.0 - 27.5	0.6	6-7-8	27	
				SPT-18	27.5 - 29.0	1.0	8-7-6	27	
				ST-2	29.0 - 31.0	1.8		27	
				SPT-19	31.0 - 32.5	1.0	5-6-8	29	
				SPT-20	32.5 - 34.0	1.0	7-9-11	24	
				SPT-21	34.0 - 35.5	1.5	6-6-8	23	
				SPT-22	35.5 - 37.0	1.0	6-7-8	26	
				SPT-23	37.0 - 38.5	1.5	9-9-9	28	
				SPT-24	38.5 - 40.0	1.0	4-5-6	31	
				ST-3	40.0 - 42.0	2.0		29	
				SPT-25	42.0 - 43.5	0.9	3-5-7	28	
					Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-26	43.5 - 45.0	1.0
				SPT-27	45.0 - 46.5	0.5	6-7-8	29	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
583.3'	55.5'	Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-28	46.5 - 48.0	1.0	3-5-8	30	
				SPT-29	48.0 - 49.5	1.5	8-12-13	27	
				SPT-30	49.5 - 51.0	1.5	6-8-6	34	
				SPT-31	51.0 - 52.5	1.2	7-8-8	25	
				SPT-32	52.5 - 54.0	0.8	5-7-7	27	
				SPT-33	54.0 - 55.5	1.1	4-4-4	29	
574.3'	64.5'	Sandy Lean Clay, light gray to black, moist to wet, loose to medium dense		SPT-34	55.5 - 57.0	1.5	4-4-5	30	Fly ash noted from 57.5 ft. to 58.3 ft.
				SPT-35	57.0 - 58.5	0.8	23-19-8	27	
				SPT-36	58.5 - 60.0	0.5	5-7-6	27	
				SPT-37	60.0 - 61.5	0.3	13-15-17	29	
				SPT-38	61.5 - 63.0	0.7	9-10-12	20	
				SPT-39	63.0 - 64.5	0.3	6-41-50+	19	
		Auger Refusal / Bottom of Hole Top of Rock = 64.5' Elevation (574.3')							

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599036.48, E 526931.27		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-102	Total Depth	42.0 ft
Location	Jackson County, AL	Surface Elevation	638.7 ft.		
Project Type	Geotechnical Exploration	Date Started	6/9/09	Completed	6/9/09
Supervisor	Kip Anderson	Driller	S. Wilkes	Depth to Water	23.0 ft
Logged By	G. Budd	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
638.7'	0.0'	Top of Hole							
635.7'	3.0'	Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.0 - 1.5	1.5	13-16-18	11	No ash fragments from 3.0 ft. to 18.0 ft.
				SPT-2	1.5 - 3.0	0.8	17-9-3	19	
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-3	3.0 - 4.5	0.7	5-5-5	31	
				SPT-4	4.5 - 6.0	0.8	2-3-4	30	
				SPT-5	6.0 - 7.5	1.0	5-5-6	31	
				SPT-6	7.5 - 9.0	1.3	7-8-7	26	
				SPT-7	9.0 - 10.5	1.0	2-3-4	29	
				SPT-8	10.5 - 12.0	1.3	8-10-10	23	
				SPT-9	12.0 - 13.5	1.4	13-10-12	29	
				SPT-10	13.5 - 15.0	1.4	3-5-8	24	
				SPT-11	15.0 - 16.5	0.9	3-5-6	23	
				SPT-12	16.5 - 18.0	1.2	6-7-13	24	
				SPT-13	18.0 - 19.5	1.5	6-6-8	25	
	ST-1	19.5 - 21.5	1.8		26				

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
611.2'	27.5'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments <i>(Continued)</i>		SPT-14	21.5 - 23.0	0.8	3-4-5	23	Wet at 23.0 ft. Organics noted from 26.0 ft. to 27.5 ft.
				SPT-15	23.0 - 24.5	0.9	3-5-5	31	
				SPT-16	24.5 - 26.0	1.5	2-3-4	28	
				SPT-17	26.0 - 27.5	1.2	5-7-9	24	
596.7'	42.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-18	27.5 - 29.0	1.2	13-14-14	23	
				ST-2	29.0 - 31.0	1.5		25	
				SPT-19	31.0 - 32.5	0.9	4-7-10	28	
				SPT-20	32.5 - 34.0	0.9	6-7-8	26	
				SPT-21	34.0 - 35.5	1.5	4-4-7	29	
				SPT-22	35.5 - 37.0	1.0	10-12-10	27	
				SPT-23	37.0 - 38.5	0.7	4-4-4	23	
				SPT-24	38.5 - 40.0	1.5	2-2-3	26	
				ST-3	40.0 - 42.0	0.5		26	
			No Refusal / Bottom of Hole						

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599683.17, E 526424.24		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-103	Total Depth	45.0 ft
Location	Jackson County, AL	Surface Elevation	638.9 ft.		
Project Type	Geotechnical Exploration	Date Started	6/9/09	Completed	6/9/09
Supervisor	Kip Anderson	Driller	S. Wilkes	Depth to Water	37.0 ft
Logged By	G. Budd	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
638.9'	0.0'	Top of Hole							
635.9'	3.0'	Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.0 - 1.5	1.0	8-10-11	9	
				SPT-2	1.5 - 3.0	1.0	7-9-11	22	
		Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-3	3.0 - 4.5	1.2	4-6-6	30	
				SPT-4	4.5 - 6.0	0.9	3-4-6	25	
				SPT-5	6.0 - 7.5	1.0	7-9-9	24	
				SPT-6	7.5 - 9.0	0.9	8-9-11	26	
				SPT-7	9.0 - 10.5	1.0	3-3-8	27	
				SPT-8	10.5 - 12.0	0.8	11-14-15	21	
				SPT-9	12.0 - 13.5	0.7	11-15-17	24	
				SPT-10	13.5 - 15.0	1.5	6-7-9	21	
				SPT-11	15.0 - 16.5	0.5	3-4-4	17	
				SPT-12	16.5 - 18.0	1.5	6-7-9	26	Ash, wet, from 17.0 ft. to 18.0 ft.
				SPT-13	18.0 - 19.5	1.3	7-7-8	17	Wood and roots noted in SPT #13
	ST-1	19.5 - 21.5	1.5		18				

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.		175569036			Location		N 1599683.17, E 526424.24		
Project Name		Widows Creek Fossil Plant (TVA)			Boring No.		STN-103 Total Depth 45.0 ft		
Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
598.9'	40.0'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments (Continued)		SPT-14	21.5 - 23.0	1.5	4-6-6	24	
				SPT-15	23.0 - 24.5	0.9	7-9-10	24	
				SPT-16	24.5 - 26.0	1.1	3-5-7	24	
				SPT-17	26.0 - 27.5	1.5	8-8-9	22	
				SPT-18	27.5 - 29.0	1.2	9-9-10	24	
				ST-2	29.0 - 31.0	1.2		21	
				SPT-19	31.0 - 32.5	1.4	3-4-8	24	
				SPT-20	32.5 - 34.0	1.2	8-10-14	21	
				SPT-21	34.0 - 35.5	1.0	10-11-11	21	
				SPT-22	35.5 - 37.0	1.0	1-1-2	27	
				SPT-23	37.0 - 38.5	1.5	7-8-12	21	
				SPT-24	38.5 - 40.0	0.4	6-9-10	18	
			593.9'	45.0'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		ST-3	40.0 - 42.0	2.0
	SPT-25	42.0 - 43.5				0.9	5-8-8	18	
	SPT-26	43.5 - 45.0				0.8	9-11-12	20	
		No Refusal / Bottom of Hole							

Wet at 37.0 ft.

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1600046.74, E 525695.62		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-104	Total Depth	48.0 ft
Location	Jackson County, AL	Surface Elevation	645.9 ft.		
Project Type	Geotechnical Exploration	Date Started	6/9/09	Completed	6/9/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	12.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
645.9'	0.0'	Top of Hole							
		Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.0 - 1.5	1.3	2-5-10	21	Bag #1 - 2.0 ft. to 4.0 ft.
				SPT-2	1.5 - 3.0	1.5	8-6-4	16	
				SPT-3	3.0 - 4.5	1.5	3-4-3	26	
				SPT-4	4.5 - 6.0	1.3	4-2-2	24	
				SPT-5	6.0 - 7.5	1.0	2-2-2	32	
				SPT-6	7.5 - 9.0	1.1	3-2-3	11	
				SPT-7	9.0 - 10.5	1.5	4-3-2	12	
				SPT-8	10.5 - 12.0	1.3	4-2-2	11	
				SPT-9	12.0 - 13.5	0.8	4-2-1	17	
		Sandy Silt (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments		SPT-10	13.5 - 15.0	1.5	1-1-1	56	Wet at 12.0 ft.
				SPT-11	15.0 - 16.5	1.5	1-WOH	43	
				SPT-12	16.5 - 18.0	1.5	1-1-1	41	
				SPT-13	18.0 - 19.5	0.9	1-1-2	42	
				SPT-14	19.5 - 21.0	1.5	1-2-3	43	
				SPT-15	21.0 - 22.5	0.8	1-1-1	38	
632.4'	13.5'								

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
608.9'	37.0'	Sandy Silt (Bottom Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments (Continued)		SPT-16	22.5 - 24.0	1.5	1-2-2	42	ST-1A - No recovery
				ST-1	24.0 - 26.0	0.0		--	
				SPT-17	26.0 - 27.5	1.0	1-1-1	50	
				SPT-18	27.5 - 29.0	1.0	1-2-1	51	
				SPT-19	29.0 - 30.5	1.5	WOH	48	
				SPT-20	30.5 - 32.0	1.0	WOH	42	
				SPT-21	32.0 - 33.5	1.0	WOH	45	
				SPT-22	33.5 - 35.0	1.5	WOH	45	
				ST-2	35.0 - 37.0	0.0		--	
			605.9'	40.0'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-23	37.0 - 38.5	
	SPT-24	38.5 - 40.0				0.8	WOH	28	
599.4'	46.5'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-25	40.0 - 41.5	0.7	WOH	36	
				SPT-26	41.5 - 43.0	0.8	WOH	34	
				SPT-27	43.0 - 44.5	0.0	WOH	--	
				ST-3	44.5 - 46.5	0.6		29	
								SPT-27 - No recovery	
								SPT-28 split into two	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1600046.74, E 525695.62
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-104 Total Depth 48.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
597.9'	48.0'	Limestone (dolomite), gray, micro-crystalline grained, gray weathered seam <i>(Continued)</i>		SPT-28	46.5 - 48.0	1.0	34-20-9	26	samples

Auger Refusal /
Bottom of Hole

Top of Rock = 46.5'
Elevation (599.4')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1600094.28, E 525640.41		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-105	Total Depth	43.8 ft
Location	Jackson County, AL	Surface Elevation	637.6 ft.		
Project Type	Geotechnical Exploration	Date Started	6/23/09	Completed	6/23/09
Supervisor	Kip Anderson	Driller	M. Wethington	Depth to Water	17.5 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
637.6'	0.0'	Top of Hole							
636.1'	1.5'	Sand with Gravel (Bottom Ash), gray to black, dry, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders slag Fill: Fat Clay with Sand, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-1	0.0 - 1.5	1.3	12-12-6	10	
				SPT-2	1.5 - 3.0	1.1	8-6-11	24	
				SPT-3	3.0 - 4.5	0.6	13-13-15	20	
				SPT-4	4.5 - 6.0	1.3	9-9-10	20	
				SPT-5	6.0 - 7.5	0.9	6-8-13	20	
				SPT-6	7.5 - 9.0	1.5	21-14-15	25	
				SPT-7	9.0 - 10.5	1.0	10-11-15	25	
				SPT-8	10.5 - 12.0	1.5	6-11-13	24	
				SPT-9	12.0 - 13.5	1.5	10-14-18	19	
				SPT-10	13.5 - 15.0	1.4	16-20-17	10	Bag-1: 13'-16'
622.6'	15.0'	Silt with Sand (Bottom Ash), light gray to black, moist to wet, fine to medium grained, dense to very dense, with occasional coal cinders fragments		SPT-11	15.0 - 16.5	1.1	7-34-41	20	
				SPT-12	16.5 - 18.0	1.5	19-19-19	25	Wet at 17.5'
				SPT-13	18.0 - 19.5	1.5	10-8-9	20	
618.1'	19.5'	Fill: Fat Clay with Gravel, tan to red, wet, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments		SPT-14	19.5 - 21.0	1.3	2-5-6	21	
				SPT-15	21.0 - 22.5	0.7	4-9-11	20	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
615.1'	22.5'	Silt with Sand (Bottom Ash), light gray to black, moist, fine to medium grained, dense to very dense, with occasional coal cinders fragments		SPT-16	22.5 - 24.0	1.5	7-8-7	27	
				SPT-17	24.0 - 25.5	1.5	3-5-7	30	
				SPT-18	25.5 - 27.0	1.5	4-6-9	17	
610.6'	27.0'			SPT-19	27.0 - 28.5	1.0	4-5-6	16	
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-20	28.5 - 30.0	1.1	3-5-6	22	
				ST-1	30.0 - 32.0	1.5		21	
				SPT-21	32.0 - 33.5	0.8	2-4-6	22	
				SPT-22	33.5 - 35.0	0.6	2-3-3	24	
				SPT-23	35.0 - 36.5	1.5	3-6-6	18	
				SPT-24	36.5 - 38.0	0.8	2-3-4	22	
				SPT-25	38.0 - 39.5	1.2	2-3-6	27	
				ST-2	39.5 - 41.5	2.0		27	
				SPT-26	41.5 - 43.0	1.5	3-6-11	26	
			594.1'	43.5'		SPT-27	43.0 - 43.8	0.4	50+
593.8'	43.8'	Limestone (augered)							
Auger Refusal / Bottom of Hole									
Top of Rock = 43.5' Elevation (594.1')									

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599340.05, E 524994.72	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-106	Total Depth 55.5 ft
Location	Jackson County, AL	Surface Elevation	645.9 ft.	
Project Type	Geotechnical Exploration	Date Started	6/9/09	Completed 6/9/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water 12.5 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
645.9'	0.0'	Top of Hole							
638.4'	7.5'	Sand with Gravel (Bottom Ash), gray to black, damp to moist, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders \ slag		SPT-1	0.0 - 1.5	1.3	4-5-6	21	
				SPT-2	1.5 - 3.0	1.3	8-12-15	18	
				SPT-3	3.0 - 4.5	1.4	11-14-12	31	
				SPT-4	4.5 - 6.0	1.5	7-8-10	30	
				SPT-5	6.0 - 7.5	1.5	10-8-7	23	
			SPT-6	7.5 - 9.0	1.3	4-5-3	36		
			SPT-7	9.0 - 10.5	1.5	1-2-2	39		
			SPT-8	10.5 - 12.0	1.5	1-1-1	26		
			SPT-9	12.0 - 13.5	1.0	1-1-1	39		
			SPT-10	13.5 - 15.0	0.5	WOH	36		
			SPT-11	15.0 - 16.5	1.5	WOH	50		
			SPT-12	16.5 - 18.0	1.5	WOH	42		
			SPT-13	18.0 - 19.5	1.5	WOH	40		
			SPT-14	19.5 - 21.0	1.5	WOH	43		
			SPT-15	21.0 - 22.5	1.5	WOH	38		

Bag #1 - 12.0 ft. to 15.0 ft
Wet at 12.5 ft.

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks	
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth		
		Sandy Silt (Fly Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments <i>(Continued)</i>		SPT-16	22.5 - 24.0	1.5	1-1-1	39		
				ST-1	24.0 - 26.0	1.7			38	
				SPT-17	26.0 - 27.5	0.7	WOH		49	
				SPT-18	27.5 - 29.0	0.8	WOH		42	
				SPT-19	29.0 - 30.5	1.5	WOH		43	
				SPT-20	30.5 - 32.0	1.5	WOH		47	
				SPT-21	32.0 - 33.5	1.5	WOH		43	
				SPT-22	33.5 - 35.0	1.1	WOH		48	
				ST-2	35.0 - 37.0	0.0			--	ST-2 - No recovery
				SPT-23	37.0 - 38.5	1.5	WOH		43	
				SPT-24	38.5 - 40.0	1.3	WOH		45	
										Rod dropped from 40.0 ft. 46.0 ft.

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599340.05, E 524994.72
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-106 Total Depth 55.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
594.9'	51.0'	Sandy Silt (Fly Ash), light gray to black, moist to damp, fine to medium grained, dense to very dense, with occasional coal cinders \ fragments <i>(Continued)</i>		SPT-25	46.0 - 47.5	1.3	WOH	45	SPT-27 - sample was split into two samples
				SPT-26	47.5 - 49.0	1.5	WOH	45	
				SPT-27	49.0 - 50.5	1.5	WOH-4-6	53	
590.4'	55.5'	Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		ST-3	50.5 - 52.5	0.6		26	ST-3 Flyash
				SPT-28	52.5 - 54.0	1.1	4-5-7	26	
				SPT-29	54.0 - 55.5	1.2	5-4-4	28	

No Refusal /
Bottom of Hole

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599407.02, E 524937.35	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-107	Total Depth 54.5 ft
Location	Jackson County, AL	Surface Elevation	636.7 ft.	
Project Type	Geotechnical Exploration	Date Started	6/23/09	Completed 6/23/09
Supervisor	Kip Anderson Driller S. Wilkes	Depth to Water	19.5 ft	Date/Time 6/23/09
Logged By	G. Budd	Depth to Water	N/A	Date/Time N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks	
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth		
636.7'	0.0'	Top of Hole								
631.7'	5.0'	Sand with Gravel (Bottom Ash), gray to black, dry to wet, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders slag		SPT-1	0.0 - 1.5	1.5	3-4-5	14		
				SPT-2	1.5 - 3.0	1.2	6-6-7	15		
				SPT-3	3.0 - 4.5	1.5	5-4-2	21		
			SPT-4	4.5 - 6.0	1.1	1-1-3	20			
			SPT-5	6.0 - 7.5	1.0	4-5-6	21			
			SPT-6	7.5 - 9.0	0.9	4-6-7	30			
			SPT-7	9.0 - 10.5	0.3	2-2-3	29			
			SPT-8	10.5 - 12.0	0.3	3-3-5	33			
			SPT-9	12.0 - 13.5	0.5	7-9-11	22			
			SPT-10	13.5 - 15.0	0.9	3-4-7	19			
			SPT-11	15.0 - 16.5	1.0	3-3-4	19			
			SPT-12	16.5 - 18.0	1.0	6-6-6	15	Bag-1: 15'-21'		
618.2'	18.5'	Sand with Gravel (Bottom Ash), gray to black, moist to wet, medium to coarse grained, loose to medium dense, with zones silty and a mix of ash and coal cinders slag		SPT-13	18.0 - 19.5	1.5	11-19-13	14		Wet at 19.5'
616.7'	20.0'			SPT-14	19.5 - 21.0	0.4	1-1-1	31		
				SPT-15	21.0 - 22.5	0.6	2-3-4	28		

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks		
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth			
604.7'	32.0'	Fill: Fat Clay with Gravel, tan to red, moist, medium stiff to stiff, with numerous coal fragments, ash, and chert fragments <i>(Continued)</i>		SPT-16	22.5 - 24.0	0.8	4-6-5	26	Organics noted from 32.0' - 32.5'		
				SPT-17	24.0 - 25.5	0.8	4-4-5	31			
				SPT-18	25.5 - 27.0	0.3	5-6-5	24			
				SPT-19	27.0 - 28.5	0.5	7-7-8	25			
				SPT-20	28.5 - 30.0	0.8	10-11-10	22			
				ST-1	30.0 - 32.0	2.0		24			
				Residual Lean Clay with Sand, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions		SPT-21	32.0 - 33.5	1.2		5-5-4	17
						SPT-22	33.5 - 35.0	1.0		6-6-7	23
						SPT-23	35.0 - 36.5	1.1		9-8-9	30
						SPT-24	36.5 - 38.0	0.7		4-4-5	23
						SPT-25	38.0 - 39.5	1.0		5-7-7	28
	ST-2				39.5 - 41.5	1.7		22			
	SPT-26				41.5 - 43.0	0.9	5-6-6	18			
	SPT-27				43.0 - 44.5	0.9	5-4-5	29			
		SPT-28	44.5 - 46.0	0.7	5-4-3	26	Limestone fragments noted below 44.5'				

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1599407.02, E 524937.35
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-107 Total Depth 54.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
585.7'	51.0'	Residual Lean Clay with Sand, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-29	46.0 - 47.5	0.4	2-2-3	34	
				SPT-30	47.5 - 49.0	1.5	3-4-4	27	
				ST-3	49.0 - 51.0	0.9		25	
582.7'	54.0'	Silty Sand, brown to gray, moist, fine grained, loose in density		SPT-31	51.0 - 52.5	1.5	3-5-5	21	
				SPT-32	52.5 - 54.0	1.0	3-2-2	20	
582.2'	54.5'	Limestone (augered)		SPT-33	54.0 - 54.5	0.7	12-50+	14	

Auger Refusal /
Bottom of Hole

Top of Rock = 54.0'
Elevation (582.7')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597658.11, E 527138.21		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-108	Total Depth	25.5 ft
Location	Jackson County, AL	Surface Elevation	601.5 ft.		
Project Type	Geotechnical Exploration	Date Started	5/28/09	Completed	5/28/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	21.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
601.5'	0.0'	Top of Hole							
		Fat Clay, tan to red, moist, medium stiff to very stiff, wih chert fragments and occassional manganese concretions		SPT-1	0.0 - 1.5	1.2	7-5-4	26	Piezometer installed - tip set at 25.5'
			SPT-2	1.5 - 3.0	0.9	5-7-10	27		
			SPT-3	3.0 - 4.5	1.5	5-7-11	19		
			SPT-4	4.5 - 6.0	1.5	7-9-11	17		
			SPT-5	6.0 - 7.5	1.5	10-13-15	22		
			SPT-6	7.5 - 9.0	1.5	2-6-7	22		
			SPT-7	9.0 - 10.5	1.3	5-7-10	25		
			BAG-1	10.0 - 12.0	1.2		21		
			ST-1	10.5 - 12.5	2.0		24		
			SPT-8	12.5 - 14.0	1.5	3-7-9	26		
			SPT-9	14.0 - 15.5	1.5	6-7-7	22		
		ST-2	15.5 - 17.5	2.0		19			
		SPT-10	17.5 - 19.0	1.1	WOH-WOH-3	24	SPT #10 split into two samples		
581.8'	19.7'	Silty Sand, light gray, moist to wet, loose in density		SPT-11	19.0 - 20.5	1.5	WOH-3-5	27	SPT #11 split into two samples
			SPT-12	20.5 - 22.0	1.5	WOH-2-3	--		

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597658.11, E 527138.21
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-108 Total Depth 25.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
578.0'	23.5'	Silty Sand, light gray, moist to wet, loose in density <i>(Continued)</i>		SPT-13	22.0 - 23.5	1.2	WOH-5-2	--	
576.5'	25.0'	Sand With Gravel		SPT-14	23.5 - 25.0	1.1	5-8-8	--	
576.0'	25.5'	Limestone (augered)		SPT-15	25.0 - 25.5	0.5	50+	--	

Auger Refusal /
Bottom of Hole

Top of Rock = 25.0'
Elevation (576.5')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597252.45, E 526600.17		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-109	Total Depth	26.3 ft
Location	Jackson County, AL	Surface Elevation	603.3 ft.		
Project Type	Geotechnical Exploration	Date Started	6/11/09	Completed	6/11/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	22.0 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
603.3'	0.0'	Top of Hole							
		Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions							
582.7'	20.6'			SPT-1a	20.0 - 20.6	1.2	2-2-1	--	SPT-1 is missing
		Silt, light gray, moist to wet, loose in density		SPT-1b	20.6 - 21.5			--	

F:\MSM_LEGACY\175569036 BORINGS\GPI_FMSM.GDT 11/18/09

Project No.	175569036	Location	N 1597252.45, E 526600.17
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-109 Total Depth 26.3 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
580.3'	23.0'	Clayey Gravel with Sand		SPT-2	21.5 - 23.0	1.5	1-1-1	--	SPT-2 is missing
				SPT-3	23.0 - 24.5	0.5	1-3-22	22	
				SPT-4	24.5 - 26.0	0.5	9-5-4	25	
577.0'	26.3'			SPT-5	26.0 - 26.3	0.3	50+	24	

Auger Refusal /
Bottom of Hole

Top of Rock = 26.3'
Elevation (577.0')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09



SUBSURFACE LOG

Project No.	175569036	Location	N 1597977.79, E 527323.20		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-110	Total Depth	28.5 ft
Location	Jackson County, AL	Surface Elevation	606.5 ft.		
Project Type	Geotechnical Exploration	Date Started	6/11/09	Completed	6/11/09
Supervisor	Kip Anderson	Driller	M.Wethington	Depth to Water	25.5 ft
Logged By	C. Millhollin	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
606.5'	0.0'	Top of Hole							
		Residual Lean Clay with Sand, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions							
				SPT-1	20.0 - 21.5	0.6	10-8-12	15	Bag #1 - 13.0 ft. to 15.0 ft.

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597977.79, E 527323.20
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-110 Total Depth 28.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
581.9'	24.6'	Residual Lean Clay with Sand, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions <i>(Continued)</i>		SPT-2	21.5 - 23.0	1.3	3-4-5	25	
				SPT-3	23.0 - 24.5	1.2	4-6-7	26	
578.0'	28.5'	Silt, light gray, moist to wet, loose to medium dense		SPT-4	24.5 - 26.0	1.4	3-3-3	--	
				SPT-5	26.0 - 27.5	1.5	4-6-13	--	
				SPT-6	27.5 - 28.5	1.0	13-17-18	--	

Auger Refusal /
Bottom of Hole

Top of Rock = 28.5'
Elevation (578.0')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598159.06, E 527525.60		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-111	Total Depth	27.5 ft
Location	Jackson County, AL	Surface Elevation	604.9 ft.		
Project Type	Geotechnical Exploration	Date Started	6/18/09	Completed	6/18/09
Supervisor	Kip Anderson	Driller	S. Wilkes	Depth to Water	23.0 ft
Logged By	G. Budd	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
604.9'	0.0'	Top of Hole							
604.4'	0.5'	Crushed Limestone (access road)							Auger to 20'. Begin sampling.
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions							
				BAG-1	15.0 - 17.0			--	
				SPT-1	20.0 - 21.5	0.5	6-9-7	26	
583.4'	21.5'								

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1598159.06, E 527525.60
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-111 Total Depth 27.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
580.6'	24.3'	Sandy Lean Clay, light gray to black, moist to wet, loose to medium dense <i>(Continued)</i>		SPT-2	21.5 - 23.0	1.1	3-4-5	26	Wet at 23'
				SPT-3	23.0 - 24.5	1.5	2-1-2	33	
577.9'	27.0'	Sand with gravel		SPT-4	24.5 - 26.0	1.5	4-12-18	34	
				SPT-5	26.0 - 27.5	1.0	10-11-11	20	
577.4'	27.5'	Limestone, weathered (augered)							

Auger Refusal /
Bottom of Hole

Top of Rock = 27.5'
Elevation (577.4')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09



SUBSURFACE LOG

Project No.	175569036	Location	N 1597153.83, E 526457.92		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-112	Total Depth	29.0 ft
Location	Jackson County, AL	Surface Elevation	604.2 ft.		
Project Type	Geotechnical Exploration	Date Started	6/18/09	Completed	6/18/09
Supervisor	Kip Anderson	Driller	S. Wilkes	Depth to Water	15.0 ft
Logged By	G. Budd	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
604.2'	0.0'	Top of Hole							
603.7'	0.5'	Crushed Limestone (access road)							Auger to 20'. Begin sampling.
		Residual Fat Clay, tan to red, moist, medium stiff to very stiff, with chert fragments and occasional manganese concretions							
				BAG-1	10.0 - 12.0			--	
									Wet at 15'
				SPT-1	20.0 - 21.5	1.5	1-2-4	31	
582.7'	21.5'								

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	N 1597153.83, E 526457.92	
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-112	Total Depth 29.0 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
		Sandy Lean Clay, light gray to black, saturated, loose to medium dense <i>(Continued)</i>		SPT-2	21.5 - 23.0	1.5	2-2-4	29	
				SPT-3	23.0 - 24.5	1.0	2-2-1	33	
				SPT-4	24.5 - 26.0	1.5	2-2-11	40	
577.2'	27.0'			SPT-5	26.0 - 27.5	0.8	2-4-4	31	
576.7'	27.5'	Sand With Gravel							
		Limestone (augered)		SPT-6	27.5 - 29.0	0.4	40-25-6	20	
575.2'	29.0'								

Auger Refusal /
Bottom of Hole

Top of Rock = 29.0'
Elevation (575.2')

Project No.	175569036	Location	Not Yet Surveyed		
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-113	Total Depth	52.5 ft
Location	Jackson County, AL	Surface Elevation	615.0 ft.		
Project Type	Geotechnical Exploration	Date Started	7/28/09	Completed	7/29/09
Supervisor	Kip Anderson	Driller	S. Bradford	Depth to Water	12.0 ft
Logged By	C. Jones	Depth to Water	N/A	Date/Time	N/A

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core						
615.0'	0.0'	Top of Hole							
614.5'	0.5'	Top Soil							
		Crushed Stone/rip Rap		SPT-1	0.0 - 1.5	1.2	3-5-4	--	*Assumed
				SPT-2	1.5 - 3.0	0.6	16-10-14	--	
				SPT-3	3.0 - 4.5	0.8	8-9-8	--	
609.9'	5.1'	Fill: Lean Clay, tan to brown to gray, damp to moist, very stiff to stiff, silty to sandy		SPT-4	4.5 - 6.0	1.5	21-14-12	9	Water at 12'
				SPT-5	6.0 - 7.5	1.5	8-9-12	14	
		Gravel zone from 9.8-12.0		SPT-6	7.5 - 9.0	0.7	12-50+	7	
				SPT-7	9.0 - 10.5	1.5	21-36-12	7	
				SPT-8	10.5 - 12.0	1.3	7-31-50+	8	
		Lean Clay With Sand, light gray to tan, wet, loose to medium stiff, with zones sandy to silty		SPT-9	12.0 - 13.5	0.6	44-17-14	15	
600.0'	15.0'			SPT-10	13.5 - 15.0	0.2	8-14-17	14	
				SPT-11	15.0 - 16.5	0.8	5-4-2	24	
				SPT-12	16.5 - 18.0	0.6	2-2-3	25	
				SPT-13	18.0 - 19.5	1.5	2-2-3	30	
				SPT-14	19.5 - 21.0	1.5	3-4-5	24	
				SPT-15	21.0 - 22.5	1.5	5-5-8	26	

F:\MSM_LEGACY_175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
583.5'	31.5'	Lean Clay With Sand, light gray to tan, wet, loose to medium stiff, with zones sandy to silty (Continued)		SPT-16	22.5 - 24.0	1.5	3-4-4	27	
				SPT-17	24.0 - 25.5	1.5	2-3-5	27	
				SPT-18	25.5 - 27.0	1.5	3-5-5	27	
				SPT-19	27.0 - 28.5	1.5	4-5-5	29	
				SPT-20	28.5 - 30.0	1.5	4-5-5	31	
				SPT-21	30.0 - 31.5	1.5	3-4-4	27	
579.0'	36.0'	Sandy Silty Clay, gray to dark gray, wet, fine grained, loose to medium in density		SPT-22	31.5 - 33.0	1.5	2-3-3	29	
				SPT-23	33.0 - 34.5	1.5	3-4-4	33	
				SPT-24	34.5 - 36.0	0.8	3-21-37	34	
576.0'	39.0'	Silty Clay, light gray to olive, wet, very soft to medium stiff, with zones sandy to silty		SPT-25	36.0 - 37.5	1.5	10-4-2	37	
				SPT-26	37.5 - 39.0	1.5	2-6-7	34	
568.5'	46.5'	Silty Sand, gray to tan, wet, coarse grained, medium to dense in density		SPT-27	39.0 - 40.5	0.8	4-7-8	22	
				SPT-28	40.5 - 42.0	1.5	2-4-4	23	
				SPT-29	42.0 - 43.5	1.5	4-6-8	19	
				SPT-30	43.5 - 45.0	1.5	17-14-8	17	
				SPT-31	45.0 - 46.5	0.5	4-8-6	28	

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 11/18/09

Project No.	175569036	Location	Not Yet Surveyed
Project Name	Widows Creek Fossil Plant (TVA)	Boring No.	STN-113 Total Depth 52.5 ft

Lithology		Description	Overburden	Sample #	Depth	Rec. Ft.	Blows	Mois.Cont. %	Remarks
Elevation	Depth		Rock Core	RQD	Run	Rec. Ft.	Rec. %	Run Depth	
		SILTY CLAY, light gray to olive, wet, soft to medium stiff, with zones sandy to silty grading from silt to clay below 49.5' (Continued)		SPT-32	46.5 - 48.0	1.5	2-2-3	56	
				SPT-33	48.0 - 49.5	1.5	4-6-7	34	
				SPT-34	49.5 - 51.0	1.0	10-3-50+	30	
563.0'	52.0'			SPT-35	51.0 - 52.5	1.0	21-37-50+	12	
562.5'	52.5'	Limestone (augered)							

Auger Refusal /
Bottom of Hole

Top of Rock = 52.0'
Elevation (563.0')

F:\MSM_LEGACY\175569036 BORINGS.GPJ F:\MSM.GDT 2/4/10