

Appendix C

Borehole Logs

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600119

Date: 8/18/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

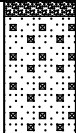
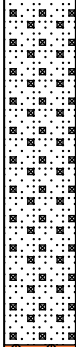
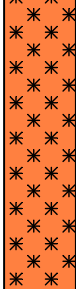
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.5

LATA Sampler: Kevin Smith

Total Depth (ft): 25

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	674					ALLH	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 51 ↓	0	NDA	675					QAL	(0.5, 15.5) QAL: Brown silty sand and gravel, local cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 30 ↓										
15	↑ 26 ↓	0	NDA	676					QBO	(15.5, 25.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	↑ 100 ↓										
25											TD = 25 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600120

Date: 8/15/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

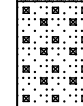
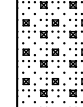
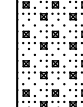
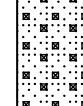
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.2

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	678						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 62 ↓	1.5	NDA	679	722				QAL	(0.5, 15.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 56 ↓										
15	↑ 44 ↓	0	NDA	680					QBO	(15.2, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600121

Date: 8/17/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 11.7

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.8

LATA Sampler: Kevin Smith

Total Depth (ft): 25

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	682						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 53 ↓	0	NDA	683						(0.5, 15.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 46 ↓	0	NDA	685		saturated	▼				
15	↑ 32 ↓	1	NDA	684	723						
20	↑ 94 ↓									(15.8, 25.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
25											TD = 25 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600123

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 9.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	689						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 2 to 3.7 ft samples were collected using a hand auger.
0	0	0	NDA	690							
5	0	0	NDA	691						(0.5, 9.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	52								QAL		TD = 9.5 ft.

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Borehole Location ID: 02-600124

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

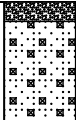
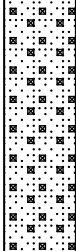
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 9.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	692						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
42	↑ 42 ↓	0	NDA	693						(0.5, 9.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↑ 52 ↓	0	NDA	694							
									QAL		
											TD = 9.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600125

Date: 8/27/2007

TA-02

Attitude: Vertical

AOC 02-003(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present





Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	696						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 64 ↓	0	NDA	697	731				QAL	(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 46 ↓	0	NDA	698							
15	↑ 100 ↓	0	NDA	699					QBO	(14.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600126

Date: 8/27/2007

TA-02

Attitude: Vertical

AOC 02-003(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 11.5

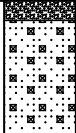
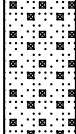
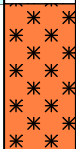
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.7

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger ↓	0	NDA	701					ALLH	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 4.5 to 5.2 ft samples were collected using a hand auger.
5	↑ 0 ↓	0	NDA	702					QAL	(0.5, 15.7) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 64 ↓	0	NDA	703		saturated	▲				
15	↑ 100 ↓	0	NDA	704					QBO	(15.7, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600127

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-003(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 11.2

LATA Sampler: Kevin Smith

Total Depth (ft): 14.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	706						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 38 ↓	0	NDA	707					QAL	(0.5, 11.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 64 ↓	0	NDA	708		saturated			QBO	(11.2, 14.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600128

Date: 9/13/2007

TA-02

Attitude: Vertical

AOC 02-003(b)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

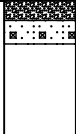
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 1.1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	711					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.	
5									(0.5, 1.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
10										TD = 1.1 ft.	

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600129

Date: 9/13/2007

TA-02

Attitude: Vertical

AOC 02-003(b)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

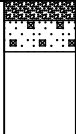
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 1.3

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	716						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5										(0.5, 1.3) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1.3 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600196

Date: 8/17/2007

TA-02

Attitude: Vertical

AOC 02-003(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 16.8

LATA Sampler: L. Sabatino

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	6177 806						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 38 ↓	0	NDA	807					QAL	(0.5, 16.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 30 ↓								QBO	(16.8, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.
15	↑ 10 ↓										
20		2.2	NDA	808	846						

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Borehole Location ID: 02-600197

Date: 9/18/2007

TA-02

Attitude: Vertical

AOC 02-003(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14.5

LATA Sampler: Mark Cummings

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	810						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 54 ↓	0	NDA	811	849				QAL	(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 50 ↓	0	NDA	813		saturated	▲				
15	↑ 80 ↓	0	NDA	812					QBO	(14.5, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600198

Date: 9/15/2007

TA-02

Attitude: Vertical

AOC 02-003(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 19.5

LATA Sampler: Mark Cummings

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA NDA	814						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	64 ↓			815						(0.5, 19.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	22 ↓					saturated	↓		QAL		
15	44 ↓	0	NDA	817							
20	36 ↓										
	50 ↓	0	NDA	816					QBO	(19.5, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600199

Date: 9/16/2007

TA-02

Attitude: Vertical

AOC 02-003(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 14.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	818						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	819					QAL	(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal to 14.5 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 0 ↓					water in barrel					TD = 14.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600200

Date: 9/16/2007

TA-02

Attitude: Vertical

AOC 02-003(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 17.8

LATA Sampler: Mark Cummings

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	822	847					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	823						(0.5, 17.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 36 ↓	0	NDA	825		wet			QAL		
15	↑ 34 ↓	0	NDA	824					QBO	(17.8, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600201

Date: 9/18/2007

TA-02

Attitude: Vertical

AOC 02-003(c)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.9

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	826					↑	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 51 ↓	0	NDA	827					↑	(0.5, 16.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 40 ↓	0	NDA	829		wet			↑		
15	↑ 48 ↓	0	NDA	828					↓		
20	↑ 56 ↓								↑	(16.9, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
									↓		TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600202

Date: 9/17/2007

TA-02

Attitude: Vertical

AOC 02-003(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 6.2

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0		0	NDA	830						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5		0	NDA	831					QAL	(0.5, 6.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 6.2 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 6.2 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600203

Date: 9/18/2007

TA-02

Attitude: Vertical

AOC 02-003(c)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 15.5

LATA Sampler: Kevin Smith

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	834						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 42 ↓	0	NDA	835						(0.5, 15.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 44 ↓	0	NDA	837		wet					
15	↑ 50 ↓	0	NDA	836						(15.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600204

Date: 9/17/2007

TA-02

Attitude: Vertical

AOC 02-003(c)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 19

LATA Sampler: Mark Cummings

Total Depth (ft): 24

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	838						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 50 ↓	0	NDA	839						(0.5, 19.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 36 ↓	0	NDA	841		saturated	▼		QAL		
15	↑ 40 ↓										
20	↑ 50 ↓	0	NDA	840	848				QBO	(19.0, 24.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600205

Date: 9/19/2007

TA-02

Attitude: Vertical

AOC 02-003(c)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: V. Carter

Total Depth (ft): 1.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	842						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that encountered refusal at 1.5 ft.
5										(0.5, 1.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600206

Date: 8/15/2007

TA-02

Attitude: Vertical

AOC 02-003(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 19.5

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	858						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 58 ↓	0	NDA	859						(0.5, 19.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 42 ↓	0	NDA	860					QAL		
15	↑ 46 ↓										
20	↑ 78 ↓	0	NDA	861	878				QBO	(19.5, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600207

Date: 8/18/2007

TA-02

Attitude: Vertical

AOC 02-003(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14.9

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.2

LATA Sampler: Kevin Smith

Total Depth (ft): 18.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	863						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 78 ↓	0	NDA	864	879					(0.5, 15.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 42 ↓	0	NDA	865							
15	↑ 62 ↓	0	NDA	866		saturated	▲			(15.2, 18.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Banderliel Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600208

Date: 8/30/2007

TA-02

Attitude: Vertical

AOC 02-003(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14.5

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 16

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	868						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	869						(0.5, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 62 ↓	0	NDA	870							
15	↑ 50 ↓	0	NDA	871		saturated	▲			(16.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600209

Date: 8/17/2007

TA-02

Attitude: Vertical

AOC 02-003(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.8

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	873						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 90 ↓	0	NDA	874						(0.5, 15.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 54 ↓	0	NDA	875							
15	↑ 52 ↓	0	NDA	876		moist to wet				(15.8, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600210

Date: 9/13/2007

TA-02

Attitude: Vertical

AOC 02-008(c)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: M. Cummings

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	884						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that encountered refusal at 0.5 ft.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600211

Date: 8/17/2007

TA-02

Attitude: Vertical

AOC 02-011(b)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	892						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft due to rocks.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600212

Date: 8/17/2007

TA-02

Attitude: Vertical

AOC 02-011(b)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	897						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft due to rocks.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600213

Date: 8/17/2007

TA-02

Attitude: Vertical

AOC 02-011(b)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	902						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft due to rocks.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600214

Date: 8/17/2007

TA-02

Attitude: Vertical

AOC 02-011(b)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	907						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft due to rocks.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600215

Date: 8/30/2007

TA-02

Attitude: Vertical

AOC 02-011(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14.3

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	912						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 2 to 2.4 ft samples were collected using a hand auger.
0	0	0	NDA	913							
5	42	0	NDA	914							
10	38	0	NDA	916		wet			QAL	(0.5, 14.3) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
15	100	0	NDA	915					QBO	(14.3, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600216

Date: 9/5/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: M. Cummings

Total Depth (ft): 0.75

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	926, 6885						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft samples were collected using a hand auger that was refused at 0.75 ft due to rocks.
5										(0.5, 0.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 0.75 ft.
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600217

Date: 9/12/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: M. Cummings

Total Depth (ft): 0.8

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	929, 6888	975					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 0.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The 0 to 0.5 ft samples were collected using a hand auger that was refused at 0.8 ft due to rocks. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 0.8 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600218

Date: 9/6/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: M. Cummings

Total Depth (ft): 5.25

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	932, 6891					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	933, 6892	977				↑ QCT	(0.5, 2.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓	0	NDA	934, 6893					↓ QCT	(0.5, 5.3) QCT: Yellowish brown silty sand with some weathered tuff fragments	
10											TD = 5.25 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QCT = Quaternary Cerro Toledo volcanics, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600219

Date: 8/6/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

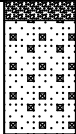
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: J. Garduno

Total Depth (ft): 3.4

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	935					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 3.4 ft due to rocks.
		0	NDA	936							
		0	NDA	937	974					(0.5, 3.4) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5											
10											TD = 3.4 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600220

Date: 9/5/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: M. Cummings

Total Depth (ft): 1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	938, 6894	976					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 1.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The 0 to 0.5 ft sample was collected using a hand auger. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 1 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600221

Date: 9/6/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

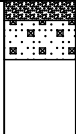
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: M. Cummings

Total Depth (ft): 1.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	941, 6897						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1.5 ft due to rocks.
5										(0.5, 1.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600222

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: M. Cummings

Total Depth (ft): 1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	944, 6900						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1 ft due to rocks.
5										(0.5, 1.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600223

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: M. Cummings

Total Depth (ft): 1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	947, 6903						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1 ft due to rocks.
5										(0.5, 1.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600224

Date: 9/12/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

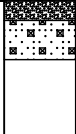
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 1.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	950 6906					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1.5 ft due to rocks.	
5									(0.5, 1.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
10										TD = 1.5 ft.	

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600225

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: J. Garduno

Total Depth (ft): 1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	953, 6909						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1 ft due to rocks.
5										(0.5, 1.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600226

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

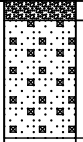
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 3.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	956, 6912					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that encountered refusal at 3.5 ft.
5		0	NDA	957, 6913						(0.5, 3.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 3.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600227

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 5.7

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	959, 6915						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	960, 6916							This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	961, 6917						(0.5, 5.7) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5.7 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600228

Date: 9/17/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

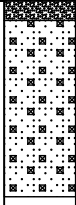
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: V. Carter

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	962, 6918						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	963, 6919					↑ QAL		This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓	0	NDA	964, 6920					↓	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600229

Date: 9/19/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): 4

LATA Sampler: James McDaniel

Total Depth (ft): 5.7

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	965, 6921				ALLH	QAL ↑	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
	hand auger	0	NDA	966, 6922					QAL ↓	(0.5, 4.0) QAL: Dark gray brown sandy silt with tuff pebbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓	0	NDA	967, 6923					QCT	(4.0, 5.7) QCT: Light brownish orange silty sand and some gravel.	
10											TD = 5.7 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QCT = Quaternary Cerro Toledo volcanics, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600230

Date: 9/19/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

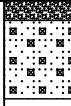
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: James McDaniel

Total Depth (ft): 2.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	968, 6924					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 2.5 ft due to rocks.
5		0	NDA	969, 6925						(0.5, 2.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 2.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600231

Date: 9/22/2007

TA-02

Attitude: Vertical

AOC 02-003(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): 4.1

LATA Sampler: Mark Cummings

Total Depth (ft): 5.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	971, 6927	978				QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
0		0	NDA	972, 6928					↑ QBT3	(0.5, 2.0) QAL: Dark gray brown sandy silt with tuff pebbles	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	973, 6929					↓ QBT3	(2.0, 5.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	TD = 5.5 ft.
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600247

Date: 9/25/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 1

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1025						(0.0, 1.0) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0.5	↑	0	NDA	1030							
1	↓										
5	↑	0	NDA	1026						(1.0, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
6.5	↓										
10	↑	0	NDA	1027							
11.5	↓										
15	↑	0	NDA	1028							
16.5	↓										
20	↑	0	NDA	1029							
21.5	↓										
24.5	↓								QBT3		TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600248

Date: 9/25/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 1.7

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1031						(0.0, 1.7) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0	0	0	NDA	1036							
5	↕ 48 ↕	0	NDA	1032						(1.7, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↕ 56 ↕	0	NDA	1033							
15	↕ 54 ↕	0	NDA	1034							
20	↕ 100 ↕	0	NDA	1035					QBT3		
											TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600249

Date: 9/27/2007

TA-02

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 1

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1037						(0.0, 1.4) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0	0	0	NDA	1042	1097						
5	↑ 56 ↓	0	NDA	6673						(1.4, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 100 ↓	0	NDA	6672							
15	↑ 100 ↓	0	NDA	6671							
20	↑ 100 ↓	0	NDA	6674							
									QBT3		TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600250

Date: 9/26/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 1

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA NDA	1043						(0.0, 1.0) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0.5	0			1048							
5	80	0	NDA	1044						(1.0, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	78	0	NDA	1045	1101						
15	52	0	NDA	1046							
20	68	0	NDA	1047							
									QBT3		TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600251

Date: 9/24/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 0.8

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA NDA	1049						(0.0, 0.8) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0.8	↑	0		1054							
5	↑	0	NDA	1050						(0.8, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑	0	NDA	1051	1099				QBT3		
15	↑	0	NDA	1052							
20	↑	0	NDA	1053							
24.5	↑										TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600252

Date: 9/28/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 1.2

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1055						(0.0, 1.2) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0	↑	0	NDA	1060							
5	↓	0	NDA	1056						(1.2, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5	↑	68									
10	↓	0	NDA	1057							
10	↑	72									
15	↓	0	NDA	1058	1100						
15	↑	76									
20	↓	0	NDA	1059							
20	↑	48									
									QBT3		TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600253

Date: 9/28/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 2

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1061					ALLH	(0.0, 2.0) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0	0	0	NDA	1066							
5	94	0	NDA	1062						(2.0, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	50	0	NDA	1063							
15	56	0	NDA	1064							
20	54	0	NDA	1065							
									QBT3		TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600254

Date: 9/27/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 1.5

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1067						(0.0, 1.0) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0	0	0	NDA	1072							
5	↕ 64 ↖	0	NDA	1068	1102					(1.0, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↕ 64 ↖	0	NDA	1069							
15	↕ 62 ↖	0	NDA	1070							
20	↕ 82 ↖	0	NDA	1071					QBT3		
											TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600255

Date: 9/23/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 0.8

LATA Sampler: Jon Roberson

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA NDA	1073						(0.0, 0.8) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0.8	↑	0	NDA	1074						(0.8, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5	↑	0	NDA	1075							
10	↑	0	NDA	1076							
15	↑	0	NDA	1077							
20	↑	0	NDA								
24.5	↑	0	NDA								TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600256

Date: 9/24/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 1.7

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA NDA	1079	1098					(0.0, 1.7) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0	0			1084							
5	↑ 60 ↓	0	NDA	1080						(1.7, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 60 ↓	0	NDA	1081							
15	↑ 60 ↓	0	NDA	1082							
20	↑ 60 ↓	0	NDA	1083							
									QBT3		TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600257

Date: 9/28/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 1

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1085						(0.0, 1.0) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0	0			1090							
5	64	0	NDA	1086						(1.0, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	88	0	NDA	1087							
15	76	0	NDA	1088							
20	82	0	NDA	1089							
									QBT3		TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600258

Date: 9/27/2007

TA-61

Attitude: Vertical

SWMU 02-006(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 1

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1091						(0.0, 1.0) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and soil/tuff interface samples were collected using a hand auger.
0	0		NDA	1096							
5	84	0	NDA	1092	1103					(1.0, 24.5) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	84		NDA	1093							
15	100		NDA	1094							
20	76		NDA	1095							
									QBT3		TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600259

Date: 9/17/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

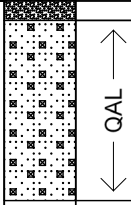
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 5.1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1128						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	1129							This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	1130					QAL	(0.5, 5.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5.1 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600260

Date: 9/16/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: Daniel Salazar

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 7.2

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1131						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0.5	↕ 69 ↕	0	NDA	1132					QAL	(0.5, 7.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↕ 63 ↕	0	NDA	1133							
10											TD = 7.2 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600261

Date: 9/17/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: V. Carter

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1134					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	All samples were collected using a hand auger. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
		0	NDA	1135							
5	↓ hand auger	0	NDA	1136							
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600262

Date: 9/17/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

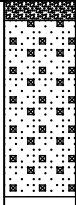
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1137	3814					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	1138							This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	1139						(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600263

Date: 9/17/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1146					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
5	↓ hand auger	0	NDA	1141					QAL	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10				1142							TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600264

Date: 9/17/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1143					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.	
		0	NDA	1144					↑ QAL		This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓	0	NDA	1145					↓	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600265

Date: 9/17/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1140						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	All samples were collected using a hand auger. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 5 ft.
		0	NDA	1146							
		0	NDA	1147							
5	↓ hand auger	0	NDA	1148							
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600266

Date: 9/18/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1149					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.	
		0	NDA	1150					↑ QAL		This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓	0	NDA	1151					↓	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600267

Date: 8/4/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 5.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger ↓	0	NDA	1152					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 5.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	All samples were collected using a hand auger. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
		0	NDA	1153	1197						
5		0	NDA	1154							
10											TD = 5.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600268

Date: 9/18/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: James McDaniel

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1155					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.	
		0	NDA	1156					↑ QAL		This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓	0	NDA	1157					↓	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600269

Date: 9/17/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: V. Carter

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1158					↑ QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	1159							This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	1160					↓ QAL	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600270

Date: 9/17/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

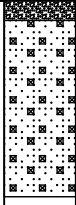
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1161	1199					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	1162							This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	1163						(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600271

Date: 9/18/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: V. Carter

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1164						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	1165							This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	1166						(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600272

Date: 9/16/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

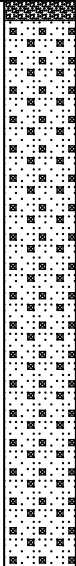
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Vanessa Carter

Total Depth (ft): 14.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	1167						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a HSA core barrel.
56	↓	0	NDA	1168							The borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↑	0	NDA	1169	1198					(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
40	↓										
10	↑								QAL		
50	↓										TD = 14.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600273

Date: 9/16/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Vanessa Carter

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1170					↑ QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	1171							This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	1172					↓ QAL	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600274

Date: 9/15/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 10

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1173						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	56	0	NDA	1174						(0.5, 10.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	40	0	NDA	1175					QAL		TD = 10 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600275

Date: 9/17/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

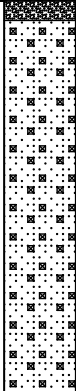
Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 10

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0		0	NDA	1176						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a HSA core barrel.
4.5	45	0	NDA	1177							The borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5		0	NDA	1178						(0.5, 10.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10	54								QAL		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600276

Date: 9/18/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: James McDaniel

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1179					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	All samples were collected using a hand auger. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
		0	NDA	1180							
5	↓ hand auger	0	NDA	1181							
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600277

Date: 8/6/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1182					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.	
		0	NDA	1183	1203				↑ QAL		This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	1184					↓ QAL	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600278

Date: 9/17/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present


Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 1.7

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1185					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 1.7) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1.7 ft due to rocks. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 1.7 ft.	
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600279

Date: 9/18/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1188					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.	
		0	NDA	1189					↑ QAL		This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	1190					↓ QAL	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600280

Date: 9/18/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: James McDaniel

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1191						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	1192					↑ QAL		This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	1193					↓ QAL	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600281

Date: 9/18/2007

TA-02

Attitude: Vertical

SMWU 02-009(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: James McDaniel

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1194					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.	
		0	NDA	1195					↑ QAL		This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	1196	1200				↓ QAL	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600282

Date: 8/11/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 13

LATA Sampler: Kevin Smith

Total Depth (ft): 18

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	1218						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0 ↓	0	NDA	1219						(0.5, 13.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	80 ↑	0	NDA	1222		saturated	▲				
15	44 ↓	0	NDA	1221	1277					(13.0, 18.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18 ft.
	100 ↓								QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600283

Date: 8/10/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 11.8

LATA Sampler: Kevin Smith

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1223	1274					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0.9	0	0.9	NDA	1224					QAL	(0.5, 11.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
3.6	36	0	NDA	1226							
4.2	42	0	NDA	1225							
8.4	84								QBO	(11.8, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20											TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600284

Date: 8/10/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14.3

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1228						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 30 ↓	0	NDA	1229					QAL	(0.5, 14.3) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 56 ↓	0	NDA	1232					QAL		
15	↑ 100 ↓	0	NDA	1231		wet			QBO	(14.3, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600285

Date: 8/8/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 19.25

LATA Sampler: Kevin Smith

Total Depth (ft): 25

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	1233						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	67 ↑ ↓	0	NDA	1234						(0.5, 19.3) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	60 ↑ ↓								QAL		
15	40 ↑ ↓	0	NDA	1236							
	100 ↑ ↓										
20	0 ↑ ↓										
25	100 ↑ ↓	0.7	NDA	1235	1273				QBO	(19.3, 25.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 25 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600286

Date: 8/7/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 12.5

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 18.8

LATA Sampler: Dave Frank

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1238						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0.5	62	0	NDA	1239						(0.5, 18.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	30	0	NDA	1240							
10	56	0	NDA	1242		saturated	▼		QAL		
15	58	0	NDA	1241					QF	(18.8, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600287

Date: 8/11/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 10.3

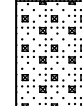

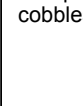


Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14.2

LATA Sampler: Kevin Smith

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1243						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 57 ↓	0	NDA	1244						(0.5, 14.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 24 ↓	0	NDA	1246		saturated	▼				
15	↑ 50 ↓	0	NDA	1245						(14.2, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	↑ 100 ↓										TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600288

Date: 8/9/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 13.9

LATA Sampler: Kevin Smith

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1248						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	80 ↑ 50 ↓	0	NDA	1249						(0.5, 13.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	75 ↑ 75 ↓	0	NDA	1251		wet					
15		0	NDA	1250					QBC	(13.9, 15.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 15 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600289

Date: 8/9/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 11.8

LATA Sampler: Kevin Smith

Total Depth (ft): 17

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1253						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0.5	92										
5	45	0	NDA	1254						(0.5, 11.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	40	0	NDA	1255	1275						
15	90									(11.8, 17.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 17 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600290

Date: 8/11/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 13.2

LATA Sampler: Kevin Smith

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1258						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 64 ↓	0	NDA	1259					QAL	(0.5, 13.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 76 ↓	0	NDA	1261		wet					
15	↑ 50 ↓	0	NDA	1260	1276				QBO	(13.2, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	↑ 100 ↓										TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Banderlier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600291

Date: 8/7/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 11

LATA Sampler: Dave Frank

Total Depth (ft): 17

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1263						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
4.0	40										
5.0	65	0	NDA	1264						(0.5, 11.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10.0	40	0	NDA	1266		saturated					
15.0	96	0	NDA	1265						(11.0, 17.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 17 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600292

Date: 8/8/2007

TA-02

Attitude: Vertical

AOC 02-006(e)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present


Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 1.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1268						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1.5 ft due to rocks.
5										(0.5, 1.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600351

Date: 8/13/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 18.5

LATA Sampler: Kevin Smith

Total Depth (ft): 22.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1407	1492					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 64 ↓	0	NDA	1408						(0.5, 18.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 22 ↓	0	NDA	1410		wet			QAL		
15	↑ 100 ↓	0	NDA	1409	1493						
20	↑ 80 ↓								QBO	(18.5, 22.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600352

Date: 9/12/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 18

LATA Sampler: L. Sabatino

Total Depth (ft): 21

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1412						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	1413						(0.5, 18.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 40 ↓	0	NDA	1415		saturated	▼		QAL		
15	↑ 60 ↓										
20	↑ 100 ↓	0	NDA	1414					QBO	(18.0, 21.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 21 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600353

Date: 9/12/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 18

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1417						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	1418						(0.5, 18.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 40 ↓	0	NDA	1420		saturated	▲		QAL		
15	0										
	60										
20	↑ 54 ↓	0	NDA	1419					QBO	(18.0, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600354

Date: 9/10/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 15.5

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	1	NDA	1422						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	1423	1494					(0.5, 15.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 40 ↓	0	NDA	1425		saturated	▲				
15	↑ 50 ↓	0	NDA	1424						(15.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600355

Date: 9/10/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 14

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1427						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	1428					QAL	(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 44 ↓	0	NDA	1429		saturated					
15	↑ 40 ↓								QBO	(14.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Banderlier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600356

Date: 9/10/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 12

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 13

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1432					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.	
5	↑ 69 ↓	0	NDA	1433		damp				(0.5, 13.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 13 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 12 ↓						saturated				TD = 13 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600357

Date: 9/11/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1437						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0	0	NDA	1438						(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	0	0	NDA								
15	83	0	NDA	1440		saturated	▲				
90	0	0	NDA	1439					QBO	(17.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600358

Date: 9/11/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1442						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	1443						(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 60 ↓	0	NDA	1445		saturated	▲		QAL		
15	↑ 50 ↓	0	NDA	1444					QBO	(17.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600359

Date: 9/13/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 18.5

LATA Sampler: L. Sabatino

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1447						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	1448						(0.5, 18.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 40 ↓	0	NDA	1450		saturated	▼		QAL		
15	↑ 50 ↓										
20	↑ 83 ↓	0	NDA	1449					QBO	(18.5, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600360

Date: 9/9/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 13

LATA Sampler: Mark Cummings

Total Depth (ft): 14

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1452						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	1453					QAL	(0.5, 13.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 40 ↓	0	NDA	1454		wet				(13.0, 14.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600361

Date: 9/8/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 8.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17.5

LATA Sampler: L. Sabatino

Total Depth (ft): 21

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1457						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0 - 5	0	0	NDA	1458						(0.5, 17.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5 - 10	62	0	NDA	1460							
10 - 15	50	0	NDA			saturated	▼		QAL		
15 - 20	0	0	NDA							(17.5, 21.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 21 ft.
20	80	0	NDA	1459					QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600362

Date: 9/13/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 18

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0		0	NDA	1462						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5		0	NDA	1463						(0.5, 18.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10		0	NDA	1465							
15		0	NDA	1464							
											(18.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600363

Date: 9/12/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 8.5


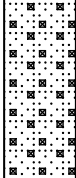

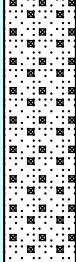
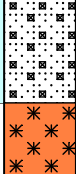
Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 18.5

LATA Sampler: L. Sabatino

Total Depth (ft): 20.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1467						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 50 ↓	0	NDA	1468						(0.5, 18.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 50 ↓	0	NDA	1470	1491	saturated	▼		QAL		
15	↑ 60 ↓										
20	100	0	NDA	1469					QBO	(18.5, 20.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600364

Date: 8/13/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1472						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 64 ↓	18.6	NDA	1473					↑ QAL ↓	(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 32 ↓	0	NDA	1475							
15	↑ 56 ↓	0	NDA	1474		wet			↑ QBO ↓	(15.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600365

Date: 8/13/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 18.5

LATA Sampler: Kevin Smith

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	1477						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0	0 ↑										
5	66 ↑	0	NDA	1478						(0.5, 18.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	44 ↑	0	NDA	1480		wet			QAL		
15	88 ↑										
20		0	NDA	1479					QBO	(18.5, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600366

Date: 9/10/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1482						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 67 ↓	0	NDA	1483						(0.5, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 50 ↓	0	NDA	1485		saturated	▲		QAL		
15	↑ 60 ↓	0	NDA	1484					QBO	(16.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600367

Date: 8/13/2007

TA-02

Attitude: Vertical

SWMU 02-006(b)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0		0	NDA	1486						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft due to rocks.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600378

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 14

LATA Sampler: L. Sabatino

Total Depth (ft): 16

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1528, 6840						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0 - 5	0									(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	50	0	NDA	1529, 6841		saturated	▼				
10 - 15	0	0	NDA	1530, 6843						(14.0, 16.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 16 ft.
15	100								QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600379

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 11

LATA Sampler: L. Sabatino

Total Depth (ft): 14

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1532, 6844	1557					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0								QAL	(0.5, 11.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	60	0	NDA	1533, 6845	6847				QBO	(11.0, 14.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600380

Date: 9/8/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 11

LATA Sampler: L. Sabatino

Total Depth (ft): 14

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0		0	NDA	1536, 6848						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5									QAL	(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10		0	NDA	1537, 6849					QBO	(14.0, 14.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600381

Date: 8/4/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 12.5

LATA Sampler: Dave Frank

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0		0	NDA	1540						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0										
10	60	0	NDA	1541					QAL	(0.5, 12.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
15	10										
20	88	0	NDA	1542	1543				QBO	(12.5, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600382

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 12.5

LATA Sampler: L. Sabatino

Total Depth (ft): 16

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1544, 6856						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0 - 5	0									(0.5, 12.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	67	0	NDA	1545, 6857							
10 - 15	0	0	NDA NDA	1546, 6859						(12.5, 16.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 16 ft.
15	100										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600383

Date: 9/8/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 13

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 18.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1548, 6860				[Hand Auger]		(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0							[HSA]		(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	88	0	NDA	1549, 6861				[HSA]			
15	60	0	NDA	1550, 6863	6869	saturated	[Water Level]	[HSA]		(16.5, 18.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600384

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 13.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16

LATA Sampler: L. Sabatino

Total Depth (ft): 18.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1552, 6864						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0 - 5	0									(0.5, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5 - 10	75	0	NDA	1553, 6865	6868						
10 - 15	60	0	NDA	1554, 6867		saturated				(16.0, 18.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600385

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(i)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

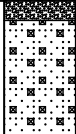
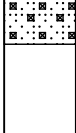
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 4.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	1566					↑ QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 4.5 ft due to rocks.
5	↓ hand auger	0	NDA	1567	1575				↓ QAL	(0.5, 4.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 4.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600386

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(i)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 5.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	1569					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.	
	hand auger	0	NDA	1570							This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓	0	NDA	1571					QAL	(0.5, 5.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600387

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(i)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present


Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 2.6

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1572					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	Both samples were collected using a hand auger that was refused at 2.6 ft due to rocks.
5		0	NDA	1573						(0.5, 2.6) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 2.6 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600406

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(iii)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 16.8

LATA Sampler: Mark Cummings

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 32 ↓	0	NDA	1628	1640					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 24 ↓	0	NDA	1629					QAL	(0.5, 16.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 30 ↓								QBO	(16.8, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.
15	↑ 56 ↓	0	NDA	1630							

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600407

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(iii)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 14.25

LATA Sampler: Mark Cummings

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	1632						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
2.7	↕ 27										
5	↑	0	NDA	1633						(0.5, 14.3) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
4.2	↕ 42										
10	↑	0	NDA	1634		wet				(14.3, 15.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 15 ft.
3.0	↕ 30								QAL		
15	↓										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600408

Date: 9/12/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(iii)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

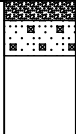
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 1.4

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1636						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1.4 ft due to rocks.
5										(0.5, 1.4) QAL: Dark gray brown sandy silt with few pebbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1.4 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600409

Date: 8/22/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 18.5

LATA Sampler: Vanessa Carter

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 32 ↓	0	NDA	1655	1709					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 30 ↓	0	NDA	1656					QAL	(0.5, 18.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 40 ↓	0.6	NDA	1657							
15	↑ 20 ↓	0	NDA	1659	1713				QBO	(18.5, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 24.5 ft.
20	↑ 40 ↓										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600410

Date: 8/21/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 11.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 62 ↓	0.1	NDA	1661					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.	
5	↑ 50 ↓	0	NDA	1662						(0.5, 11.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 11.5 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	40										TD = 11.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600411

Date: 8/21/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 18.5

LATA Sampler: L. Sabatino

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 62 ↓	0	NDA	1667						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	100 ↑ 100 ↓	0	NDA	1668						(0.5, 18.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	100 ↑ 44 ↓	0	NDA	1669					QAL		
15	100 ↑ 34 ↓	0.1	NDA	1671		wet					
20	100 ↑ 34 ↓								QBO	(18.5, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600412

Date: 8/21/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 12.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 38 ↓	0	NDA	1673						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 42 ↓	0	NDA	1674					QAL	(0.5, 12.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 12.5 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	100 ↓	0	NDA	1675							TD = 12.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600413

Date: 8/22/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jese Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 19

LATA Sampler: Vanessa Carter

Total Depth (ft): 22.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 62 ↓	0	NDA	1679						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 40 ↓	0	NDA	1680						(0.5, 19.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 50 ↓	0	NDA	1681		wet			QAL		
15	↑ 40 ↓	0	NDA	1683	1711						
20	↑ 84 ↓								QBO	(19.0, 22.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600414

Date: 8/22/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17.5

LATA Sampler: Vanessa Carter

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1685	1710					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 50 ↓	0	NDA	1686						(0.5, 17.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 50 ↓	0	NDA	1687		wet			QAL		
15	↑ 84 ↓	0	NDA	1689	1712					(17.5, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.
20	100								QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600415

Date: 8/8/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14.5

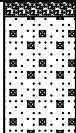
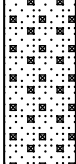
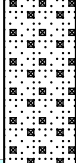

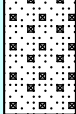
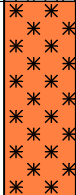
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 18.2

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	1691					ALLH	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 4.5 to 5.1 ft samples were collected using a hand auger.
5	38	0	NDA	1692					QAL	(0.5, 18.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	32	2.3	NDA	1693					QAL		
15	42	0	NDA	1696		saturated					
20	100	0	NDA	1695					QBO	(18.2, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600416

Date: 8/23/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 15

LATA Sampler: Dave Frank

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 50 ↓	0	NDA	1697						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 60 ↓								QAL	(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 30 ↓	0	NDA	1699		moist to wet					
15	↑ 100 ↓	0	NDA	1701	1714				QBO	(15.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600417

Date: 8/23/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 14.8

LATA Sampler: Dave Frank

Total Depth (ft): 16.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1703						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	50	0	NDA	1704						(0.5, 14.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	24					saturated	▼				
15	30	0	NDA	1707						(14.8, 16.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 16.5 ft.
100									QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600418

Date: 9/9/2007

TA-02

Attitude: Vertical

AOC 02-012 (TA-02-067)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 14

LATA Sampler: Mark Cummings

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1727						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 54 ↓	0	NDA	1728						(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 32 ↓					saturated					
15	↑ 48 ↓	0	NDA	1729	1742					(14.0, 19.0) QBO: Light orange to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600419

Date: 9/9/2007

TA-02

Attitude: Vertical

AOC 02-012 (TA-02-067)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 14

LATA Sampler: Mark Cummings

Total Depth (ft): 16

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1732						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0	0	NDA	1733						(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	0	0	NDA	1735		saturated					
15	100								QBO	(14.0, 16.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 16 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600420

Date: 9/9/2007

TA-02

Attitude: Vertical

AOC 02-012 (TA-02-067)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 13.1

LATA Sampler: Mark Cummings

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1737						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 54 ↓	0	NDA	1738						(0.5, 13.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 38 ↓	0	NDA	1740		saturated				(13.1, 14.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14 ft.
15		0	NDA	6821							

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600431

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 16.1

LATA Sampler: Kevin Smith

Total Depth (ft): 23

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	1763						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0.1	0 ↑	0	NDA	1764						(0.5, 16.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
40	40 ↑	0	NDA	1765							
50	50 ↑	0	NDA								
15	24 ↑	0	NDA							(16.1, 23.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20											TD = 23 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600432

Date: 8/28/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 7.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 29

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	1768						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0 ↑	0	NDA	1769		saturated	▲		QAL	(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	50 ↑	50	NDA	1770							
15	40 ↑	9	NDA								
20	50 ↑								QBO	(16.5, 29.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.
25	50 ↑	0	NDA	6823							

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600433

Date: 8/28/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1773						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
60	↕										
100	↕									(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
0	↕										
30	↕										
15	↕	0	NDA	1775	1857					(16.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.
40	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600434

Date: 8/27/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 13

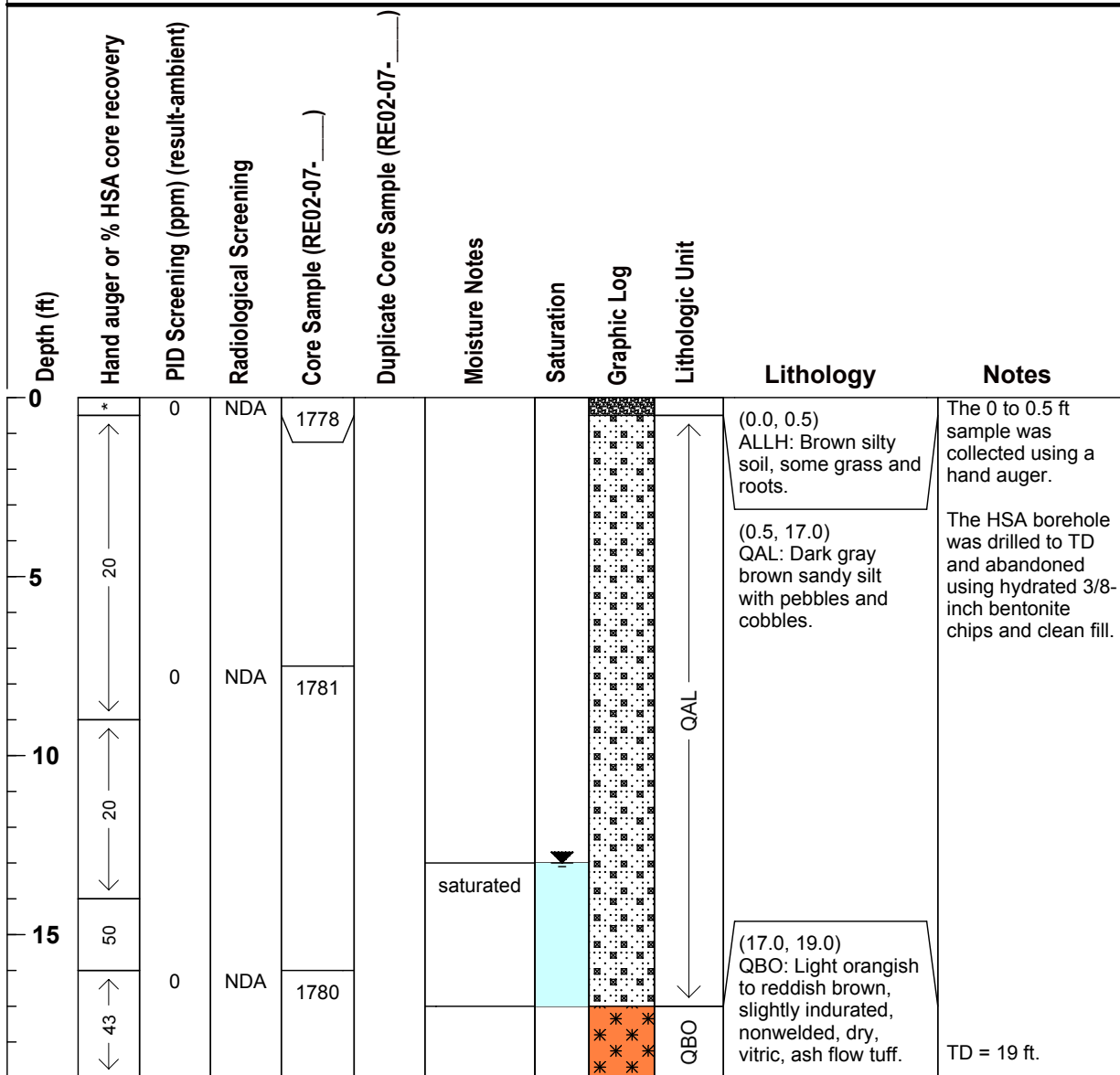
Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17

LATA Sampler: Vanessa Carter

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel



ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600435

Date: 8/27/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16

LATA Sampler: Vanessa Carter

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1783						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0	0	NDA	1784	1855					(0.5, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	60	0	NDA								
15	67	0	NDA	1785		wet				(16.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600436

Date: 8/27/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: Vanessa Carter

Total Depth (ft): 18.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	1788						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0 ↑	0	NDA	1789						(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	50 ↑	0	NDA	1790	1856	wet					
15	50 ↑	0	NDA	1790	1856	wet				(16.5, 18.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600437

Date: 8/26/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 17

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1793						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0	0	NDA	1794						(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 17 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	28								QAL		
15	67										
											TD = 17 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600438

Date: 8/26/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 14.5

LATA Sampler: Kevin Smith

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1798						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0	0	NDA	1799	1854				QAL	(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	70								QBO	(14.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.
15	44	0	NDA	1800							

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600439

Date: 8/27/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 18

LATA Sampler: Vanessa Carter

Total Depth (ft): 18.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1803						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0 - 5	0										
5 - 10	60	0	NDA	1804						(0.5, 18.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10 - 15	50	0	NDA	1805		saturated	▼			(18.0, 18.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18.5 ft.
15 - 18.5								* *			

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600440

Date: 8/28/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1808						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0	0	NDA	1809						(0.5, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	40	0	NDA	1810							
15	30	0	NDA	1810		saturated				(16.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600441

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.3

LATA Sampler: Kevin Smith

Total Depth (ft): 24

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1813	1852					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5									QAL	(0.5, 15.3) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	24 ↑ 28 ↓	0	NDA	1814	1816						
15	44 ↑ 78 ↓	0.5	NDA	1815	1853				QBO	(15.3, 24.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20											TD = 24 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600442

Date: 9/10/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 8

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17

LATA Sampler: Vanessa Carter

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1818						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 10 ↓									(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	100 ↑ 67 ↓	0	NDA	1821		saturated	▼		QAL		
15	↑ 50 ↓	0	NDA	1820						(17.0, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.
20									QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600443

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 16.2

LATA Sampler: Kevin Smith

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1822						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0	0										
4.4	↗	4.4	NDA	1823							
6.7	↘										
1.5	↖	1.5	NDA	1824							
4.8	↗										
10.9	↘	0.9	NDA	1826		wet			QAL	(0.5, 16.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
12.4	↗										
15.0	↘	0	NDA	1825							
16.8	↗								QBO	(16.2, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.
20	↘										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600444

Date: 8/30/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17

LATA Sampler: Vanessa Carter

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1828						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	50 ↑ 0 ↓	0	NDA	1829						(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	50 ↑ 0 ↓	0	NDA								
15	40 ↑ 0 ↓	0	NDA	1830	1858	wet					
20	100 ↑ 0 ↓									(17.0, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600445

Date: 8/30/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: Vanessa Carter

Total Depth (ft): 28.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1833					ALLH	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	50 ↑ 50 ↓	0	NDA	1834					QAL	(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	50 ↑ 50 ↓	220	NDA	1835		wet					
15	54 ↑ 54 ↓										
20	60 ↑ 60 ↓								QBO	(16.5, 28.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
25	100 ↑ 100 ↓	0	NDA	1836							TD = 28.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600446

Date: 8/30/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 13

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17

LATA Sampler: L. Sabatino

Total Depth (ft): 18

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1838						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0 - 5	0										
5 - 10	0	0	NDA	1839						(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10 - 15	0		NDA	1840		saturated					
15 - 18	80									(17.0, 18.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600447

Date: 8/31/2007

TA-61

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 16

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 18.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1843						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0 - 5	0										
5 - 10	58	0	NDA	1844						(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10 - 15											
15 - 18.5	50	0	NDA	1845		saturated			QBO	(16.5, 18.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600448

Date: 8/27/2007

TA-61

Attitude: Vertical

AOC 02-011(a)(ix)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): NA

LATA Sampler: Vanessa Carter

Total Depth (ft): 16

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1848						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0									(0.5, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 16 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	72	0	NDA	1849					QAL		
15	50					saturated					TD = 16 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600449

Date: 9/7/2007

TA-61

Attitude: Vertical

AOC 02-011(a)(ii)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 14.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1876						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
40	↕	0	NDA	1877						(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↕	0	NDA	1878							
32	↕								QAL		TD = 14.5 ft.
80	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600450

Date: 9/6/2007

TA-61

Attitude: Vertical

AOC 02-011(a)(v)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 10.5

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17

LATA Sampler: Vanessa Carter

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1882						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
3.3	↕										
5	↕	0	NDA	1883						(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled with poor recovery from 10 to 22 ft and abandoned using bentonite grout and clean fill.
10	↕					saturated	↓		QAL		
15	↕										
20	↕								QBO	(17.0, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.
22	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600451

Date: 9/5/2007

TA-61

Attitude: Vertical

AOC 02-011(a)(v)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 12.5

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: Vanessa Carter

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	1886						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
3.3	↕ 33										
5	0 ↓	0	NDA	1887						(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	40 ↓								QAL		
15	40 ↓	0	NDA	1889		saturated	▲				
20	0 ↓								QBO	(16.5, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.
22	100 ↓	0	NDA	1888	1890						

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600452

Date: 9/8/2007

TA-61

Attitude: Vertical

AOC 02-012

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 11

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 15.5

LATA Sampler: Vanessa Carter

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1893						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
3.3	↕										
5	↕	0	NDA	1894						(0.5, 15.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↕										
10	↕	0	NDA	1897							
10	↕					saturated	▼				
15	↕	0	NDA	1896							
15	↕										
20	↕									(15.5, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.
20	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600453

Date: 9/8/2007

TA-61

Attitude: Vertical

AOC 02-012

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 15

LATA Sampler: Vanessa Carter

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1898						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
3.3	↕ 33										
5	↕ 40	0	NDA	1899						(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↕ 40	0	NDA	1901	1914	damp to wet			QAL		
15	↕ 20										
20	↕ 100								QBO	(15.0, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600454

Date: 9/8/2007

TA-61

Attitude: Vertical

AOC 02-012

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 14

LATA Sampler: Vanessa Carter

Total Depth (ft): 17

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1903						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	12	0	NDA	1904					QAL	(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	60	0	NDA	1906							
15	70								QBO	(14.0, 17.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 17 ft.
	100										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600455

Date: 9/8/2007

TA-61

Attitude: Vertical

AOC 02-012

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 11

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 15

LATA Sampler: Vanessa Carter

Total Depth (ft): 17

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1908						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	56	0	NDA	1909						(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	50	0	NDA	1911							
15	20					saturated				(15.0, 17.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 17 ft.
100									QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600456

Date: 9/17/2007

TA-61

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 18

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1919						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0									(0.5, 18.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	56	0	NDA	1922		saturated	▼		QAL		
15	40	0	NDA	1921						(18.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600457

Date: 9/17/2007

TA-61

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 18

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1923				ALLH		(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0							QAL		(0.5, 18.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	44	0	NDA	1926		saturated	▼				
15	40	0	NDA	1925				QBO		(18.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600458

Date: 9/14/2007

TA-61

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 18

LATA Sampler: L. Sabatino

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0		0	NDA	1927						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5										(0.5, 18.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10		0	NDA	1930					QAL		
15		0	NDA	1929					QBO	(18.0, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.
20											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600459

Date: 9/14/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 14.5

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1931						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0									(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	49	0	NDA	1934		saturated	▼		QAL		
15	50	0	NDA	1933					QBO	(14.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Banderliel Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600460

Date: 8/3/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 14

LATA Sampler: Vanessa Carter

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	70	0	NDA	1935						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	50									(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	55					saturated	▼				
15	56									(14.0, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	64	0	NDA	1937	1971						TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600461

Date: 9/15/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 13.5

LATA Sampler: L. Sabatino

Total Depth (ft): 14

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1939						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0									(0.5, 13.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	67	0	NDA	1941		saturated	▼			(13.5, 14.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600462

Date: 9/15/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 15

LATA Sampler: L. Sabatino

Total Depth (ft): 21

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0		0	NDA	1943						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5									QAL	(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10		0	NDA	1946							
15		0	NDA	1945	1973				QBO	(15.0, 21.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20											TD = 21 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600463

Date: 9/15/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1947					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 5.0) QAL: Brown silty sand and rocks.	The 0 to 0.5 ft sample was collected using a hand auger. In three attempts, the HSA borehole was refused at 5 ft due to rocks and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 5 ft.	
5	20								QAL		
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600464

Date: 9/14/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

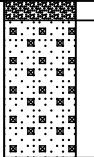
Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): NA

LATA Sampler: NA

Total Depth (ft): 4

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 30 ↓	0	NDA	1951					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 4.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The 0 to 0.5 ft sample was collected using a hand auger. In four attempts, the HSA borehole was drilled to refusal at 4 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 4 ft.	
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600465

Date: 9/15/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

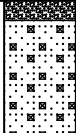
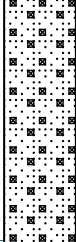

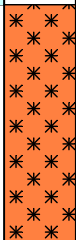
Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 13.4

LATA Sampler: Dave Frank

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 100 ↓	0	NDA	1955						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 50 ↓								QAL	(0.5, 13.4) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 50 ↓	0	NDA	1957	1974	saturated	▲				
15	↑ 100 ↓								QBO	(13.4, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600466

Date: 9/15/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 13.5

LATA Sampler: Dave Frank

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1959						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	56									(0.5, 13.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	46	0	NDA	1961							
15	100								QBO	(13.5, 15.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 15 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600467

Date: 8/6/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 10

LATA Sampler: Dave Frank

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0		0	NDA	1963						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 9.5 to 10 samples were collected using a hand auger.
5	hand auger								QAL	(0.5, 10.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	80	00	NDA NDA	1964 1965	1972				QBO	(10.0, 15.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 15 ft.
15											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600468

Date: 9/18/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present


Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 1.9

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	1967	1975				QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1.9 ft due to rocks.
5										(0.5, 1.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1.9 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600469

Date: 8/24/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17

LATA Sampler: Dave Frank

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	1989						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 50 ↓	0	NDA	1990						(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 20 ↓								QAL		
15	↑ 50 ↓	0	NDA	1992						(17.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600470

Date: 8/15/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 12

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	1993						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
3.3	↕ 33 ↕ ↑										
5	↕ 62 ↕ ↑	0	NDA	1994						(0.5, 12.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 12 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↕ 17 ↕ ↑								QAL		
12											TD = 12 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600471

Date: 8/16/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 20.5

LATA Sampler: Dave Frank

Total Depth (ft): 25

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	1997						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0-2.9	↑										
2.9-5.0	↓	0	NDA	1998						(0.5, 20.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5.0-10.0	↑										
10.0-15.0	↓										
15.0-20.0	↑	0	NDA	1999	2041						
20.0-20.5	↓										
20.5-25.0	↑									(20.5, 25.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 25 ft.
25.0	83										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600472

Date: 8/15/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 21

LATA Sampler: Dave Frank

Total Depth (ft): 24

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2001						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0 - 71	↕										
5	71	0	NDA	2002						(0.5, 21.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5 - 50	↕										
10	50										
10 - 62	↕										
15	62										
15 - 20	↕										
20	20										
20 - 50	↕										
24	50	0	NDA	2003						(21.0, 24.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 24 ft.
24 - 67	↕										
	67										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600473

Date: 8/16/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 18

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17.2

LATA Sampler: Vanessa Carter

Total Depth (ft): 23

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 62 ↓	0	NDA	2005						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 26 ↓	0	NDA	2006						(0.5, 17.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 51 ↓					moist to wet			QAL		
15	↑ 50 ↓	0	NDA	2007		wet					
20	100 ↑ 83 ↓	0	NDA	2008	2040	saturated			QBO	(17.2, 23.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, saturated, vitric, ash flow tuff.	TD = 23 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600474

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 18.8

LATA Sampler: Dave Frank

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	4	NDA	2009						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0 ↑ 20 ↓	0	NDA	2010						(0.5, 18.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	56 ↑ 56 ↓										
15	53 ↑ 53 ↓					wet					
20	88 ↑ 88 ↓	0	NDA	2011						(18.8, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

Los Alamos Technical Associates, Inc. Borehole Log

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Borehole Location ID: 02-600475

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 15

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 16.8

LATA Sampler: Dave Frank

Total Depth (ft): 18.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2013				[Hand Auger]		(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	56	0	NDA	2014				[HSA]		(0.5, 16.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	50					wet, not saturated		[HSA]			
15	50	0	NDA	2015		saturated	[Water Level]	[HSA]		(16.8, 18.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18.5 ft.
100								[HSA]	QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600476

Date: 8/13/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 25

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2017						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 44 ↓	0	NDA	2018						(0.5, 20.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 12 ↓										
15	↑ 50 ↓					moist					
	↑ 50 ↓					wet					
20	↑ 0 ↓										
25	↑ 60 ↓	0	NDA	2019	2039				QAL QBO	(20.0, 25.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 25 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600477

Date: 8/13/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 20

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 23.5

LATA Sampler: Dave Frank

Total Depth (ft): 25

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2021				*		(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	56	0	NDA	2022				*		(0.5, 23.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	0							*			
15	100							*			
20	20					wet	saturated	*		(23.5, 25.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 25 ft.
25	50	0	NDA	2023				*			

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600478

Date: 8/11/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 18.8

LATA Sampler: Dave Frank

Total Depth (ft): 20.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2025	2037					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 50 ↓	0	NDA	2026	2038					(0.5, 18.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 30 ↓								QAL		
15	↑ 33 ↓	0	NDA	2028		saturated					
20	93	0	NDA	2027					QBO	(18.8, 20.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600479

Date: 8/10/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 14.9

LATA Sampler: Dave Frank

Total Depth (ft): 17

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2029						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0.5	85										
5	30	0	NDA	2030						(0.5, 14.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	40										
15	48	0	NDA	2031						(14.9, 17.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 17 ft.
17	100								QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600480

Date: 8/11/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 12.5

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 14.3

LATA Sampler: Dave Frank

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	1	NDA	2033						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
2.2	↕										
5	0	0	NDA	2034						(0.5, 14.3) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5.5	↕										
10	20										
10.5	↕										
15	80	0	NDA	2035		saturated	▲	* *		(14.3, 15.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 15 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600481

Date: 9/13/2007

TA-02

Attitude: Vertical

SWMU 02-008(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 12

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 13.9

LATA Sampler: L. Sabatino

Total Depth (ft): 16

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0		0.2	NDA	2052						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5		0	NDA	2053						(0.5, 13.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10		0	NDA	2055							
15		0	NDA	2054		saturated			QBO	(13.9, 16.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 16 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600482

Date: 8/10/2007

TA-02

Attitude: Vertical

SWMU 02-008(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 8

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 14

LATA Sampler: Dave Frank

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	6286						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
100	↓			2056							
5	40 ↓	0	NDA	2057						(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
40	↓			2059							
10	40 ↓	0	NDA	2058	2070	saturated	▼				
20	↓										
15	100 ↓									(14.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600483

Date: 9/13/2007

TA-02

Attitude: Vertical

SWMU 02-008(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 12

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 14.6

LATA Sampler: L. Sabatino

Total Depth (ft): 16

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes		
0		0	NDA	2060						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.		
5		0	NDA	2061						(0.5, 14.6) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.		
10		0	NDA	2063									
15		0	NDA	2062		saturated						(14.6, 16.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 16 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600484

Date: 8/3/2007

TA-02

Attitude: Vertical

SWMU 02-008(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

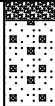
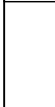
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Larry Lopez

Total Depth (ft): 2.7

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ HA	3.4	NDA	2064						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 2.7 ft due to rocks.
	↓	0.9	NDA	2065	2069				QAL	(0.5, 2.7) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5											
10											TD = 2.7 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600485

Date: 8/28/2007

TA-02

Attitude: Vertical

AOC 02-012

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2075				ALLH		(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0	0	NDA	2076				QAL		(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	0	0	NDA	2078		moist		QBO		(16.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.
15	0	0	NDA	2078				QBO			

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600486

Date: 8/29/2007

TA-02

Attitude: Vertical

AOC 02-012

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 24

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2080						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	2081						(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 0 ↓								QAL		
15	↑ 50 ↓	0	NDA	2083	2096	moist to wet				(16.5, 24.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	↑ 100 ↓								QBO		TD = 24 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600487

Date: 8/29/2007

TA-02

Attitude: Vertical

AOC 02-012

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	2085						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0 ↑	0	NDA	2086		damp				(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	36 ↑										
15	0 ↑	0.1	NDA	2088		wet				(16.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.
	50 ↑								QAL		
									QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600488

Date: 8/28/2007

TA-02

Attitude: Vertical

AOC 02-012

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2090						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 30 ↓	0	NDA	2091		damp				(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 0 ↓								QAL		
15	↑ 78 ↓	0	NDA	2093	2095	moist			QBO	(16.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600489

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-004(g)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2101						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger which was refused at 1 ft due to rocks.
5										(0.5, 1.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600490

Date: 8/30/2007

TA-02

Attitude: Vertical

AOC 02-004(g)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 12

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 14.5

LATA Sampler: Mark Cummings

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	0	0	NDA	6824						(0.0, 0.5) Asphalt (0.5, 0.8) Base: Gravel	The surface sample was collected below asphalt and road-base gravel, from 0.8 to 1.8 ft, using a hand auger.
32	↕										
56	↕										
0	↕	0	NDA	2106	2140	moist				(0.8, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
60	↕						saturated				
0	↕										
60	↕										
15	↕	0	NDA	2107		wet				(14.5, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.
80	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600491

Date: 8/29/2007

TA-02

Attitude: Vertical

AOC 02-004(g)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 16

LATA Sampler: Mark Cummings

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	2109						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
3.5	35 ↑	0	NDA	2110						(0.5, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	36 ↑										
10	53 ↑										
12.5	27 ↑										
15	0 ↑										
16.0	0 ↑									(16.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.
19.5	100 ↑			2111							

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600492

Date: 8/28/2007

TA-02

Attitude: Vertical

AOC 02-004(g)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 15.8

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	0									(0.0, 0.5) Asphalt	The surface sample was collected below asphalt and road-base gravel, from 1.5 to 2 ft, using a hand auger.
	*	0	NDA	6825						(0.5, 1.5) Base: gravel	
5	52									(1.5, 15.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
	↕	0	NDA	2114							
	↕										
	↕										
10	0										
	↕										
	↕										
15	46									(15.8, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.
	↕	0	NDA	2115							

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600493

Date: 8/29/2007

TA-02

Attitude: Vertical

AOC 02-004(g)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 19.2

LATA Sampler: Dave Frank

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	0									(0.0, 0.5) Asphalt	The surface sample was collected below asphalt and road-base gravel, from 0.9 to 1.4 ft, using a hand auger.
0	*	0	NDA	6826						(0.5, 0.9) Base: Gravel	
5	38									(0.9, 19.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5	0	0	NDA	2118							
10	50										
15	30										
15	10					wet					
20	100	0	NDA	2119						(19.2, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600494

Date: 8/28/2007

TA-02

Attitude: Vertical

AOC 02-004(g)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 14.1

LATA Sampler: Dave Frank

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	0									(0.0, 0.7) Asphalt	The surface sample was collected below asphalt and road-base gravel, from 1.5 to 2 ft, using a hand auger.
0-25	*	0	NDA	6827						(0.7, 1.5) Base: Gravel	
25-5	↕	0	NDA	2122						(1.5, 14.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5-10	↕					wet					
10-15	↕										
15-20	↕	0	NDA	2123	2138					(14.1, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.
20-100	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600495

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-004(g)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

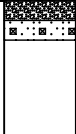
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2125						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1 ft due to rocks.
5										(0.5, 1.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600496

Date: 8/14/2007

TA-02

Attitude: Vertical

AOC 02-004(g)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2129						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1 ft due to rocks.
5										(0.5, 1.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600497

Date: 8/30/2007

TA-02

Attitude: Vertical

AOC 02-004(g)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 15

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17.6

LATA Sampler: Mark Cummings

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2133						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
11	↑										
5	↓	0	NDA	2134						(0.5, 17.6) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
44	↑										
10	↓										
36	↑										
52	↓										
15	↑	0	NDA	2135	2139	saturated	▲				
50	↓										
20	↑									(17.6, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.
100	↓										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600508

Date: 8/20/2007

TA-02

Attitude: Vertical

AOC 02-004(b)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 13.5

LATA Sampler: Dave Frank

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 43 ↓	0	NDA	2222						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 30 ↓									(0.5, 13.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 50 ↓					wet					
15	↑ 100 ↓	3.1	NDA	2224	2239					(13.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600509

Date: 8/21/2007

TA-02

Attitude: Vertical

AOC 02-004(b)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present









Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 10.9

LATA Sampler: L. Sabatino

Total Depth (ft): 16.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2226						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
32.5	↕										
5	↕									(0.5, 10.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
32	↕										
10	↕	0	NDA	2228							
44	↕										
15	↕									(10.9, 16.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 16.5 ft.
100	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600510

Date: 8/20/2007

TA-02

Attitude: Vertical

AOC 02-004(b)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

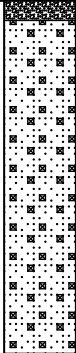
Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 9

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 34 ↓	1	NDA	2230					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.	
5	↑ 10 ↓								(0.5, 9.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 9 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
10											TD = 9 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600511

Date: 8/20/2007

TA-02

Attitude: Vertical

AOC 02-004(b)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 16

LATA Sampler: Vanessa Carter

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2234						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	50									(0.5, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	10										
15	60	0	NDA	2237	2238	saturated	▲			(16.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600526

Date: 8/18/2007

TA-02

Attitude: Vertical

AOC 02-004(d)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 13

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2320						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
11	↕									(0.5, 13.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 13 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↕										
10	↕	0	NDA	2321							
13	↕					wet					TD = 13 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600527

Date: 8/17/2007

TA-02

Attitude: Vertical

AOC 02-004(d)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 14

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2324	2332					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0									(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 14 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	33	0	NDA	2325		wet			QAL		TD = 14 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600528

Date: 8/17/2007

TA-02

Attitude: Vertical

AOC 02-004(d)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

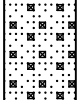
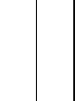
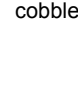


Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17.1

LATA Sampler: Vanessa Carter

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 57 ↓	0	NDA	2328						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0 ↑ 0 ↓									(0.5, 17.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	0 ↑ 40 ↓	0	NDA	2329		moist					
15	50 ↑ 50 ↓										
20	83 ↑ 83 ↓	0	NDA	2330	2333					(17.1, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600532

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(vi)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 10

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: Vanessa Carter

Total Depth (ft): 12.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2357						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0	0										
0	0										
5	↑	0	NDA	2359					QAL	(0.5, 12.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 12.5 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↑										
5	40										
5	↓										
10	↑	0	NDA	2361		saturated	▼				
10	↓										
10	67										TD = 12.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600533

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(vi)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 10.5

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 15.5

LATA Sampler: Vanessa Carter

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2362						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
4.4	↕										
5	↕	0	NDA	2363						(0.5, 15.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
9.4	↕										
10	↕	0	NDA	2365		saturated	▼				
13	↕										
15	↕	0	NDA	2364	2373					(15.5, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.
19	↕										
20	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600534

Date: 8/31/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(vi)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 15

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 16

LATA Sampler: Vanessa Carter

Total Depth (ft): 21.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	0	0	NDA	6828						(0.0, 0.4) Asphalt	The surface sample was collected below asphalt and base gravel, from 0.6 to 1.1 ft, using a hand auger.
0.4	0	0	NDA	2368						(0.4, 0.6) Base: Coarse gravel.	
0.6	0	0	NDA							(0.6, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
2.0	20										
4.0	40										
15	0	0	NDA	2369	2372	saturated					
16.0	40										
20	100									(16.0, 21.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 21.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600537

Date: 8/26/2007

TA-02

Attitude: Vertical

AOC 02-004(e)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 15.4

LATA Sampler: Mark Cummings

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 38 ↓	0	NDA	2390						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 18 ↓									(0.5, 15.4) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 42 ↓	0	NDA	2391		wet					
15	↑ 50 ↓	0	NDA	2392	2402					(15.4, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600538

Date: 8/27/2007

TA-02

Attitude: Vertical

AOC 02-004(e)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 12.5

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 15.2

LATA Sampler: Mark Cummings

Total Depth (ft): 16

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2394						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
32	↕										
5	↕					moist				(0.5, 15.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
36	↕										
10	↕										
0	↕										
15	↕	0	NDA	2396		saturated				(15.2, 16.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 16 ft.
43	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600539

Date: 8/27/2007

TA-02

Attitude: Vertical

AOC 02-004(e)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 12.5

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 13.2

LATA Sampler: Dave Frank

Total Depth (ft): 17.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2398						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
12	↑										
5	↓									(0.5, 13.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑		NDA	2399		moist					
17	↓					wet					
15	↑		NDA	2400	2403	saturated	▼			(13.2, 17.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 17.5 ft.
80	↓										
100	↑										
100	↓										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600542

Date: 8/10/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(viii)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 11.5

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15

LATA Sampler: Kevin Smith

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2419	2431					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 46 ↓	0	NDA	2420					QAL	(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 44 ↓	0	NDA	2422		moist to wet					
15	↑ 100 ↓	0	NDA	2421					QBO	(15.0, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20											TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600543

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(viii)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 19.4

LATA Sampler: Mark Cummings

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ 33 ↓	0	NDA	2423						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a HSA core barrel.
5	↑ 50 ↓					moist				(0.5, 19.4) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 50 ↓	0	NDA	2425		wet			QAL		
15	↑ 100 ↓										
20	↑ 100 ↓	0	NDA	2426					QBO	(19.4, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600545

Date: 8/18/2007

TA-02

Attitude: Vertical

AOC 02-004(c)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14.5

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 14.5

LATA Sampler: Dave Frank

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2434						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
3.3	↕										
5	↕					damp				(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↕										
10	↕	0	NDA	2435		wet					
10	↕										
15	↕	0	NDA	2437	2442	saturated	▼			(14.5, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.
15	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600546

Date: 8/20/2007

TA-02

Attitude: Vertical

AOC 02-004(c)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 11

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2438						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
2.5	↕ 25										
5	↕ 30										The HSA borehole was drilled to refusal at 11 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	33	0	NDA	2439							TD = 11 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff, Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600547

Date: 8/3/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

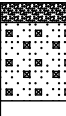
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Frank

Total Depth (ft): 2.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2445					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 2.5 ft due to rocks.
5		0	NDA	2446						(0.5, 2.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 2.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600548

Date: 9/19/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 0.8

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2448						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 0.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.8 ft due to rocks. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 0.8 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600549

Date: 9/19/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2451						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft due to rocks.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600550

Date: 9/19/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2454						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft due to rocks.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600551

Date: 9/19/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

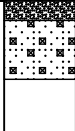
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 2

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2457					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 2 ft due to rocks.
5										(0.5, 2.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 2 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600552

Date: 9/13/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 0.8

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2460						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 0.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.8 ft due to rocks. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 0.8 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600553

Date: 9/18/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 9.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2463	2495				(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.	
38	↕	0	NDA	2464					(0.5, 9.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
50	↕	0	NDA	2465							
	↕										
								QAL		TD = 9.5 ft.	

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600554

Date: 9/13/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	2466					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.	
		0	NDA	2467					↑ QAL		This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	2468					↓ QAL	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600555

Date: 9/18/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Dave Burnett

Total Depth (ft): 3

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	2469					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 3 ft due to rocks.
0		0	NDA	2470						(0.5, 3.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5											
10											TD = 3 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600556

Date: 9/18/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

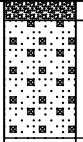
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 3.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	2472					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 3.5 ft due to rocks.
5		0	NDA	2473						(0.5, 3.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 3.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600557

Date: 9/20/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present


Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 1.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2475					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 1.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1.5 ft due to rocks. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 1.5 ft.	
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600558

Date: 9/20/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: James McDaniel

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	2478					↑ QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	2479							This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓ hand auger	0	NDA	2480					↓ QAL	(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600559

Date: 8/4/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

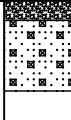
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 3

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ HA	0	NDA	2481					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 3 ft due to rocks.
	↓	0	NDA	2482	2494					(0.5, 2.3) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5											
10											TD = 2.3 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600560

Date: 9/19/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	2484					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	2485							This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↓	0	NDA	2486						(0.5, 5.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10											TD = 5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600561

Date: 9/19/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2487						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft due to rocks.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600562

Date: 9/19/2007

TA-02

Attitude: Vertical

SWMU 02-005

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 0.6

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2490						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.6 ft due to rocks.
5										(0.5, 0.6) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.6 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600563

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(iv)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 11

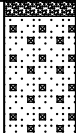
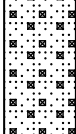

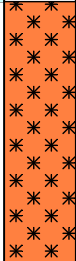
Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: Vanessa Carter

Total Depth (ft): 25

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	2508						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
22	↓										
5	↑	0	NDA	2509					QAL	(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
60	↓										
10	↑	0	NDA	2511							
40	↓					saturated					
15	↑	0	NDA	2510	2512				QBO	(16.5, 25.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
30	↓										
20	↑										
100	↓										
25											TD = 25 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600564

Date: 8/24/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17.8

LATA Sampler: L. Sabatino

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2515						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
20	↕										
5	↕									(0.5, 17.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
44	↕										
10	↕	0	NDA	2516					QAL		
40	↕										
15	↕	0	NDA	2517	2552						
48	↕										
60	↕										
20	↕								QBO	(17.8, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.
54	↕										
88	↕										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600565

Date: 8/25/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 19

LATA Sampler: L. Sabatino

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	2519						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
4.5	↕ 45 ↕										
5	↑									(0.5, 19.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5.4	↕ 54 ↕										
10	↑	0	NDA	2520					QAL		
10.29	↕ 29 ↕										
15	68										
15.0	0										
15.29	↑	0	NDA	2521							
15.29	↕ 29 ↕										
20	100								QBO	(19.0, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600566

Date: 8/25/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 18.1

LATA Sampler: L. Sabatino

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 42 ↓	0	NDA	2523						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 34 ↓									(0.5, 18.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 12 ↓										
15	↑ 50 ↓	0	NDA	2525	2551						
20	100 ↓									(18.1, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600567

Date: 8/27/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

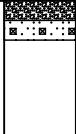
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0.8	NDA	2527						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1 ft due to rocks.
5										(0.5, 1.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600568

Date: 8/24/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.3

LATA Sampler: Kevin Smith

Total Depth (ft): 18.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	2531						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0 ↑									(0.5, 15.3) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	26 ↑	0	NDA	2532					QAL		
15	82 ↑	0	NDA	2533					QBO	(15.3, 18.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600569

Date: 8/24/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 10.7

LATA Sampler: Kevin Smith

Total Depth (ft): 13

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2535						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0									(0.5, 10.7) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	91	0	NDA	2536	2553				QBO	(10.7, 13.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 13 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600570

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.7

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2539	2554					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0									(0.5, 15.7) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	46	0	NDA	2540							
15	64	0	NDA	2541		wet				(15.7, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600571

Date: 9/5/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 12.4

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2543						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0									(0.5, 12.4) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	72	0	NDA	2544							
		0	NDA	2545							
15	92									(12.4, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
											TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600572

Date: 9/5/2007

TA-02

Attitude: Vertical

AOC 02-004(f)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 19.5

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 20.9

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2547				[Hand Auger]		(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0							[HSA]		(0.5, 20.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	0	62	NDA	2548		damp		[HSA]	QAL		
15	0	26				moist to wet		[HSA]			
20	0	56	NDA	2549		saturated	[Water Level]	[HSA]	QBO	(20.9, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600573

Date: 8/24/2007

TA-02

Attitude: Vertical

AOC 02-011(c)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 16

LATA Sampler: L. Sabatino

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	0	NDA	2563						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
2.5	25 ↑	0	NDA	2564						(0.5, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	44 ↑	0	NDA	2565							
10	22 ↑	0	NDA								
15	52 ↑	0	NDA	2566	2568					(16.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.
19.5	71 ↑										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600574

Date: 9/12/2007

TA-02

Attitude: Vertical

AOC 02-011(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

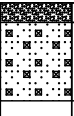
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L Sabatino

Total Depth (ft): 2.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2571					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 2.5 ft due to rocks.
5		0	NDA	2572						(0.5, 2.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 2.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600580

Date: 9/17/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 13.5

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2584						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0									(0.5, 13.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	44	0	NDA	2586		saturated	▼				
15	80									(13.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 2.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600581

Date: 9/17/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 13.5

LATA Sampler: L. Sabatino

Total Depth (ft): 16

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2589						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0									(0.5, 13.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	44	0	NDA	2592, 6930		saturated	▼				
15	100	0	NDA	2591, 6931					QBO	(13.5, 16.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 16 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600582

Date: 9/21/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 1.1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2594	2611					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 1.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1.1 ft due to rocks. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 1.1 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600583

Date: 8/7/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 15

LATA Sampler: Dave Frank

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↕ 30	0	NDA	2599					ALLH: Brown silty soil, some grass and roots.	(0.0, 0.5)	The 0 to 0.5 ft sample was collected using a hand auger.
5	↕ 30								QAL: Dark gray brown sandy silt with pebbles and cobbles.	(0.5, 15.0)	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↕ 40	0	NDA	2601		moist					
15	↕ 40								QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	(15.0, 20.0)	
20	↕ 100	2.3	NDA	2602	2609						TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600584

Date: 9/14/2007

TA-02

Attitude: Vertical

AOC 02-004(a)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 19.6

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	0									(0.0, 1.0) Asphalt	The surface sample was collected beneath asphalt and base gravel, from 1.5 to 3.3 ft, using a hand auger.
0-60	HA	0	NDA	2604, 6932						(1.0, 1.5) Base: Dark brown base-coarse gravel.	
5	60					moist					The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5-10	46									(1.5, 19.6) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10	70	0	NDA	2605, 6933		wet				QAL	
15	84										TD = 24.5 ft.
15-20	84	0	NDA	2606, 6934	2610						
20	100									(19.6, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
										QBO	

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600585

Date: 9/11/2007

TA-02

Attitude: Vertical

AOC 02-006(c)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 14

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2618						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 44 ↓	0	NDA	2619						(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 14 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 60 ↓	0	NDA	2621		saturated			QAL		TD = 14 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600586

Date: 9/11/2007

TA-02

Attitude: Vertical

AOC 02-006(c)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2622						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 67 ↓	0	NDA	2623		moist				(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 30 ↓	0	NDA	2625		saturated					
15	↑ 44 ↓	0	NDA	2624						(16.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600587

Date: 9/9/2007

TA-02

Attitude: Vertical

AOC 02-006(c)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 12

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 15

LATA Sampler: Vanessa Carter

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2626						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
2.2	↕										
5	↕									(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↕					moist wet					
15	↕	0	NDA	2628		saturated					
19	↕									(15.0, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600588

Date: 9/9/2007

TA-02

Attitude: Vertical

AOC 02-006(c)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 11.5

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: Vanessa Carter

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 50 ↓	1.1	NDA	2630						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 20 ↓	0	NDA	2631						(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 15 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 71 ↓	0	NDA	2633		saturated			QAL		
15	50										TD = 15 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600589

Date: 9/9/2007

TA-02

Attitude: Vertical

AOC 02-006(c)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.75

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: Vanessa Carter

Total Depth (ft): 13.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 38 ↓	0	NDA	2634						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 40 ↓	0	NDA	2635						(0.5, 13.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 13.5 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 50 ↓	0	NDA	2637		saturated			QAL		TD = 13.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Banderliel Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600590

Date: 8/16/2007

TA-02

Attitude: Vertical

AOC 02-006(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.7

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2638						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 44 ↓	0	NDA	2639						(0.5, 15.7) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 42 ↓	0	NDA	2641		moist					
15	↑ 48 ↓	0	NDA	2640		wet					
									↑ QBO ↓	(15.7, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600591

Date: 8/29/2007

TA-02

Attitude: Vertical

AOC 02-006(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 19

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2642						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 67 ↓	0	NDA	2643						(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 54 ↓					wet			QAL		
15	↑ 54 ↓	0	NDA	2644	2647				QBO	(16.5, 19.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600592

Date: 8/25/2007

TA-02

Attitude: Vertical

SWMU 02-007

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: Kevin Smith

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2661						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 50 ↓	0	NDA	2662						(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 54 ↓								QAL		
15	40 ↑										
20	↑ 35 ↓	0	NDA	2664						(16.5, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.
	100 ↓								QBO		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600593

Date: 8/26/2007

TA-02

Attitude: Vertical

SWMU 02-007

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14.8

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2666						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 44 ↓	0	NDA	2667		damp				(0.5, 14.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 62 ↓	0	NDA	2668	2692						
15	↑ 80 ↓	0	NDA	2669						(14.8, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600594

Date: 8/27/2007

TA-02

Attitude: Vertical

SWMU 02-007

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14.5

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2671					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 48 ↓	0	NDA	2672, 7077					QAL	(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill. Sample RE02-08-7077 was collocated with sample RE02-07-2672 to obtain VOC analysis. Make-up samples for deeper sample intervals were not collected due to hand-auger refusal at 5 ft.
10	↑ 42 ↓	0	NDA	2673					QBO	(14.5, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.
15	↑ 100 ↓	0	NDA	2674							

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600595

Date: 8/27/2007

TA-02

Attitude: Vertical

SWMU 02-007

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14.5

LATA Sampler: Mark Cummings

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2676						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 30 ↓	0	NDA	2677					QAL	(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 48 ↓	0	NDA	2678		slightly moist					
15	↑ 36 ↓	0	NDA	2679					QBO	(14.5, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	↑ 66 ↓										TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600596

Date: 8/31/2007

TA-02

Attitude: Vertical

SWMU 02-007

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14.5

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.2

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2681						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	2682						(0.5, 15.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 46 ↓	2.2	NDA	2683							
15	↑ 72 ↓	0	NDA	2684		saturated	▼			(15.2, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600597

Date: 8/27/2007

TA-02

Attitude: Vertical

SWMU 02-007

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 7.2

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	2686						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 40 ↓	0	NDA	2687	2691				QAL	(0.5, 7.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 7.2 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 7.2 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600598

Date: 9/14/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.7

LATA Sampler: Kevin Smith

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2700	2735					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0 ↑ 0 ↓									(0.5, 15.7) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	0 ↑ 56 ↓	0	NDA	2702		wet					
15	0 ↑ 58 ↓	0	NDA	2703						(15.7, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.
20											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600599

Date: 9/13/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 17.2

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2705						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	2706	2737					(0.5, 17.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 52 ↓	0	NDA	2707							
15	↑ 56 ↓	0	NDA	2708							
20										(17.2, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600600

Date: 9/14/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

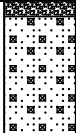
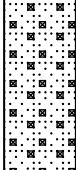
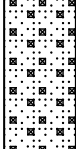

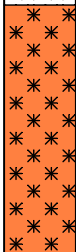
Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: Dave Frank

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	2710					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 4.5 to 6.5 ft samples were collected using a hand auger.
5	↓ hand auger	0	NDA	2711					QAL	(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 50	0	NDA	2712					QAL		
15	↓ 52	0	NDA	2713					QAL		
20	↑ 63	0	NDA						QBO	(16.5, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 24.5 ft.
	↓ 74										

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600601

Date: 9/14/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.5

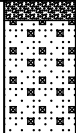
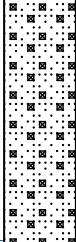

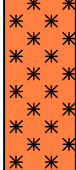
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15

LATA Sampler: James Mcdaniel

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	7	NDA	2715						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 46 ↓	0	NDA	2716					QAL	(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 36 ↓	0	NDA	2717		saturated	▼				
15	↑ 46 ↓	0	NDA	2718					QBO	(15.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600602

Date: 9/15/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14.5

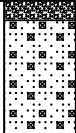
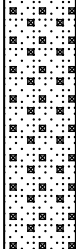
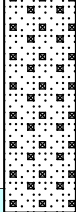
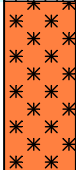
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.1

LATA Sampler: Mark Cummings

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2720						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 50 ↓	0	NDA	2721					QAL	(0.5, 15.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 14 ↓					wet					
15	↑ 50 ↓	0	NDA	2723		saturated	▼		QBO	(15.1, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600603

Date: 9/12/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2725						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600604

Date: 9/12/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2730						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600605

Date: 8/16/2007

TA-02

Attitude: Vertical

SWMU 02-009(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 15.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2747						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0	46	0	NDA	2748						(0.5, 15.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 15.5 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	48					damp					
10	58								QAL		
15											TD = 15.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600606

Date: 8/17/2007

TA-02

Attitude: Vertical

SWMU 02-009(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 19.5

LATA Sampler: Kevin Smith

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2751						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 1.5 to 1.9 ft samples were collected using a hand auger.
0		0	NDA	2752						(0.5, 19.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5											
10											
15											
15		0	NDA	2753						(19.5, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.
20											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600607

Date: 8/17/2007

TA-02

Attitude: Vertical

SWMU 02-009(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.1

LATA Sampler: Kevin Smith

Total Depth (ft): 24

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2755						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0	↕	0	NDA	2756							
5	↕ 40									(0.5, 15.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↕ 80										
15	↕ 40	0	NDA	2757	2779					(15.1, 24.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	↕ 66										
											TD = 24 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600608

Date: 8/21/2007

TA-02

Attitude: Vertical

SWMU 02-009(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 14.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	2759						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 1.5 to 3.5 ft samples were collected using a hand auger.
0		0	NDA	2760	2777						
5	↑ 0 ↓										
10	↑ 77 ↓	0.6	NDA	2761					QAL	(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
											TD = 14.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600609

Date: 8/21/2007

TA-02

Attitude: Vertical

SWMU 02-009(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 17.2

LATA Sampler: Kevin Smith

Total Depth (ft): 25

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2762						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 1.5 to 2.3 ft samples were collected using a hand auger.
0		0	NDA	2763							
5	0									(0.5, 17.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	78								QAL		
15	58	0	NDA	2764							
20	100								QBO	(17.2, 25.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
25											TD = 25 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600610

Date: 8/20/2007

TA-02

Attitude: Vertical

SWMU 02-009(b)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 16

LATA Sampler: Kevin Smith

Total Depth (ft): 25

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2765						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 1.5 to 2.5 ft samples were collected using a hand auger.
0		0	NDA	2766	2778						
5	0									(0.5, 16.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	95	0	NDA	2767							
15	0										
20										(16.0, 25.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
25	100			3983	3987						TD = 25 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600611

Date: 8/17/2007

TA-02

Attitude: Vertical

SWMU 02-009(b)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

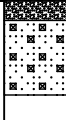
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 2.4

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2768					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 2.4 ft due to rocks.
0		0	NDA	2769						(0.5, 2.4) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 2.4 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600612

Date: 9/12/2007

TA-02

Attitude: Vertical

SWMU 02-009(b)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present


Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 1.2

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2771						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots. (0.5, 1.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1.2 ft. This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 1.2 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600613

Date: 9/12/2007

TA-02

Attitude: Vertical

SWMU 02-009(b)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 3.1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	2774					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 3.1 ft due to rocks.
		0	NDA	2775						(0.5, 3.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5											
10											TD = 3.1 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600614

Date: 8/23/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 17.3

LATA Sampler: Kevin Smith

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0											
0 to 9.1	hand auger	0	NDA	2786						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 1.5 to 3.7 ft samples were collected using a hand auger.
9.1 to 15.5	0	9.1	NDA	2787						(0.5, 17.3) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
15.5 to 17.3	80	0	NDA	2788		moist to wet					
17.3 to 20.0	100	0	NDA	2790							
20.0	84	0	NDA	2789	2828				QBO	(17.3, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600615

Date: 8/22/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 17.8

LATA Sampler: Kevin Smith

Total Depth (ft): 21.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0.3	NDA	2791	4000					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0.5	↕	0	NDA	2792							
4.2	↕										
5	↕										
10	↕										
15	↕										
17.8	↕	0	NDA	2794						(17.8, 21.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	↕										TD = 21.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600616

Date: 8/22/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 17.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2796						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0	↑	0	NDA	2797						(0.5, 17.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 17.5 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
4.2	↔										
10	↔	0									
10	↔	0	NDA	2798							
15	0										
17.5	100										TD = 17.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600617

Date: 9/12/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): NA

LATA Sampler: Vanessa Carter

Total Depth (ft): 13

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2801						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
2.5	↕ 25	0	NDA	2802						(0.5, 13.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↕ 30										
10	↕ 86	0	NDA	2803		wet			QAL		TD = 13 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Banderlier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600618

Date: 8/23/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	2804						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 1.5 to 3.3 ft samples were collected using a hand auger.
0		0	NDA	2805							
3.4	↕ 34 ↕										
5	↕ ↕										The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↕ 0 ↕										
15	80	0	NDA	2806					QAL	(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	TD = 15 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600619

Date: 8/22/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2807						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0	↑	0	NDA	2808						(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
4	↑										
6	↑	0									
10	↑	0	NDA	2809							
15	↑										TD = 15 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600620

Date: 8/21/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2810						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 1.5 to 2.5 ft samples were collected using a hand auger.
0		0	NDA	2811							
5	0										The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	69	0.1	NDA	2812					QAL		
15											TD = 15 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600621

Date: 8/23/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2813						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0	↑	0	NDA	2814						(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	44										
10	0										
15	54	0	NDA	2815							TD = 15 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600622

Date: 8/23/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: James McDaniel

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	2816						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger.
		0	NDA	2817	2826						This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	hand auger									(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10		0	NDA	2818	2827				QAL		
15	↓										TD = 15 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600623

Date: 8/23/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 15

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2819						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0	↑	0	NDA	2820						(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	46										
10	0										
15	69	0	NDA	2821	2825						TD = 15 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600624

Date: 9/12/2007

TA-02

Attitude: Vertical

AOC 02-009(d)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

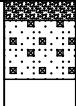
Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 2

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2822					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 1.5 to 1.9 ft samples were collected using a hand auger that was refused at 2 ft.
		0	NDA	2823						(0.5, 2.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5											
10											TD = 2 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600625

Date: 9/13/2007

TA-02

Attitude: Vertical

AOC 02-008(c)(ii)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 13

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 18.5

LATA Sampler: Vanessa Carter

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 50 ↓	0	NDA	2837	2851					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 62.5 ↓	0	NDA	2838						(0.5, 18.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 20 ↓								QAL		
15	↑ 40 ↓					saturated	↓				
20	↑ 71 ↓	0	NDA	2839	2850				QBO	(18.5, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600626

Date: 9/5/2007

TA-02

Attitude: Vertical

AOC 02-008(c)(ii)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 8

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 18

LATA Sampler: L. Sabatino

Total Depth (ft): 18.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2841						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 62 ↓	0	NDA	2842						(0.5, 18.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 50 ↓	0	NDA	2843		saturated	▼		QAL		
15	↑ 80 ↓	0	NDA	2844						(18.0, 18.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 18.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600627

Date: 8/23/2007

TA-02

Attitude: Vertical

AOC 02-008(c)(ii)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: James McDaniel

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2845						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600628

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

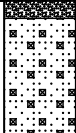
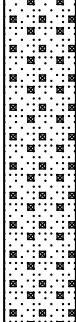

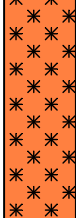
Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 15.5

LATA Sampler: L. Sabatino

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2856	2932				QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 71 ↓	0	NDA	2857					QAL	(0.5, 15.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
15	↑ 50 ↓	0	NDA	2859	2930	wet			QAL		
20	↑ 85 ↓	0	NDA	6829					QBO	(15.5, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600629

Date: 9/14/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 11.5

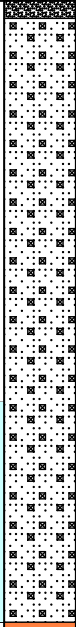

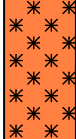
Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17.8

LATA Sampler: Dave Frank

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 20 ↓	0	NDA	2861						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	This HSA borehole was located adjacent to asphalt and was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↑ 71 ↓	0	NDA	2862						(0.5, 17.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
10	↑ 35 ↓	0	NDA	2865							
15	↑ 42 ↓	0	NDA	2864		saturated					
20	↑ 85 ↓	0	NDA	6830						(17.8, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600630

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 13

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17.8

LATA Sampler: L. Sabatino

Total Depth (ft): 21

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2866				(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.		(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0	0	NDA	2867				(0.5, 17.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.		(0.5, 17.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	0	0	NDA	2870				QAL			
15	50	0	NDA	2870		saturated	▼				
20	17							QBO	(17.8, 21.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	(17.8, 21.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 21 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600631

Date: 9/5/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 10

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17.5

LATA Sampler: L. Sabatino

Total Depth (ft): 26.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2871						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 62 ↓	0	NDA	2872	2931					(0.5, 17.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 50 ↓					saturated	▼	QAL			
15	↑ 50 ↓	0	NDA	2875							
20	↑ 80 ↓								QBO	(17.5, 26.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
25	↑ 100 ↓	0	NDA	6831							TD = 26.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600632

Date: 9/6/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17.5

LATA Sampler: L. Sabatino

Total Depth (ft): 29

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2876						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	2877						(0.5, 17.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 60 ↓										
15	↑ 60 ↓	41.6	NDA	2879		saturated	▲				
20	↑ 100 ↓										
25	↑ 60 ↓									(17.5, 29.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
	↑ 100 ↓	0	NDA	2880							TD = 29 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600633

Date: 8/15/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

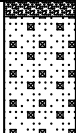
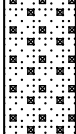
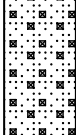
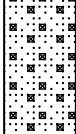
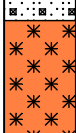
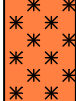
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 17.6

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑	1.1	NDA	2881	2926				↑	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
15	↓ 15 ↑	0	NDA	2882					↑	(0.5, 17.6) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5	↓ 52 ↑								↑		
10	↓ 64 ↑	0	NDA	2885		wet			↑		
15	↓ 64 ↑	0	NDA	2884					↑		
20	↓ 70 ↑	0	NDA	2883	2927				↑	(17.6, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600634

Date: 9/6/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17.5

LATA Sampler: L. Sabatino

Total Depth (ft): 22

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2886						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	2887						(0.5, 17.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 50 ↓								QAL		
15	↑ 50 ↓	0	NDA	2889		saturated					
20	↑ 50 ↓	0	NDA	6832					QBO	(17.5, 22.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 22 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600635

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 14

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17

LATA Sampler: L. Sabatino

Total Depth (ft): 21

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2891						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 78 ↓	0	NDA	2892						(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 0 ↓								QAL		
15	↑ 50 ↓	1.4	NDA	2894		saturated	▼				
20	↑ 100 ↓								QBO	(17.0, 21.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 21 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600636

Date: 9/12/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 13.75

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17

LATA Sampler: Vanessa Carter

Total Depth (ft): 24

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2896						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 80 ↓	0	NDA	2897						(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 30 ↓										
15	↑ 80 ↓	0	NDA	2899		saturated	▲			(17.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	↑ 100 ↓	0	NDA	6833							

TD = 24 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600637

Date: 8/16/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 19

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2901						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	0	0	NDA	2902	2928					(0.5, 19.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	53								QAL		
15	30	0	NDA	2905		wet				(19.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.
	73	0	NDA	2904							

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600638

Date: 9/19/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 10

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 18

LATA Sampler: Vanessa Carter

Total Depth (ft): 32

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2906						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
3.8	38	0	NDA	2907						(0.5, 18.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
5	↑	0	NDA								
10	↓	0	NDA	2910		saturated	▼				
15	↑	102.1	NDA								
20	↓		NDA	2909						(18.0, 32.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
25	↑										
30	↓	0	NDA	2908							
32	100										TD = 32 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600639

Date: 8/31/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14.1

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	2911					↑	(0.0, 0.7) Asphalt	All samples were collected using a HSA core barrel.
5	↑ 83 ↓	0	NDA	2912					↑	(0.7, 14.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This HSA borehole was located on asphalt was abandoned using bentonite grout and clean fill.
10	↑ 38 ↓	0	NDA	2915		moist to wet			↑	(14.1, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
15	↑ 48 ↓	0	NDA	2914	2929				↓		
20	↑ 82 ↓	0	NDA	2913					↑		
	↑ 38 ↓								↓		TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600640

Date: 9/12/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 0.7

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2916						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.7 ft.
5										(0.5, 0.7) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.7 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600641

Date: 9/12/2007

TA-02

Attitude: Vertical

AOC 02-010

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 1

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	2921						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1 ft.
5										(0.5, 1.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600643

Date: 8/27/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 16.2

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	2948						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 4.5 to 5.5 ft samples were collected using a hand auger.
5	↓ 0	0	NDA	2949	2998					(0.5, 16.2) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 58	0	NDA	2950	2999	damp					
15	↓ 84	0	NDA	2951		moist to wet				(16.2, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600644

Date: 8/27/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14.1

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger ↓	0	NDA	2953					ALLH: Brown silty soil, some grass and roots.	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 4.5 to 5.2 ft samples were collected using a hand auger.
5	↑ 0 ↓	0	NDA	2954					QAL	(0.5, 14.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 70 ↓	0	NDA	2955					QAL	(0.5, 14.1) QAL: Dark gray brown sandy silt with pebbles and cobbles.	
15	↑ 84 ↓	0	NDA	2956					QBO	(14.1, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600645

Date: 8/28/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.7

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	2958						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 4.5 to 5.25 ft samples were collected using a hand auger.
5	0	0	NDA	2959	3001				QAL	(0.5, 15.7) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	54	0	NDA	2960	3000						
15	36	0	NDA	2961					QBO	(15.7, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	56										TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600646

Date: 8/28/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2963						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 76 ↓	0	NDA	2964	3002					(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 64 ↓	0	NDA	2965							
15	↑ 78 ↓	0	NDA	2966						(16.5, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600647

Date: 9/13/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: Mark Cummings

Total Depth (ft): 4.9

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	2968					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a hand auger that was refused at 4.9 ft due to rocks.	
5	↓	0	NDA	2969					(0.5, 4.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
10											TD = 4.9 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600648

Date: 9/8/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 13

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14

LATA Sampler: Mark Cummings

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2973						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
0.63	↕										
5	↕	0	NDA	2974						(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5.50	↕										
10	↕										
10.10	↕										
15	↕	0	NDA	2976		saturated	▲				
15.00	↕	0	NDA	2977						(14.0, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
19.5	↕										TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600649

Date: 9/10/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

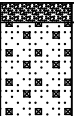
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): NA

LATA Sampler: Kevin Smith

Total Depth (ft): 3

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	2978					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	33									(0.5, 3.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 3 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 3 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600650

Date: 9/10/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 10.9

LATA Sampler: Kevin Smith

Total Depth (ft): 14.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	2983						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 36 ↓	0	NDA	2984		moist to wet			QAL	(0.5, 10.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 56 ↓	0	NDA	2985					QBO	(10.9, 14.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600651

Date: 8/28/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 19

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	2988					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 4.5 to 5 ft samples were collected using a hand auger.
5	0	0	NDA	2989					QAL	(0.5, 19.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	64	0	NDA	2990					QAL		
15	48	0	NDA	2992		wet			QAL		
20	100	0	NDA	2991					QBO	(19.0, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600652

Date: 8/30/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 16.8

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	2993						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft and 4.5 to 5.3 ft samples were collected using a hand auger.
5	↓ hand auger	0	NDA	2994						(0.5, 16.8) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 0	0	NDA	2995							
	↓ 56										
15	↑ 0	0	NDA	2997		wet					
	↓ 78	0	NDA	2996						(16.8, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600660

Date: 9/4/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(x)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 14

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	3062						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 67 ↓	0.2	NDA	3063	3098				QAL	(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to refusal at 14 ft and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 0 ↓										TD = 14 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600661

Date: 9/11/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(x)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): 11

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 17

LATA Sampler: Vanessa Carter

Total Depth (ft): 30

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 38 ↓	0	NDA	3067						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 40 ↓	0	NDA	3068					QAL	(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 40 ↓	0	NDA	3071		saturated					
15	↑ 50 ↓	101	NDA	3070							
20	↑ 91 ↓								QBO	(17.0, 30.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
25	↑ 60 ↓	0	NDA	3069							
30											TD = 30 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600662

Date: 9/7/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(x)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 15

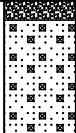
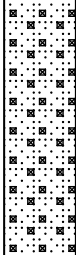
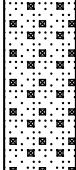

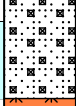
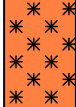
Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 17

LATA Sampler: L. Sabatino

Total Depth (ft): 20

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	3072						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 40 ↓	0	NDA	3073						(0.5, 17.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 0 ↓										
15	↑ 0 ↓	0	NDA	3075		saturated					
20	↑ 50 ↓								QBO	(17.0, 20.0) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 20 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600663

Date: 9/12/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(x)

Drill Operator: Jesse Garcia

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 150

Depth to soil/tuff interface (ft): 15

LATA Sampler: Vanessa Carter

Total Depth (ft): 17.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 44 ↓	0	NDA	3077						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 40 ↓	0	NDA	3078					QAL	(0.5, 15.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 100 ↓								QBO	(15.0, 17.5) QBO: Light orange to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 17.5 ft.
15	100	0	NDA	3080							

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600664

Date: 9/8/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(x)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 14

LATA Sampler: L. Sabatino

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	3082	3100				↑	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 60 ↓	0	NDA	3083					↑ QAL ↓	(0.5, 14.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 60 ↓	0	NDA	3085					↑ QBO ↓	(14.0, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
15	↑ 80 ↓										
20	↑ 100 ↓	0	NDA	6834							TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600665

Date: 8/31/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(x)

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to saturation (ft): 15

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to soil/tuff interface (ft): 16.5

LATA Sampler: L. Sabatino

Total Depth (ft): 23.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	3087						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	62.5 ↑ 62.5 ↓	0	NDA	3088	3097					(0.5, 16.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	0 ↑ 0 ↓										
15	50 ↑ 50 ↓	0	NDA	3090		saturated					
20	86 ↑ 86 ↓	0	NDA	6835						(16.5, 23.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
											TD = 23.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 02-600666

Date: 8/23/2007

TA-02

Attitude: Vertical

AOC 02-011(a)(x)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: James McDaniel

Total Depth (ft): 1.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	3092						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 1.5 ft..
5										(0.5, 1.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600698

Date: 8/29/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 11.9

LATA Sampler: Kevin Smith

Total Depth (ft): 14.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	3200						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	3201					QAL	(0.5, 11.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 54 ↓	0	NDA	3202		wet			QBO	(11.9, 14.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600699

Date: 9/9/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): 9.2

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 13

LATA Sampler: Kevin Smith

Total Depth (ft): 24.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	3205						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 70 ↓	0	NDA	3206					QAL	(0.5, 13.0) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using bentonite grout and clean fill.
10	↑ 0 ↓					saturated					
15	↑ 30 ↓	0	NDA	3208					QBO	(13.0, 24.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	
20	↑ 52 ↓	0	NDA	3209							
											TD = 24.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600700

Date: 9/9/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 14.5

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	3210						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 54 ↓	0	NDA	3211		moist			QAL	(0.5, 14.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 36 ↓	0	NDA	3212		wet			QAL		
15	↑ 64 ↓	0	NDA	3213					QBO	(14.5, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600701

Date: 9/7/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 9.5

LATA Sampler: Kevin Smith

Total Depth (ft): 14.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	3215						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 34 ↓	0	NDA	3216		wet			QAL	(0.5, 9.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 100 ↓	0	NDA	3217					QBO	(9.5, 14.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 02-600702

Date: 8/29/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present


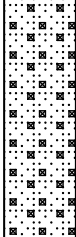
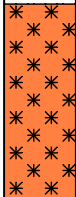
Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 9.5

LATA Sampler: Kevin Smith

Total Depth (ft): 14.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0	NDA	3220						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 56 ↓	0	NDA	3221					QAL	(0.5, 9.5) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 64 ↓	0	NDA	3222	3245				QBO	(9.5, 14.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600703

Date: 8/18/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	3225						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600704

Date: 9/10/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 15.6

LATA Sampler: Kevin Smith

Total Depth (ft): 19.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	0.9	NDA	3230						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 28 ↓					wet				(0.5, 15.6) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 0 ↓										
15	↑ 50 ↓	0	NDA	3233						(15.6, 19.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 19.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600705

Date: 9/11/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: Ron Samoian

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: track mounted CME-LAR HSA, unit 151

Depth to soil/tuff interface (ft): 10.9

LATA Sampler: Kevin Smith

Total Depth (ft): 14.5

Sampling equipment: Stainless-steel hand auger and HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	* ↑ 0 ↓	9	NDA	3235	3249					(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger.
5	↑ 36 ↓	0	NDA	3236		wet			QAL	(0.5, 10.9) QAL: Dark gray brown sandy silt with pebbles and cobbles.	The HSA borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 48 ↓	0	NDA	3237					QBO	(10.9, 14.5) QBO: Light orangish to reddish brown, slightly indurated, nonwelded, dry, vitric, ash flow tuff.	TD = 14.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 02-600706

Date: 8/18/2007

TA-02

Attitude: Vertical

SWMU 02-009(c)

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to saturation (ft): not present

Drilling equipment: NA

Depth to soil/tuff interface (ft): NA

LATA Sampler: L. Sabatino

Total Depth (ft): 0.5

Sampling equipment: Stainless-steel hand auger

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	*	0	NDA	3240						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	The 0 to 0.5 ft sample was collected using a hand auger that was refused at 0.5 ft.
5											This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 0.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, LAR = Limited Access Rig, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBO = Quaternary Bandelier Tuff Otowi Member, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600773

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 3.1

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): 3.1

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel HSA core barrel

Total Depth (ft): 9

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑									(0.0, 0.5) ALLH: Brown silty sandl, some grass and roots.	Starting at the soil/tuff interface, all samples were collected using a HSA core barrel.
	62	0	NDA	3507					FILL		
	↓									(0.5, 3.1) FILL: Light grayish brown silty sand with few pebbles.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↑	0	NDA	3508					↑		
	85	0	NDA	3509					↓	(3.1, 9.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	TD = 9 ft.
	↓								QBT3		

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600774

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):3

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): 3

LATA Sampler: Dave Frank

Total Depth (ft): 9

Sampling equipment: Stainless-steel HSA core barrel

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑									(0.0, 0.5) ALLH: Brown silty sand, some grass and roots.	Starting at the soil/tuff interface, all samples were collected using a HSA core barrel.
	84	0	NDA	3510					FILL		
5	↑	0	NDA	3511					↑	(0.5, 2.5) FILL: Light grayish brown silty sand with few pebbles.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
	95	0	NDA	3512					↓	(2.5, 9.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	
10	↓										TD = 9 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600775

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.5

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	3513					QBT3	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	2 of 3 planned samples were collected using a hand auger that was refused at 3 ft by in situ tuff.
0		0	NDA	3514						(0.5, 3.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 3 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600776

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.5

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.1

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	3516					QBT3	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	2 of 3 planned samples were collected using a hand auger that was refused at 3.1 ft by in situ tuff.
5		0	NDA	3517						(0.5, 3.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 3.1 ft.
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600777

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):0.8

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Vanessa Carter

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.1

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	3522					QBT3	(0.0, 0.8) QAL: Brown silty sand, some grass and roots.	2 of 3 planned samples was collected using a hand auger that was refused at 3.1 ft by in situ tuff.
0		0	NDA	3523					QBT3	(0.8, 3.1) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 3.1 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600778

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 2.5

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.4

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA						ALLH	(0.0, 2.5) ALLH: Brown silty soil, some grass and roots.	1 of 3 planned samples were collected using a hand auger that was refused at 3.4 ft by in situ tuff.
5		0	NDA	3519						(2.5, 3.4) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 3.4 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600779

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):0.5

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 2.9

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ HA	0	NDA	3525					QBT3	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	2 of 3 planned samples were collected using a hand auger that was refused at 2.9 ft by in situ tuff.
0	↓	0	NDA	3526						(0.5, 3.4) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 2.9 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600780

Date: 9/25/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):0.7

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.9

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	3528					QBT3	(0.0, 0.7) ALLH: Brown silty sand, some grass and roots.	2 of 3 planned samples were collected using a hand auger that was refused at 3.9 ft by in situ tuff.
5		0	NDA	3529						(0.7, 3.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 3.9 ft.
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600781

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):NA

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 5.8

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	3531				ALLH		(0.0, 0.8) ALLH: Brown silty sand, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a hand auger.
		0	NDA	3532							
5	↓	0	NDA	3533	3568			QBT3		(0.8, 5.8) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600782

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):NA

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 0

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0										(0.0, 10.0)	No samples were collected at his location. The loose unstable slope material was incapable of sustaining a hand-auger boring without caving in. This location was inaccessible to a drill rig or a backhoe.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600783

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 1

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 6.1

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger ↓	0	NDA	3537						(0.0, 0.5) ALLH: Brown silty sand, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a hand auger.
5		0	NDA	3538						(0.5, 1.0) QAL: Brown silty sand, dry.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10		0	NDA	3539							(1.0, 6.1) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600784

Date: 9/25/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):0.7

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.3

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	3540					QBT3	(0.0, 0.7) ALLH: Brown silty sand, some grass and roots.	2 of 3 planned samples were collected using a hand auger that was refused at 3.3 ft by in situ tuff.
0		0	NDA	3541						(0.7, 3.3) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 3.3 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600785

Date: 9/25/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.8

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 5.3

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes	
0	↑	0	NDA	3543					QBT3	(0.0, 0.8) ALLH: Brown silty sand, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a hand auger.	
		0	NDA	3544								
5	↓	0	NDA	3545								(0.8, 3.4) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.
10												

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600786

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):0.5

Drilling equipment: NA


Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 1.8

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	3546						(0.0, 0.5) ALLH: Brown silty sand, some grass and roots.	1 of 3 planned samples was collected using a hand auger that was refused at 1.8 ft by in situ tuff.
5										(0.5, 1.8) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1.8 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600787

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):0.7

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.2

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	3549					QBT3	(0.0, 0.7) ALLH: Brown silty sand, some grass and roots.	2 of 3 planned samples were collected using a hand auger that was refused at 3.2 ft by in situ tuff.
1		1	NDA	3550						(0.7, 3.2) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 3.2 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600788

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.7

Drilling equipment: NA

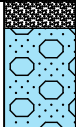

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 5.2

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	3552						(0.0, 0.7) ALLH: Brown silty sand, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a hand auger.
	hand auger	0	NDA	3553							
5	↓	0	NDA	3554					QBT3	(0.7, 5.2) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 5.2 ft.
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600789

Date: 10/1/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.5

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ hand auger	0	NDA	3555						(0.0, 0.5) ALLH: Brown silty sand, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a hand auger.
		0	NDA	3556							
5	↓	0	NDA	3557						(0.5, 5.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 5 ft.
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600790

Date: 10/1/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):0.7

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.2

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	3558					QBT3	(0.0, 0.7) ALLH: Brown silty sand, some grass and roots.	2 of 3 planned samples were collected using a hand auger that was refused at 3.2 ft by in situ tuff.
5		0	NDA	3559					QBT3	(0.7, 3.2) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 3.2 ft.
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

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Borehole Location ID: 26-600791

Date: 10/1/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.5

Drilling equipment: NA

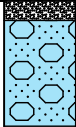
Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.2

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	3561					QBT3	(0.0, 0.5) ALLH: Brown silty sand, some grass and roots.	2 of 3 planned samples were collected using a hand auger that was refused at 3.2 ft by in situ tuff.
0		0	NDA	3562						(0.5, 3.2) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 3.2 ft.
5											
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600792

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):0.5

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.2

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	3564	3567				QBT3	(0.0, 0.5) ALLH: Brown silty sand, some grass and roots.	All samples were collected using a hand auger that was refused at 3.2 ft by in situ tuff.
0		0	NDA	3565						(0.5, 3.2) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5											
10											TD = 3.2 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600910

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 3.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): 3.5

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel HSA core barrel

Total Depth (ft): 11.5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ 50 ↓								FILL	(0.0, 0.5) ALLH: Brown silty sand, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a HSA core barrel.
5	↑ 80 ↓	0	NDA	7047						(0.5, 3.5) FILL: Brown silty sand.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	↑ 80 ↓	0	NDA	7048					QBT3	(3.5, 11.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	
				7049							TD = 11.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600911

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

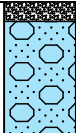
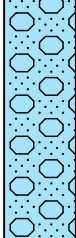
Depth to pipe (ft): not present

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel HSA core barrel

Total Depth (ft): 9.5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes	
0	↑	0	NDA	7044						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a HSA core barrel.	
	↓ 50	0	NDA	7045						(0.5, 9.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
5	↑	0	NDA	7046								
	↓ 75											TD = 9.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600912

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.8

Drilling equipment: truck mounted CME-85 HSA, unit 153

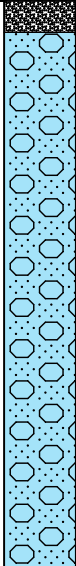
Depth to pipe (ft): not present

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel HSA core barrel

Total Depth (ft): 14.5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	7041						(0.0, 0.8) ALLH: Brown silty soil, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a HSA core barrel.
	↓	0	NDA	7042							
5	↑	0	NDA	7043	7031					(0.8, 14.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
	↓								QBT3		
10	↑										
	↓										TD = 14.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600913

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

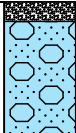
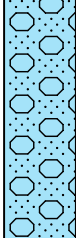
Depth to pipe (ft): not present

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel HSA core barrel

Total Depth (ft): 9.5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes	
0	↑	0	NDA	7038						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a HSA core barrel.	
	65	0	NDA	7039						(0.5, 9.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
5	↑	0	NDA	7040								
	85								QBT3			TD = 9.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600914

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

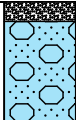
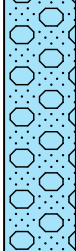
Depth to pipe (ft): not present

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel HSA core barrel

Total Depth (ft): 9.5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes	
0	↑	0	NDA	7035						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a HSA core barrel.	
	68	0	NDA	7036						(0.5, 9.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.	
5	↑	0	NDA	7037								
	84											TD = 9.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600915

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 1.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): 1.5

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger and HSA core barrel Total Depth (ft): 7.5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA trench								FILL	(0.0, 1.5) FILL: Brown silty sand, some grass and roots at top.	The upper sample was collected using a hand auger; the other samples were collected using a HSA core barrel.
0	HA	0	NDA	4215							
5	80	0	NDA	4216					QBT3	(1.5, 7.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10		0	NDA	4217							TD = 7.5 ft.

ALLH = Soil, all horizons. CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600916

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 1

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): not present

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel HSA core barrel

Total Depth (ft): 9.5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	4218						(0.0, 1.0) ALLH: Brown silty soil, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a HSA core barrel.
	64	0	NDA	4219							
5	↑	0	NDA	4220	3469				QBT3	(1.0, 9.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
	58										TD = 9.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600917

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): not present

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel HSA core barrel

Total Depth (ft): 9

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	4221						(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	All samples were collected using a HSA core barrel.
	60	0	NDA	4222							The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↑	0	NDA	4223	3471				QBT3	(0.5, 9.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	
75	↓										
10											TD = 9 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600918

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 3.1

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): 2.1

LATA Sampler: J. Garduno and Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel HSA core barrel

Total Depth (ft): 13.5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	trench								FILL	(0.0, 2.1) FILL: Brown silty sand, some grass and roots at top.	The upper sample was collected using a hand auger; the other samples were collected using a HSA core barrel.
0	HA	0	NDA	4224							
5	60	0	NDA	4225							
10	54	0	NDA	4226	3468				QBT3	(2.1, 13.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
											TD = 13.5 ft.

ALLH = Soil, all horizons. CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600919

Date: 9/22/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 2.6

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): 2.6

LATA Sampler: J. Garduno and Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger and HSA core barrel Total Depth (ft): 10.2

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	trench								FILL	(0.0, 2.6) FILL: Brown silty sand, some grass and roots at top.	The upper sample was collected from the trench using a hand auger; the other samples were collected with a core barrel.
5	*	0	NDA	4227					QBT3	(2.6, 10.2) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	The borehole was drilled to TD and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
	↑	0	NDA	4228							
	50	0	NDA	4229							
10	↓										TD = 10.2 ft.

ALLH = Soil, all horizons. CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600920

Date: 9/24/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 2.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): 2.5

LATA Sampler: J. Garduno and Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger and HSA core barrel Total Depth (ft): 9

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	trench								FILL	(0.0, 2.5) FILL: Brown silty sand with few pebles.	The upper 2 samples were collected using a hand auger; the lower sample was collected with a HSA core barrel.
0	HA	0	NDA	4230							
0		0	NDA	4231							
5	↕ 85 ↕	0	NDA	4232					QBT3	(2.5, 9.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 9 ft.

ALLH = Soil, all horizons. CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600921

Date: 9/24/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.9

Drilling equipment: NA

Depth to pipe (ft): not present

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	4233					QBT3	(0.0, 0.9) ALLH: Brown silty sand, some grass and roots.	2 of 3 planned samples were collected using a hand auger that was refused at 3.5 ft by in situ tuff.
5		0	NDA	4234					QBT3	(0.9, 3.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 3.5 ft.
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600922

Date: 9/24/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 1

Drilling equipment: NA


Depth to pipe (ft): not present

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 1.8

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	4236						(0.0, 1.0) ALLH: Brown silty sand, some grass and roots.	1 of 3 planned samples was collected using a hand auger that was refused at 1.8 ft by in situ tuff.
5										(1.0, 1.8) QBT3: Light pinkish gray, moderately indurated, nonwelded, dry, devitrified, ash flow tuff	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1.8 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Location ID: 26-600923

Date: 9/23/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 1.2

Drilling equipment: NA

Depth to pipe (ft): NA

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 1.7

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	HA	0	NDA	4239						(0.0, 1.2) ALLH: Brown silty sand, some grass and roots.	1 of 3 planned samples was collected using a hand auger that was refused at 1.7 by in situ tuff.
5										(1.2, 1.7) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10											TD = 1.7 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600924

Date: 9/24/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): not present

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger and HSA core barrel Total Depth (ft): 12

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑									(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	Starting at the soil/tuff interface, all 3 planned samples were collected using a HSA core barrel.
7.5	↔			7032							
	↓			7033							
5	↑			7034	7030					(0.5, 12.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
6.2	↔										
6.8	↓										
10											TD = 12 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600925

Date: 10/3/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft):0.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): not present

LATA Sampler: Dave Frank

Depth to saturation (ft):not present

Sampling equipment: Stainless-steel hand auger and HSA core barrel Total Depth (ft): 8

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑ 74 ↓	0	NDA	4245						(0.0, 0.5) ALLH: Brown silty sand, some grass and roots.	Starting at the soil/tuff interface, all samples were collected using a HSA core barrel.
		0	NDA	4246						(0.5, 8.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	This borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
5	↑ 62 ↓	0	NDA	4247							
10											TD = 8 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

Project: Middle LA Canyon Aggregate Area IWP

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Borehole Location ID: 26-600926

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 1

Drilling equipment: NA

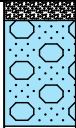
Depth to pipe (ft): not present

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3.2

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	4248					QBT3	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	Starting at the soil/tuff interface, 2 of 3 planned samples were collected using a hand auger that was refused at 3.2 ft by in situ tuff. The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill. TD = 3.2 ft.
5		0	NDA	4249						(0.5, 3.2) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff.	
10											

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600927

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: NA

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 2

Drilling equipment: NA

Depth to pipe (ft): not present

LATA Sampler: Jon Roberson

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger

Total Depth (ft): 3

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	hand auger	0	NDA	4251					QAL	(0.0, 0.5) ALLH: Brown silty soil, some grass and roots.	1 of 3 planned samples was collected using a hand auger that was refused at 3 ft by in situ tuff.
5										(0.5, 2.0) QAL: Brown silty sand with few pebbles.	This location was inaccessible to a drill rig and abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10										(2.0, 3.0) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff	TD = 3 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600928

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 0.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

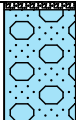
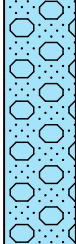
Depth to pipe (ft): not present

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel HSA core barrel

Total Depth (ft): 9.5

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	↑	0	NDA	4254						(0.0, 0.2) ALLH: Brown silty soil, some grass and roots.	All 3 planned samples were collected using a HSA core barrel.
	84	0	NDA	4255							
5	↑	0	NDA	4256					QBT3	(0.2, 9.5) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff	The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
	92										TD = 9.5 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.

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Borehole Log**

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Borehole Location ID: 26-600929

Date: 10/4/2007

TA-26

Attitude: Vertical

SWMU 26-001

Drill Operator: Dave Raymond

Drilling Company - Water Development Corporation

Depth to soil/tuff interface (ft): 2.5

Drilling equipment: truck mounted CME-85 HSA, unit 153

Depth to pipe (ft): 2.5

LATA Sampler: Dave Frank

Depth to saturation (ft): not present

Sampling equipment: Stainless-steel hand auger and HSA core barrel Total Depth (ft): 10.8

Depth (ft)	Hand auger or % HSA core recovery	PID Screening (ppm) (result-ambient)	Radiological Screening	Core Sample (RE02-07-)	Duplicate Core Sample (RE02-07-)	Moisture Notes	Saturation	Graphic Log	Lithologic Unit	Lithology	Notes
0	trench								FILL	(0.0, 2.5) FILL: Brown silty sand with few pebbles.	Starting at the soil/tuff interface, all 3 planned samples were collected using a HSA core barrel.
0	74	0	NDA	4257							
5		0	NDA	4258							The borehole was abandoned using hydrated 3/8-inch bentonite chips and clean fill.
10	65	0	NDA	4259	3470				QBT3	(0.5, 10.8) QBT3: Whitish gray, slightly indurated, nonwelded, dry, devitrified, ash flow tuff	TD = 10.8 ft.

ALLH = Soil, all horizons, CME = Central Mine Equipment, HA and * = hand auger, HSA = hollow stem auger, NA = not applicable or not encountered, NDA = No Detectable Activity > 2 X daily- and location-specific radiological background values, PID = photo-ionization detector, ppm = parts per million, QAL = Quaternary Alluvium, QBT3 = Quaternary Bandelier Tuff Tshirege Member Cooling Unit 3, TA = Technical Area, TD = Total Depth.