Appendix C

2007 Investigation Geodetic
Survey Coordinates and Borehole Logs
(on CD included with this document)

Location Coordinates for-2007 Bayo Canyon Aggregate Area Investigation

Location ID	Location Type	Northing	Easting	Elevation
10-601160	BH	1778516.071	1641395.765	6615.090
10-601161	BH	1778506.094	1641362.914	6617.270
10-601162	BH	1778506.293	1641382.620	6615.760
10-601163	BH	1778499.510	1641407.554	6615.150
10-601164	BH	1778490.091	1641402.260	6615.740
10-601239	BH	1778487.406	1641333.792	6620.150
10-601240	BH	1778463.094	1641425.376	6615.660
10-601241	BH	1778461.937	1641384.133	6618.370
10-601242	BH	1778459.490	1641334.504	6619.860
10-601243	BH	1778445.489	1641390.607	6619.740
10-601244	BH	1778439.712	1641401.638	6619.060
10-601245	BH	1778431.410	1641437.555	6616.670
10-601246	BH	1778417.488	1641421.237	6618.410
10-601247	BH	1778455.301	1641481.064	6613.480
10-601248	BH	1778447.834	1641505.123	6612.390
10-601249	BH	1778442.362	1641473.510	6613.960
10-601250	BH	1778433.678	1641511.359	6612.730
10-601251	BH	1778430.323	1641499.211	6613.390
10-601252	BH	1778402.124	1641448.819	6618.710
10-601253	BH	1778412.626	1641476.322	6615.030
10-601254	BH	1778392.049	1641484.339	6615.700
10-601255	BH	1778366.155	1641456.013	6625.030
10-601256	BH	1778371.272	1641485.203	6618.530
10-601257	BH	1778346.262	1641465.621	6627.590
10-601181	BH	1778358.952	1641430.339	6627.710
10-601165	BH	1778348.704	1641418.560	6627.950
10-601166	BH	1778340.733	1641391.114	6628.750
10-601167	BH	1778330.099	1641373.139	6629.380
10-601168	BH	1778327.003	1641406.821	6628.460
10-601169	BH	1778318.613	1641392.044	6629.240
10-601170	BH	1778254.226	1641473.813	6628.730
10-601171	BH	1778254.230	1641489.838	6628.340
10-601172	BH	1778227.519	1641445.478	6631.380
10-601173	BH	1778226.405	1641476.255	6631.310
10-601174	BH	1778232.082	1641501.174	6628.680
10-601175	BH	1778215.125	1641469.011	6633.110
10-601176	BH	1778212.634	1641481.976	6633.470
10-601177	BH	1778520.799	1641209.847	6622.090
10-601178	BH	1778524.514	1641249.733	6619.660

Location ID	Location Type	Northing	Easting	Elevation
10-601179	BH	1778505.069	1641268.649	6619.370
10-601180	BH	1778482.869	1641257.949	6622.950
10-601190	BH	1778914.037	1640696.875	6638.820
10-601191	BH	1778894.476	1640648.773	6641.500
10-601192	BH	1778887.610	1640684.074	6640.960
10-601193	BH	1778905.477	1640719.041	6637.920
10-601194	BH	1778874.515	1640695.197	6640.420
10-601156	BH	1779566.959	1639409.026	6690.980
10-601157	BH	1779549.204	1639401.974	6692.530
10-601147	BH	1780210.013	1638006.125	6732.880
10-601148	BH	1780191.725	1637907.431	6737.570
10-601149	BH	1780147.240	1637906.509	6740.330
10-601150	BH	1780190.372	1637836.395	6740.240
10-601151	BH	1780210.738	1637770.949	6745.220
10-601182	BH	1778218.457	1641477.931	6632.570
10-601259	BH	1778502.486	1641424.143	6614.070
10-01001	Generic	1781153.640	1638164.430	6900.180
10-01002	Generic	1781223.640	1638964.430	7110.000
10-01003	Generic	1781153.640	1639164.430	7112.000
10-01004	Generic	1781153.640	1639664.430	7092.620
10-01006	Generic	1780653.640	1638164.430	6739.420
10-01008	Generic	1780653.640	1639164.430	6761.440
10-01011	Generic	1780653.640	1640664.430	6997.490
10-01012	Generic	1780153.640	1637664.430	6755.920
10-01014	Generic	1780153.640	1638664.430	6704.320
10-01017	Generic	1780153.640	1640164.430	6945.650
10-01022	Generic	1779653.640	1638164.430	6846.140
10-01023	Generic	1779653.640	1638664.430	6769.520
10-01024	Generic	1779653.640	1639164.430	6708.520
10-01033	Generic	1779153.640	1639164.430	6750.100
10-01034	Generic	1779153.640	1639664.430	6675.700
10-01039	Generic	1779150.511	1642308.854	7004.500
10-01039	Generic	1779179.400	1642338.760	7001.790
10-01041	Generic	1778653.640	1638164.430	7095.000
10-01044	Generic	1778653.640	1639664.430	6701.480
10-01045	Generic	1778653.640	1640164.430	6671.380
10-01053	Generic	1778217.160	1639202.980	6895.320
10-01061	Generic	1777715.506	1638761.677	7063.530
10-01061	Generic	1777653.640	1638664.430	7055.000
10-01062	Generic	1777704.611	1639244.839	7050.790

Location ID	Location Type	Northing	Easting	Elevation
10-01062	Generic	1777653.640	1639164.430	7056.650
10-01063	Generic	1777653.640	1639664.430	7051.710
10-01066	Generic	1777653.640	1641164.430	6860.970
10-01095	Generic	1778640.030	1641081.020	6623.700
10-01619	Generic	1780153.270	1641264.330	6747.090
10-601132	Generic	1780215.038	1637778.607	6744.310
10-601133	Generic	1780222.908	1637766.988	6744.960
10-601134	Generic	1780211.703	1637756.386	6746.190
10-601135	Generic	1780211.466	1637765.453	6745.650
10-601136	Generic	1780203.770	1637769.146	6745.690
10-603263	Generic	1778101.265	1641445.381	—*
10-603264	Generic	1778103.725	1641451.971	—
10-603265	Generic	1778111.655	1641448.791	—

* — = Not measured.

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 01 (10-601160)	TA: Former TA-10	Drill Depth: 0-60.8 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 9/10/2007	End Date: 9/10/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 35 dpm	β BV: 1855 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.8/4	PID=0.0 PID HS=0.0 α =61, β=1214	0.0-2.8' RE10-07-5492	0-2.8' Brown silty sand with pebbles, poorly sorted, slightly moist, non-cohesive, root material present throughout 2.8-4' No Recovery		904 1' auger stick-up
5 6 7 8 9	2.4/5	PID=0.0 PID HS=0.0 α =20, β=851		4-6.4' Fine to coarse-grained sand with pebbles, weakly bedded, soft, noncohesive, very slightly moist 6.4-9' No Recovery		915
10 11 12 13 14	2/5	PID=0.0 PID HS=0.0 α =33, β=492		9-11' Coarse-grained sand with cobbles, trace broken pumice fragemnts, soft, slightly moist 11-14' No Recovery	Qal	922
15 16 17 18 19	2.5/5	PID=0.0 PID HS=0.0 α =82, β=532		14-16.5' Brown coarse-grained sand with cobbles, pumice fragments throughout, stiff and silty at depth 16.5-19' No Recovery		928
20 21 22 23 24	2.8/5	PID=0.0 PID HS=0.0 α =54, β=443		19-21.8' Coarse-grained sand underlain by bedded sand and silt with pumice fragments, dry, noncohesive, soft 21.8-24' No Recovery		935
25 26 27 28 29	3.4/5	PID=0.0 PID HS=0.0 α =27, β=278		24-27.4' Bedded sand and silt with pebbles, stiff, compact, slightly moist, cohesive 27.4-29' No Recovery		941
30 31 32 33 34	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=527		29-31.7' Bedded to laminated silt, clay, and fine- to coarse-grained sand, stiff, slightly moist in silty/clayey layers 31.7-34' No Recovery		948
35 36 37 38 39	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=303		34-36.7' Coarse-grained sand with fine sand, silt, and cobbles, poorly sorted, compact, very slightly moist, slightly cohesive 36.7-39' No Recovery		955
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =54, β=552	42-44' RE10-07-5491	39-44' Pumice, broken, 70-75% pumice, 20% silt and clay, 5% mafic lithic rock fragments, possibly reworked or weathered		**39' Qbog Contact** 1000
45 46 47 48 49	5/5	PID=0.0 PID HS=0.0 α =65, β=1196		44-49' Pumice, same as above	Qbog	1005

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 01 (10-601160)	TA: Former TA-10	Drill Depth: 0-60.8 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 9/10/2007	End Date: 9/10/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 35 dpm	β BV: 1855 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50	5/5	PID=0.0				1013
51		PID HS=0.0		49-54' Pumice, same as above, less altered/weathered, 90% broken pumice clasts, trace silt and clay, trace lithics		
52		α =81, β=1034				
53						
54						1019
55	4.5/5	PID=0.0		54-55.3' Pumice, same as above		
56		PID HS=0.0				**55.3' Paleosol**
57		α =113, β=234		55.3-58.5' Sandy silt with clay, basalt cobbles, very slightly moist, stiff, crumbly		
58						
59		PID=0.0		58.5-59' No Recovery		
60	1.8/1.8	PID HS=0.0	59-60.8'	59-60.8' Clayey silt with basalt cobbles, hard		1030
61		α =39, β=473	RE10-07-5490			**Refusal at 60.8'**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 02 (10-601161)	TA: Former TA-10	Drill Depth: 0-60 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 9/11/2007	End Date: 9/11/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 0 dpm	β BV: 2300 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	1.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-1.6' Brown sandy silt to silty sand, very slightly moist, soft 1.6-5' No Recovery		1537 Lexan liner used from 0-20 ft bgs
6 7 8 9 10	1.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		5-6.3' Fine to coarse-grained sand with silt and cobbles 6.3-10' No Recovery		1550
11 12 13 14 15	1.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		10-11.4' Silty fine-grained sand, massive, very slightly moist, soft 11.4-15' No Recovery	Qal	1555
16 17 18 19 20	1.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		15-16.4' Silt with sand and pebbles 16.4-20' No Recovery		1600
21 22 23 24 25	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		20-22.6' Fine to coarse-grained sand with silty clay and clayey silt beds, trace broken pumice in sand, soft, slightly cohesive 22.6-25' No Recovery		1607
26 27 28 29 30	3.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		25-28.3' Bedded sand and silt, trace clay laminations 28.3-30' No Recovery		1613
31 32 33 34 35	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		30-32.9' Bedded fine to coarse-grained sand and silt, slightly moist, soft, noncohesive, trace pebbles 32.9-35' No Recovery		1617
36 37 38 39 40	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		35-37.7' Same as above 37.7-40' No Recovery		1622
41 42 43 44 45	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=114	43-45' RE10-07-5496	40-45' Pumice, altered, clayey, weathered at top, trace lithics		**40' Qbog Contact** 1627
46 47 48 49 50	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=311		45-50' Same as above	Qbog	1632

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 02 (10-601161)	TA: Former TA-10	Drill Depth: 0-60 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 9/11/2007	End Date: 9/11/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 0 dpm	β BV: 2300 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
51	5/5	PID=0.0				1637
52		PID HS=0.0				
53		α =<MDA, β=137		50-55' Pumice, same as above		
54						
55						
56	5/5	PID=0.0				1643
57		PID HS=0.0		55-58.2' Pumice, same as above		
58		α =<MDA, β=28				**58.2' Paleosol**
59			58.2-60'	58.2-60' Silt and sand with trace clay, few lithics, stiff,		
60			RE10-07-5495	slightly cohesive, very slightly moist		

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 03 (10-601162)	TA: Former TA-10	Drill Depth: 0-61.5 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 9/10/2007	End Date: 9/10/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 35 dpm	β BV: 1855 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.1/4	PID=0.0 PID HS=0.0 α =44, β=1513	0.0-2.1' RE10-07-5502	0-2.1' Silt with gravels and sand, root material present in top few inches, slightly moist, soft, cohesive 2.1-4' No Recovery		1448 1' auger stick-up
5 6 7 8 9	3.2/5	PID=0.0 PID HS=0.0 α =2, β=301		4-7.2' Silt with sand and pebbles, asphalt debris at 6', poorly sorted, dry, soft to stiff, noncohesive 7.2-9' No Recovery		1456 Construction debris: 6-8 ft bgs
10 11 12 13 14	3.2/5	PID=0.0 PID HS=0.0 α =23, β=667		9-10.4' Silt with sand and clay, stiff, compact, very slightly moist 10.4-12.2' Fine- to coarse-grained sand and silt with pebbles, poorly sorted, very slightly moist 12.2-14' No Recovery	Qal	1515
15 16 17 18 19	3/5	PID=0.0 PID HS=0.0 α =81, β=223		14-17' Bedded fine and coarse sands underlain by sandy silt with clay, poorly sorted, stiff, dry 17-19' No Recovery		1525
20 21 22 23 24	2.7/5	PID=0.0 PID HS=0.0 α =28, β=423		19-21.7' Coarse-grained sands and silt, weekly bedded, silt is compact, sand is soft 21.7-24' No Recovery		1530
25 26 27 28 29	3.2/5	PID=0.0 PID HS=0.0 α =49 β=1190		24-27.2' Bedded sand and silt with pumice fragments, stiff, compact, slightly moist, cohesive 27.2-29' No Recovery		1536
30 31 32 33 34	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=251		29-32' Bedded to laminated silt, clay, and fine- to coarse-grained sand, stiff, slightly moist in silty/clayey layers 32-34' No Recovery		1542
35 36 37 38 39	2.6/5	PID=0.0 PID HS=0.0 α =65, β=84		34-36.6' Silty fine- to medium grained sand underlain by massive silty sand to sandy silt, soft, noncohesive 36.6-39' No Recovery		1605
40 41 42 43 44	4.3/5	PID=0.0 PID HS=0.0 α =60, β=323	41.3-43.3' RE10-07-5501 RE10-07-5518	39-40.3' Fine- to coarse-grained sand, poorly sorted, non cohesive 40.3-43.3' Pumice with clay, weathered, dry 43.3-44' No Recovery		1613 **40.3' Qbog Contact**
45 46 47 48 49	5/5	PID=0.0 PID HS=0.0 α =12, β=201		44-49' Pumice, weathered, few lithics	Qbog	1622

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 03 (10-601162)	TA: Former TA-10	Drill Depth: 0-61.5 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 9/10/2007	End Date: 9/10/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 35 dpm	β BV: 1855 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50	5/5	PID=0.0				1626
51		PID HS=0.0		49-54' Pumice, same as above, less altered/weathered, 90% broken pumice clasts, trace silt and clay, trace lithics		
52		α =65, β=456				
53						
54						1633
55	4.5/5	PID=0.0		54-55.4' Pumice, same as above		
56		PID HS=0.0				**55.3' Paleosol**
57		α =44, β=1046		55.4-58.5' Sandy silt with clay, basalt cobbles, very slightly moist, stiff, crumbly		
58						
59		PID=0.0		58.5-59' No Recovery		
60	2.5/2.5	PID HS=0.0	59-61.5'	59-61.5' Same as above		1643
61		α =39, β=<MDA	RE10-07-5500			**Refusal at 61.5'**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 04 (10-601163)	TA: Former TA-10	Drill Depth: 0-53 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 9/11/2007	End Date: 9/11/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 89 dpm	β BV: 2320 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3	2.1/3	PID=0.0 PID HS=0.0 α =47, β=562		0-2.1' Fine- to coarse-grained sand with silt, poorly sorted, very slightly moist, soft, noncohesive, some root material throughout 2.1-3' No Recovery		915 2' auger stick-up
4 5 6 7 8	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		3-5.4' Silty sand with large cobbles and a few pieces of concrete 5.4-8' No Recovery		934 Construction debris: 6-8 ft bgs
9 10 11 12 13	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		8-10.6' Sand with silt, trace cobbles, non-native fill material 10.6-13' No Recovery	Qal	948
14 15 16 17 18	1.8/5	PID=0.0 PID HS=0.0 α =1800, β=44,000	13-14.8' RE10-07-5506	13-14.8' Sandy silt to silt fine to coarse-grained sand, trace pebbles and gravels 14.8-18' No Recovery		954
19 20 21 22 23	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		18-20.5' Coarse-grained silty sand underlain by clayey silt with sand and pumice fragments, layered, stiff, slightly moist 20.5-23' No Recovery		1015 b=40,000 on cuttings
24 25 26 27 28	3/5	PID=0.0 PID HS=0.0 α =<MDA β=397		23-26' Bedded silt and sand, soft, dry, slightly cohesive, pumice fragments in silt 26-28' No Recovery		1036
29 30 31 32 33	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=615		28-31.2' Laminated silt and sand, well sorted, dry to slightly moist, few clay laminations 31.2-33' No Recovery		1045
34 35 36 37 38	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=260		33-35.6' Same as above 35.6-36.2' Pumice in a clayey matrix, weathered or reworked Guaje Pumice? 36.2-38' No Recovery		1054 **35.6' Qbog Contact**
39 40 41 42 43	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=416		38-43' Pumice, altered or weathered		1106
44 45 46 47 48	4.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=570		43-47.5' Same as above 47.5-48' No Recovery	Qbog	1127
49 50 51 52 53	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=547	49.5-51.5' RE10-07-5505	48-51.5' Same as above 51.5-53' No Recovery		1141

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 05 (10-601164)	TA: Former TA-10	Drill Depth: 0-54 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 9/12/2007	End Date: 9/12/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 44 dpm	β BV: 2120 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.1/4	PID=0.0 PID HS=0.0 α =13, β=410		0-2.1' Coarse-grained sand with silt, dry, soft, noncohesive 2.1-4' No Recovery		1401 1' auger stick-up Construction debris: 5-12.5 ft bgs
5 6 7 8 9	2.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=561		4-6.3' Silt with concrete cobbles and sand 6.3-9' No Recovery		1408
10 11 12 13 14	2.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=311		9-11.3' Silt, mottled, abundant concrete, cobbles, noncohesive, soft 11.3-14' No Recovery	Qal	1417 Lexan liner used from 14-44 ft bgs
15 16 17 18 19	2/5	PID=0.0 PID HS=0.0 α =12,000 β=400,000	14-16' RE10-07-5512	14-16' Brown sandy silt, slightly moist 16-19' No Recovery		1430 Gravel and cobbles coming up in drill cuttings
20 21 22 23 24	2/5	PID=0.0 PID HS=0.0 α =500, β=2500	19-21' RE10-07-5513	19-21' Silty sand to sandy silt, slightly moist, soft 21-24' No Recovery		1452 β=320,000 on cuttings
25 26 27 28 29	1.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=3000		24-25.5' Sand silt with pumice fragments, very slightly moist 25.5-29' No Recovery		1508
30 31 32 33 34	3.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=1000		29-32.7' Silt and sand with cobbles, very slightly moist 32.7-34' No Recovery		1529 β=125,000 on cuttings
35 36 37 38 39	1.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=800	34-35.4' RE10-07-5526 (DBS) 39-40.5'	34-35.4' Silt and sand with tuff cobbles 35.4-39' No Recovery		1543 β=50,000 on cuttings
40 41 42 43 44	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=1000	RE10-07-5511 40.5-41.5' RE10-07-5525(DBS)	39-42.2' Pumice, broken, 70-75% pumice, 20% silt and clay, 5% mafic lithic rock fragments, possibly reworked or weathered 42.2-44' No Recovery		**39' Qbog Contact** 1555 β=40,000 on cuttings
45 46 47 48 49	5/5	PID=0.0 PID HS=0.0 α =34, β=983		44-49' Pumice, same as above	Qbog	1607
50 51 52 53 54	5/5	PID=0.0 PID HS=0.0 α =7, β=1662	52-54' RE10-07-5510	49-54' Pumice, same as above, less altered/weathered, 90% broken pumice clasts, trace silt and clay, trace lithics		1615

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 06 (10-601239)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 9/08/2007	End Date: 9/12/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 56 dpm	β BV: 1909 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	3.1/4	PID=0.0 PID HS=0.0 α =9, β=193		0-3.1' Sandy silt with root material, trace cobbles, very slightly moist, soft, slightly cohesive 3.1-4' No Recovery		1023 1' auger stick-up
5 6 7 8 9	2.7/5	PID=0.0 PID HS=0.0 α =3, β=305		4-6.7' Silty fine to medium-grained sand with root material, dry, poorly sorted, soft, noncohesive 6.7-9' No Recovery		1029
10 11 12 13 14	2/5	PID=0.0 PID HS=0.0 α =3, β=232		9-11' Silty fine to coarse-grained sand, trace pebbles, dry, soft, noncohesive 11-14' No Recovery		1034
15 16 17 18 19	3.7/5	PID=0.0 PID HS=0.0 α =56 β=49		14-17.7' Tuff cobbles underlain by sandy silt with clay, laminated, dry, stiff, compact 17.7-19' No Recovery		1039
20 21 22 23 24	2.9/5	PID=0.0 PID HS=0.0 α =25, β=60	19.9-21.9' RE10-07-5899	19-21.9' Weakly bedded fine to coarse-grained sand with pebbles and silt, grades to silty sand with abundant pumice fragments 21.9-24' No Recovery		1044
25 26 27 28 29	2.9/5	PID=0.0 PID HS=0.0 α =25, β=<MDA		24-26.9' Pumice fragments, reworked, underlain by poorly sorted sands and laminated silt and clay, grades to massive silt with pumice clasts 26.9-29' No Recovery		1052
30 31 32 33 34	3.2/5	PID=0.0 PID HS=0.0 α =9, β=<MDA	30.2-32.2' RE10-07-5898	29-32.2' Bedded silt and sand underlain by coarse-grained sand, dry, soft, few clay laminations 32.2-34' No Recovery		1059

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 07 (10-601240)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 9/06/2007	End Date: 9/06/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 55 dpm	β BV: 2270 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=0.0 PID HS=0.0 α =32, β=751		0-2' Silty sand, slightly moist, concrete debris in bottom of run, poorly sorted 2-4' No Recovery		1038 1' auger stick-up Construction debris: 2-4 ft bgs
5 6 7 8 9	2.5/5	PID=0.0 PID HS=0.0 α =122, β=1248		4-6.5' Silty sand with gravels from concrete, slightly moist, soft, noncohesive 6.5-9' No Recovery		1048
10 11 12 13 14	2.7/5	PID=0.0 PID HS=0.0 α =87, β=169		9-11.7' Silty sand underlain by poorly sorted fine to coarse-grained sand, trace pebbles, massive, soft, non cohesive 11.7-14' No Recovery	Qal	1057
15 16 17 18 19	2.6/5	PID=0.0 PID HS=0.0 α =67, β=611		14-16.6' Laminated sand and silt with trace clay, slightly moist 16.6-19' No Recovery		1104
20 21 22 23 24	2.5/5	PID=0.0 PID HS=0.0 α =46, β=661		19-21.5' Medium to coarse-grained sand, poorly sorted, trace pebbles, weakly bedded with fine sand, very slightly moist 21.5-24' No Recovery		1113
25 26 27 28 29	3.9/5	PID=0.0 PID HS=0.0 α =57 β=761		24-27.9' Silt, massive, underlain by bedded fine sand and silt, very slightly moist, soft, noncohesive 27.9-29' No Recovery		1121
30 31 32 33 34	3/5	PID=0.0 PID HS=0.0 α =87, β=985		29-32' Sand and cobbles, massive, underlain by laminated silt and clay with pumice fragments, stiff, dry, slightly cohesive 32-34' No Recovery		1127
35 36 37 38 39	5/5	PID=0.0 PID HS=0.0 α =25, β=736	37-39' RE10-07-5904	34-39' Pumice fragments, broken, altered to weathered, clayey, trace lithics		1136 **34' Qbog Contact**
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =39, β=920		39-44' Pumice, less altered than above		1146
45 46 47 48 49	5/5	PID=0.0 PID HS=0.0 α =129, β=1089		44-49' Pumice, ash, few lithics	Qbog	1153

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 07 (10-601240)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 9/06/2007	End Date: 9/06/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 55 dpm	β BV: 2270 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50	5/5	PID=0.0				1203
51		PID HS=0.0		49-54' Pumice, same as above, less altered/weathered, 90% broken pumice clasts, trace silt and clay, trace lithics		
52		α =115, β=590				
53						
54						1210
55	4/5	PID=0.0		54-55.4' Pumice, same as above		
56		PID HS=0.0				**55.4' Paleosol**
57		α =32, β=636		55.4-58' Sandy silt with clay, basalt cobbles, very slightly moist, stiff, crumbly		
58						
59				58-59' No Recovery		
60	3.5/5	PID=0.0	60.5-62.5'			1223
61		PID HS=0.0	RE10-07-5903	59-62.5' Same as above		
62		α =67, β=781				
63						**Refusal at 62.5'**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 08 (10-601241)	TA: Former TA-10	Drill Depth: 0-30 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 9/12/2007	End Date: 9/12/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 44 dpm	β BV: 2120 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	1.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-1.4' Silty fine to coarse-grained sand with pebbles, root material present in top few inches, soft, slightly moist, noncohesive 1.4-5' No Recovery		900
6 7 8 9 10	2.4/5	PID=0.0 PID HS=0.0 α =72, β=314		5-7.4' Sandy silt with concrete debris, soft, powdery, dry 7.4-10' No Recovery		905
11 12 13 14 15	2.4/5	PID=0.0 PID HS=0.0 α =10, β=<MDA		10-12.4' Sandy silt, massive, trace pebbles and gravels, dry, soft, non-cohesive 12.4-15' No Recovery		915
16 17 18 19 20	2.8/5	PID=0.0 PID HS=0.0 α =24 β=274	15.8-17.8' RE10-07-5909	15-17.8' Coarse-grained sand underlain by poorly bedded silt and fine sands, mottled, pumice fragments in silt 17.8-20' No Recovery		925
21 22 23 24 25	2.9/5	PID=0.0 PID HS=0.0 α =4, β=164		20-22.9' Coarse-grained sand underlain by weakly bedded silt with gravels 22.9-25' No Recovery		930
26 27 28 29 30	3.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=279	26.9-28.9' RE10-07-5908	25-28.9' Bedded silty sand and sandy silt, slightly moist, soft, underlain by well sorted sand 28.9-30' No Recovery		933

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 09 (10-601242)	TA: Former TA-10	Drill Depth: 0-30 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 9/08/2007	End Date: 9/08/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 44 dpm	β BV: 2120 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	3/5	PID=0.0 PID HS=12.3 α =53, β=1113	1-3' RE10-07-5914	0-3' Fine to coarse-grained sand with silt, soft, dry, very slightly moist, slightly cohesive 3-5' No Recovery		900
6 7 8 9 10	2.5/5	PID=0.0 PID HS=0.8 α =74, β=323		5-7.5' Sandy silt, massive, trace pebbles, dry, soft, noncohesive 7.5-10' No Recovery		905
11 12 13 14 15	2/5	PID=0.0 PID HS=0.0 α =19, β=273		10-12' Weakly bedded silty fine sands and coarse sand, soft, dry, cobbles throughout, noncohesive 12-15' No Recovery		915
16 17 18 19 20	2.5/5	PID=0.0 PID HS=0.0 α =5 β=870		15-17.5' Coarse-grained sand underlain by massive silt, soft, dry 17.5-20' No Recovery		925
21 22 23 24 25	2.6/5	PID=0.0 PID HS=0.0 α =83, β=909		20-22.6' Weakly bedded coarse-grained sands and silts underlain by sand silty with pumice fragments, stiff, dry, slightly cohesive 22.6-25' No Recovery		930
26 27 28 29 30	3/5	PID=0.0 PID HS=0.0 α =26, β=189	26-28' RE10-07-5913	25-28' Bedded sand and silt with pebbles underlain by massive silt, dry, stiff, noncohesive 28-30' No Recovery		933

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 10 (10-601243)	TA: Former TA-10	Drill Depth: 0-50 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 9/07/2007	End Date: 9/07/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 70 dpm	β BV: 2260 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	2.6/5	PID=0.0 PID HS=0.0 α =26, β=149		0-2.6' Brown silt with sand with pieces of broken asphalt underlain by silty sand, moist, soft, noncohesive 2.6-5' No Recovery		1319 Lexan liner used from 0-20 ft bgs
6 7 8 9 10	2.8/5	PID=0.0 PID HS=0.0 α =22, β=471		5-7.8' Silty sand to sandy silt, massive, light (7.5YR 7/3) 7.8-10' No Recovery		1330
11 12 13 14 15	2.3/5	PID=0.0 PID HS=0.0 α =18, β=422		10-12.3' Fine to coarse-grained silty sand, poorly sorted, very slightly moist, noncohesive, soft 12.3-15' No Recovery	Qal	1334
16 17 18 19 20	2.2/5	PID=0.0 PID HS=0.0 α =15, β=208		15-17.2' Weakly bedded coarse-grained sand with pebbles underlain by fine sand and silty sand, massive, dry, slightly cohesive 17.2-20' No Recovery		1340
21 22 23 24 25	2.6/5	PID=0.0 PID HS=0.0 α =15, β=133		20-22.6' Weakly bedded sand with pebbles, abundant pumice clasts in sand, dry, soft, noncohesive 22.6-25' No Recovery		1346
26 27 28 29 30	4.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=98		25-29.5' Silt, massive with sand, stiff, dry, crumbly, light gray (7.5YR 6/3) 29.5-30' No Recovery		1352
31 32 33 34 35	3.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=193	31.9-33.9' RE10-07-5919	30-33.9' Massive to laminated silt, silt is soft, dry, slightly cohesive, sandy at top, possible staining observed 33.9-35' No recovery		1358
36 37 38 39 40	3.4/5	PID=0.0 PID HS=0.0 α =88, β=460		35-36' Silt with cobbles, massive 36-38.4' Pumice with silt and clay, reworked or weathered, clay laminations at bottom of run, pumice is broken, sandy, few lithics 38.4-40' No Recovery		1406
41 42 43 44 45	5/5	PID=0.0 PID HS=0.0 α =82, β=690		40-45' Pumice, 90% broken pumice pieces, some alteration, 5-10% lithics	Qbog	**40' Qbog Contact** 1415
46 47 48 49 50	5/5	PID=0.0 PID HS=0.0 α =36, β=506	48-50' RE10-07-5918	45-50' Pumice, same as above		1420

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 11 (10-601244)	TA: Former TA-10	Drill Depth: 0-50 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 9/07/2007	End Date: 9/07/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 70 dpm	β BV: 2260 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=557		0-2.5' Fine to medium-grained sand, silty, soft, noncohesive, root material in top of run 2.5-5' No Recovery		915 Lexan liner used from 0-20 ft bgs
6 7 8 9 10	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=214		5-7.6' Silty very fine-grained sand, massive, soft, slightly moist 7.6-10' No Recovery		922
11 12 13 14 15	2.3/5	PID=0.0 PID HS=0.0 α =39, β=184		10-12.3' Fine to coarse-grained silty sand, poorly sorted, weakly bedded, very slightly moist, noncohesive, soft 12.3-15' No Recovery	Qal	928
16 17 18 19 20	2.7/5	PID=0.0 PID HS=0.0 α =26, β=234		15-17.7' Bedded medium to coarse-grained sand and silt, trace cobbles, soft, slightly moist, noncohesive 17.7-20' No Recovery		935
21 22 23 24 25	2.6/5	PID=0.0 PID HS=0.0 α =53, β=373		20-22.6' Fine to coarse-grained sand with silt, abundant pumice fragments in sand, very slightly moist, soft, noncohesive 22.6-25' No Recovery		940
26 27 28 29 30	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=204		25-30' Sandy silt with clay, massive, slightly moist, cohesive, tuff cobbles		946
31 32 33 34 35	4.5/5	PID=0.0 PID HS=0.0 α =26, β=726	32.5-34.5' RE10-07-5924 RE10-07-5517 (FD)	30-34.5' Pumice, reworked, sandy, grades to less altered with depth, abundant lithics, slightly moist, soft, noncohesive 34.5-35' No Recovery		954
36 37 38 39 40	5/5	PID=0.0 PID HS=0.0 α =94, β=781		35-40' Pumice, trace ash, few lithics, less altered/weathered than above	Qbog	1004 **35' Qbog Contact**
41 42 43 44 45	5/5	PID=0.0 PID HS=0.0 α =67, β=801		40-45' Pumice, 90% broken pumice pieces, some alteration, 5-10% lithics		1011
46 47 48 49 50	5/5	PID=0.0 PID HS=0.0 α =81, β=632	48-50' RE10-07-5923	45-50' Pumice, same as above		1019

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 12 (10-601245)	TA: Former TA-10	Drill Depth: 0-30 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 9/04/2007	End Date: 9/04/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 25 dpm	β BV: 2150 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	1.5/5	PID=0.0 PID HS=12.3 α =<MDA, β=<MDA		0-1.5' Medium to coarse-grained sand with silt, soft, very slightly moist, noncohesive 1.5-5' No Recovery	Qal	1514
6 7 8 9 10	3/5	PID=0.0 PID HS=0.8 α =<MDA, β=<MDA	6.8' RE10-07-5929	5-8' Silty fine- to medium-grained sand underlain by medium- to coarse-grained sand with pebbles, poorly sorted, massive, soft, noncohesive 8-10' No Recovery		1517
11 12 13 14 15	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		10-12.7' Fine to coarse-grained sand with cobbles, silty, poorly sorted, slightly moist, soft, non-cohesive 12.7-15' No Recovery		1521
16 17 18 19 20	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		15-18' Silty fine- to medium-grained sand, trace pebbles, more silty with depth, trace pumice fragments in silt, slightly moist, soft 18-20' No Recovery		1525
21 22 23 24 25	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		20-22.6' Tuff cobbles, poorly sorted sand silt and clay, massive, soft 22.6-25' No Recovery		1529
26 27 28 29 30	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	25-27.6' RE10-07-5928 RE10-07-5516 (FD)	25-27.6' Coarse-grained sand, silt, and cobbles, basalt cobbles at bottom of run, tuff cobbles throughout 27.6-30' No Recovery		1533

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 13 (10-601246)	TA: Former TA-10	Drill Depth: 0-30 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 9/05/2007	End Date: 9/05/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 51 dpm	β BV: 2450 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	2.5/5	PID=0.0 PID HS=12.3 α =<MDA, β=<MDA		0-2.5' Thin organic-rich soil underlain by sandy silt and silty sand, massive, moist, soft, slightly cohesive 2.5-5' No Recovery	Qal	851
6 7 8 9 10	3/5	PID=0.0 PID HS=0.8 α =<MDA, β=<MDA		5-8' Fine-grained sand with silt and pebbles, massive, moist, soft, dark gray, 5YR 4/3 8-10' No Recovery		856
11 12 13 14 15	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		10-12' Silty fine- to coarse-grained sand with pebbles, poorly sorted, dry, noncohesive 12-15' No Recovery		900
16 17 18 19 20	3.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	16.3-18.3' RE10-07-5934	15-18.3' Coarse-grained sand underlain by weakly laminated silty fine-grained sand, slightly moist, soft, slightly cohesive 18.3-20' No Recovery		905
21 22 23 24 25	3.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		20-21.8' Tuff cobble 21.8-23.6' Silty sand with some clay, cobbles, and pumice fragments, poorly sorted, slightly moist, stiff 23.6-25' No Recovery		910
26 27 28 29 30	3.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	26.6-28.6' RE10-07-5933	25-28.6' Fine- to coarse-grained sand, silt and cobbles underlain by laminated sand silt and clay with abundant pumice clasts, stiff, slightly moist 28.6-30' No Recovery		917

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 14 (10-601247)	TA: Former TA-10	Drill Depth: 0-33 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 9/04/2007	End Date: 9/04/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 25 dpm	β BV: 2150 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3	2/3	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2' Silty sand, slightly moist, soft, noncohesive 2-3' No Recovery		1041 2' auger stick-up
4 5 6 7 8	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		3-5.4' Bedded fine- to medium-grained silty sand and sandy silt underlain by coarse-grained pebbly sand, silt layers are moist 5.4-8' No Recovery		1053
9 10 11 12 13	2.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		8-10.3' Fine- to coarse-grained sand, silty, poorly sorted, soft, noncohesive, very slightly moist 10.3-13' No Recovery	Qal	1057
14 15 16 17 18	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	13.7-15.7' RE10-07-5939	13-15.7' Sand with silt, weakly bedded, grades to sandy silt with pumice clasts, compact, stiff, very slightly moist 15.7-18' No Recovery		1101
19 20 21 22 23	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		18-20.7' Tuff cobble underlain by weakly bedded sand and massive to laminated well sorted silt with trace fine sand 20.7-23' No Recovery		1106
24 25 26 27 28	3.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		23-26.3' Interlayered cobbles, pebbly sand, silt and gravel, poorly sorted, underlain by laminated silt with pumice clasts 26.3-28' No Recovery		1109
29 30 31 32 33	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	28.7-30.7' RE10-07-5938	28-30.7' Silt with root material, sand, and cobbles, poorly sorted, very slightly moist 30.7-33' No Recovery		1115

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 15 (10-601248)	TA: Former TA-10	Drill Depth: 0-44 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/31/2007	End Date: 8/31/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 21 dpm	β BV: 1432 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	1.9/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-1.9' Silty sand with tuff cobbles, very slightly moist, soft, noncohesive 1.9-4' No Recovery		1123 1' auger stick-up
5 6 7 8 9	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6' Silty fine- to medium-grained sand, soft, dry, silt content increases with depth 6-9' No Recovery		1126
10 11 12 13 14	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.9' Coarse-grained sand with pebbles, siltier with depth, pumice fragments in silt, weakly laminated 11.9-14' No Recovery	Qal	1130
15 16 17 18 19	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.7' Coarse-grained sand underlain by fine grained silty sand with cobbles, laminated, pumice clasts at depth, soft, dry, noncohesive 16.7-19' No Recovery		1133
20 21 22 23 24	2.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	19.8-21.8' RE10-07-5944	19-20' Coarse-grained sand with gravel 20-21.8' Silt with sand, well sorted, slightly sorted, weakly laminated 21.8-24' No Recovery		1135
25 26 27 28 29	2.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27.8' Silt, well sorted, silt is ashy, trace fine sand underlain by laminated clay and silt with pumice clasts, stiff, dry, slightly cohesive 27.8-29' No Recovery		1140
30 31 32 33 34	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-31.3' Interlayered coarse-grained sand, cobbles, and clayey silt with pumice clasts, poorly sorted, possible Qbo contact at 30.1' 31.3-31.5' Pumice with ash 31.5-34' No Recovery		1146 **31.3' Qbog Contact**
35 36 37 38 39	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-39' Pumice, altered to weathered, clayey matrix, trace lithics, trace ash, 5% quartz	Qbog	1148
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	42-44' RE10-07-5943	39-44' Pumice, broken, 80-85% pumice, 10% ash, 5% mafic lithic rock fragments		1151

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 16 (10-601249)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 9/04/2007	End Date: 9/04/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 25 dpm	β BV: 2150 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.4/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.4' Silty sand with pebbles and gravels, moist, root material present at top 2.4-4' No Recovery		934 1' auger stick-up
5 6 7 8 9	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6.7' Coarse-grained sand underlain by fine-grained silty sand; grades to bedded sand and silt, slightly moist, soft, slightly cohesive 6.7-9' No Recovery		937
10 11 12 13 14	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.9' Coarse-grained sand underlain by silty sand with pumice clasts and tuff cobbles, dry, stiff 11.9-14' No Recovery	Qal	942
15 16 17 18 19	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.8' Tuff cobbles 16.8-19' Bedded silt and gravels, gravels are mostly rounded pumice clasts, trace cobbles		947
20 21 22 23 24	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	20.2-22.2' RE10-07-5949	19-21.5' Weakly bedded fine to coarse-grained sand with pebbles 21.5-22.2' Clayey silt, laminated, pumice clasts throughout silt, stiff, dry 22.2-24' No Recovery		950
25 26 27 28 29	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-29' Sandy silt, massive, underlain by weathered pumice with clay, dry		956 **29' Qbog Contact**
30 31 32 33 34	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	32-34' RE10-07-5948	29-34' Pumice with silt and clay, weathered/altered, pumice are brown and coated with silt and clay, dry	Qbog	1002

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 17 (10-601250)	TA: Former TA-10	Drill Depth: 0-44 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/31/2007	End Date: 8/31/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 21 dpm	β BV: 1432 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.1/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.1' Silty sand, moist, root material throughout, trace pebbles, brown (7.5YR 5/3) 2.1-4' No Recovery		828 1' auger stick-up
5 6 7 8 9	1.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-5.4' Silty fine- to coarse-grained sand with pebbles, poorly sorted, moist 5.4-9' No Recovery		832
10 11 12 13 14	1.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-10.7' Silty fine-to medium grained sand, coarsens with depth, dry, soft, non cohesive, light brown (7.5YR 6/3) 11.9-14' No Recovery		835
15 16 17 18 19	2.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-15.8' Coarse-grained sand, poorly sorted underlain by ashy silt with clasts of weathered pumice, trace quartz 15.8-19' No Recovery	Qal	840
20 21 22 23 24	3.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22.7' Interlayered silty fine-grained sand with laminations, tuff cobbles, and pumice-rich silt, stiff, dry 22.7-24' No Recovery		845
25 26 27 28 29	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	27-29' RE10-07-5954	24-26' Fine-grained sandy silt and silty sand with coarse sand layers, trace cobbles, soft, dry 26-26.7' Silt, ashy, elongate pumice, laminated 26.7-29' No Recovery		850
30 31 32 33 34	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-32' Silt and sand with pumice fragments, laminated, more clayey with depth 32-34' No Recovery		854
35 36 37 38 39	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-39' Pumice, altered to weathered, clayey matrix, trace lithics, trace ash, 5% quartz		857 **34' Qbog Contact**
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	42-44' RE10-07-5953	39-44' Pumice, broken, 80-85% pumice, 10% ash, 5% mafic lithic rock fragments	Qbog	905

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 18 (10-601251)	TA: Former TA-10	Drill Depth: 0-44 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/31/2007	End Date: 8/31/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 21 dpm	β BV: 1432 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2' Silty sand with root material, soft, noncohesive, moist, brown (7.5YR 5/2) 2-4' No Recovery		945 1' auger stick-up
5 6 7 8 9	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	7-9' RE10-07-5959	4-9' Silty fine- to coarse-grained sand with pebbles, poorly sorted, soft, noncohesive, moist at top drier with depth		948
10 11 12 13 14	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.4' Coarse-grained sand underlain by silty sand with pieces of pumice, stiff, dry, trace cobbles 11.4-14' No Recovery	Qal	954
15 16 17 18 19	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.4' Fine- to medium-grained sand, silty underlain by coarse-grained sand with pebbles, siltier with depth, more pumice at depth 16.4-19' No Recovery		957
20 21 22 23 24	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-21.9' Interlayered silty sand and sandy silt with pebbles underlain by clayey silt with sand and pumice fragments, laminated, stiff, dry 21.9-24' No Recovery		1001
25 26 27 28 29	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27.2' Interbedded sands and silts with pumice fragments, few roots, more silty with depth 27.2-27.4' Tuff?, weathered, ashy, few pumice 27.4-29' No Recovery	Qbo	1005 **27.2' Qbo Contact ?** **29' Qbog Contact**
30 31 32 33 34	3.1/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-32.1' Pumice, few laminations, altered or weathered, few lithics 32.1-34' No Recovery		1010
35 36 37 38 39	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-39' Pumice, altered to weathered, clayey matrix, trace lithics, trace ash, 5% quartz	Qbog	1015
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	42-44' RE10-07-5958	39-44' Pumice, broken, 80-85% pumice, 10% ash, 5% mafic lithic rock fragments		1021

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 19 (10-601252)	TA: Former TA-10	Drill Depth: 0-40 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 9/07/2007	End Date: 9/07/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 70 dpm	β BV: 2260 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	3.1/5	PID=0.0 PID HS=0.0 α =<MDA, β=557		0-3.1' Silty sand with pebbles, very slightly moist, soft, noncohesive, brown (7.5YR 5/3) 3.1-5' No Recovery		1321
6 7 8 9 10	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=214		5-7.6' Sandy silt with few pebbles, massive, soft, noncohesive, dry 7.6-10' No Recovery		1327
11 12 13 14 15	2/5	PID=0.0 PID HS=0.0 α =39, β=184		10-12' Fine to coarse-grained silty sand, poorly sorted, dry, noncohesive, soft 12-15' No Recovery	Qal	1331
16 17 18 19 20	2.3/5	PID=0.0 PID HS=0.0 α =26, β=234		15-17.7' Coarse-grained sand with cobbles underlain by laminated silty sand to sandy silt with pumice fragments, stiff, compact, dry slightly cohesive 17.7-20' No Recovery		1336
21 22 23 24 25	3.3/5	PID=0.0 PID HS=0.0 α =53, β=373		20-23.3' Weakly laminated clayey silt, fine sand with silt and gravelly sand, grades to silty sand with pumice fragments, stiff, dry 23.3-25' No Recovery		1341
26 27 28 29 30	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=204		25-29' Tuff cobbles, silty clay, poorly sorted, rip-up clasts observed in clay, moderately moist, cohesive, soft to stiff 29-30' No Recovery		1350
31 32 33 34 35	5/5	PID=0.0 PID HS=0.0 α =26, β=726	33-35' RE10-07-5964	30-30.2' Tuff, ashy, pink matrix, possible Otowi? 30.2-32' Sand with clay, abundant pumice, reworked Qbog? 32-35' Pumice with lithics and quartz sand, altered, slightly moist	Qbo	1356 **30.2' Qbo Contact** **32' Qbog Contact**
36 37 38 39 40	5/5	PID=0.0 PID HS=0.0 α =94, β=781	38-40' RE10-07-5963	35-40' Pumice, trace ash, few lithics, less altered/weathered than above	Qbog	1404

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 20 (10-601253)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 9/04/2007	End Date: 9/04/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 25 dpm	β BV: 2150 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2' Silty sand with gravels, soft, moist, brown (5YR 4/3) 2-4' No Recovery		823 1' auger stick-up
5 6 7 8 9	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6.4' Silty fine-grained sand underlain by coarse-grained sand, soft, slightly moist, noncohesive, sand component is mostly quartz 6.4-9' No Recovery		829
10 11 12 13 14	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.4' Silty fine- to coarse-grained sand with pebbles and pumice fragments, slightly moist, massive, soft, noncohesive 11.4-14' No Recovery	Qal	834
15 16 17 18 19	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.9' Silt with sand, poorly sorted, light brown (5YR 6/3) 16.9-19' No Recovery		839
20 21 22 23 24	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22.2' Silt and sand, weakly bedded, gravels and cobbles at depth 22.2-24' No Recovery		844
25 26 27 28 29	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	27-29' RE10-07-5969	24-26' Clayey silt with root material and pumice, slightly cohesive and moist, brown (5YR 6/4) 26-29' Tuff, nonwelded, dry, light ashy matrix (5YR 8/3), 5-8% pumice, 5-8% quartz phenocrysts, trace lithics	Qbo	848 **26' Qbo Contact** **29' Qbog Contact**
30 31 32 33 34	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	30.4-32.4' RE10-07-5968	29-32.4' 90% pumice, 10% lithics, broken clasts of basalt and dacite clasts 32.4-34' No Recovery	Qbog	857

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 21 (10-601254)	TA: Former TA-10	Drill Depth: 0-40 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/31/2007	End Date: 8/31/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 21 dpm	β BV: 1432 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.5' Silty sand moist, soft, slightly cohesive, brown (7.5YR 7/3) 2.5-5' No Recovery		1525
6 7 8 9 10	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		5-9' Silty sand, massive, coarser with depth, moderately well sorted, moist 9-10' No Recovery		1531
11 12 13 14 15	2.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		10-12.3' Coarse-grained sand, pebbly, underlain by massive silt, stiff, dry 12.3-15' No Recovery	Qal	1533
16 17 18 19 20	2.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		15-17.3' Silty sand and sandy silt with a pebbly pumice layer, stiff, dry 17.3-20' No Recovery		1536
21 22 23 24 25	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		20-23' Silt and sandy silt with pumice clasts, laminated, stiff, light brown (7.5YR 6/4) 23-25' No Recovery		1540
26 27 28 29 30	3.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	26.8-28.8' RE10-07-5974	25-28.3' Silt, sand, and cobbles, interlayered, dry 28.3-28.8' Tuff, nonwelded, ashy, few pumice 28.3-30' No Recovery	Qbo	1545 **28.3' Qbo Contact** **30' Qbog Contact**
31 32 33 34 35	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		30-32.5' Pumice fragments in clay matrix, appears reworked or altered 32.5-35' Pumice, weathered, trace lithics, ashy	Qbog	1549
36 37 38 39 40	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	38-40' RE10-07-5973	35-40' Pumice, trace ash, few lithics, less altered/weathered than above		1553

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 22 (10-601255)	TA: Former TA-10	Drill Depth: 0-37 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 9/05/2007	End Date: 9/05/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 21 dpm	β BV: 1432 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2' Silty fine-grained sand, slightly moist, soft, slightly cohesive		1531 3' stick-up
3 4 5 6 7	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	7.6-9.6'	2-4.7' Fine-grained sandy silt, massive, dry, trace cobbles 4.7-7' No Recovery	Colluvium	1535
8 9 10 11 12	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	RE10-07-5979	7-9.6' Very fine-grained sandy silt, massive, trace root material, dry, soft, light brown (7.5YR 6/4) 9.6-12' No Recovery		1540
13 14 15 16 17	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		12-14.5' Silty fine sand, dry, trace gravels, soft, massive 14.5-17' No Recovery		1544
18 19 20 21 22	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		17-19.9' Fine to medium-grained sand, soft, dry, trace silt, massive to weakly laminated 19.9-22' No Recovery		1550
23 24 25 26 27	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		22-25.4' Sandy silt, massive, underlain by sandy silt with pumice fragments, few sand beds, trace pebbles, dry 25.4-27' No Recovery		1555
28 29 30 31 32	2.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		27-29.8' Same as above, underlain by silty coarse sand and pebbles, poorly sorted 29.8-32' No Recovery		1601
33 34 35 36 37	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	32.7-34.7' RE10-07-5978	32-34.7' Sand with cobbles, poorly sorted underlain by silt with sand and clay with pumice clasts 34.7-37' No Recovery		1607

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 23 (10-601256)	TA: Former TA-10	Drill Depth: 0-40 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/31/2007	End Date: 8/31/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 21 dpm	β BV: 1432 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	2.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.3' Silty sand, moist, soft, slightly cohesive, brown (5YR 5/3) 2.3-5' No Recovery		1414
6 7 8 9 10	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		5-7.7' Sandy silt, dry, soft, noncohesive 7.7-10' No Recovery		1416
11 12 13 14 15	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	10-12' RE10-07-5984	10-12.6' Same as above underlain by silt with coarse-grained sand with obvious quartz and sanidine crystals, dry, soft 12.6-15' No Recovery	Qal	1420
16 17 18 19 20	2.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		15-17.3' Coarse-grained pebbly sand underlain by compact silty sand to sandy silt with pebbles and pieces of pumice clasts, dry 17.3-20' No Recovery		1423
21 22 23 24 25	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		20-22.5' Sandy silt and silty sand underlain by white, ashy, silty coarse-grained sand with gravel, soft 22.5-25' No Recovery		1428
26 27 28 29 30	2.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		25-27.2' Coarse-grained pebbly sand, poorly sorted, underlain by silty sand with broken pumice fragments, poorly sorted, compact 27.2-30' No Recovery		1431
31 32 33 34 35	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		30-31.8' Silty sand with clay and pumice clasts 31.8-32.9' Tuff, poorly welded, dry, white ashy matrix (5YR 7/2) 32.9-35' No Recovery	Qbo	1434 **31.8' Qbo Contact** **35' Qbog Contact**
36 37 38 39 40	3.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	36.7-38.7' RE10-07-5983 RE10-07-5515 (FD)	35-38.7' Pumice, few lithics, altered 38.7-40 No Recovery	Qbog	1440

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 24 (10-601257)	TA: Former TA-10	Drill Depth: 0-35 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 9/05/2007	End Date: 9/05/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 21 dpm	β BV: 1432 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-3' Silty sand with pebbles, massive, slightly moist, slightly cohesive, brown (7.5YR 5/3) 3-5' No Recovery	Fill	1043
6 7 8 9 10	4.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		5-9.3' Silty sand to sand silt, massive to mottled, trace gravels, dry, compact, fill material 9.3-10' No Recovery		1048
11 12 13 14 15	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		10-12.7' Sandy silt, massive, dry, soft 12.7-15' No Recovery		1052
16 17 18 19 20	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		15-17.6' Fine to coarse-grained sand with silt and pebbles, trace pumice fragments, dry, soft 17.6-20' No Recovery		1057
21 22 23 24 25	3.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	21.3-23.3' RE10-07-5989	20-21.3' Sand and cobbles 21.3-23.3' Sandy silt with quartz and pumice fragments, silt is mostly ash, weakly laminated 23.3-25' No Recovery	Qal	1102
26 27 28 29 30	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		25-28' Sandy silt, silt is mostly ash, few lithics, 5-10% pumice fragments, light gray (7.5YR 7/3) 28-30' No Recovery		1106
31 32 33 34 35	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	31-33' RE10-07-5988	30-31.5' Same as above 31.5-33' Silty medium to coarse-grained sand, trace gravel, poorly sorted, silt is mostly ash 33-35' No Recovery		1111

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 25 (10-601181)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/18/2007	End Date: 8/18/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 49 dpm	β BV: 2010 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	3/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-3' Silty fine to medium-grained sand with gravels, very slightly moist, fines with depth, brown (7.5YR 5/3) 3-4' No Recovery	Fill	1430 1' auger stick-up
5 6 7 8 9	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-9' Silty fine- to coarse-grained sand with root material, grades to fine sand at depth, dry, powdery, soft, noncohesive		1434
10 11 12 13 14	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.6' Silt with trace fine sand, silt is mostly ash, trace pumice fragments, dry, soft, noncohesive 11.6-14' No Recovery	Qal	1440
15 16 17 18 19	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	14.5-16.5' RE10-07-5912	14-16.5' Fine grained sand with layer of coarse sand (15.2-15.5'), dry, soft, pumice fragments throughout silt 16.5-19' No Recovery		1443
20 21 22 23 24	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-20.4' Silt and sand, mostly quartz, soft, dry 20.4-22.2' Reworked tuff?, poorly welded, dry, 5% pumice, 5% lithics, 5% pheocrysts, mostly quartz, pink ashy matrix (7.5YR 7/3) 22.2-24' No Recovery		1447
25 26 27 28 29	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27.2' Same as above 27.2-29' No Recovery		1452
30 31 32 33 34	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	30-32' RE10-07-5911	29-30.6' Tuff, same as above 30.6-32' Silty sand with gravels, poorly sorted, gravels are mostly volcanic rock fragments 32-34' No Recovery		1458

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 26 (10-601165)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/18/2007	End Date: 8/18/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 49 dpm	β BV: 2010 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.7/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.7' Gravels (from road bed) underlain by silty sand, dry, noncohesive, brown (7.5YR 5/3) 2.7-4' No Recovery		1140 1' auger stick-up
5 6 7 8 9	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	4.7-6.7' RE10-07-5548	4-6.7' Silty sand to sandy silt, poorly sorted, trace coarse sand, dry, noncohesive 6.7-9' No Recovery	Fill	1144
10 11 12 13 14	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.7' Same as above, trace pumice fragments 11.7-14' No Recovery		1148
15 16 17 18 19	2.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.2' Silty fine- to medium-grained sand, poorly sorted, silt is mostly ash, trace pumice, soft, dry, noncohesive, pinkish gray (7.5YR 6/2) 16.2-19' No Recovery		1150
20 21 22 23 24	3.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22.2' Fine-grained sand and cobbles, sand is silty, ashy 22.2-23.3' Reworked? tuff, nonwelded, dry, ashy, sandy with silt 23.3-24' No Recovery	Qal	1155
25 26 27 28 29	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-26.9' Reworked tuff?, nonwelded, dry, 80% ash, 8-10% phenocrysts, few pumice, 2-5% lithics, pink (7.5YR 7/3) 26.9-29' No Recovery		1201
30 31 32 33 34	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	30.2-32.2' RE10-07-5547	29-30.6' Tuff, same as above 30.6-32' Silty sand with gravels, poorly sorted, gravels are mostly volcanic rock fragments 32-34' No Recovery		1207

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 27 (10-601166)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/17/2007	End Date: 8/17/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 33 dpm	β BV: 1675 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2' Silty fine-grained sand with root material, soft, dry, noncohesive, brown (5YR 5/3) 2-4' No Recovery		1427 1' auger stick-up
5 6 7 8 9	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	5-7' RE10-07-5552	4-7' Silty sand, moderately well sorted, dry, soft, noncohesive, brown (5YR 5/3) 7-9' No Recovery	Fill	1432
10 11 12 13 14	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11' Silty fine- to coarse-grained sand, poorly sorted, soft, noncohesive, dry 11-14' No Recovery		1438
15 16 17 18 19	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.4' Silty fine- to coarse-grained sand, trace pebbles, soft, dry, noncohesive, pumice fragments throughout 16.4-19' No Recovery	Qal	1443
20 21 22 23 24	3.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-19.9' Coarse-grained sand, mostly quartz 19.9-22.3' Reworked tuff?, nonwelded, dry, pink (2.5YR 6/3), 80% ash, 5% pumice, 8-10% phenocrysts 22.3-24' No Recovery		1450
25 26 27 28 29	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27.5' Same as above 27.5-29' No Recovery		1456
30 31 32 33 34	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	29.5-31.5' RE10-07-5551	29-30' Same as above 30-31.5' Fine- to coarse-grained sand with pebbles, moderately well sorted, sand is composed of quartz and volcanic lithics 31.5-34' No Recovery		1505

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 28 (10-601167)	TA: Former TA-10	Drill Depth: 0-39 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/18/2007	End Date: 8/18/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 49 dpm	β BV: 2010 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.2/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.2' Silty fine- to medium-grained sand poorly sorted, dry, soft, trace roots (5YR 5/3) 2.2-4' No Recovery		758 1' auger stick-up
5 6 7 8 9	4.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-8.2' Fine-grained sandy silt to silty sand, coarser with depth, brown (7.5YR 6/3) 8.2-9' No Recovery	Fill	804
10 11 12 13 14	2.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.2' Fine- to medium-grained sand, silty sand, weakly bedded, dry, noncohesive, poorly to moderately sorted 11.2-14' No Recovery		809
15 16 17 18 19	2.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.3' Silty fine to coarse-grained sand with pebbles, underlain by silty fine-grained sand 16.3-19' No Recovery		814
20 21 22 23 24	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	20.2-22.2' RE10-07-5556	19-19.2' Same as above 19.2-22.2' Reworked tuff, nonwelded, dry, pink (2.5YR 6/3), 80% ash, 5% pumice, 8-10% phenocrysts 22.2-24' No Recovery	Qal	818
25 26 27 28 29	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27.4' Same as above 27.4-29' No Recovery		824
30 31 32 33 34	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-31' Tuff, same as above 31-32' Medium- to coarse-grained sand, pebbles, sand is composed of quartz and volcanic lithics 32-34' No Recovery		828
35 36 37 38 39	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	35.5-36.5' RE10-07-5555	34-36.5' Coarse-grained sand, volcanic sediments, trace cobbles 36.5-39' No Recovery		834

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 29 (10-601168)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/17/2007	End Date: 8/17/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 33 dpm	β BV: 1675 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.4/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.4' Silty sand with pebbles, dry, trace root material, brown (5YR 5/3) 2.4-4' No Recovery	Fill	1258 1' auger stick-up
5 6 7 8 9	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6' Silty fine-grained sand, trace cobbles, trace root material, moderately sorted, dry, noncohesive 6-9' No Recovery		1303
10 11 12 13 14	2.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.2' Same as above 11.2-14' No Recovery		1308
15 16 17 18 19	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16' Silty fine-grained sand grades to coarse-grained sand with pebbles, dry, soft, noncohesive 16-19' No Recovery	Qal	1312
20 21 22 23 24	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	21-24' RE10-07-5560 RE10-07-5627 (FD)	19-20.8' Fine- to coarse-grained sand with silt and pebbles, slightly moist, slightly cohesive 20.8-21.6' Reworked tuff?, nonwelded, dry, pink (2.5YR 6/3), 80% ash, 5% pumice, 8-10% phenocrysts 21.6-24' No Recovery		1316
25 26 27 28 29	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27' Same as above 27-29' No Recovery		1325
30 31 32 33 34	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	30-32' RE10-07-5559	29-32' Silty fine- to coarse-grained sand, trace pebbles, poorly sorted, dry, noncohesive, sand is volcanic rock fragments 32-34' No Recovery		1331

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 30 (10-601169)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages:1
Driller: Matt Cain/Shad Betts		Start Date: 8/18/2007	End Date: 8/18/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 49 dpm	β BV: 2010 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.8/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.8' Silty fine- to medium-grained sand, dry, soft, noncohesive, trace coarse sand, brown (7.5YR 6/3) 2.8-4' No Recovery	Fill	945 1' auger stick-up
5 6 7 8 9	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-7' Same as above 7-9' No Recovery		947
10 11 12 13 14	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	10-12' RE10-07-5564	9-12' Coarse-grained sand with silt and pebbles, pumice fragments, volcanic sediments 12-14' No Recovery	Qal	951
15 16 17 18 19	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-15.7' Coarse-grained sand and silt, cobble at 15.7' 15.7-17' Reworked tuff?, nonwelded, dry, pink (7.5YR 7/3) ashy matrix, 5% pumice, 2% lithics 17-19' No Recovery		955
20 21 22 23 24	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-21.9' Same as above 21.9-24' No Recovery		958
25 26 27 28 29	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27.2' Same as above 27.2-29' No Recovery		1002
30 31 32 33 34	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	30-32' RE10-07-5563	29-30.5' Same as above 30.5-32' Fine- to coarse-grained sand, pebbles and gravels, poorly sorted, volcanic sediments 32-34' No Recovery		1009

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 31 (10-601170)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/20/2007	End Date: 8/20/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 14 dpm	β BV: 1532 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.2/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.2' Silty fine- to coarse-sand, root material at top, dry, soft, noncohesive, brown (7.5YR 6/3) 2.2-4' No Recovery	Qal	1320 1' auger stick-up
5 6 7 8 9	1.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-5.7' Silty coarse-grained sand, trace clay, slightly moist, slightly cohesive 5.7-9' No Recovery		1339
10 11 12 13 14	2.1/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.1' Silty sand, mostly quartz and ash 11.1-14' No Recovery		1342
15 16 17 18 19	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.7' Silty sand, silt is mostly ash, few pumice, pink (5YR 7/3) 16.7-19' No Recovery		1346
20 21 22 23 24	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	20.4-22.4' RE10-07-5568	19-22.4' Sandy silt, trace pumice, pink (7.5YR 7/2), reworked? tuff 22.4-24' No Recovery		1351
25 26 27 28 29	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27' Sandy silt, pumice throughout, 5-10% phenocrysts, ashy 27-29' No Recovery		1357
30 31 32 33 34	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-31' Same as above underlain by fine- to coarse-grained sand, dry, soft, noncohesive 31-34' No Recovery		1400
35 36 37 38 39	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-37.9' Interbedded coarse-grained sand and gravel with sandy silt 37.9-39' Tuff, nonwelded, dry, pink (5YR 7/2), trace lithics, 5% phenocrysts, 90% ash		1405 **37.9' Qbo Contact**
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		39-44' Tuff, nonwelded, slightly more pumice than above, pumice are crystalline, soft, slightly moist	Qbo	1410 **44.4' Qbo Contact**
45 46 47 48 49	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-47.4' Pumice, broken, 80% pumice fragments, 15% ash, 5% lithics 47.4-49' No Recovery	Qbog	1415

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 31 (10-601170)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/20/2007	End Date: 8/20/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 14 dpm	β BV: 1532 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50	5/5	PID=0.0				1420
51		PID HS=0.0				
52		α =<MDA, β=<MDA		49-54' Pumice, same as above, 90% broken pumice clasts, trace silt and clay, trace lithics		
53						
54						1425
55	5/5	PID=0.0				
56		PID HS=0.0				
57		α =<MDA, β=<MDA		54-59' Pumice, same as above		
58						
59						
60	5/5	PID=0.0				1432
61		PID HS=0.0				
62		α =<MDA, β=<MDA	62-64'	59-64' Same as above		
63			RE10-07-5567			
64						

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 32 (10-601171)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/20/2007	End Date: 8/20/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 17 dpm	β BV: 1532 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	3.2/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-3.2' Silty fine- to coarse-sand, reace pebbles, dry, soft, noncohesive, brown (7.5YR 6/3) 3.2-4' No Recovery		1010 1' auger stick-up
5 6 7 8 9	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6.7' Silty fine- to coarse-grained sand, poorly sorted, underlain by clayey fine- to coarse sand with pumice fragments, brown (7.5YR 6/3) 6.7-9' No Recovery		1015
10 11 12 13 14	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-12.4' Sand underlain by silty sand, silt is mostly ash, few tuff cobbles 12.4-14' No Recovery		1019
15 16 17 18 19	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.6' Same as above, pumice fragments at bottom of run, tuff cobbles 16.6-19' No Recovery		1024
20 21 22 23 24	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22 Same as above, trace volcanic rock fragments and pumice clasts, matrix material is lighter than above (7.5YR 7/3) 22-24' No Recovery	Qal	1027
25 26 27 28 29	3.1/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27.1' Tuff, reworked?, nonwelded, dry, rounded pumice clasts, light pink ashy matrix (7.5YR 7/2), 2-3% pumice, 5-10% phenocrysts, trace lithics 27.1-29' No Recovery		1033
30 31 32 33 34	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-32.2' Tuff, same as above, more phenocrysts than above, grades to silty sand 32.2-34' No Recovery		1039
35 36 37 38 39	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-36.5' Fine- to coarse-grained sand with gravel, poorly sorted, dry, cobbles are mostly volcanic, dry, soft, noncohesive 36.5-39' No Recovery		1043
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	42-44' RE10-07-5572	39-44' Tuff, nonwelded, dry, light ashy matrix (5YR 8/2), 90% ash, 2% pumice, 5-8% mafic minerals, undisturbed Otowi	Qbo	1049 **39' Qbo Contact** **44' Qbo Contact**
45 46 47 48 49	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-47.2' Pumice, broken, 80% pumice fragments, 15% ash, 5% lithics 47.2-49' No Recovery	Qbog	1054

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 32 (10-601171)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/20/2007	End Date: 8/20/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 17 dpm	β BV: 1532 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50 51 52 53 54	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		49-54' Pumice, same as above, 90% broken pumice clasts, trace silt and clay, trace lithics		1100 1106
55 56 57 58 59	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		54-59' Pumice, same as above		
60 61 62 63 64	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	62-64' RE10-07-5571	59-64' Same as above		1113

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID:33 (10-601172)	TA: Former TA-10	Drill Depth: 0-60 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/21/2007	End Date: 8/21/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 18.8 dpm	β BV: 1609 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-3.2' Fine to medium-grained sand with roots, slightly moist, dark brown (7.5YR 4/3) 3.2-5' No Recovery	Colluvium	823
6 7 8 9 10	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		5-8.5' Silty fine- to coarse-grained sand with pebbles, trace pumice, silt component is ash 8.5-10' No Recovery		827
11 12 13 14 15	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		10-12.5' Sand and silt, ashy, trace pumice, brown (7.5YR 6/4) 12.5-15' No Recovery	Qal	832
16 17 18 19 20	2.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		15-17.8' Sand with silt, root material, trace lithics, trace pumice 17.8-20' No Recovery		836
21 22 23 24 25	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		20-22' Same as above 22-23' Cobble of welded tuff underlain by fine to medium sand, silty, trace pumice 23-25' No Recovery		841
26 27 28 29 30	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	26.2-28.2' RE10-07-5576	25-26.4' Same as above 26.4-28.2' Tuff, nonwelded, dry, light fine ash with pumice, 5% phenocrysts, 5% pumice, 5% mafic minerals, trace lithics, 7.5YR 8/1 28.2-30' No Recovery		848 **26.4' Qbo Contact**
31 32 33 34 35	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		30-35' Tuff, same as above	Qbo	854
36 37 38 39 40	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		35-40' Same as above		859
41 42 43 44 45	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		40-45' Tuff, nonwelded, dry to very slightly moist, 80-90% ash, 5-10% rounded pumice, 5% lithics, 5-10% phenocrysts, light (7.5YR 8/2)		907

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID:33 (10-601172)	TA: Former TA-10	Drill Depth: 0-60 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/21/2007	End Date: 8/21/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 18.8 dpm	β BV: 1609 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
46	4.5/5	PID=0.0				913
47		PID HS=0.0		45-46.9' Same as above		**46.9' Qbog Contact**
48		α =<MDA, β=<MDA				
49						
50				46.9-50' Pumice, trace lithics, trace ash		
51	3.6/5	PID=0.0				920
52		PID HS=0.0		50-53.6' Pumice, same as above		
53		α =<MDA, β=<MDA				
54						
55				53.6-55' No Recovery	Qbog	
56	5/5	PID=0.0				930
57		PID HS=0.0				
58		α =<MDA, β=<MDA		55-60' Pumice, same as above		
59			58-60'			
60			RE10-07-5575			

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 34 (10-601173)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/21/2007	End Date: 8/21/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 18.8 dpm	β BV: 1609 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2' Silty fine-grained sand with pebbles, soft, dry, non-cohesive 2-4' No Recovery	Fill/Colluvium	1053 1' auger stick-up
5 6 7 8 9	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6' Silty sand with cobbles of tuff, dry, soft, noncohesive, trace pebbles, gravels, poorly sorted 6-9' No Recovery		1058
10 11 12 13 14	1.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-10.8' Fine to coarse-grained sand with pebbles and gravels, poorly sorted, silty 10.8-14' No Recovery		1102
15 16 17 18 19	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16' Silt, mostly ash with trace quartz, trace pumice and lithics 16-19' No Recovery		1106
20 21 22 23 24	2.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	19.8-21.8' RE10-07-5580	19-21.8 Same as above, trace volcanic rock fragments and pumice clasts, matrix material is lighter than above (5YR 6/4) 21.8-24' No Recovery	Qal	1111
25 26 27 28 29	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-26.6' Same as above, grades to fine to coarse-grained poorly sorted sand at bottom of run 26.6-29' No Recovery		1114
30 31 32 33 34	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-30.9' Same as above, root material, tuff cobbles, reworked tuff? 30.9-31.9' Tuff, nonwelded, dry, fibrous pumice 31.9-34' No Recovery		1121 **30.9' Qbo Contact**
35 36 37 38 39	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-39' Tuff, nonwelded, dry, large fibrous pumice, dry, soft, 5-8% pumice, 3-5% lithics, 5% phenocrysts, light ashy matrix (5YR 8/2)	Qbo	1127
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		39-44' Tuff, nonwelded, same as above		1133
45 46 47 48 49	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-47.2' Tuff, same as above 47.2-49' Pumice, broken, trace ash	Qbog	1138 **47.2' Qbog Contact**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 34 (10-601173)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/21/2007	End Date: 8/21/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 18.8 dpm	β BV: 1609 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50 51 52 53 54	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		49-52.3' Pumice, 80% pumice, 20% mafic lithic rock fragements, trace ash 52.3-54' No Recovery		1146
55 56 57 58 59	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		54-59' Pumice, same as above		
60 61 62 63 64	4.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	61.5-63.5' RE10-07-5579	59-63.5' Same as above 63.5-64' No Recovery		1202

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 35 (10-601174)	TA: Former TA-10	Drill Depth: 0-63 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/23/2007	End Date: 8/23/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 27.1 dpm	β BV: 2310 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3	2.2/3	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.2' Silty medium to coarse-grained sand, slightly moist, slightly cohesive, soft, brown (7.5YR 5/4) 2.2-3' No Recovery	Colluvium	907 2' auger stick-up
4 5 6 7 8	4.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		3-4.2' Sand, same as above 4.2-7.5' Silt and sand, trace clay, with orgainc material, compact, dry, trace cobbles 7.5-8' No Recovery		912 Construction debris: 6-8 ft bgs
9 10 11 12 13	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		8-10.7' Sand with silt, trace cobbles 10.7-13' No Recovery	Qal	916
14 15 16 17 18	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		13-15.4' Silty sand with broken pumice, ashy 15.4-18' No Recovery		921
19 20 21 22 23	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		18-20.6' Silt with sand, trace lithics and broken pumice, light (7.5YR 6/4) 20.6-23' No Recovery		926
24 25 26 27 28	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		23-26.2' Same as above; reworked tuff? 26.2-28' No Recovery		934
29 30 31 32 33	3.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	30-31.7' RE10-07-5584	28-30' Same as above, large welded tuff cobble in upper 2' 30-31.7' Tuff, nonwelded, dry 31.7-33' No Recovery		938 **30' Qbo Contact**
34 35 36 37 38	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		33-38' Tuff, nonwelded, dry, light ashy matrix (5YR 8/1), 85% ash, trace pumice, 5% mafics, 5% phenocrysts, mostly quartz	Qbo	946
39 40 41 42 43	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		38-43' Tuff, same as above, more pumice, pumice are rounded and glassy		951
44 45 46 47 48	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		43-45.5' Tuff, Same as above 45.5-48' Pumice, broken, white		957 **45.5' Qbog Contact**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 35 (10-601174)	TA: Former TA-10	Drill Depth: 0-63 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/23/2007	End Date: 8/23/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 27.1 dpm	β BV: 2310 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
49 50 51 52 53	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		48-51.5' Same as above 51.5-53' No Recovery	Qbog	1002
54 55 56 57 58	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		53-58' Pumice, same as above		1006
59 60 61 62 63	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	61-63' RE10-07-5583	58-63' Pumice, same as above		1016

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 36 (10-601175)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/21/2007	End Date: 8/21/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 18.8 dpm	β BV: 1609 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.9/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.9' Silty sand with clay, root material throughout, pumice fragments, sand is poorly sorted fine- to coarse-grained, organic rich in top few cm, brown (7.5 YR 3/4) 2.9-4' No Recovery	Colluvium	1441 1' auger stick-up
5 6 7 8 9	3.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-7.8' Clayey silt, organic rich, mottled, sandy, dry, slightly cohesive, brown (7.5YR 5/4) 7.8-9' No Recovery		1446
10 11 12 13 14	1.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-10.8' Fine-grained sandy silt, silt is mostly ash, trace quartz, brown (7.5YR 6/3) 10.8-14' No Recovery		1452
15 16 17 18 19	2.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.8' Same as above 16.8-19' No Recovery		1457
20 21 22 23 24	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-21' Same as above, large dacite cobble in middle of run, brown (7.5YR 6/3) 21-24' No Recovery	Qal	1501
25 26 27 28 29	3.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-25.8' Same as above 25.8-27.9' Cobble, welded tuff 27.9-29' No Recovery		1508
30 31 32 33 34	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	32-34' RE10-07-5588	29-34' Tuff, nonwelded, dry, light pink ashy matrix (7.5YR 7/2), 90% ash, 5% pumice, trace quartz, 5% mafic minerals		1515 **29' Qbo Contact**
35 36 37 38 39	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-39' Tuff, same as above	Qbo	1522
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		39-44' Tuff, same as above		1528
45 46 47 48 49	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-48.8' Tuff, same as above 48.8-49' Pumice, broken, trace ash		1536 **48.8' Qbog Contact**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 36 (10-601175)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/21/2007	End Date: 8/21/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 18.8 dpm	β BV: 1609 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50 51 52 53 54	4.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		49-53.5' Pumice, 80% pumice, 20% mafic lithic rock fragements, trace ash 53.5-54' No Recovery	Qbog	1546
55 56 57 58 59	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		54-59' Pumice, same as above		1550
60 61 62 63 64	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	62-64' RE10-07-5587 RE10-07-5628 (FD)	59-64' Same as above		1559

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID:37 (10-601176)	TA: Former TA-10	Drill Depth: 0-60 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/22/2007	End Date: 8/22/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 38 dpm	β BV: 2340 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2' Silty medium to coarse-grained sand with gravels, poorly sorted, root material throughout, dry, soft, slightly cohesive 2-5' No Recovery	Colluvium	906
6 7 8 9 10	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		5-8' Sandy silt, silt is mostly ash, sand is quartz, soft, dry, noncohesive light pink (7.5YR 6/3) 8-10' No Recovery		911
11 12 13 14 15	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		10-12.4' Cobble, welded tuff, dry, trace silt 12.4-15' No Recovery		915
16 17 18 19 20	2.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		15-17.2' Sand with silt, trace lithics, trace pumice, silt is mostly ash, few broken pumice clasts 17.2-20' No Recovery	Qal	920
21 22 23 24 25	3.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		20-23.3' Same as above 23.3-23.8' Cobble of weathered tuff 23.8-25' No Recovery		924
26 27 28 29 30	4.1/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	27.1-29.1' RE10-07-5592	25-26.5' Cobble, same as above 26.5-29.1' Tuff, nonwelded, dry, light fine ash with 5% fibrous, glassy pumice, 5% phenocrysts (5YR 8/3) 29.1-30' No Recovery		930 **26.5' Qbo Contact**
31 32 33 34 35	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		30-35' Tuff, more pumice than above		935
36 37 38 39 40	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		35-40' Tuff, same as above. pumice up to 3 cm in diameter	Qbo	941
41 42 43 44 45	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		40-45' Tuff, same as above		948

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID:37 (10-601176)	TA: Former TA-10	Drill Depth: 0-60 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/22/2007	End Date: 8/22/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 38 dpm	β BV: 2340 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
46 47 48 49 50	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		45-50' Tuff, same as above, slight color change to 5YR 7/2		953 **50' Qbog Contact**
51 52 53 54 55	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		50-53.5' Pumice fragments, broken, ashy 53.5-55' No Recovery	Qbog	958
56 57 58 59 60	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	58-60' RE10-07-5591	55-60' Pumice, same as above		1006

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 38 (10-601177)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/16/2007	End Date: 8/16/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 25 dpm	β BV: 1769 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	1.8/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-1.8' Silty sand, coarsens with depth, trace root material, dry, brown (5YR 6/3) 1.8-4' No Recovery		1441 1' auger stick-up
5 6 7 8 9	2.1/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6.1' Silty sand, same as above 6.1-9' No Recovery		1446
10 11 12 13 14	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.4' Weakly bedded sands and silt, trace cobbles, poorly sorted, dry 11.4-14' No Recovery		1452
15 16 17 18 19	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-17' Bedded sand and silt, few cobbles, poorly sorted, dry 17-19' No Recovery		1457
20 21 22 23 24	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-21.7' Interbedded coarse pebbly sand and sandy silt, silt beds are slightly moist 21.7-24' No Recovery	Qal	1501
25 26 27 28 29	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-26.6' Same as above 26.7-27' Laminated silt and clay with pumice 27.9-29' No Recovery		1508
30 31 32 33 34	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-33' Massive very fine-grained sand, well sorted, very slightly moist, soft, trace organic material and pumice fragments 33-34' No Recovery		1515
35 36 37 38 39	3.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	35.9-37.9' RE10-07-5596	34-35.9' Sand, silty, well sorted, soft, silt is predominately ash 35.9-37.9' Pumice fragments, altered, few lithics 37.9-39' No Recovery		1522 **35.9' Qbog Contact**
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		39-44' Pumice, white to brown, slightly altered, 90% pumice, 5% lithics, trace ash	Qbog	1528
45 46 47 48 49	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-49' Pumice, same as above		1536

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 38 (10-601177)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/16/2007	End Date: 8/16/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 25 dpm	β BV: 1769 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50 51 52 53 54	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		49-53' Pumice, same as above 53-54' No Recovery	Qbog	1546
55 56 57 58 59	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		54-58.6' Pumice, same as above 58.6-59' Sandy silt, slightly moist, brown		1550 **58.6' Paleosol**
60 61 62 63 64	4.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	61.5-63.5' RE10-07-5595	59-63.5' Silty clay with pebbles, pumice clasts, very slightly moist, brown (5YR 5/4) 63.5-64' No Recovery		1559

*Moved 30 ft west of original location because of live power lines

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 39 (10-601178)	TA: Former TA-10	Drill Depth: 0-63.5 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/15/2007	End Date: 8/15/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 34 dpm	β BV: 2220 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2' Sand, fine-to medium-grained, silty, soft, noncohesive, brown (7.5YR 5/3) 2-4' No Recovery		1234 1' auger stick-up
5 6 7 8 9	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6' Sand, coarse-grained, grades to silty very fine-grained sand, silt is mostly ash, dry, soft, noncohesive 6-9' No Recovery		1236
10 11 12 13 14	2.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.2' Fine to coarse-grained sand, trace pebbles, trace silt, poorly to moderately sorted, dry 11.2-14' No Recovery		1240
15 16 17 18 19	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	14-16' RE10-07-5600	14-16.6' Same as above, few broken pumice clasts 16.6-19' No Recovery		1244
20 21 22 23 24	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22.4' Interbedded sand and silt, trace gravels, dry 22.4-24' No Recovery	Qal	1252
25 26 27 28 29	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27' Interbedded coarse-grained sand and silt, trace pumice fragments, trace gravel, silt layers are slightly moist 27-29' No Recovery		1255
30 31 32 33 34	2.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-30.5' Medium to coarse-grained sand with silt, grades to silt with depth 30.5-31.3' Interbedded silt with sand and pumice 31.3-34' No Recovery		1300
35 36 37 38 39	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-37.5' Interbedded to laminated silt, sand, and clay, trace cobbles, dry to slightly moist, slightly cohesive 37.5-39' No Recovery		1304
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		39-39.2' Tuff, nonwelded, ashy 39.2-44' Pumice, altered or weathered, ashy, trace lithics	Qbo Qbog	**39' Qbo Contact** **39.2' Qbog Contact**
45 46 47 48 49	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-49' Pumice, same as above		1313

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 39 (10-601178)	TA: Former TA-10	Drill Depth: 0-63.5 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/15/2007	End Date: 8/15/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 34 dpm	β BV: 2220 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50	5/5	PID=0.0				1320
51		PID HS=0.0				
52		α =<MDA, β=<MDA		49-54' Pumice, same as above		
53						
54						
55	5/5	PID=0.0				1326
56		PID HS=0.0		54-57.9' Pumice, same as above		
57		α =<MDA, β=<MDA				
58						
59				57.9-59' Silt and clay, trace cobbles		**57.9' Paleosol**
60	3.2/5	PID=0.0		59-62.2' Silty clay with pebbles, pumice clasts, very slightly moist, brown, several basalt cobbles (5YR 5/4)		1333
61		PID HS=0.0				
62		α =<MDA, β=<MDA	60.2-62.2'			
63			RE10-07-5599			
64				62.2-63.5' No Recovery		**Refusal at 63.5'**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 40 (10-601179)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/15/2007	End Date: 8/15/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 34 dpm	β BV: 2220 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.5/4	PID=0.0 PID HS=1.0 α =<MDA, β=<MDA		0-2.5' Silty fine-grained sand, root material present thoughout, dry, soft, brown (7.5 YR 5/3) 2.5-4' No Recovery		1455 1' auger stick-up
5 6 7 8 9	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-7' Silty very fine-grained sand, well sorted, dry, root material present 7-9' No Recovery		1500
10 11 12 13 14	1.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-10.2' Silty fine to coarse-grained sand with pebbles, poorly sorted, dry, noncohesive, brown (7.5YR 6/3) 10.2-14' No Recovery	Qal	1504
15 16 17 18 19	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16' Same as above, trace basalt cobbles 16-19' No Recovery		1512
20 21 22 23 24	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-21' Medium to coarse-grained sand with silt, dry, soft 21-24' No Recovery		1516
25 26 27 28 29	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-26.4' Same as above 26.4-27.5' Tuff cobble, weathered 27.5-29' No Recovery		1523
30 31 32 33 34	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-32' Tuff cobbles, poorly welded (Qbt1v?) interbedded with sand and silt 32-32.5' Pumice, white, broken 32.5-34' No Recovery		1532 **32' Qbog Contact**
35 36 37 38 39	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	37-39' RE10-07-5604	34-39' Pumice, trace ash, trace lithics		1542
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		39-39.2' Pumice, same as above	Qbog	
45 46 47 48 49	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-49' Pumice, same as above		1553

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 40 (10-601179)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/15/2007	End Date: 8/15/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 34 dpm	β BV: 2220 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50	4/5	PID=0.0				1600
51		PID HS=0.0		49-53' Pumice, same as above		
52		α =<MDA, β=<MDA				
53						
54				53-54' No Recovery		
55	4.3/5	PID=0.0		54-57.3' Pumice, same as above		1607
56		PID HS=0.0				
57		α =<MDA, β=<MDA		57.3-58.3' Silty fine-grained sand with pumice, slight moist, brown (7.5YR 5/4)		**57.3' Paleosol**
58						
59				58.3-59' No Recovery		
60	3/5	PID=0.0		59-62' Silty sand, same as above, basalt in shoe of barrel, pumice fragments in silt, slightly moist		1614
61		PID HS=0.0				
62		α =<MDA, β=<MDA	60.8-62.8'			
63			RE10-07-5603	62-62.8' No Recovery		**Refusal at 62.8'**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID:41 (10-601180)	TA: Former TA-10	Drill Depth: 0-50 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 8/16/2007	End Date: 8/16/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 25 dpm	β BV: 1769 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2' Silty fine-grained sand, massive, dry, trace root material, brown (5YR 5/3) 2-5' No Recovery		1113
6 7 8 9 10	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		5-7' Sandy silt, same as above, roots 7-10' No Recovery		1120
11 12 13 14 15	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		10-12.4' Same as above underlain by medium to coarse-grained sand, poorly sorted, dry 12.4-15' No Recovery	Qal	1130
16 17 18 19 20	1.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		15-16.5' Coarse sand with pebbles underlain by silty fine sand, massive 16.5-20' No Recovery		1136
21 22 23 24 25	2.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		20-22.6' Silty fine to medium sand with pumice cobbles, dry 22.6-25' No Recovery		1144
26 27 28 29 30	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	33-35' RE10-07-5608	25-27' Fine to coarse-grained sand, silty, poorly sorted 27-27.5' Pumice fragments in a clay matrix 27.5-30' No Recovery		1149
31 32 33 34 35	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		30-31' Silty clay to clayey silt with sand and large pumice fragments 31-35' Pumice, white non-weathered, trace lithics		1200 **31' Qbog Contact**
36 37 38 39 40	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		35-40' Pumice, same as above	Qbog	1203
41 42 43 44 45	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		40-45' Pumice, same as above		1212
46 47 48 49 50	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	48-50' RE10-07-5607	45-50' Pumice, same as above		1218

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 42 (10-601190)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/14/2007	End Date: 8/14/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 53 dpm	β BV: 2130 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=0.0 PID HS=1.7 α =<MDA, β=<MDA		0-2' Silty fine to medium sand, poorly sorted, dry, brown (7.5YR 5/2) 2-4' No Recovery	Qal	1150 1' auger stick-up
5 6 7 8 9	1.1/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-5.1' SIlty fine to coarse-grained sand, dry, poorly sorted 7-9' No Recovery		1153
10 11 12 13 14	1/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-10' Silty coarse-grained snd wtih pebbles and gravels, poorly sorted, dry 10-14' No Recovery		1158
15 16 17 18 19	1.3/5	PID=0.0 PID HS=1.0 α =<MDA, β=<MDA		14-15.3' Same as above, weakly bedded, more silt than above 15.3-19' No Recovery		1202
20 21 22 23 24	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-20' Sand, same as above 20-21.4 Laminated silt and clay 21.4-24' No Recovery		1209
25 26 27 28 29	3/5	PID=0.0 PID HS=1.2 α =<MDA, β=<MDA	25-27' RE10-07-5679	24-27' Fine-grained silty sand, massive underlain by laminated to bedded sand and silt 27-29' No Recovery		1215
30 31 32 33 34	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-32.5' Fine-grained sand with silt, massive, dry, soft, brown (7.5YR 6/2) 32.5-34' No Recovery		1220
35 36 37 38 39	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-37' Interbedded fine sand, coarse sand and ash 37-39' No Recovery		1225 1230
40 41 42 43 44	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		39-42.5' Pumice, trace lithics, some ash, altered to brown 42.5-44' No Recoery	Qbog	**39' Qbog Contact**
45 46 47 48 49	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-48' Pumice, same as above 48-49' No Recovery		1234

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 42 (10-601190)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/14/2007	End Date: 8/14/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 53 dpm	β BV: 2130 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50	5/5	PID=0.0				1245
51		PID HS=0.0				
52		α =<MDA, β=<MDA		49-54' Pumice, same as above		
53						
54						
55	3.2/5	PID=0.0		54-57.2' Pumice, same as above		1250
56		PID HS=0.0				
57		α =<MDA, β=<MDA				
58				57.2-59' No Recovery		
59						
60	5/5	PID=0.0		59-59.5' Pumice, same as above		1300
61		PID HS=0.0				**59.5' Paleosol**
62		α =<MDA, β=<MDA		59.5-64 Silty very fine-grained sand, with few pumice, dry, brown (5YR 5/3)		
63			62-64'			
64			RE10-07-5678			

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 43 (10-601191)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 8/13/2007	End Date: 8/13/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 33 dpm	β BV: 2550 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2' Silty fine-grained sand, dry, soft, brown (5YR 6/3) 2-4' No Recovery		1418 1' auger stick-up
5 6 7 8 9	1.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-5.8' Fine to coarse-grained sand, silty, trace pebbles, dry, soft, noncohesive 5.8-9' No Recovery		1425
10 11 12 13 14	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	9-11' RE10-07-5684	9-11' Silty fine to coarse-grained sand with pebble layers, poorly sorted, slightly moist, noncohesive 11-14' No Recovery	Qal	1429
15 16 17 18 19	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-17' Same as above, less coarse, more pumice fragments, slightly moist, noncohesive, compact 17-19' No Recovery		1434
20 21 22 23 24	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22' Interbedded coarse-grained sand and silt, finer-grained with depth 22-24' No Recovery		1438
25 26 27 28 29	3.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27.3' Silt with trace fine-sand, massive, organic-rich charcoal? layers in bottom of run, brown (5YR 6/2) 27.3-29' No Recovery		1445
30 31 32 33 34	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	30-32' RE10-07-5683	29-32' Silt, same as above, slightly moist, trace pumice fragments, more sandy than above 32-34' No Recovery		1453

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 44 (10-601192)	TA: Former TA-10	Drill Depth: 0-68.5 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/13/2007	End Date: 8/13/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 33 dpm	β BV: 2550 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.3/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.3' Silty fine to coarse-grained sand, trace pebbles, poorly sorted, dry, brown (7.5YR 5/2) 2.3-4' No Recovery	Qal	1556 1' auger stick-up
5 6 7 8 9	2/5	PID=0.0 PID HS=2.5 α =<MDA, β=<MDA	4-6' RE10-07-5690	4-6' Same as above, siltier than above, poorly sorted 6-9' No Recovery		1600
10 11 12 13 14	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11' Silty fine to coarse-grained sand, poorly sorted, finer grained with depth, dry, noncohesive, brown (7.5YR 7/2) 11-14' No Recovery		1604
15 16 17 18 19	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-17' Same as above, more silty and compact with depth, trace pumice fragments in silt 17-19' No Recovery		1610
20 21 22 23 24	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22.4' Interbedded coarse-grained sand and silt with root material at 21', large tuff cobbles throughout, slightly moist in fine layers 22.4-24' No Recovery		1617
25 26 27 28 29	3.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-25.3' Same as above, finer with depth 25.3-27.3' Coarse-grained sand grades to silty fine-grained sand, moderately sorted, dry 27.3-29' No Recovery		1624
30 31 32 33 34	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-33' Fine-grained sand with silt, trace pebbles, moderately well sorted, dry, soft, brown (7.5YR 6/2) 33-34' No Recovery		1630
35 36 37 38 39	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-37' Interbedded to laminated silty sand and sandy silt, few cobbles, fines with depth 37-39' No Recovery		1636 1643
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	42-44' RE10-07-5689 RE10-07-5723 (FD)	39-39.4' Tuff, nonwelded, dry, 5-10% pumice, ash, trace lithics, 5-10% phenocrysts, pink ashy matrix (5YR 7/3) 39.4-44' Pumice, trace ash, slightly weathered	Qbo Qbog	**39' Qbo Contact** **39.4' Qbog Contact**
45 46 47 48 49	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-49' Pumice, same as above		1649

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 44 (10-601192)	TA: Former TA-10	Drill Depth: 0-68.5 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/13/2007	End Date: 8/13/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 33 dpm	β BV: 2550 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50 51 52 53 54	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		49-54' Pumice, same as above		1655
55 56 57 58 59	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		54-59' Pumice, same as above		1733
60 61 62 63 64	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		59-62.2' Pumice, same as above 62.2-64' Silty fine-grained sand, with pumice, dry, trace organic material brown (5YR 5/3)		1740 **62.2' Paleosol**
65 66 67 68 69	4.5/4.5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	66.5-68.5' RE10-07-5688	64-68.5' Silty sand, compact, trace pumice, masssive		1753 **Refusal at 68.5'**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 45 (10-601193)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/13/2007	End Date: 8/23/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 53 dpm	β BV: 2130 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	1.5/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-1.5' Silty fine to coarse-grained sand, trace pebbles, poorly sorted, dry, brown (5YR 5/3) 1.5-4' No Recovery	Qal	1613 1' auger stick-up
5 6 7 8 9	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6' Same as above, siltier than above, poorly sorted 6-9' No Recovery		1620
10 11 12 13 14	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11.7' Coarse-grained sand, grades with depth to silty fine sands with pumice fragments, brown (5YR6/3) 11.7-14' No Recovery		1623
15 16 17 18 19	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-16.4' Same as above, more silty and compact with depth, laminated, trace pumice fragments in silt 16.4-19' No Recovery		1628
20 21 22 23 24	2.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-21.4' Silt massive, trace organic material, coarsens downward to sand 21.4-24' No Recovery		1631
25 26 27 28 29	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-26.7' Silty fine to coarse-grained sand, poorly sorted, dry, trace laminations 26.7-29' No Recovery		1636
30 31 32 33 34	2.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		29-31.9' Silt and sand with pumice fragments, dry, brown (5YR 6/3) 31.9-34' No Recovery		1639 **34' Qbo Contact**
35 36 37 38 39	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-35.2' Tuff, nonwelded, dry, ashy matrix, light (5YR 6/2) 35.2-37.4' Pumice, broken, trace ash 37.4-39' No Recovery	Qbo	1650 **35.2' Qbo Contact** 1655
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		39-44' Pumice, trace lithics, some ash		
45 46 47 48 49	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-48' Pumice, same as above 48-49' No recovery	Qbog	1700

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 45 (10-601193)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/13/2007	End Date: 8/23/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 53 dpm	β BV: 2130 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50 51 52 53 54	3.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		49-52.7' Pumice, same as above 52.7-54' No Recovery		1707
55 56 57 58 59	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	56-58' RE10-07-5694	54-57.8' Pumice, same as above, clayey matrix 57.8-58' Brown silt and sand with pumice 58-59' No Recovery		8/23/2007 1510 **57.8' Paleosol Contact**
60 61 62 63 64	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	62-64' RE10-07-5693	59-64' Brown clayey silt with sand,s tiff, cohesive, very slightly moist, pumice fragments througout		1517

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 46 (10-601194)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/14/2007	End Date: 8/14/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 53 dpm	β BV: 2130 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.2/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-1.5' Silty fine to coarse-grained sand, trace pebbles, poorly sorted, dry, brown (5YR 5/3) 1.5-4' No Recovery	Qal	843 1' auger stick-up
5 6 7 8 9	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6' Brown silty fine to coarse-grained sand, trace pebbles, dry, soft, noncohesive 6-9' No Recovery		846
10 11 12 13 14	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-11' Silty sand with abundant pumice fragments, dry, noncoehesive, lighter than above (5YR 6/3) 11-14' No Recovery		851
15 16 17 18 19	2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-17' Silty sand composed of mostly quartz and volcanic rock fragments, poorly sorted, trace pumice fragments 17-19' No Recovery		857
20 21 22 23 24	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22.2' Silty fine sand interbedded with coarse sand, grades to well sorted silt fine sand, brown (5YR 6/2) 22.4-24' No Recovery		904
25 26 27 28 29	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27' Sandy silt, soft, dry, trace large pumice (4cm), massive, noncohesive 27-29' No Recovery		907
30 31 32 33 34	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	30-32.4' RE10-07-5699	29-31.5' Silt, same as above 31.5-32.4' Tuff, nonwelded, dry, light ashy matrix (5YR 7/2 to 5YR 8/1), pumice 32.4-34' No Recovery	Qbo	913 **31.5' Qbo Contact** **34' Qbog Contact**
35 36 37 38 39	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		34-36.8' Pumice, broken, altered to brown, weathered? 36.8-39' No Recovery	Qbog	919 924
40 41 42 43 44	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		39-44' Pumice, trace lithics, some ash		
45 46 47 48 49	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		44-49' Pumice, same as above		930

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 46 (10-601194)	TA: Former TA-10	Drill Depth: 0-64 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/14/2007	End Date: 8/14/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 53 dpm	β BV: 2130 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
50 51 52 53 54	3.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		49-52.4' Pumice, same as above 52.4-54' No Recovery		935
55 56 57 58 59	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		54-57' Pumice, same as above 57-59' No Recovery		940
60 61 62 63 64	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	60.5-62.5' RE10-07-5698	59-61.4' Pumice, same as above 61.4-62.5' Silt, compact, pumice clasts, dry, well sorted, brown (5YR 5/4) 62.5-64' No Recovery		946 **61.4' Paleosol Contact**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 47 (10-601156)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/11/2007	End Date: 8/11/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 38 dpm	β BV: 2290 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.5/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	2-4' RE10-07-5469	0-2.5' Silty fine-grained sand, root material and bark present in sand, soft, noncohesive, brown (7.5YR 7/3) 2.5-4' No Recovery		1643 1' auger stick-up
5 6 7 8 9	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-7' Silty fine-grained sand, soft, dry, noncohesive, trace pumice 7-9' No Recovery		1647
10 11 12 13 14	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-12' Same as above, trace coarse-grained sand, trace pumice, few pebbles 12-14' No Recovery	Qal	1651
15 16 17 18 19	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-15.5' Silty fine to coarse-grained sand, poorly sorted, trace pebbles 15.5-16.5' Sandy silt, stiff, very slightly moist 16.5-19' No Recovery		1655
20 21 22 23 24	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22' Sandy silt, brown (5YR 5/3 to 7.5YR 7/3), same as above, trace pumice 22-24' No Recovery		1657
25 26 27 28 29	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27.5' Sandy silt, silt is mostly ash, dacite cobble at 27', few pumice 27.5-29' No Recovery		1703
30 31 32 33 34	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	32-34' RE10-07-5468	29-29.4' Same as above 29.4-33.5' Silty fine-grained sand with black organic-rich lens, abundant pumice fragments, massive 33.5-34' Tuff? Banded, nonwelded, dry, pumice rich, pumice are fibrous and round	Qbo	1710 **33.5'? Qbo Contact**

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 48 (10-601157)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 8/11/2007	End Date: 8/11/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 38 dpm	β BV: 2290 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=0.0 PID HS=1.5 α =<MDA, β=<MDA		0-2' Silty fine-grained sand, moderately sorted, soft, dry, brown (7.5YR 6/3) 2-4' No Recovery	Qal	1758 1' auger stick-up
5 6 7 8 9	2.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6.7' Silty fine-grained sand, soft, dry, noncohesive, trace pumice 6.7-9' No Recovery		1803
10 11 12 13 14	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-12' Same as above, trace coarse-grained sand, trace pumice, few pebbles 12-14' No Recovery		1807
15 16 17 18 19	2.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-15.5' Siltycoarse-grained sand, poorly sorted, trace pebbles 15.5-16.8' Silt with trace sand, stiff, very slightly moist, darker brown than above (7.5YR 5/4) 16.8-19' No Recovery		1810
20 21 22 23 24	3.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	20-22.4' RE10-07-5473	19-20' Silt, same as above 20-22.4' Tuff, nonwelded, dry, light ashy matrix (5YR 8/1), dry, 8-10% phenocrysts, trace lithics, pumice lapilli 22.4-24' No Recovery	Qbo	1814 **20' Qbo Contact**
25 26 27 28 29	3.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27.2' Tuff, same as above interlayered with phenocrysts rich zones 27.2-29' No Recovery		1818
30 31 32 33 34	4.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	31-34' RE10-07-5472 RE10-07-5484 (FD)	29-33.5' Tuff, poorly welded, dry, large white fibrous pumice, trace mafic minerals, pumice are large (up to 3cm), light ashy matrix (7.5YR 8/1) 33.5-34' No Recovery		1824

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 49 (10-601147)	TA: Former TA-10	Drill Depth: 0-33 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 8/10/2007	End Date: 8/10/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 33 dpm	β BV: 1931 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3	2.3/3	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.3' Sandy silt, moderately sorted, soft, dry, brown (7.5YR 7/2) 2.3-3' No Recovery	Qal	920 2' auger stick-up
4 5 6 7 8	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		3-5.5' Same as above, more silty, brown (5YR 5/2 to 5YR 5/3) 5.5-8' No Recovery		930
9 10 11 12 13	2.2/5	PID=0.0 PID HS=19.2 α =<MDA, β=<MDA	8-10.2' RE10-07-5421	8-10.2' Silty fine sand, coarsens with depth to medium to coarse-grained sand, moderately sorted, few pebbles 10.2-13' No Recovery		936
14 15 16 17 18	2/5	PID=0.0 PID HS=3.8 α =<MDA, β=<MDA		13-15' Interbedded coarse sand, fine sand, and silt, very slightly moist, brown (5YR5/3) 15-18' No Recovery		941
19 20 21 22 23	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		18-20.5' Fine to medium-grained sand underlain by clayey silty fine sand, slightly moist, trace pumice, few pumice, few pebbles 20.5-23' No Recovery		950
24 25 26 27 28	3/5	PID=0.0 PID HS=1.7 α =<MDA, β=<MDA		23-24' Same as above 24-26' Tuff, nonwelded, dry, few pumice, 5% phenocrysts 26-28' No Recovery	Qbo	957 **24' Qbo Contact**
29 30 31 32 33	2.5/5	PID=0.0 PID HS=1.2 α =<MDA, β=<MDA	 28-30.5' RE10-07-5420	28-30.5' Tuff, same as above 30.5-33' No Recovery		1001

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 50 (10-601148)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 8/11/2007	End Date: 8/11/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 38 dpm	β BV: 2290 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=0.0 PID HS=2.0 α =<MDA, β=<MDA		0-2' Silty fine-grained sand, moderately sorted, soft, dry, brown (5YR 5/2) 2-4' No Recovery		1120 1' auger stick-up
5 6 7 8 9	2.5/5	PID=0.0 PID HS=2.0 α =<MDA, β=<MDA		4-6.5' Same as above, slightly more silty, dry 6.5-9' No Recovery		1125
10 11 12 13 14	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-12' Fine-grained silty sand, dry, brown (5YR 5/2) 12-14' No Recovery	Qal	1130
15 16 17 18 19	3/5	PID=0.0 PID HS=3.8 α =<MDA, β=<MDA	14-16' RE10-07-5425	14-17' Sandy silt to silty sand, trace clay, few pumice fragments, poorly sorted, compact, mottled, few cobbles, possible fill material 17-19' No Recovery		1136
20 21 22 23 24	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22.5' Interbedded silt and sand with clay, very slightly moist, brown, at 22.5 possible Qbo contact 22.5-24' No Recovery		1141 **22.5' Qbo Contact?**
25 26 27 28 29	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27' Tuff?, nonwelded, slightly moist, 80% ash, 10% phenocrysts, some pumice fragments, light (7.5YR 7/2) 27-29' No Recovery	Qbo	1146
30 31 32 33 34	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	31-33' RE10-07-5424	29-33' Tuff, dry, large white pumice, possibly reworked tuff? 33-34' No Recovery		1151

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 51 (10-601149)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 8/10/2007	End Date: 8/10/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 33 dpm	β BV: 1931 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2/4	PID=3.4 PID HS=3.4 α =<MDA, β=<MDA	0-3' RE10-07-5429	0-3' Interlayered tuff cobbles and sandy silt, trace pebbles, silt is mostly ash 3-4' No Recovery		1120 1' auger stick-up
5 6 7 8 9	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-6' Sandy silt to silty sand, trace lithics, few pumice, dry, noncohesive, soft, brown (5YR 6/3) 6-9' No Recovery		1125
10 11 12 13 14	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-12' Interlayered sand silt and silty sand, soft, slightly cohesive, trace lithics, few pumice fragments, slightly moist 12-14' No Recovery	Qal	1130
15 16 17 18 19	3/5	PID=0.0 PID HS=3.8 α =<MDA, β=<MDA		14-18.4' Sandy silt with clay, large pumice fragments, stiff, brown (5YR 4/3), underlain by sandy silt with tuff cobbles 18.4-19' No Recovery		1136 **19' Qbo Contact?**
20 21 22 23 24	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-22' Reworked tuff, nonwelded, dry, ashy matrix (7.5YR 7/2), 10-15% phenocrysts of quartz and sanidine, 2-5% lithics, few mafics, large pumice fragments 22-24' No Recovery		
25 26 27 28 29	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27' Same as above 27-29' No Recovery	Qbo	1146
30 31 32 33 34	4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	30-32' RE10-07-5428	29-32' Same as above, grades to a well sorted massive silt interbedded with coarse-grained sand and ash 32-34' No Recovery		1151

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 52 (10-601150)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 8/10/2007	End Date: 8/10/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 33 dpm	β BV: 1931 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.5/4	PID=0.0 PID HS=3.4 α =<MDA, β=<MDA	0-.5' RE10-07-5432	0-0.5' Silty fine grained sand, dry, noncohesive, rooty, brown (5YR 5/2) 0.5-2.5' same as above 2.5-4' No Recovery		1610 1' auger stick-up
5 6 7 8 9	3.4/5	PID=1.7 PID HS=1.2 α =<MDA, β=<MDA	4-6' RE10-07-5434	4-7.4' Sandy silt to silty sand, few cobbles, looks disturbed, slightly moist, slight cohesive, stiff, porrly sorted, trace pumice clasts 6-9' No Recovery		1642
10 11 12 13 14	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-12.5' Same as above, cobbley, trace organic material, abundant pumice lapilli 12.5-14' No Recovery	Qal	1646
15 16 17 18 19	3/5	PID=0.0 PID HS=3.8 α =<MDA, β=<MDA		14-17' Same as above, organic-rich clayey layer at 15.5', darker than above (5YR 5/3) 17-19' No Recovery		1651
20 21 22 23 24	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		19-21.5' Reworked tuff?, nonwelded, dry, ashy matrix (7.5YR 7/2), 2-5% lithics, few mafics, large pumice fragments 22-24' No Recovery		1655 **19' Qbo Contact?**
25 26 27 28 29	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27' Same as above, more pumice rich than above 27-29' No Recovery	Qbo	1700
30 31 32 33 34	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	29-32' RE10-07-5433 RE10-07-5456	29-32' Same as above, grades to a well sorted massive silt interbedded with coarse-grained sand and ash 32-34' No Recovery		1705

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 53 (10-601151)	TA: Former TA-10	Drill Depth: 0-34 ft bgs	Total Pages: 1
Driller: Matt Cain/Shad Betts		Start Date: 8/11/2007	End Date: 8/11/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 38 dpm	β BV: 2290 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4	2.5/4	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-2.5' Silty fine to medium-grained sand, dry, soft, root material throughout, trace pebbles 2.5-4' No Recovery		840 1' auger stick-up
5 6 7 8 9	2.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		4-5.5' Same as above 5.5-6.5' Silty coarse-graine dsand wiht pebbles underlain by silty fine-grained sand, dry 6.5-9' No Recovery		843
10 11 12 13 14	3.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		9-12.7' Silty fine-graine sand with trace tuff cobbles, trace root material, stiff, compact, brown (5YR 6/3) 12.7-14' No Recovery	Qal	848
15 16 17 18 19	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		14-19' Silt with fine- to coarse-grained silt, pebbles, trace clay, roots throughout, weathered pumice fragments, slightly moist, stiff, light (7.5YR 7/3)		853
20 21 22 23 24	3.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	20.8-22.8' RE10-07-5437	19-22.5' Same as above, coarsens with depth 22.5-22.8 Tuff, nonwelded ?? 22.8-24' No Recovery		859 **22.5' Qbo Contact?**
25 26 27 28 29	3/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		24-27' Tuff, nonwelded, dry, peach ashy matrix (7.5YR 7/2), 3-5% pumice, 5-8% phenocryst, trace lithics, mostly ash 27-29' No Recovery	Qbo	904
30 31 32 33 34	3.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	30.5-32.5' RE10-07-5436	29-32.5' Tuff, same as above, ashy matric is lighter with depth (7.5YR 8/1), large dacite cobble 32.5-34' No Recovery		914

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID:54 (10-601182)	TA: Former TA-10	Drill Depth: 0-60 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/22/2007	End Date: 8/22/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 38 dpm	β BV: 2340 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3 4 5	1.9/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		0-1.9' Silty fine-grained sand with tuff cobbles, dry, noncohesive, soft 1.9-5' No Recovery		1121
6 7 8 9 10	2.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		5-7.2' Sandy silt with rounded pebbles and gravels, dry, noncohesive, poorly sorted 7-10' No Recovery		1125
11 12 13 14 15	2.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		10-12.2' Same as above, trace broken pumice 12.2-15' No Recovery	Qal	1130
16 17 18 19 20	0.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		15-15.6' Silty sand, brown, with rounded cobbles (nonnative) and pieces of asphalt debris 15.6-20' No Recovery		1136
21 22 23 24 25	3.1/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		20-23.1' Silt with sand, silt is mostly ash, few mafics, trace pumice, Tuff? reworked? 23.1-25' No Recovery		1143
26 27 28 29 30	3.7/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		25-28.3' Silt with welded tuff cobbles, generally same as above 28.3-28.7' Tuff, nonwelded, dry, light ashy matrix 28.7-30' No Recovery		1150 **28.3' Qbo Contact**
31 32 33 34 35	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	33-35' RE10-07-5616	30-35' Tuff, nonwelded, drt, same as above		1156
36 37 38 39 40	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		35-40' Tuff, same as above, abundant fibrous rounded pumice	Qbo	1204
41 42 43 44 45	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		40-45' Pumice, same as above		1208

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID:54 (10-601182)	TA: Former TA-10	Drill Depth: 0-60 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 8/22/2007	End Date: 8/22/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 38 dpm	β BV: 2340 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
46 47 48 49 50	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		45-48.9' Tuff, same as above, color change to more brown (10R 7/3) 48.9-50' Pumice, broken, ashy matrix, few lithics		1214 **48.9' Qbog Contact**
51 52 53 54 55	3.1/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		50-53.1' Pumice with abundant (30%) lithics, dry 53.1-55' No Recovery	Qbog	1220
56 57 58 59 60	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	58-60' RE10-07-5617	55-60' No Recovery		1226

BOREHOLE LOG

Bayo Canyon Aggregate Investigation

BH ID: 55 (10-601259)	TA: Former TA-10	Drill Depth: 0-53 ft bgs	Total Pages: 2
Driller: Matt Cain/Shad Betts		Start Date: 9/11/2007	End Date: 9/11/2007
Drilling Equipment/Method: CME 85 Hollow-Stem Auger		α BV: 60 dpm	β BV: 2200 dpm
Sampling Equipment/Method: 3" ID 5' Length Split-Barrel Sampler			Logged By: P. Baucom

DEPTH (ft bgs)	RECOVERY (ft/ft)	FIELD SCREENING RESULTS: PID (ppm)/gross-alpha, -beta	SAMPLE ID	LITHOLOGICAL DESCRIPTION	LITHOLOGY	NOTES
0 1 2 3	1.4/3	PID=0.0 PID HS=0.0 α =8, β=<MDA		0-1.4' Sandy silt with root material, very slightly moist, soft 1.4-3' No Recovery		1645 2' auger stick-up USED LEXAN LINER 0-28 ft bgs
4 5 6 7 8	1.3/5	PID=0.0 PID HS=0.0 α =<MDA, β=473		3-4.3' Silty sand 4.3-8' No Recovery		1650 Construction debris: 6-8 ft bgs
9 10 11 12 13	1.6/5	PID=0.0 PID HS=0.0 α =<MDA, β=43		8-9.6' Coarse-grained sand and silt with pumice fragments, dry, soft 9.6-13' No Recovery		1658
14 15 16 17 18	1.4/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA	13-19.5' RE10-07-6000	13-14.4' Same as above 14.4-18' No Recovery	Qal	1702
19 20 21 22 23	1.5/5	PID=0.0 PID HS=0.0 α =<MDA, β=48		18-19.5' Sandy silt with pumice fragments 19.5-23' No Recovery		1708
24 25 26 27 28	1.2/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		23-24.2' Sandy silt, compact 24.2-28' No Recovery		1713
29 30 31 32 33	2.8/5	PID=0.0 PID HS=0.0 α =49, β=114	28.8-30.8' RE10-07-5999	28-30.8' Bedded to laminated silt, sand, and clay with pumice, compact, very slighly moist, appears banded 30.8-33' No Recovery		1717
34 35 36 37 38	3.8/5	PID=0.0 PID HS=0.0 α =<MDA, β=<MDA		33-34.8' Large tuff cobble with silt 34.8-35.8' Pumice fragments in clay matrix; reworked guaje pumice 35.8-38' No Recovery		1723 **34.8' Qbog Contact**
39 40 41 42 43	5/5	PID=0.0 PID HS=0.0 α =132, β=303		38-43' Pumice, altered or weathered	Qbog	1727
44 45 46 47 48	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=222		43-48' Pumice, same as above, less altered		1731
49 50 51 52 53	5/5	PID=0.0 PID HS=0.0 α =<MDA, β=432	51-53' RE10-07-5998	48-53' Pumice, same as above		1736