

APPENDIX 6. LOGS OF DRILL HOLES

Logs of drill holes were compiled using LogPlot[®]. The drill hole and page numbers are designated at the bottom of each page. Elevations and distances are in feet in order to correlate with trench data; most other measurements are in metric units. Surveying was by Molycorp staff. Field observations and laboratory analyses in the drill logs are by New Mexico Tech field and laboratory personnel and are in the project database. Moisture content is by Norwest Corporation (2003).

NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-01 Elevation (ft) 9765.4 Date 4/22/06
 Total Depth (ft) 204.5 Location stable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
0	Unit C	GW	brownish gray	GHN-ACT-0001		3.46	0.905	0.22	80% Amalia Tuff, med den, minor silt clay
	Unit I	GW	yellowish gray	GHN-ACT-0002		3.13	1.474	0.83	80% Amalia Tuff, med den, minor silt clay, loose
	Unit I	GW	yellowish gray	GHN-ACT-0003		2.97	1.042	0.38	
	Unit I	GW	yellowish gray	GHN-ACT-0004		2.57	1.308	0.92	
	Unit J	GW	yellowish gray	GHN-ACT-0005		3.14	1.234	1.07	
	Unit N	GW	brownish gray	GHN-ACT-0006		3.77	1.004	0.47	gravel, med density, some sand, dry to slight moist, no mineralization visible, 40% Amalia tuff 1% pyrite in 60% rhyolite
	Unit N	GW	brownish gray	GHN-ACT-0007		4.23	1.542	0.55	sandy gravel, med density, slightly moist, minor clay, no

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-01 Elevation (ft) 9765.4 Date 4/22/06
 Total Depth (ft) 204.5 Location stable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
50	Unit N	GW	brownish gray and gray	GHN-ACT-0008		4.03	0.636	1.7	mineralization, 50% Amlia Tuff, 10% rhyolite, 40% compacted sand
	Unit N			GHN-ACT-0009		4.42	2.26	0.54	gravel, med density, slightly moist, some sand, minor silt and clay, 1-2% pyrite
	Unit O	GC	brown to brown gray	GHN-ACT-0010		6.34	2.68	0.45	clayey gravel, loose, med density, slightly moist some sand, clay
60	Unit O	GC	brown to brown gray	GHN-ACT-0011		7.11	1.417	0.42	
	Unit L	GC	brown to brownish gray	GHN-ACT-0012		6.9	1.394	0.63	gravel, med density, slight moist, some sand and clay, alteration evidence, mostly rhyolite
70	Unit L	GW	brownish gray	GHN-ACT-0013		6.68	1.189	0.94	gravel, med desity, slight moist, some sand, trace clay, minor pyrite, rhyolite and tuff
	Unit L	GW		GHN-ACT-0014		6.68	1.585	0.89	same as above 80% rhyolite
80	Unit L	GW	greenish gray to brown gray	GHN-ACT-0015		4.47	1.433	1.03	gravel, med density, slightly moist, some sand 80% andesite, 20% rhyolite
90	Unit M	GW	brownish gray	GHN-ACT-0016		5.5	1.256	1.16	sandy gravel, med density, slightly moist, trace clay, no mineralization, mostly rhyolite

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-01 Elevation (ft) 9765.4 Date 4/22/06
 Total Depth (ft) 204.5 Location stable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
100	Unit M	GW	brownish gray	GHN-ACT-0017		4.47	0.42	1.19	gravel, med density, slight moist, some sand and clay, no mineralization, mixture andesite, rhyolite and tuff
100	Unit M	GC	brownish gray	GHN-ACT-0018		2.98	1.56	0.06	gravel, med density, slight moist, some sand and clay, no mineralization, rhyolite and tuff
110	Unit M	GC	lt brown	GHN-ACT-0019		2.36	2.37	1.06	sandy clayey gravel, loose to med density, slightly moist to moist, no mineralization
120	Unit M	GC	yellowish gray	GHN-ACT-0020		2.41	1.67	0.74	sandy clayey gravel, loose to med density, slightly moist to moist, no mineralization
120	Unit M	GC	yellowish brown and gray	GHN-ACT-0021		2.71	5.21	0.1	increasing boulders?
130	Unit M	GC	brownish gray	GHN-ACT-0022		3.24	3.09	0.7	sandy gravel, med density, moist some clay, 1% pyrite in tuff clasts
140	rubble	GC		GHN-ACT-0023		3.49	1.704	1.43	sandy gravel, med density, slight moist, trace clay, andsite and rhyolite, pyrite visable in rhyolite
140	rubble	GW	lt brownish gray to greenish gray	GHN-ACT-0024		4.1	1.624	0.86	gravel, med density to dense, dry to slight moist, some sand, mixed lithology

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-01 Elevation (ft) 9765.4 Date 4/22/06
 Total Depth (ft) 204.5 Location stable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
	rubble	GW	lt brown to greenish gray	GHN-ACT-0023		4.05	1.624	1.31	gravel, med density to dense, slight moist to moist, some sand, some clay, mixed lithology
150	rubble	GC		GHN-ACT-0028		3.99	1.963	0.54	sandy gravel, med density to dense, brownish gray, slight moist, some clay, mixed lithology
	rubble	GW		GHN-ACT-0029		3.91	1.699	0.78	gravel, med dense to dense, lt brown to greenish gray, slight moist, some sand, minor clay, mixed lithology
160	rubble	GW		GHN-ACT-0030		3.62	2.19	0.68	as before
	rubble	GC		GHN-ACT-0031		3.64	1.572	0	sandy gravel, med dense, brown moist, some clay, mixed lithology
	rubble	GW		GHN-ACT-0032		3.19	1.009	0.3	sandy gravel, med dense, brownish gray, slightly moist, minor silt and clay, mixed lithology
180	coluvium			GHN-ACT-0033		2.4	1.393	2.04	gravel, dense, lt gray, dry, some sand, some silt, (pulverized rock) 1% pyrite, altered andesite? ~ 80% or rhyolite
	coluvium			GHN-ACT-0034		2.8	0.645	5.09	as before
190	bedrock			GHN-ACT-0035		3.1	0.987	7.09	as before (bedrock)
	bedrock			GHN-ACT-0036		3.1	1.26	4.85	as before (bedrock)

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**NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log**

Drill Hole Number TH-GN-01 Elevation (ft) 9765.4 Date 4/22/06
 Total Depth (ft) 204.5 Location stable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
200									

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GH-06 Elevation (ft) 9765.7 Date 4/22/06
 Total Depth (ft) 307.5 Location stable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
0	Unit C	GW	brown to gray	GHN-ACT-0108		3.78	1.166	1.03	gravel, sandy with cobbles and boulders, dry to slightly moist
	Unit C	GW		GHN-ACT-0109		4.17	1.298	0.98	
10			gray	GHN-ACT-0110	4.6				
	Unit I	GW		GHN-ACT-0111		6.23	1.449	0.8	
20	Unit I	GW	gray	GHN-ACT-0112	8.7	6.45	1.306	1.38	
	Unit I	GW		GHN-ACT-0113		7.43	0.553	1.03	
30	Unit M	GW	tan	GHN-ACT-0116	9.1	4.96	1.412	1.2	gravel, clayey sandy, cobbles, boulders, med. dense to dense, dry to slight moist, brown to gray
	Unit M	GW-GP		GHN-ACT-0117		3.58	1.802	0.75	
40	Unit M	GW-GP	gray	GHN-ACT-0118	3	3.59	1.244	0.25	

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GH-06 Elevation (ft) 9765.7 Date 4/22/06
 Total Depth (ft) 307.5 Location stable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
	Unit M	GW-GP		GHN-ACT-0119		3.41	1.155	0.24	
50	Unit M	GW-GP	yellow, brown	GHN-ACT-0120	8.4	3.41	0.812	0.05	
	Unit M	GW-GP		GHN-ACT-0121		3.52	1.047	0.11	
60	Unit M	GW-GP	brown	GHN-ACT-0122	10.8	3.56	1.051	0.21	
	Unit M	GW-GP		GHN-ACT-0123		3.54	1.349	0.18	
70	Unit M	GW-GP	brown	GHN-ACT-0124	9.8	3.56	1.442	0.48	
	Unit M	GW-GP		GHN-ACT-0125		3.59	1.241	0.45	
80	Unit M	GW-GP	brown	GHN-ACT-0126	9.9	3.75	1.112	0.1	
	Unit M	GW-GP		GHN-ACT-0127		4.02	0.628	0.06	
90	Unit M	GW-GP	brown	GHN-ACT-0128	2.7	3.88	0.623	0.14	

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GH-06 Elevation (ft) 9765.7 Date 4/22/06
 Total Depth (ft) 307.5 Location stable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
	Unit M	GW-GP		GHN-ACT-0129		3.89	1.119	0.16	
100	Unit M	GW-GP	tan	GHN-ACT-0130	5.4	5.37	1.147	1.13	
	Unit M	GW-GP		GHN-ACT-0131		4.11	1.179	1.47	
110	Unit M	GW-GP	brown	GHN-ACT-0132	12.5	4.05	0.462	0.55	
	rubble	GW-GP		GHN-ACT-0133		3.67	1.671	1.36	
120	rubble	GW-GP	tan	GHN-ACT-0134	7.9	3.55	0.747	0.19	
	rubble	GW-GP		GHN-ACT-0135		3.04	1.01	0.14	
130	rubble	GW-GP	tan	GHN-ACT-0138	8.9	3.16	1.321	0.24	
	rubble	GW-GP		GHN-ACT-0139		3.16	1.477	1.26	
140	rubble	GW-GP	yellow, brown	GHN-ACT-0140	2.1	3.22	1.342	1.14	

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Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GH-06 Elevation (ft) 9765.7 Date 4/22/06
 Total Depth (ft) 307.5 Location stable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
150	COLLUVIUM	GW-GP		GHN-AC1-0141		3.49	1.288	0.75	
		GW-GP	brown	GHN-ACT-0142	3.5	3.51	1.38	0.24	
		GW-GP		GHN-ACT-0143		3.41	1.403	0.86	
160		GW-GP	yellow, brown	GHN-ACT-0144	2.4	2.88	1.844	0.66	
		GW-GP		GHN-ACT-0145		3.17	2.27	0.7	
170		GW-GP	brown	GHN-ACT-0146	4.2	3.39	1.694	0.69	
		GW-GP		GHN-ACT-0147		3.38	1.394	0.1	
180		GW-GP	yellow gray	GHN-ACT-0148	2.7	3.27	1.655	0.87	
		GW-GP		GHN-ACT-0149		2.83	2.22	3	
190		GW-GP	yellow gray	GHN-ACT-0150	3.9	2.87	2.26	2.34	
		GW-GP		GHN-ACT-0151		2.84	1.505	1.33	

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**NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log**

Drill Hole Number TH-GH-06 Elevation (ft) 9765.7 Date 4/22/06
 Total Depth (ft) 307.5 Location stable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
200									

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-02S Elevation (ft) 9455.7 Date 4/22/06
 Total Depth (ft) 364 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
0				GHN-ACT-0037		3.5	1.15	0.7	
				GHN-ACT-0038		3.6	1.66	0.3	
10	SC-SM		yellow, gray	GHN-ACT-0039	11.6	4.5	0.84	0.15	silty clayey sand with gravel
				GHN-ACT-0040		4.8	0.73	0.26	
20	SC-SM		tan	GHN-ACT-0041	8.9	6.1	1.45	1.16	silty clayey sand with gravel
				GHN-ACT-0042		3.6	1.51	0.25	
30	SC-SM		grayish yellow	GHN-ACT-0043	10.6	5.1	1.75	1.09	silty clayey sand with gravel
				GHN-ACT-0044		5.3	1.98	1.7	
40	SC-SM		yellowish to light gray	GHN-ACT-0045	7.5	8.25	1.94	2.58	silty clayey sand with gravel

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-02S Elevation (ft) 9455.7 Date 4/22/06
 Total Depth (ft) 364 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
48.5				GHN-ACT-0046		7.42	1.65	2.45	
50.5	GW-GC		pinkish gray	GHN-ACT-0047	1.9	8.01	1.64	2.72	well graded gravel with clay and sand
55.5				GHN-ACT-0048		6.77	1.92	1.05	
60.5				GHN-ACT-0049		6.07	1.6	1.21	
65.5				GHN-ACT-0050		3.78	0.92	0.98	
70.5	GP-GC		yellow, orange with gray	GHN-ACT-0051	8	5.45	1.78	2.08	poorly graded gravel with clay and sand
75.5				GHN-ACT-0052		3.38	1.26	0.48	
80.5	SC		orange tan with gray	GHN-ACT-0053	6.98	5.05	1.69	2.89	clayey sand with gravel
85.5				GHN-ACT-0056		4.85	2.04	1.87	
90.5	SC		orange brown	GHN-ACT-0057	9.7	5.09	3.08	0.6	clayey sand with gravel

NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-02S Elevation (ft) 9455.7 Date 4/22/06
 Total Depth (ft) 364 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
95				GHN-ACT-0058		4.89	2.4	2.52	
100		SC	orange brown	GHN-ACT-0059	11.5	4.94	1.37	0.7	clayey sand with gravel
105				GHN-ACT-0060		4.54	1.69	1.14	
110		GP-GC	yellow gray	GHN-ACT-0061	7.8	4.73	2.05	0.45	poorly graded gravel with clay and sand
115				GHN-ACT-0062		4.49	2.94	1.35	
120				GHN-ACT-0063		6.76	1.59	0.41	
125				GHN-ACT-0064		5.41	2.54	0.66	
130	coluvium	GC	gray and orange	GHN-ACT-0065	9.3	5.07	1.54	0.26	clayey sand with gravel
135		SC	white tan	GHN-ACT-0066		3.51	1.17	0.34	clayey sand with gravel
138		SP-SC	brown gray		18.9				poorly graded gravel with clay and sand
140		SC	tan, bluish gray	GHN-ACT-0067		3.07	1.94	6.5	clayey sand
142	bedrock								

NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-04S Elevation (ft) 9256.4 Date 4/26/06
 Total Depth (ft) 126 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
0	WASTE ROCK			GHN-ACT-0071					
				GHN-ACT-0072					
10	GC		brown	GHN-ACT-0073	7.1	5.59	1.83		clayey gravel with sand
				GHN-ACT-0074		4.62	0.4		
20	SC		gray	GHN-ACT-0075	1.3	6.26	1.93		clayey gravel with sand
	COLLUVIUM			GHN-ACT-0076		4.72	2.11		
30	SC		tan	GHN-ACT-0077	7.8	4.07	2.14		clayey gravel with sand
				GHN-ACT-0078		3.65	2.14		
40	SC		gray	GHN-ACT-0079	8.7	3.82	1.88		clayey gravel with sand
	SC		tan		10.9				clayey gravel with sand

NEW MEXICO TECH WEATHERING STUDY

Goathill North Rock Pile

Drill Core Log

Drill Hole Number TH-GN-04S Elevation (ft) 9256.4 Date 4/26/06
 Total Depth (ft) 126 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
				GHN-ACT-0080		3.18	1.25		clayey gravel with sand
50	SC		tan, gray	GHN-ACT-0082	8.3	5.06	0.89		clayey gravel with sand
				GHN-ACT-0084		4.48	0.83		
60	SC		gray	GHN-ACT-0085	13.7	4.66	2.46		clayey sand
	SC		gray, yellow, tan		11				clayey sand
	SC		gray	GHN-ACT-0086	10.6	4.7	2.45		clayey sand with gravel
	SC		gray		8.68				clayey sand with gravel
	SC		gray		11.8				clayey sand
	SC		gray, brown	GHN-ACT-0087	11.8	5.51	2.09		clayey sand with gravel
70				GHN-ACT-0088	6.9	4.95	2.08		silty clayey gravel with sand
	SC		gray	GHN-ACT-0089	6.6	4.98	1.84		clayey sand with gravel
	SC		gray		12.4				clayey sand with gravel
80	SC		yellow, gray	GHN-ACT-0090	10.6	3.06	2.16		clayey sand with gravel
	SC		gray		8				clayey sand with gravel
	SC		gray	GHN-ACT-0091	5.3	5.07	1.83		clayey sand with gravel
90									weathered bedrock

NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-05S Elevation (ft) 9073 Date 4/26/06
 Total Depth (ft) 212.5 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
0	COLUVIUM			GHN-ACT-0092		7.83	1.91	0.86	
				GHN-ACT-0093		7.79	0.39	0.21	
				GHN-ACT-0094		5.06	1.85	0.53	
				GHN-ACT-0095		4.24	2.23	1.06	
20	SM		orange, tan	GHN-ACT-0096	29.9	4.22	2.17	0.33	silty sand
	SM		orange, tan		17.7				silty sand with gravel
	SM		orange, light brown	GHN-ACT-0097	19.6	5.68	1.98	0.57	silty sand with gravel
30	SC		orange, light brown	GHN-ACT-0098	19.5	4.07	1.054	0.36	clayey sand with gravel
				GHN-ACT-0099		5.23	0.955	0.6	
40	GW-GM		gray, brown	GHN-ACT-0100	5.4	4.85	1.391	1.33	well graded gravel with silt and sand

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-05S Elevation (ft) 9073 Date 4/26/06
 Total Depth (ft) 212.5 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
				GHN-ACT-0101		4.33	0.898	0.94	
50	GM		gray, orange	GHN-ACT-0102	14.7	4.88	0.839	0.86	silty sand with gravel
	SC		orange, brown, light gray	GHN-ACT-0103	13.3	3.89	1.002	1.57	clayey sand with gravel
60	SC		orange, tan	GHN-ACT-0104	13.2	3.73	1.178	2.01	clayey sand with gravel
				GHN-ACT-0105		3.68	1.179	2.27	
70	SC		blueish gray, brown gray	GHN-ACT-0106	15.8	3.72	1.564	2.56	clayey sand with gravel
	SC				10.9				clayey sand with gravel
	SC		orange, brown		10.8				clayey sand with gravel
				GHN-ACT-0107		4.21	1.264	1.01	
80									weathered bedrock
90									Amalia Tuff

NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-07S Elevation (ft) 9327.9 Date 4/26/06
 Total Depth (ft) 172 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
0	mine rock			GHN-ACT-0162		3.33	1.378	0.78	
				GHN-ACT-0163		4.67	1.402	0.61	
10	SC		light brown	GHN-ACT-0166		6.88	0.898	0.25	clayey sand with gravel
				GHN-ACT-0167		3.63	1.281	0.26	
20	GW		tan	GHN-ACT-0168		4.23	1.206	0.97	well graded gravel with sand
				GHN-ACT-0169		3.41	1.736	0.89	
30	GP-GC		yellow, gray	GHN-ACT-0170		3.84	1.247	1.09	poorly graded gravel with clay and sand
				GHN-ACT-0171		3.92	1.04	1.17	
40	GC		yellow, brown	GHN-ACT-0172		3.09	1.255	1.09	clayey gravel with sand

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-07S Elevation (ft) 9327.9 Date 4/26/06
 Total Depth (ft) 172 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
48.5				GHN-ACT-0173	3.56	1.009	2.57		
50.5	GC		yellow, gray	GHN-ACT-0174	3.12	2.12	2.66		clayey gravel with sand
55.5				GHN-ACT-0175	3.17	2.68	2.79		
59.5	GC		yellow, gray	GHN-ACT-0176	2.55	4.25	1.79		clayey gravel with sand
60.0	colluvium								
65.5				GHN-ACT-0177	2.76	5.01	2.13		
69.5	GP-GC		yellow, gray	GHN-ACT-0178	3.61	4.33	2.39		poorly graded gravel with clay and sand
74.5				GHN-ACT-0179	3.34	3.04	0.55		
79.5	GC		tan	GHN-ACT-0180	3.2	3.58	0.8		clayey gravel with sand
84.5				GHN-ACT-0181	2.86	3.72	1.56		
89.5	GW		yellow, gray	GHN-ACT-0182	4.56	1.87	0.9		clayey sand

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-07S Elevation (ft) 9327.9 Date 4/26/06
 Total Depth (ft) 172 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
95 - 115	weathered Amalia Tuff	SC	yellow, gray	GHN-ACT-0183		3.9	2.86	4.2	clayey sand
		SC	yellow, gray						silty clayey sand
		SC	gray						
		SC-SM	gray	GHN-ACT-0184		4.47	2.68	4.33	
115 - 118				GHN-ACT-0185		4.01	3.07	8.27	
122 - 130	Amalia Tuff								

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-10 Elevation (ft) 8980.6 Date 4/26/06
 Total Depth (ft) 122.5 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
0	colluvium			GHN-ACT-0186		5.78	2.8	0.91	
				GHN-ACT-0187		7.01	1.89	0.51	
				GHN-ACT-0188		7.09	1.71	1.13	
				GHN-ACT-0189		3.68	1.92	0.61	
				GHN-ACT-0190		4.65	2.09	0.43	
				GHN-ACT-0192		3.88	2.98	0.56	
				GHN-ACT-0194		3.61	1.99	0.83	
				GHN-ACT-0195				0.41	
				GHN-ACT-0196				1.97	

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-10 Elevation (ft) 8980.6 Date 4/26/06
 Total Depth (ft) 122.5 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
50		CL	gray, yellow, brown	GHN-ACT-0197				1.05	sandy clay
				GHN-ACT-0198				1.03	
	weathered andesite			GHN-ACT-0199				1.51	
60	andesite			GHN-ACT-0200				1.97	
				GHN-ACT-0201				2.38	
70				GHN-ACT-0202				5.12	
80				GHN-ACT-0203				13.54	

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-12S Elevation (ft) 9277.1 Date 4/26/06
 Total Depth (ft) 193 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
0	colluvium			GHN-ACT-0204		3.57	1.97	1.29	
				GHN-ACT-0205		4.17	1.33	1.8	
10	GC		light brown	GHN-ACT-0206	9.1	4.51	1.32	0.49	clayey gravel with sand
				GHN-ACT-0207		4.78	1.55	1.11	
20	SC-SM		orange tan	GHN-ACT-0208	8.8	5.7	2.12	0.3	silty clayey sand with gravel
				GHN-ACT-0209		6.32	2.2	0.26	
30	SC-SM		light brown	GHN-ACT-0210	8.8	6.68	2.19	0.19	silty clayey sand with gravel
				GHN-ACT-0211		7.17	2.25	0.24	
40	SC-SM		light brown	GHN-ACT-0212	9.2	7.02	2.22	0.54	silty clayey sand with gravel

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-12S Elevation (ft) 9277.1 Date 4/26/06
 Total Depth (ft) 193 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
				GHN-ACT-0213		7.05	1.78	0.21	
50	SC-SM		light brown	GHN-ACT-0214	10.2	7.11	2.15	0.27	silty clayey sand with gravel
				GHN-ACT-0215		8.42	2.14	0.3	
60	SC-SM		gray brown	GHN-ACT-0216	12.6	8.23	2.11	0.36	silty clayey sand with gravel
				GHN-ACT-0217		8.44	2.25	0.45	
70	SM		black, dark brown	GHN-ACT-0218 GHN-ACT-0219 GHN-ACT-0220	12.7	5.92	2.4	0.3	silty sand with gravel
				GHN-ACT-0221		6.14	2.19	0.37	
80	SC		orange tan gray	GHN-ACT-0222	13.3	6.23	2.1	1.65	clayey sand with gravel
				GHN-ACT-0223	6.9	3.26	2.08	6.93	silty clayey sand with gravel
90	SC-SM		gray	GHN-ACT-0224	6.8	3.31	2.03	6.7	silty clayey sand with gravel

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NEW MEXICO TECH WEATHERING STUDY
Goathill North Rock Pile
Drill Core Log

Drill Hole Number TH-GN-12S Elevation (ft) 9277.1 Date 4/26/06
 Total Depth (ft) 193 Location unstable portion Logged by VTM

Depth (ft)	Unit	Texture	Color	Sample Number	Moisture Content %	Paste pH	Paste Conductivity	Pyrite %	Comments
				GHN-ACT-0225		3.64	2.04	12.02	
	SC-SM		light gray	GHN-ACT-0226	8.9	3.57	1.85	3.65	silty clayey sand with gravel
100	SC		light gray		11.6				clayey sand
	SC		light gray, gray		11.8				clayey sand
				GHN-ACT-0227		4.25	1.81	2.61	
	SC		light gray	GHN-ACT-0228	10.6	6.09	2.05	4.19	clayey sand
110				GHN-ACT-0229		6.67	1.91	4.14	
				GHN-ACT-0230		6.97	2.14	4.12	
120	SC		light gray	GHN-ACT-0231	21.5	6.55	1.89	4.78	clayey sand with gravel
				GHN-ACT-0232		5.26	2.23	6.07	
130				GHN-ACT-0233		3.94	2.03	6.39	
	SC		light gray		5.3				clayey sand with gravel
140									

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