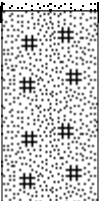

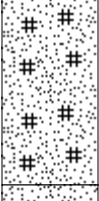




<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB1
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/27/03 at 0955
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/27/03 at 1100
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400361.531, E480333.669 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

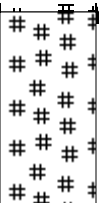
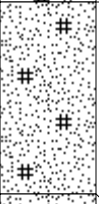
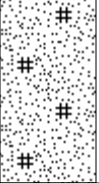


Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.0	1.0	-1.0		Brown silty clay with yellow and rust colored streaks - some tan to olive clay	CB1-1				17320 Sample collected @ 1105
	1.0	1.0	-2.0		Same as above with additional sand and lighter color					5490 CR: 16
	2.0	1.0	-3.0		Same as above with more olive/tan color - lighter color than above - Iron colored 'nodules' and white powdery streaks throughout - less silty than above.					3433
	3.0	1.0	-4.0		Same as above - more white powdery streaks					3403 CR: 16
	4.0	1.0	-5.0		Same as above	CB1-5				3817 Sample collected @ 1110
	5.0	1.0	-6.0		Same as above with intermittent black streaks					3942 CR: 21

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.0	1.0	-7.0		Same as above					4525
	7.0	1.0	-8.0		Red/brown sandy clay with small mica(?) flakes. Sandier near bottom of sample zone.					6555 CR: 18
	8.0	1.0	-9.0		Red/brown sandy clay - more mica/ metallic flakes.					7520
	9.0	0.5	-9.5		Red/brown sand with some clay					
	9.5	0.5	-10.0		Orange/red-brown clayey sand - white/gray streaks throughout	CB1-10				11104 Sample collected @ 1115 CR: 20

10.0 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB2
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/27/03 at 1115
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/27/03 at 1220
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400363.704, E480331.970 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
#####	0.0	1.0	-1.0		Mottled brown/olive clay - traces of silt and sand. White 'nodules', iron colored 'nodules'					4879 Material color scale : 5Y 6/2
#####	1.0	1.0	-2.0		Same as above					3412 CR: 15
#####	2.0	1.0	-3.0		Same as above with white powdery streaks	CB2-3	Split spoon - 2 inch diameter - 2 ft segment			3402 Sample collected @ 1255
#####	3.0	1.0	-4.0		Same as above					3568 CR: 20
#####	4.0	1.0	-5.0		Same as above - a little more silt					3545
#####	5.0	1.0	-6.0		Same as above					3604 CR: 22

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.0	1.0	-7.0		Same as above with mix of some dark gray clay					4642 Material very hard
	7.0	1.0	-8.0		Red/brown clayey sand mixed with mica and metallic flakes, quartz. More white powder streaks.	CB2-7	Split spoon - 2 inch diameter - 2 ft segment			5854 Sample collected @ 1250 Material color scale: 2.5YR 5/6 CR: 15
	8.0	1.0	-9.0		Same as above					7702 Material color scale: 5YR 5/8
	9.0	0.5	-9.5		Orange/reddish brown fine clayey sand					CR: 17
	9.5	0.5	-10.0		Cobble zone material (pinkish sand mixed with large flat cobbles) - core could not be recovered but fractured cobbles in cyclone					7824 Cobble zone information established during test pit excavation.

10.0 feet T.D.


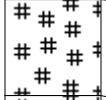
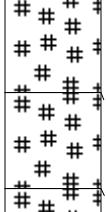


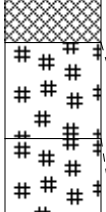
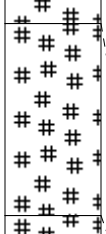



<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB3
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/27/03 at 1300
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/27/03 at 1350
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400358.664, E480397.404 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
#####	0.0	1.0	-1.0		Olive/tan/brown clay with some sand and silt. Yellow streaks in first 6 inches - some red staining, mottled black, dark gray.					7801
#####	1.0	1.0	-2.0		Mottled olive tan, dark gray clay with trace of red/brown sand, purple 'nodules', iron colored nodules.	CB3-2	Split spoon - 2 inch diameter - 2 ft segment			5803 Sample collected @ 1400 CR: 15
#####	2.0	0.5	-2.5		Same as above					
#####	2.5	0.5	-3.0		Olive to grayish/green clay - some silt, trace of sand.					4269 Material color scale: 5Y 4/2
#####	3.0	1.0	-4.0		Same as above					3503 CR: 22
#####	4.0	1.0	-5.0		Same as above with black staining, iron colored 'nodules', and trace of white powdery nodules - a little darker green/tan					3401
#####	5.0	1.0	-6.0		Same as above - lower 6 inches more brown in color					3900 CR: 20

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.0	0.5	-6.5		Same as above	CB3-6.5	Split spoon - 2 inch diameter - 2 ft segment			Sample collected @ 1405
	6.5	0.5	-7.0		Red/brown clayey sand					4894
	7.0	1.0	-8.0		Same as above with additional silt, quartz, mica					6217 CR: 17
	8.0	1.0	-9.0		Same as above					7371
	9.0	1.0	-10.0		Orange/red/brown fine sand with some clay - cobble zone begins somewhere between 9 and 10 feet.					7672 CR: 16 Core material lost at cobble zone interface.

10.0 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB4
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/27/03 at 1410
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/27/03 at 1520
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400368.937, E480330.486 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.0	0.5	-0.5		Gravel, asphalt, miscellaneous roadbed material					
	0.5	0.5	-1.0		Olive/tan-brown clay with some dark gray mottling					21980
	1.0	0.5	-1.5		Same as above with white 'nodules', red/brown nodules, and trace of silt and sand.	CB4-1.5	Split spoon - 2 inch diameter - 2 ft segment			Sample collected @ 1530
	1.5	0.5	-2.0		Same as above					24595 CR: 8
	2.0	0.5	-2.5		Same as above					
	2.5	0.5	-3.0		Same as above with black asphalt(?) powder, ash/wood burned(?) material.					7010
	3.0	0.5	-3.5		Olive/tan mottled brown/gray clay with white streaks, black clay streaks, trace of silt and sand	CB4-3.5	Split spoon - 2 inch diameter - 2 ft segment			Sample collected @ 1535
	3.5	0.5	-4.0		Same as above					3636 CR: 18
	4.0	1.0	-5.0		Same as above					3299
	5.0	0.5	-5.5		Same as above					

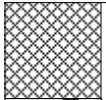






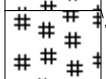


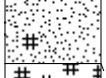



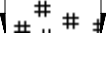
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Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	5.5	0.5	-6.0		Red/brown sandy clay with some silt - mica and small quartz throughout					3784 CR: 17
	6.0	1.0	-7.0		Same as above					4754
	7.0	0.5	-7.5		Darker red/brown to gray sandy clay					
	7.5	0.5	-8.0		Orange/red/brown clayey sand					5665 CR: 20
	8.0	0.5	-8.5		Darker red/brown to gray sandy clay					
	8.5	0.5	-9.0		Orange/red/brown clayey sand					6414
	9.0	0.5	-9.5		Same as above					
	9.5	0.5	-10.0		Cobble zone - pink/reddish sand mixed with large flat cobbles					6336 CR: 16 Cobble zone information established during test pit excavation. Cobble zone material only recovered from cyclone.

10.0 feet T.D.





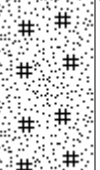
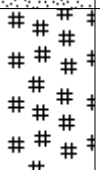
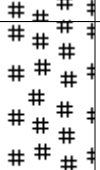
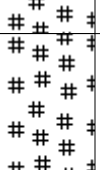
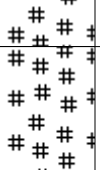
<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB5
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/27/03 at 1535
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/27/03 at 1610
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400371.709, E480328.894 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.







Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.50	-0.50		Gravel, asphalt, miscellaneous roadbed material - mixed with brown/tan clay					
	0.50	0.50	-1.00		Mottled olive/tan-brown clay - trace of sand					44601
	1.00	0.50	-1.50		Same as above					
	1.50	0.50	-2.00		Yellow/orange clayey sand mixed with black ash(?) and a white powdery material.	CB5-2	Split spoon - 2 inch diameter - 2 ft segment			55576 Sample collected @ 1625 CR: 16
	2.00	0.50	-2.50		Mottled olive/brown gray clay with some black					
	2.50	0.25	-2.75		Yellow/orange clayey sand					
	2.75	0.25	-3.00		Black clay					25537
	3.00	1.00	-4.00		Mottled olive/tan/brown/gray clay with black, white, and rust colored 'nodules'.	CB5-4				10962 Sample collected @ 1630 CR: 18
	4.00	0.50	-4.50		Yellow/orange clayey sand					
	4.50	0.50	-5.00		Black clay with white nodules					10103
										
										
										
										
										

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<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB6
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/28/03 at 0750
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/28/03 at 0850
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400374.383, E480327.475 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.50	-0.50		Gravel - roadbed material					
	0.50	0.50	-1.00		Mottled brown clay mixed with orange powdery substance	CB6-1	Split spoon - 2 inch diameter - 2 ft segment			19284 Sample collected @ 0855
	1.00	1.00	-2.00		Mix of red/brown sand, brown clay, and black ashy substance					14730 CR: 12
	2.00	1.00	-3.00		Olive/tan/brown clay with some silt and sand - some rust colored 'nodules'					3497 Material was moist
	3.00	1.00	-4.00		Same as above					1708 CR: 17
	4.00	1.00	-5.00		Same as above with trace of white powdery nodules	CB6-5				1432 Sample collected @ 0900
	5.00	1.00	-6.00		Same as above with additional red/brown sand					1778 CR: 17

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	1.00	-7.00		Same as above					2373
	7.00	0.50	-7.50		Same as above					
	7.50	0.50	-8.00		Red/brown sandy clay with quartz and mica particles throughout					2886 CR: 9
	8.00	1.00	-9.00		Orange/red/brown clayey sand					3406
	9.00	0.50	-9.50		Red sandy clay with gravel					
	9.50	0.50	-10.00		Cobble zone - pinkish/red sand mixed with large flat cobbles.					3930 CR: 13 Cobble zone characteristics determined from test pit excavations.

10.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB7
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/28/03 at 0905
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/28/03 at 1045
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400376.534, E480325.066 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.50	-0.50		Mix of gravel, sand and brown clay - roadbed material					
	0.50	0.50	-1.00		Olive/tan/brown clay mixed with orange powder and some sand					9478
	1.00	0.50	-1.50		Orange and pink clay with gravel					
	1.50	0.50	-2.00		Orange/rust brown sand mixed with black and white powder	CB7-2	Split spoon - 2 inch diameter - 2 ft segment			21814 Sample collected @ 1015 CR: 18
	2.00	0.50	-2.50		Pink/purple clay and gravel					
	2.50	0.50	-3.00		Mottled olive/tan clay with orange staining - transitioning to more orange sandy material					6180
	3.00	1.00	-4.00		Mottled olive/gray with some black layer/streaks					2289 CR: 16
	4.00	0.25	-4.25		Pink gravel - orange sand (sluff?)					
	4.25	0.75	-5.00		Olive/tan/brown clay					1559
	5.00	1.00	-6.00		Same as above					1566 CR: 18

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	1.00	-7.00		Same as above					1867
	7.00	0.50	-7.50		Same as above					
	7.50	0.50	-8.00		Fine orange clayey sand	CB7-8	Split spoon - 2 inch diameter - 2 ft segment			3003 Sample collected @ 1010
	8.00	1.00	-9.00		Cobble zone??					3115
	9.00	1.00	-10.00		Cobble zone??					3395 CR: no core recovered

10.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB8
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/28/03 at 1100
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/28/03 at 1155
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N480325.066, E480324.313 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
# #	0.00	0.25	-0.25		Brown/tan sandy clay					
# # # # # #	0.25	0.75	-1.00		Olive/tan/brown clay with rust orange sand - grades into a zone of black clay/ashy material, discolored zone, red/brown, rust orange sand	CB8-1				2870 Sample collected @ 1210
# # # # # # # # # #	1.00	0.75	-1.75		See above description					
# # # # # # # # # # # #	1.75	0.25	-2.00		Olive/tan/brown clay					1725 CR: 22
# # # # # # # # # # # #	2.00	1.00	-3.00		Same as above with trace sand and rust colored nodules					1354
# # # # # # # # # # # # # #	3.00	1.00	-4.00		Same as above					1310 Sticky clay.
# # # # # # # # # # # # # #	4.00	1.00	-5.00		Same as above					1414
# # # # # # # # # #	5.00	1.00	-6.00		Grading to red/brown sandy/silty clay					2070 CR: 23

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	0.75	-6.75		Same as above					
	6.75	0.25	-7.00		Cobble zone - pinkish/reddish sand mixed with large flat cobbles					2927 Characteristic s of cobble zone determined during test pit excavations
	7.00	1.00	-8.00		Same as above					3154 CR: 12 - pulverized cobbles and sand
	8.00	1.00	-9.00		Same as above					3230
	9.00	1.00	-10.00		Same as above	CB8-10	Material collected from drill rig 'cyclone'.			5037 Sample collected @ 1205 CR: 4 Pulverized cobbles and sand collected from cyclone

10.00 feet T.D.



<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB9
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 15 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/28/03 at 1215
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/28/03 at 1355
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400372.188, E480330.156 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
# # # # # # # #	0.00	1.00	-1.00		Roadbed material - gravel mixed with brown silty/sandy clay	CB9-1	Split spoon - 2 inch diameter - 2 ft segment			5527 Sample collected @ 1340
# #	1.00	1.00	-2.00		Grades to olive/tan/brown clay					2953 CR: 13 Hard clay
# #	2.00	1.00	-3.00		Same as above with white powdery streaks					2219
# #	3.00	1.00	-4.00		Same as above with trace sand and no white streaks					2091 CR: 22
# #	4.00	1.00	-5.00		Same as above					2154
# #	5.00	0.75	-5.75		Same as above					

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Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	5.75	0.25	-6.00		Red/brown sandy clay	CB9-6				2435 Sample collected @ 1345 CR: 23
	6.00	0.50	-6.50		Yellowish olive tan clay mixed with bright orange/yellow sand					
	6.50	0.50	-7.00		Red/brown sandy clay with white nodules					2842
	7.00	1.00	-8.00		Same as above					3728
	8.00	1.00	-9.00		Same as above					4961
	9.00	0.50	-9.50		Same as above					
	9.50	0.50	-10.00		Orange/red/brown clayey sand - start of cobbles at 10 feet					4489 CR: 13
	10.00	1.00	-11.00		Large flat cobbles mixed with pink/reddish sand					4329 Cobble zone characteristics determined during test pit excavations. Material collected from cyclone for sampling.
	11.00	1.00	-12.00		Same as above					4179 CR: no recovery
	12.00	1.00	-13.00		Same as above					4336
	13.00	1.00	-14.00		Same as above					4247 CR: 1
	14.00	1.00	-15.00		Same as above	CB9-15	Material collected from drill rig 'cyclone'.			4184 CR: no recovery Sample collected @

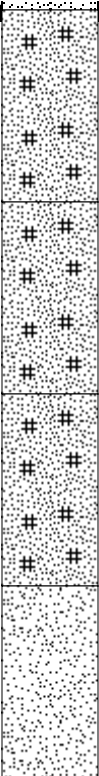
Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	



15.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB10
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/28/03 at 1410
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/28/03 at 1600
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400374.339, E480332.711 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

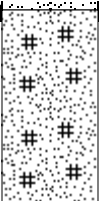




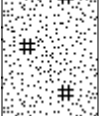

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.50	-0.50		Gray/brown sandy clay mixed with gravel - includes 1 inch 'pink' gravel layer					
	0.50	0.50	-1.00		Black powdery clay with intermingled white nodules					7553
	1.00	1.00	-2.00		Olive/tan/brown clay with trace of sand	CB10-2	Split spoon - 2 inch diameter - 2 ft segment			3631 CR: 20 Sample collected @ 1510
	2.00	1.00	-3.00		Same as above - with some black mottling and rust colored nodules.					2968
	3.00	1.00	-4.00		Same as above with some gray mottling					2358 CR: 18
	4.00	1.00	-5.00		Same as above					2594
	5.00	0.50	-5.50		Same as above - transitioning to red/brown silty clay					
	<i>LITHOLOGY DATA PRINTED ON NEXT PAGE</i>									

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	5.50	0.50	-6.00		Red/brown silty clay with trace of sand					3033 CR: 23
	6.00	1.00	-7.00		Same as above with more sand					3473
	7.00	1.00	-8.00		Same as above with fine to medium gravel					4181 CR: 20
	8.00	1.00	-9.00		Same as above					4830
	9.00	1.00	-10.00		Orange/red/brown clayey sand - fine grained sand	CB10-10				5271 CR: 18 Sample collected @ 1515

10.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB11
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/28/03 at 1600
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/28/03 at 1700
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400377.009, E480338.313 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.50	-0.50		Orange sandy clay					
	0.50	0.50	-1.00		Orange sandy clay mixed with pink gravel					3183
	1.00	1.00	-2.00		Same as above with yellow nodules and streaks up to 4 cm across					2909 CR: 5
	2.00	1.00	-3.00		Pink and orange sluff grading to olive/tan-gray/brown clay mixed with white needle shaped material	CB11-3	Split spoon - 2 inch diameter - 2 ft segment			2836 Sample collected @ 1615
	3.00	0.90	-3.90		Same as above					
	3.90	0.10	-4.00		Same as above with intermixed pink nodules					3083 CR: 20
	4.00	1.00	-5.00		Olive/tan-gray/brown clay mixed with white streaks less than 1 centimeter long					3290
	5.00	1.00	-6.00		Transitioning to red/brown sandy clay with some silt					3538 CR: 24

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	1.00	-7.00		Same as above	CB11-7	Split spoon - 2 inch diameter - 2 ft segment			4087 Sample collected @ 1620
	7.00	0.50	-7.50		Same as above					Slight silvery metallic sheen on outside of core
	7.50	0.50	-8.00		Transition to reb/brown clayey sand					4550 CR:19
	8.00	0.50	-8.50		Same as above					
	8.50	0.50	-9.00		Orange/red/brown clayey sand					6056
	9.00	0.75	-9.75		Same as above					
	9.75	0.25	-10.00		Cobble zone - large flat cobbles mixed with pinkish/reddish sand					5383 CR: 19 Cobble zone characteristics determined during test pit excavations

10.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB12
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/28/03 at 1700
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/28/03 at 1745
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400378.032, E480342.592 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

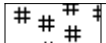
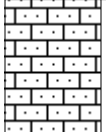
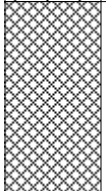

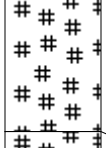
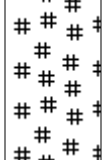
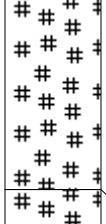
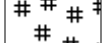
Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
# # # #	0.00	1.00	-1.00		Brown clayey sand and gravel	CB12-1	Split spoon - 2 inch diameter - 2 ft segment			3112 Sample collected @ 1715
# #	1.00	0.60	-1.60		Same as above with some orange sand at the bottom of core section					
# # # # # # # # # # # # # # # #	1.60	0.40	-2.00		Mottled olive/tan/brown clay					2920 CR: 18
# # # # # # # # # # # # # # # #	2.00	1.00	-3.00		Same as above with some rust orange sand in places					2564
# # # # # # # # # # # # # # # #	3.00	1.00	-4.00		Same as above with white nodules					2556 CR: 24
# # # # # # # # # # # # # # # #	4.00	1.00	-5.00		Same as above					2704
# # # # # # # # # # # # # # # #	5.00	0.50	-5.50		Same as above with some white 'veins'					
# # # #	<i>LITHOLOGY DATA PRINTED ON NEXT PAGE</i>									



Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	5.50	0.50	-6.00		Transition to red/brown sandy clay with some silt	CB12-6	Split spoon - 2 inch diameter - 2 ft segment			2729 CR: 21 Sample collected @ 1710
	6.00	0.50	-6.50		Olive/tan/brown clay with black 'veins'					
	6.50	0.50	-7.00		Red/brown sandy clay with some silt					3100
	7.00	1.00	-8.00		Same as above with intermixed quartz and mica - metallic sheen on outside of core					3424 CR: 19
	8.00	0.75	-8.75		Same as above					
	8.75	0.25	-9.00		Red/maroon sandy clay					4401
	9.00	0.25	-9.25		Same as above					
	9.25	0.75	-10.00		Orange/red/brown clayey sand					4287 CR: 19

10.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB13
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.	<b>Surface Elevation:</b>	
<b>Site Name:</b> CSMRI	<b>Total Depth:</b> 10 feet	
<b>Location:</b> Colorado School of Mines	<b>Start:</b> 1/29/03 at 0750	
<b>Logged By:</b> DWM/JAT	<b>Finish:</b> 1/29/03 at 0915	
<b>Contractor:</b> Layne-Western	<b>Equipment Type:</b> Percussion hammer drill rig	
<b>Conditions:</b>	<b>Sample Hammer Torque:</b>	
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400379.161, E480347.238 UTM, Zone 13 North, WGS 1984	<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.	

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.25	-0.25		Light brown clay					
	0.25	0.75	-1.00		Large pieces of brick mixed with clay					2236
	1.00	1.00	-2.00		Very loose debris. Black carbon (?) powder mixed with ash (?)					1699 CR: 14
	2.00	0.30	-2.30		Same as above					
	2.30	0.70	-3.00		Olive/brown/tan clay with trace of sand and some iron colored nodules	CB13-8	Split spoon - 2 inch diameter - 2 ft segment			1618 Sample collected @ 0910
	3.00	1.00	-4.00		Same as above					1704 CR: 21
	4.00	1.00	-5.00		Same as above transitioning to red/brown sandy clay with black nodules and laboratory crucible debris - possible sluff					1902
	5.00	0.50	-5.50		Same as above					
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Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	5.50	0.50	-6.00		Red/brown sandy clay with some silt - fine to medium grained sand					1979 CR: 16
	6.00	1.00	-7.00		Same as above with black nodules - more sand content					2375
	7.00	1.00	-8.00		Same as above with some mica - metallic sheen on outside of core	CB13-8	Split spoon - 2 inch diameter - 2 ft segment			2686 CR: 18 Sample collected @ 0915
	8.00	1.00	-9.00		Orange/red/brown clayey sand - fine grained sand					3607
	9.00	1.00	-10.00		Same as above					3531 CR: 16

10.00 feet T.D.

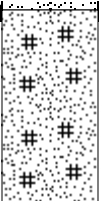
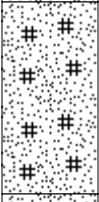
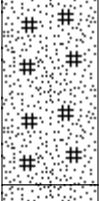
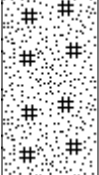


Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	5.00	1.00	-6.00		Same as above with additional gravel - some rust colored nodules					3541 CR: 22
	6.00	1.00	-7.00		Same as above - pebbles, no gravel - hard clay					3482
	7.00	0.50	-7.50		Same as above					
	7.50	0.50	-8.00		Olive/tan/brown silty clay with white streaks					3612 CR: 22
	8.00	0.50	-8.50		Same as above					
	8.50	0.50	-9.00		Red/brown clayey sand - fine to medium grained sand					4040
	9.00	1.00	-10.00		Same as above					4408 CR: 15

10.00 feet T.D.


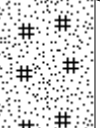
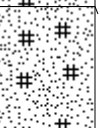
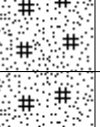
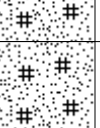
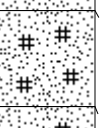
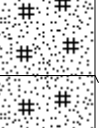
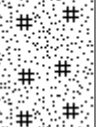
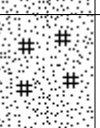
<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB15
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/29/03 at 1115
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/29/03 at 1205
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400433.834, E480442.730 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
T T T T	0.00	0.50	-0.50		Brown topsoil					
# #	0.50	0.50	-1.00		Light brown to medium brown clayey sand	CB15-1	Split spoon - 2 inch diameter - 2 ft segment			8667 Sample collected @ 1220 Soil color scale 7.5YR5/3
# #	1.00	1.00	-2.00		Same as above with some gravel					7344 CR: 20 Soil color scale 7.5YR6/3
# # # # # # # #	2.00	1.00	-3.00		Red/brown sandy clay - fine to medium grained and with some pebbles and gravel	CB15-3	Split spoon - 2 inch diameter - 2 ft segment			4052 Sample collected @ 1225
# # # # # # # #	3.00	1.00	-4.00		Same as above with slight yellow staining - hard clay					3379
# # # # # # # #	4.00	1.00	-5.00		Yellow/tan sandy clay with some silt and yellow, orange fine grained sand - hard clay					2851 Soil color code: 7.5YR 6/6
# # # # # # # #	5.00	1.00	-6.00		Same as above with intermixed pebbles and gravel - hard clay					2742 CR: 17

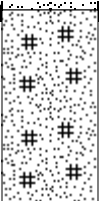
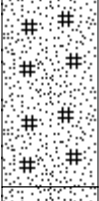
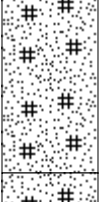
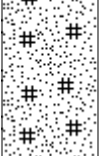
Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	1.00	-7.00		Same as above with more pebbles and gravel					2763
	7.00	1.00	-8.00		Same as above	CB15-8	Split spoon - 2 inch diameter - 2 ft segment			2795 CR: 24 Sample collected @ 1225
	8.00	1.00	-9.00		Same as above					3086
	9.00	1.00	-10.00		Same as above					3298 CR: 20

10.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB16
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/29/03 at 1230
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/29/03 at 1320
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400436.824, E480445.258 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

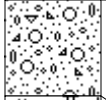
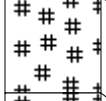
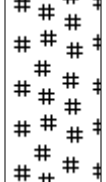
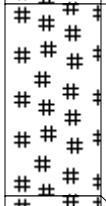
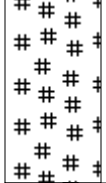
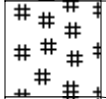
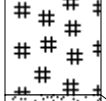
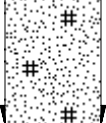
Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.30	-0.30		Brown topsoil - sandy					
	0.30	0.70	-1.00		Brown sandy clay with some silt, mottled orange, yellow, gray with some white powdery nodules and pebbles					3292
	1.00	1.00	-2.00		Same as above					3576 CR: 20
	2.00	0.50	-2.50		Same as above - hard clay					
	2.50	0.50	-3.00		Turning redder in color - mixed with light turquoise/blue pieces of rock (breakable)					3925
	3.00	0.50	-3.50		Same as above with increasing sand content	CB16-3.5	Split spoon - 2 inch diameter - 2 ft segment			Sample collected @ 1325
	3.50	0.50	-4.00		Same as above					3248 CR: 20
	4.00	1.00	-5.00		Light tan/brown sandy clay					3029
	5.00	1.00	-6.00		Red/brown sandy clay with yellow and orange mottling - trace of gravel					2965



Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	1.00	-7.00		Same as above with some gravel, white spots, yellow mottling	CB16-7	Split spoon - 2 inch diameter - 2 ft segment			3097 Sample collected @ 1330
	7.00	1.00	-8.00		Same as above					3567 CR: 18
	8.00	1.00	-9.00		Same as above with some black mottling					3954
	9.00	1.00	-10.00		Same as above					3587 CR: 14

10.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB17
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/29/03 at 1335
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/29/03 at 1455
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400445.079, E480488.555 UTM, Zone 13 North, WGS 1984  Of the first 17 borings, this location had the least amount of clay		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.50	-0.50		Gravel mixed with red/brown sand - medium to coarse grained					
	0.50	0.50	-1.00		Mottled brown, dark brown, and black clay					5232
	1.00	1.00	-2.00		Same as above					4198 CR: 16
	2.00	1.00	-3.00		Alternating brown clay and red/brown sandy clay - some mica flakes and black nodules - gravel in core probably sluff					4135
	3.00	1.00	-4.00		Same as above					5020 CR: 14
	4.00	0.50	-4.50		Brown to red/brown clay with some sand					
	4.50	0.50	-5.00		Light gray, very hard clay with some gravel and pebbles	CB17-5	Split spoon - 2 inch diameter - 2 ft segment			6793 Sample collected @ 1430
	5.00	1.00	-6.00		Red/brown clayey sand					7668 CR: 12

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	1.00	-7.00		Same as above					7639
	7.00	0.50	-7.50		Tan sand mixed with some gravel					

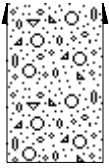
<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB18
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 24 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/29/03 at 1510
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/29/03 at 1620
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400291.456, E480310.716 UTM, Zone 13 North, WGS 1984  Site of organics spill - this site originally was chosen for monitoring well.		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
T T	0.00	0.25	-0.25		Brown topsoil with vegetation					
# # # # # # # #	0.25	0.75	-1.00		Mottled olive/tan/brown silty clay with a trace of sand and some rust colored nodules					1558
# # # # # # # #	1.00	1.00	-2.00		Same as above	CB18-2	Split spoon - 2 inch diameter - 2 ft segment			1651 CR: 15 Sample collected @ 1518
# # # # # # # #	2.00	1.00	-3.00		Same as above with trace of pebbles					1634
# # # # # # # #	3.00	1.00	-4.00		Same as above	CB18-4	Split spoon - 2 inch diameter - 2 ft segment			1678 1678 CR: 18 Sample collected @ 1523
# # # # # # # #	4.00	1.00	-5.00		Same as above					1604
# # # # # # # # # # # # # # # #	<i>LITHOLOGY DATA PRINTED ON NEXT PAGE</i>									

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	5.00	1.00	-6.00		Medium gray clay with hydrocarbon odor - sticky and moist	CB18-6	Split spoon - 2 inch diameter - 2 ft segment			1693 CR: 14 Sample collected @ 1535 Separate sample collected for hydrocarbon analysis.
	6.00	0.50	-6.50		Brown to red/brown soft clay					
	6.50	0.50	-7.00		Mottled gray clay					1802
	7.00	1.00	-8.00		Same as above with some yellowish-brown mottling. Hydrocarbon odor and stain	CB18-8	Split spoon - 2 inch diameter - 2 ft segment			1824 CR: 20 Sample collected @ 1550
	8.00	1.00	-9.00		Same as above					1897
	9.00	1.00	-10.00		Same as above with darker gray swirls	CB18-10	Split spoon - 2 inch diameter - 2 ft segment			1971 CR: 24 Sample collected @ 1600 Second sample collected for hydrocarbon analysis
	10.00	1.00	-11.00		Same as above - less hydrocarbon stain, some light brown, yellowish mottling					2152
	11.00	0.50	-11.50		Same as above					
	11.50	0.50	-12.00		Same as above with some red/brown/maroon swirls					2445 CR: 24
	12.00	1.00	-13.00		Same as above					2953
	13.00	1.00	-14.00		Red/brown clayey sand with hydrocarbon odor	CB18-14	Split spoon - 2 inch diameter - 2 ft segment			2757 CR: 16 Sample collected @ 1645 Second sample collected for hydrocarbon analysis

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	14.00	1.00	-15.00		Red/brown clayey sand					2885
	15.00	1.00	-16.00		Same as above					2955
	16.00	1.00	-17.00		Same as above					2760
	17.00	1.00	-18.00		Same as above					2842
	18.00	1.00	-19.00		Same as above					2882
	19.00	1.00	-20.00		Same as above					2777
	20.00	1.00	-21.00		Same as above					2858
	21.00	1.00	-22.00		Same as above					3378
	22.00	1.00	-23.00		Cobble zone - large flat cobbles mixed with pinkish/red sand					4201
	23.00	1.00	-24.00		Same as above					4212

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	



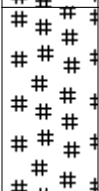
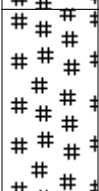
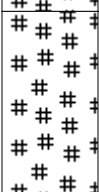
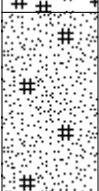
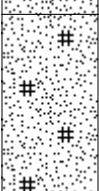
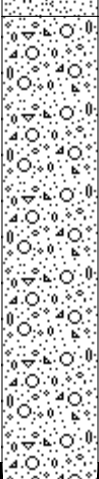


24.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB19
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 43.5 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/30/03 at 0825
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/30/03 at 1100
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400278.779, E480320.752 UTM, Zone 13 North, WGS 1984  This boring was used for the installation of a monitoring well.		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

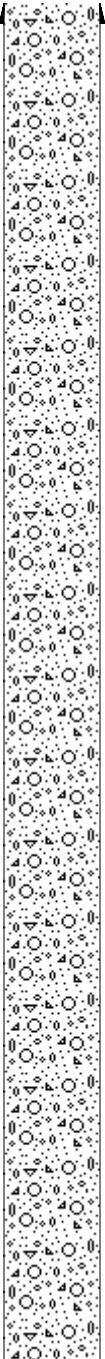
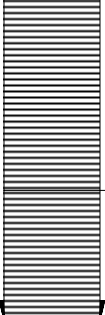
Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
T T T T	0.00	0.50	-0.50		Topsoil, vegetation, some gravel					
# # # # # #	0.50	0.50	-1.00		Olive/tan/brown silty clay with pebbles and trace of red/brown mottling					
# # # # # #	1.00	1.00	-2.00		Same as above					CR: 16
# # # # # # # # # # # # # # # # # # # #	2.00	1.00	-3.00		Olive/tan/brown clay with trace of rust colored nodules - moist clay					
# # # # # # # # # # # # # # # #	3.00	1.00	-4.00		Same as above					CR: 20
# # # # # # # # # # # # # # # #	4.00	1.00	-5.00		Same as above					
# # # # # #	5.00	1.00	-6.00		Transition to red/brown sandy clay - trace of pebbles					CR: 20

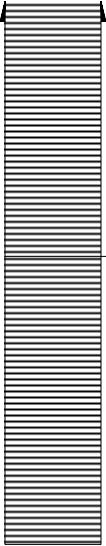


Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
										
	6.00	1.00	-7.00		Olive/tan/brown clay					
	7.00	1.00	-8.00		Red/brown sandy clay - medium grained sand					CR: 16
	8.00	1.00	-9.00		???					No split spoon on this interval
	9.00	1.00	-10.00		???					No split spoon on this interval
	10.00	1.00	-11.00		Red/brown clayey sand - redder than above - medium to coarse grained sand					
	11.00	1.00	-12.00		Same as above					CR: 24
	12.00	13.00	-25.00		Split spoon not used for this interval - cobble zone encountered at this depth - color change from material out of cyclone					

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
										
	25.00	14.00	-39.00		Split spoon not used for this interval - water encountered at this depth					

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
										
	39.00	1.00	-40.00		Split spoon not used for this interval - Pierre Shale found at this depth					
	40.00	2.00	-42.00		Split spoon not used for this interval	CB19-42	Material collected from drill rig 'cyclone'.			Sample collected @ 1100

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	42.00	1.50	-43.50		Split spoon not used for this interval - well completed to this depth					
	43.50 feet T.D.									

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB20
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 20 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/30/03 at 1400
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/31/03 at 0820
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400394.883, E480286.374 UTM, Zone 13 North, WGS 1984  This boring became monitoring well CSMRI-07.		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
#	0.00	1.00	-1.00		Brown clayey sand with gravel and pebbles - medium to coarse sand	CB20-1	Split spoon - 2 inch diameter - 2 ft segment			6599 Sample collected @ 1430
# #	1.00	1.00	-2.00		Red/brown mottled sandy clay with pebbles - very hard (roadbed material)					9062 CR: 16
# # #	2.00	1.00	-3.00		Cobble zone - large flat cobbles mixed with pinkish/red sand					7771
# # #	3.00	1.00	-4.00		Same as above					7272
# # #	4.00	1.00	-5.00		Same as above					5777
# # #	5.00	1.00	-6.00		Same as above					5902

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks	
								Type	Rate		
	6.00	1.00	-7.00		Same as above					7287	
	7.00	1.00	-8.00		Same as above					7944	
	8.00	1.00	-9.00		Same as above					7185	
	9.00	1.00	-10.00		Same as above	CB20-10				7166 Sample collected @ 1450	
	10.00	1.00	-11.00		Same as above					6895	
	11.00	1.00	-12.00		Same as above					6164	
	12.00	1.00	-13.00		Same as above					5975	
	13.00	0.50	-13.50		Same as above						
	13.50	0.50	-14.00		Brown sand						6194
	14.00	0.50	-14.50		Same as above						

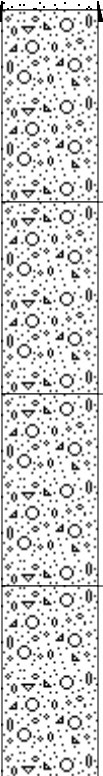
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								Type	Rate	
	14.50	0.50	-15.00		Gray clay with rust/orange swirls					5327
	15.00	0.75	-15.75		Same as above					No obvious indications of water
	15.75	0.25	-16.00		Pierre shale					4618
	16.00	4.00	-20.00		Same as above	CB20-10	Material collected from drill rig 'cyclone'.			Sample collected @ 1450

20.00 feet T.D.



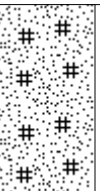
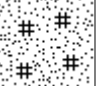
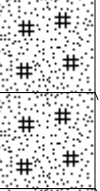



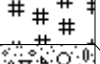
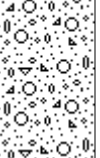
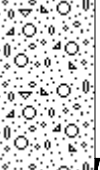
<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB21
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/31/03 at 1015
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/31/03 at 1105
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400366.268, E480276.229 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

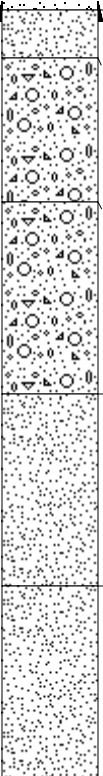
Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.50	-0.50		Mottled brown to red/brown sandy clay					
	0.50	0.50	-1.00		Red/brown sandy clay	CB21-1	Split spoon - 2 inch diameter - 2 ft segment			20012 Sample collected @ 1055 Soil color scale: 5YR 3/4
	1.00	1.00	-2.00		Same as above					8592 CR: 15
	2.00	0.50	-2.50		Same as above					
	2.50	0.50	-3.00		Light orange/brown clayey silt - very fine grained	CB21-3	Split spoon - 2 inch diameter - 2 ft segment			8390 Sample collected @ 1100 Soil color scale: 2.5YR 5/6
	3.00	0.50	-3.50		Same as above					
	3.50	0.50	-4.00		Red clayey sand with gravel - medium to coarse grained sand					7346 CR: 18 Soil color scale: 10R 4/8
	4.00	1.00	-5.00		Same as above					7145
	5.00	1.00	-6.00		Cobble zone - large flat cobbles mixed with pinkish/red sand					7609 CR: 6 Cobble zone characteristics determined during test

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	1.00	-7.00		Same as above					7736
	7.00	1.00	-8.00		Same as above					7780
	8.00	1.00	-9.00		Same as above					13707
	9.00	1.00	-10.00		Same as above	CB21-10	Material collected from drill rig 'cyclone'.			8904 Sample collected @ 1050

10.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB22
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.	<b>Surface Elevation:</b>	
<b>Site Name:</b> CSMRI	<b>Total Depth:</b> 10 feet	
<b>Location:</b> Colorado School of Mines	<b>Start:</b> 1/31/03 at 1120	
<b>Logged By:</b> DWM/JAT	<b>Finish:</b> 1/31/03 at 1225	
<b>Contractor:</b> Layne-Western	<b>Equipment Type:</b> Percussion hammer drill rig	
<b>Conditions:</b>	<b>Sample Hammer Torque:</b>	
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400356.081, E480282.032 UTM, Zone 13 North, WGS 1984	<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.	

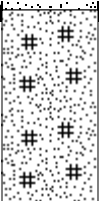
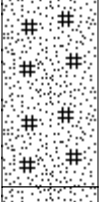



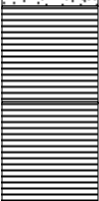

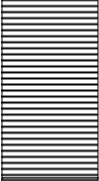
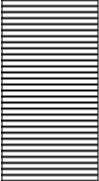
Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	1.00	-1.00		Mottled brown/red sandy clay - fine grained sand					6497
	1.00	0.50	-1.50		Same as above					
	1.50	0.50	-2.00		Red/brown sandy clay - fine to medium grained sand	CB22-2	Split spoon - 2 inch diameter - 2 ft segment			6440 CR: 19 Sample collected @ 1200 Soil color scale: 5YR 3/4
	2.00	0.50	-2.50		Same as above					
	2.50	0.50	-3.00		Red clayey sand with some gravel and pebbles					6278 Soil color scale: 10R 4/8
	3.00	0.75	-3.75		Same as above					
	3.75	0.25	-4.00		Moist red clay - same color as clayey sand above					7426 CR: 18
	4.00	1.00	-5.00		Pinkish/red sand mixed with small cobbles - top of cobble zone					7499
	5.00	1.00	-6.00		Cobble zone - pinkish/red sand mixed with large cobbles					8243 CR: 0

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	0.25	-6.25		Tan to light brown sand - fine, medium, and coarse grained sand					
	6.25	0.75	-7.00		Cobble zone - pinkish/red sand mixed with large cobbles	CB22-7	Material collected from drill rig 'cyclone'.			7967 Sample collected @ 1205
	7.00	1.00	-8.00		Same as above					7642
	8.00	1.00	-9.00		Red sand - fine, medium, and coarse					7442
	9.00	1.00	-10.00		Same as above					7244

10.00 feet T.D.



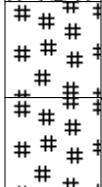
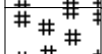
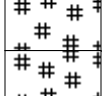
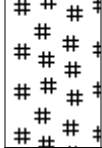
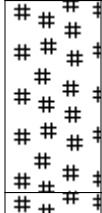
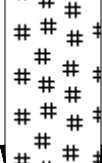
<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB23
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.	<b>Surface Elevation:</b>	
<b>Site Name:</b> CSMRI	<b>Total Depth:</b> 13 feet	
<b>Location:</b> Colorado School of Mines	<b>Start:</b> 1/31/03 at 1240	
<b>Logged By:</b> DWM/JAT	<b>Finish:</b> 1/31/03 at 1410	
<b>Contractor:</b> Layne-Western	<b>Equipment Type:</b> Percussion hammer drill rig	
<b>Conditions:</b>	<b>Sample Hammer Torque:</b>	
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400373.246, E480290.183 UTM, Zone 13 North, WGS 1984	<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.	







Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
# # # #	0.00	1.00	-1.00		Red clayey sand mixed with gravel and cobbles	CB23-1	Split spoon - 2 inch diameter - 2 ft segment			11988 Sample collected @ 1245
# # #	1.00	1.00	-2.00		Same as above					7937 CR: 8
# # #	2.00	1.00	-3.00		Tan sand mixed with pebbles, gravel, and cobbles - fine, medium, and coarse sand					6608
# # #	3.00	1.00	-4.00		Same as above	CB23-4	Material collected from drill rig 'cyclone'.			5761 CR: 0 Sample collected @ 1345
# # #	4.00	1.00	-5.00		Same as above					5999
# # #	5.00	1.00	-6.00		Same as above					5922

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	1.00	-7.00		Mix of fine to medium tan sand and dark olive clay - moist	CB23-7	Material collected from drill rig 'cyclone'.			6445
	7.00	1.00	-8.00		Same as above					6501
	8.00	0.50	-8.50		Same as above					
	8.50	0.50	-9.00		Weathered Pierre Shale - light gray					6310
	9.00	0.50	-9.50		Tan sand					
	9.50	0.50	-10.00		Weathered Pierre shale (moist) - some clay with rust colored stain - hard	CB23-10	Material collected from drill rig 'cyclone'.			6841 CR: 8 Sample collected @ 1330
	10.00	1.00	-11.00		Same as above					6329
	11.00	1.00	-12.00		Gray to olive green shale - hard					6831
	12.00	1.00	-13.00		Same as above					5067

13.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB24
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 11 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 1/31/03 at 1425
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 1/31/03 at 1515
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400354.489, E480264.11 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	1.00	-1.00		Disturbed horizon - gravel, tan clay, sand, pebbles					6908
	1.00	0.50	-1.50		Same as above					
	1.50	0.50	-2.00		Mottled dark olive, light & dark brown clay - with rust colored nodules, hard clay	CB24-2	Split spoon - 2 inch diameter - 2 ft segment			8548 CR: 9 Sample collected @ 1525
	2.00	0.50	-2.50		Same as above					
	2.50	0.50	-3.00		Same as above - but very hard - some silt					4520
	3.00	1.00	-4.00		Same as above					4488 CR: 12
	4.00	1.00	-5.00		Mottled gray to gray brown clay with rust and black colored nodules - trace of sand - very hard clay					5089 Soil color scale: 5GY 4/1
	5.00	1.00	-6.00		Mottled gray and light red clay with some silt and sand - very hard clay					5994 CR: 16 Soil color scale: 10R 7/8

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	0.25	-6.25		Same as above					
	6.25	0.75	-7.00		Light red clayey sand with some silt - very fine grained					6189
	7.00	1.00	-8.00		Same as above					6414 CR: 20
	8.00	1.00	-9.00		Same as above					7141
	9.00	1.00	-10.00		Transition to tan sand - fine grained - to of cobble zone	CB24-10	Material collected from drill rig 'cyclone'.			7413 CR: 0 Sample collected @ 1510
	10.00	1.00	-11.00		Same as above					6739

11.00 feet T.D.



<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB25
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.	<b>Surface Elevation:</b>	
<b>Site Name:</b> CSMRI	<b>Total Depth:</b> 10 feet	
<b>Location:</b> Colorado School of Mines	<b>Start:</b> 1/31/03 at 1530	
<b>Logged By:</b> DWM/JAT	<b>Finish:</b> 1/31/03 at 1610	
<b>Contractor:</b> Layne-Western	<b>Equipment Type:</b> Percussion hammer drill rig	
<b>Conditions:</b>	<b>Sample Hammer Torque:</b>	
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400371.698, E480268.363 UTM, Zone 13 North, WGS 1984	<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.	

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.25	-0.25		Dark brown clay mixed with gravel					
	0.25	0.75	-1.00		Mottled red/brown sandy clay - fine grained sand - moist					4858
	1.00	1.00	-2.00		Red/brown clayey sand with some silt - fine grained sand - moist					5027 CR: 20
	2.00	1.00	-3.00		Same as above					6935
	3.00	0.75	-3.75		Orange/red/brown clayey sand with some silt - fine grained sand - moist					
	3.75	0.25	-4.00		Red/brown clayey sand with some silt - fine grained sand - moist	CB25-4	Split spoon - 2 inch diameter - 2 ft segment			7266 CR: 24 Sample collected @ 1615
	4.00	1.00	-5.00		Orange/red/brown sandy clay - very hard clay - beginning of cobbles					6986

LITHOLOGY DATA PRINTED ON NEXT PAGE

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	5.00	1.00	-6.00		Transition to gray/tan sand - fine grained sand mixed with gravel and pebbles					7355 CR: 4
	6.00	1.00	-7.00		Cobble zone - pinkish/red sand mixed with large cobbles					7771 Cobble zone characteristics determined during test pit excavations
	7.00	1.00	-8.00		Same as above	CB25-8	Material collected from drill rig 'cyclone'.			7259 CR: 0 Sample collected @ 1620
	8.00	1.00	-9.00		Same as above					6884
	9.00	1.00	-10.00		Same as above					6652

10.00 feet T.D.

<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB6
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 2/1/03 at 0800
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 2/1/03 at 0840
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400384.083, E480282.310 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

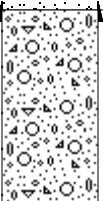
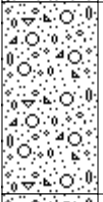
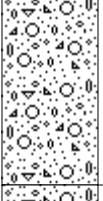
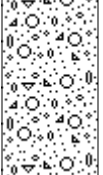
Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.50	-0.50		Dry light brown clay mixed with gravel					
	0.50	0.50	-1.00		Red/brown clayey sand - medium grained sand	CB26-1	Split spoon - 2 inch diameter - 2 ft segment			7501 Sample collected @ 0825
	1.00	0.50	-1.50		Black clay mixed with asphalt, gravel, and pebbles					
	1.50	0.50	-2.00		Hard red/brown clay					7080 CR: 16
	2.00	1.00	-3.00		Cobble zone - pinkish/red sand mixed with large flat cobbles					6058
	3.00	1.00	-4.00		Same as above					6153
	4.00	1.00	-5.00		Fine grained tan sand with trace of clay, cobbles, gravel	CB26-5	Material collected from drill rig 'cyclone'.			6864 Sample collected @ 0845
	5.00	1.00	-6.00		Same as above					6269

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	1.00	-7.00		Same as above					5898
	7.00	1.00	-8.00		Same as above					5898
	8.00	1.00	-9.00		Same as above					5660
	9.00	1.00	-10.00		Same as above					5579

10.00 feet T.D.

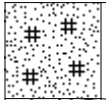
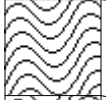
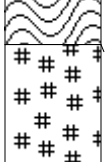
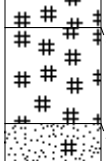
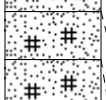
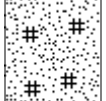
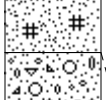
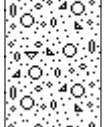
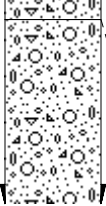
<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB27
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 10 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 2/1/03 at 0855
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 2/1/03 at 0950
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400396.944, E480296.506 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	1.00	-1.00		Red/brown to red fine sand mixed with clay and some gravel - has yellow staining	CB27-1	Split spoon - 2 inch diameter - 2 ft segment			41539 Sample collected @ 0915
	1.00	1.00	-2.00		Cobble zone - pinkish/red sand mixed with large flat cobbles					17630 CR: 12
	2.00	1.00	-3.00		Same as above with coarser sand					9951
	3.00	1.00	-4.00		Tan/gray sand with gravel - material from cyclone					6976 CR: 0
	4.00	1.00	-5.00		Same as above with cobbles and gravel					6793
	5.00	1.00	-6.00		Same as above					7095

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	6.00	1.00	-7.00		Same as above - finer sand	CB27-7	Material collected from drill rig 'cyclone'.			8702 Sample collected @ 0950
	7.00	1.00	-8.00		Same as above					8311
	8.00	1.00	-9.00		Same as above					5812
	9.00	1.00	-10.00		Same as above					6284

10.00 feet T.D.

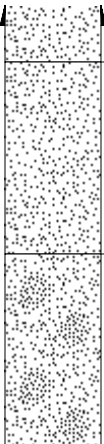

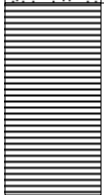
<b>Report Date:</b> 9/18/2003	<b>BORING LOG</b>	<b>Boring No.:</b> CB28
<b>Company Name:</b> New Horizons Environmental Consultants, Inc.		<b>Surface Elevation:</b>
<b>Site Name:</b> CSMRI		<b>Total Depth:</b> 18 feet
<b>Location:</b> Colorado School of Mines		<b>Start:</b> 2/1/03 at 1005
<b>Logged By:</b> DWM/JAT		<b>Finish:</b> 2/1/03 at 1130
<b>Contractor:</b> Layne-Western		<b>Equipment Type:</b> Percussion hammer drill rig
<b>Conditions:</b>		<b>Sample Hammer Torque:</b>
<b>Comments:</b> First line of the remarks column contains a 10 second downhole gamma reading. Probe was unshielded for this reading. CR - amount of core recovered in split spoon, in inches.  Boring coordinates: N4400396.27 E480308.643 UTM, Zone 13 North, WGS 1984		<b>Sampling Methods:</b> Split spoon - 2 inch diameter - 2 ft segment Material collected from drill rig 'cyclone'.

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	0.00	0.50	-0.50		Dry brown sandy clay with some gravel					
	0.50	0.50	-1.00		Black material - remains of asphalt roadbed(?)					25803
	1.00	0.25	-1.25		Crushed asphalt(?) with intermixed yellow powdery substance					
	1.25	0.75	-2.00		Olive/tan/brown clay with significant crust of rust colored staining - moist	CB28-2	Split spoon - 2 inch diameter - 2 ft segment			20950 CR: 24
	2.00	0.50	-2.50		Brown clay mixed with some gravel					
	2.50	0.25	-2.75		Yellow fine grained clayey sand					
	2.75	0.25	-3.00		Red/brown sandy clay mixed with mica, quartz, and trace of gravel					8458
	3.00	1.00	-4.00		Same as above					7185 CR: 20
	4.00	1.00	-5.00		Cobble zone - pinkish/red sand mixed with large flat cobbles	CB28-5				7326 Cobble zone characteristics determined during test pit excavations

LITHOLOGY DATA PRINTED ON NEXT PAGE

Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks	
								Type	Rate		
	5.00	1.00	-6.00		Same as above					7156	
	6.00	1.00	-7.00		Same as above					6791	
	7.00	1.00	-8.00		Same as above					6978	
	8.00	1.00	-9.00		Same as above					7409	
	9.00	1.00	-10.00		Same as above					7911	
	10.00	1.00	-11.00		Same as above					6841	
	11.00	1.00	-12.00		Same as above					7571	
	12.00	1.00	-13.00		Same as above					7862	
	13.00	0.50	-13.50		Fine to medium grained olive sand (moist) - some cobbles mixed with sand but distinct color/material change						
	13.50	0.50	-14.00		Same as above						6492
14.00	1.00	-15.00		Same as above						6697	



Graphical Log	Top Depth (feet)	Thick. (feet)	Bt.Elev. (feet)	Strata Code	Material Description	Sample No.	Sampling Method	Penetration		Remarks
								Type	Rate	
	15.00	1.00	-16.00		Same as above					5766
	16.00	1.00	-17.00		Silty fine sand	CB28-16				Soil color scale: 5YR 5/8 Sample collected @ 1108
	17.00	1.00	-18.00		Weathered Pierre Shale - rust orange on weathered material - fissle	CB28-18				Sample collected @ 1110

18.00 feet T.D.