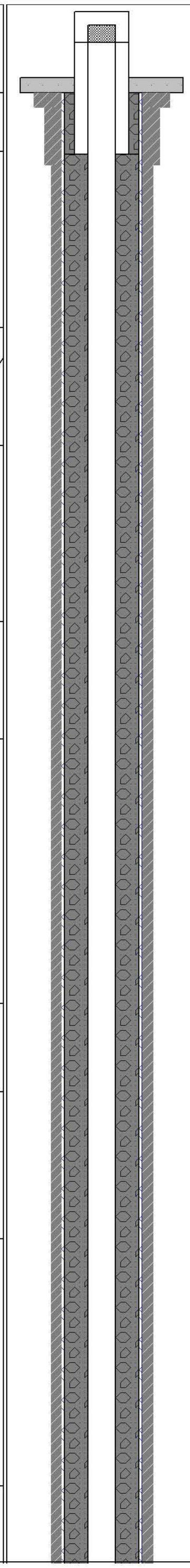
Client	Westinghouse Electric Company	Drilling Method:	Rotary
Location:	Hematite, MO	Surf. Elev.	436.79
Project:	Hematite Remedial Investigation	Northing:	866422.63
Date Started:	05/25/04	Easting:	828840.07
Date Finished:	08/02/04	Total Depth of Boring:	244.0 feet
Geologist:	J. Bostwick	Top of Casing:	439.42
Drilling Contractor:	Geotechnology	Total Depth of Well:	244.8 feet

Boring: BR-5-RB

Elevation (ft)	Depth (ft)	Core Recovery (Pen/Rec)	RQD	Fracture Frequency	Lithology	Lithology Description
	0	2.0/2.0		N/A		FILL: DGA
435		2.0/2.0				CLAY: brown to reddish brown, plastic, damp, medium stiff, trace of roots
	5	2.0/2.0				
430		2.0/2.0				
		2.0/2.0				CLAY: with silt, brown, plastic, moist, medium stiff
	10					CLAY: brown, plastic, damp to moist, stiff
425		2.0/2.0				
		2.0/2.0				CLAY: gray, plastic, damp to moist, stiff, trace of gravel at 13.5', moist to wet at 16.0'
	15	2.0/2.0				
420		2.0/2.0				
		2.0/2.0				CLAY: brown, plastic, wet
	20	2.0/2.0				
415		2.0/2.0				CLAY: reddish brown plastic, wet
	25	2.0/2.0				
410		2.0/2.0				
		2.0/2.0				
	30	2.0/2.0				
405		2.0/2.0				SAND: brown to light brown, non-plastic, wet, medium density with silt
	35	2.0/2.0				CHERTY GRAVEL: light brown to brown, hard, non-plastic, wet, with medium sand, trace clay
400		2.0/1.5				
		2.0/0.5				Top of Bedrock 39.0'
	40	1.5/1.25	0			DOLOMITE: gray, hard, fine grained, slightly weathered along bedding plane
395		3.0/3.0	47			
	45	5.5/4.5	56			
390						DOLOMITE: gray, hard, sandy, pitted/vuggy
	50					

Well Construction



Well Construction Desc.

- Protective Casing (4")
- 2.0' x 2.0' x 0.5' Concrete Pad
- 2" Sch 80 PVC Riser
- 6" Steel Isolation Casing
- Portland Cement
- High Solids Bentonite Grout (Tremied)

Westinghouse

Westinghouse Electric Company
Hematite Facility
3300 State Road P
Festus, MO 63028

SAIC
An Employee-Owned Company

SAIC
8421 St. John Industrial Drive
St. Louis, Missouri

Client:	Westinghouse Electric Company
Project:	Hematite Remedial Investigation
Location:	Hematite, MO
Borehole:	BR-5-RB
Sheet:	1 of 5

Client	Westinghouse Electric Company	Drilling Method:	Rotary
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Drilling Contractor:	Geotechnology	Total Depth of Well:	244.8 feet

Boring: BR-5-RB

Elevation (ft)	Depth (ft)	Core Recovery (Pen/Rec)	RQD	Fracture Frequency	Lithology	Lithology Description	Well Construction	Well Construction Desc.
385, 380	50, 55	10.0/10.0	87					6" Steel Isolation Casing
375	60, 65	10.0/10.0	93			DOLOMITE: gray, very hard, silty		
370, 365	70, 75	10.0/10.0	N/A			DOLOMITE: gray, very hard, silty to sandy, crystalline, pitted/vuggy, chert 78.1-78.6'		
355	80, 85	10.0/10.0	85			DOLOMITE: gray, hard, micritic, w/wavy green/gray shale laminae		High Solids Bentonite Grout (Tremied)
350, 345	90, 95	10.0/10.0	87			DOLOMITE: gray, hard, sandy, pitted/vuggy, slightly weathered along bedding planes		
340	100					DOLOMITE: gray, very hard, fine grained with gray shale laminae sand lenses 108.2-110.5' chert 111.7-112.0'		

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Boring: BR-5-RB

Elevation (ft)	Depth (ft)	Core Recovery (Pen/Rec)	RQD	Fracture Frequency	Lithology	Lithology Description	Well Construction	Well Construction Desc.
335, 330, 325, 320, 315, 310, 305, 300, 295, 290	100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150	10.0/10.0; 10.0/10.0; 10.0/10.0; 10.0/10.0; 10.0/10.0; 10.0/10.0	79; 96; 94; 89; 92			DOLOMITE: gray, very hard, sandy, turbid, cherty DOLOMITE: gray, very hard, micritic, w/wavy gray shale lamine DOLOMITE: gray, verry hard, silty, crystalline SANDSTONE: (QUARTZ ARENITE) gray, very hard, crystalline, calcareous DOLOMITE: gray, very hard, sandy, pitted DOLOMITE: gray, hard, silty, w/wavy gray/black shale laminae styolitic 144.4-144.8' vertical fracture 145.1-145.4' chert 156.9-157.1'		High Solids Bentonite Grout (Tremied)

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Client	Westinghouse Electric Company	Drilling Method:	Rotary
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Drilling Contractor:	Geotechnology	Total Depth of Well:	244.8 feet

Boring: BR-5-RB

Elevation (ft)	Depth (ft)	Core Recovery (Pen/Rec)	RQD	Fracture Frequency	Lithology	Lithology Description	Well Construction	Well Construction Desc.
285, 280, 275, 270, 265, 260, 255, 250, 245, 240	150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200	10.0/10.0	81					
		10.0/10.0	93			DOLOMITE: gray, very hard, micritic		
		10.0/10.0	98			DOLOMITE: gray, very hard, sandy, pitted		
		10.0/10.0	95			CALCITE: white		
		10.0/9.8	96			DOLOMITE: gray, very hard, micritic, crystalline		
						DOLOMITE: gray, very hard, silty, with gray shale streaks and lenses		
						DOLOMITE: gray, very hard, micritic, w/wavy green/gray shale laminae		High Solids Bentonite Grout (Tremied)
						DOLOMITE: gray, very hard, sandy, pitted/vuggy, crystalline		
						DOLOMITE: gray, hard, micritic		
						DOLOMITE: gray, very hard, sandy, vuggy, crystalline		
								0.25" Bentonite Pellets
								Secondary Filter Pack (100 Mesh)

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Sheet:	4 of 5

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Boring: BR-5-RB

Elevation (ft)	Depth (ft)	Core Recovery (Pen/Rec)	RQD	Fracture Frequency	Lithology	Lithology Description	Well Construction	Well Construction Desc.
235, 230, 225, 220, 215, 210, 205, 200, 195, 190	200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250	10.0/9.1	71			DOLOMITE: gray, very hard, silty, w/wavy green/gray shale laminae turbid 202.5-203.3'		Primary Filter Pack (10/20 Mesh)
		1.0/1.0	0					
		9.0/9.0	78			DOLOMITE: gray, hard to very hard, sandy, pitted/vuggy		2" Sch. 80 PVC Screen, 0.010" Slot
		10.0/10.0	93			DOLOMITE: gray, very hard, silty, w/gray shale streaks DOLOMITE: gray, very hard, sitly to sandy, turbid		
		10.0/10.0	76			DOLOMITE: gray, hard, silty, w/green shale lenses chert (gray to white) 226.3-227.0' DOLOMITE: gray, very hard, sitly, w/occasional wavy green shale laminae SANDSTONE: buff, hard, medium grained, crystalline		
		5.0/5.0	83			DOLOMITE: gray, very hard, silty to sandy		
						Bottom of Hole 244.0'	Bottom of Well 244.8'	

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