



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Reply to:
301 E. Stewart Ave., #203
Las Vegas, Nevada 89101

Tel: (702) 388-6125

DATE: December 1, 1992
TO: Charlotte Abrams, M/S 4 H 3
FROM: Paul T. Prestholt, Sr. Project Manager
SUBJECT: SCHEDULE OF FUTURE CORE SAMPLE DISTRIBUTIONS

Please find enclosed the above-referenced information.

PTP:nan

cc: Joe Holonich w/o encs., M/S 4 H 3

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Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.3
QA: N/A

NOV 23 1992

J. Russell Dyer, Director, Regulatory & Site Evaluation Division, YMP, NV

ARCHIVE CORE

There is no designated "archive core" as such in the Yucca Mountain Site Characterization Project collection.

The paragraphs that follow discuss some of the reasons that archiving core is not required.

1. Enclosure 1 is a partial listing of potential Principal Investigator (PI) requests for core from the G, SD, and UZ boreholes to be drilled during site characterization. The PIs have shown interest in only 21 to 25 percent of the G core, 38 to 54 percent of the SD core, and 25 to 39 percent of the UZ core. Some 75 to 79 percent of the G core, 46 to 62 percent of the SD core, and 61 to 75 percent of the UZ core remains to be allocated at some later date.
2. Procedures presently in place require video tapes of the the core prior to processing and after the core has been removed for the PI. A video record exists for all "new" core; additionally, a lithologic log prepared by the Sample Management Facility/Sample Overview staff exists for all core.
3. Enclosure 2 is a print out of core usage from previously drilled boreholes. Core specimens removed from USW G-4, for example, total some 13.4 percent; only some 403 of 3001 feet of core have been removed for study. Some 86 percent of the core remains for future study if required.
4. The Sample Overview Committee has discussed the need for archive core. In the opinion of the SOC, to be effective a 100 percent split, i.e., one third archive, two thirds sample, should be made. The HQ core is too small to split for archive and have samples remaining of sufficient size for some PIs. Additionally, some hydrologic, geochemistry, and age dating studies would be compromised if the core was sawed for archiving. The considered opinion of the SOC was to rely on the Quality Assurance (QA) process; if unacceptable, redrill the borehole to collect additional core.

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5. A second borehole could be drilled to acquire core from a specific interval if suitable core did not remain in the collection. The upper interval could be hammer drilled quickly; a coring bit would then be installed to acquire the needed core. Note that even though we are using state-of-the-art techniques to package core for hydrological, geochemical and dating studies, we have concern as to our ability to maintain core in a pristine state for ten or more years. The hydrological, geochemical, and aged dating studies are considered to have the highest probability for additional study.
6. Finally the U.S. Department of Energy QA program has been approved by the U.S. Nuclear Regulatory Commission. The QA program is considered to provide adequate documentation for all samples that are being tested/analyzed. The QA program should mitigate any need for replicate samples and the need to repeat the test/analysis at some later date.

If you have any questions, please call me at 794-7943.



Uel S. Clanton, Chief
 Site Investigations Branch
 Regulatory & Site Evaluation Division

RSED:USC-1156

Enclosures:

on the shelf - enclosure 1 WEDNESDAY, 11/29/89

1. Listing of Core Requests
2. List of Removed Specimens

cc w/o encls:

- J. F. Whelan, USGS, Denver, CO
- S. L. Bolivar, LANL, Los Alamos, NM
- C. A. Rautman, SNL, 6315, Albuquerque, NM
- Wunan Lin, LLNL, Livermore, CA
- B. W. Distel, M&O/WCC, Las Vegas, NV
- Christopher Lewis, SAIC, Mercury, NV, M/S 719
- J. A. Hartley, SAIC, Mercury, NV, M/S 719
- A. C. Williams, YMP, NV
- G. P. Gertz, YMP, NV
- M. B. Blanchard, YMP, NV
- R. V. Barton, YMP, NV
- S. B. Jones, YMP, NV
- J. M. Boak, YMP, NV
- W. A. Girdley, YMP, NV
- R. C. Long, YMP, NV
- D. R. Williams, YMP, NV

Rec used letter dtd 12/1/92
 9212090228 92/12/92

Hole	Requester	Activity:	Lith Unit	Intvl Ch:	Spig Frequency	Comments	nt. Req.	
G-5	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=4'. Spis approx 1' long		4	
			Chocolate Mn		2 spig criteria: 1'50"-16"; 1' w/ frac in mid=1'. Total =17. All spis>6"		17	
			Tpp		2 spig criteria: 1'50"-2"; 1' w/ frac in mid=1'. Total =3. All spis>6"		3	
			Tpt		2 spig criteria: 1'50"-7"; 1' w/ frac in mid=1'. Total =8. All spis>6"		8	
					<i>Number of samples requested by PI</i>	60 sps	<i>Footage requested by PI</i>	32 ft
Alan Flint	Matrix hydrologic properties testing			evenly spaced. No spig @ lith contacts	4" spl / 10' @ 500' = 500 sps = 167'		167	
					<i>Number of samples requested by PI</i>	500 sps	<i>Footage requested by PI</i>	167 ft
Arend Meijer	Batch sorption measurements as a function of solid phase composition	Tht	below repository horizon. Mineralogy will determine spl.	5-7 sps @ .5' = 2.5-3.5'	Share sps with 8.3.1.3.6.1.1		3.5	
		Tpt	below repository horizon. Mineralogy will determine spl.	5-7 sps @ .5' = 2.5-3.5'	Share sps with 8.3.1.3.6.1.1		3.5	
					<i>Number of samples requested by PI</i>	14 sps	<i>Footage requested by PI</i>	7 ft
Barbara Carlos	Fracture mineralogy	All	Intvls w/ coated fractures	4 sps/100' = 200 sps @ .3-.5 = 60-100'	split core or rubble OK.		100	
					<i>Number of samples requested by PI</i>	200 sps	<i>Footage requested by PI</i>	100 ft
Chris Rautman	Systematic drilling program	All		spis every 20' fm base of alluv. to bottom of hole (not exceeding 200' below water table); 100 sps @ 0.5' = 50'	Lesser but definite interest holes. Nondestructive testing		50	
					<i>Number of samples requested by PI</i>	100 sps	<i>Footage requested by PI</i>	50 ft
Dave Broxton	Mineral distributions between the host rock and the accessible environment	All		evenly spaced thruout depth of hole	1 spl per 50' = 100 sps @ .5 per spl = 50'		50	
					<i>Number of samples requested by PI</i>	100 sps	<i>Footage requested by PI</i>	50 ft
Henri Swolfs	Evaluate and test shallow borehole hydrofrac and triaxial strain recovery methods for the	All		approx 1' spl/10' hole	approx 500 sps @ 1'/spl (two 6" pieces fm top 3 hole. Spl needs & btm of run or one 1' piece fm mid-run) = 300 depend on whether any core fm hole is		300	

ENCLOSURE 1

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Hole	Requester	Activity:	Lith Unit	Intvl Ch:	Splg Frequency	Comments	ft. Req.
					<i>Number of samples requested by PI</i>	500 spls	<i>Footage requested by PI</i> 300 ft
Joe Rosenbaum	Magnetic properties and stratigraphic correlations	All	whole, intact, unaltered, unfaulted	Random; approx 250 spls @ 6"/spl=125'		For rock magnetics properties testing. Denser splg freq. if core	125
					<i>Number of samples requested by PI</i>	250 spls	<i>Footage requested by PI</i> 125 ft
John Sass	Surface-based evaluation of ambient thermal conditions	All	random. No spls requested around lith cts.	6" spl/50'=100 spls=50'		1mmx50mm hole in spl for needle probe or 1 1/2" overcore	50
					<i>Number of samples requested by PI</i>	100 spls	<i>Footage requested by PI</i> 50 ft
Philip Nelson	Petrophysical properties testing	All		Variable; 40 spls @ 6" = 20'		spls used to validate elect. resistivity and bulk density	20
					<i>Number of samples requested by PI</i>	40 spls	<i>Footage requested by PI</i> 20 ft
Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	continuous based on lithologic changes	250 spls @ 3-6" = 62.5-125'		Depths of hole @ amt core recovered fm SBIP	125
					<i>Number of samples requested by PI</i>	250 spls	<i>Footage requested by PI</i> 125 ft
Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'		For all petrographic and XRD analysis	4.5
					<i>Number of samples requested by PI</i>	15 spls	<i>Footage requested by PI</i> 4.5 ft
Zell Peterman	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	altered	Intermittant; 50 spls @ 6"=25'		Trace elements testing? SMF could crush spls w/ training	25
					<i>Number of samples requested by PI</i>	50 spls	<i>Footage requested by PI</i> 25 ft
					<i>Total Requests per Hole</i>	1055.5 ft	<i>Per Cent Core Requested</i> 21%
					<i>Total Core to be Recovered</i>	5000.0 ft	<i>Core Avail. for Requests</i> 3944.5 ft
G-6	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spls approx 1' long		6
			Chocolate Min		2 splg criteria: 1'/50'=60'; 1' w/ frac in mid=1'. Total =61'. All spls>6"		61

Hole	Requester	Activity:	Lith Unit	Intvl Ch:	Splg Frequency	Comments	nt. Req.
			Tpc		3 splg criteria: 1'5"=60"; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =63'. All spls>6"		63
			Tpp		3 splg criteria: 1'5"=1'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =4'. All spls>6"		4
			Tpt		2 splg criteria: 1'50"=6"; 1' w/ frac in mid=1'. Total =7'. All spls>6"		7
			Tpy		3 splg criteria: 1'5"=60"; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =63'. All spls>6"		63
				<i>Number of samples requested by PI</i>	402 spls	<i>Footage requested by PI</i>	204 ft
Alan Flint	Matrix hydrologic properties testing			evenly spaced. No splg @ lith contacts	4" spl / 10' @ 5000' = 500 spls = 167'		167
				<i>Number of samples requested by PI</i>	500 spls	<i>Footage requested by PI</i>	167 ft
Arend Meijer	Batch sorption measurements as a function of solid phase composition	Tht	below repository horizon. Mineralogy will determine spl.	5-7 spls @ .5' = 2.5-3.5'		Share spls with 8.3.1.3.6.1.1	3.5
		Tpt	below repository horizon. Mineralogy will determine spl.	5-7 spls @ .5' = 2.5-3.5'		Share spls with 8.3.1.3.6.1.1	3.5
				<i>Number of samples requested by PI</i>	14 spls	<i>Footage requested by PI</i>	7 ft
Barbara Carlos	Fracture mineralogy	All	Intvls w/ coated fractures	4 spls/100' = 200 spls @ .3-.5 = 60-100'		split core or rubble OK.	100
				<i>Number of samples requested by PI</i>	200 spls	<i>Footage requested by PI</i>	100 ft
Chris Rautman	Systematic drilling program	All		spls every 20' fm base of alluv. to bottom of hole (not exceeding 200' below water table); 100 spls @ 0.5' = 50'		Lesser but definite interest holes. Nondestructive testing	50
				<i>Number of samples requested by PI</i>	100 spls	<i>Footage requested by PI</i>	50 ft
Dave Broxton	Mineral distributions between the host rock and the accessible environment	All	evenly spaced thruout depth of hole	1 spl per 50' = 100 spls @ .5 per spl = 50'			50
				<i>Number of samples requested by PI</i>	100 spls	<i>Footage requested by PI</i>	50 ft
Henri Swolfs	Evaluate and test shallow borehole hydrofrac and triaxial strain recovery methods for the	All	approx 1' spl/10' hole	approx 500 spls @ 1'/spl (two 6" pieces fm top & btm of run or one 1' piece fm mid-run) = 300 spl		depend on whether any core fm hole is	300

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	ft. Req.
					<i>Number of samples requested by PI</i>	500 sps	<i>Footage requested by PI</i> 300 ft
	Joe Rosenbaum	Magnetic properties and stratigraphic correlations	All	whole, intact, unaltered, unfaulted	Random; approx 250 sps @ 6"/spl=125'	For rock magnetics properties testing. Denser spig freq. if core	125
					<i>Number of samples requested by PI</i>	250 sps	<i>Footage requested by PI</i> 125 ft
	John Sass	Surface-based evaluation of ambient thermal conditions	All	random. No sps requested around lith ctcs.	6" spl/50'=100 sps=50'	1mmx50mm hole in spl for needle probe or 1 1/2" overcore	50
					<i>Number of samples requested by PI</i>	100 sps	<i>Footage requested by PI</i> 50 ft
	Philip Nelson	Petrophysical properties testing	All		Variable; 40 sps @ 6" = 20'	sps used to validate elect. resistivity and bulk density	20
					<i>Number of samples requested by PI</i>	40 sps	<i>Footage requested by PI</i> 20 ft
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units		based on lithologic changes continuous	250 sps @ 3-6" = 62.5-125'	Depths of hole @ amt core recovered fm SBIP	125
					<i>Number of samples requested by PI</i>	250 sps	<i>Footage requested by PI</i> 125 ft
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock,		15 sps @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
					<i>Number of samples requested by PI</i>	15 sps	<i>Footage requested by PI</i> 4.5 ft
	Zell Peterman	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All		intermittant; 50 sps @ 6"-25'	Trace elements testing? SMF could crush sps w/ training	25
					<i>Number of samples requested by PI</i>	50 sps	<i>Footage requested by PI</i> 25 ft
					<i>Total Requests per Hole</i>	1227.5 ft	<i>Per Cent Core Requested</i> 25%
					<i>Total Core to be Recovered</i>	5000.0 ft	<i>Core Avail. for Requests</i> 3772.5 ft
G-7	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=7'. Sps approx 1' long		7
			Tcb		2 spig criteria: 1'/50'=7'; 1' w/ frac in mid=1'. Total =8'. All sps >6"		8

Hole	Requester	Activity:	Lith Unit	Intvl Chk	Spig Frequency	Comments	ft. Req.	
			Tcp		2 spig criteria: 1'/50'=5'; 1' w/ frac in mid=1'. Total =6'. All spls>6"		6	
			Tct		2 spig criteria: 1'/50'=17'; 1' w/ frac in mid=1'. Total =18'. All spls>6"		18	
			Tht		2 spig criteria: 1'/10'=24'; 1' w/ frac in mid=1'. Total =25'. All spls>6"		25	
			Tr		2 spig criteria: 1'/50'=18'; 1' w/ frac in mid=1'. Total =19'. All spls>6"		19	
			Tpc		3 spig criteria: 1'/5'=42'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =45'. All spl>6"		45	
			Tpt		2 spig criteria: 1'/50'=20'; 1' w/ frac in mid=1'. Total =21'. All spls>6"		21	
					<i>Number of samples requested by PI</i>	291 spls	<i>Footage requested by PI</i>	149 ft
Alan Flint	Matrix hydrologic properties testing			evenly spaced. No spig @ lith contacts	4" spl / 10' @ 5000' = 500 spls = 167'			167
					<i>Number of samples requested by PI</i>	500 spls	<i>Footage requested by PI</i>	167 ft
Arend Meijer	Batch sorption measurements as a function of solid phase composition	Tht	below repository horizon. Mineralogy will determine spl.	5-7 spls @ .5' = 2.5-3.5'		Share spls with 8.3.1.3.6.1.1	3.5	
		Tpt	below repository horizon. Mineralogy will determine spl.	5-7 spls @ .5' = 2.5-3.5'		Share spls with 8.3.1.3.6.1.1	3.5	
					<i>Number of samples requested by PI</i>	14 spls	<i>Footage requested by PI</i>	7 ft
Barbara Carlos	Fracture mineralogy	All	intvlis w/ coated fractures	4 spls/100' = 200 spls @ .3-.5 = 60-100'		split core or rubble OK.	100	
					<i>Number of samples requested by PI</i>	200 spls	<i>Footage requested by PI</i>	100 ft
Dave Broxton	Mineral distributions between the host rock and the accessible environment	All	evenly spaced thruout depth of hole	1 spl per 50' = 100 spls @ .5 per spl = 50'			50	
					<i>Number of samples requested by PI</i>	100 spls	<i>Footage requested by PI</i>	50 ft

Hole	Requester	Activity:	Lith Unit	Intvl Chg	Splg Frequency	Comments	ft. Req.
	Henri Swolfs	Evaluate and test shallow borehole hydrofrac and triaxial strain recovery methods for the	All	approx 1' spl/10' hole	approx 500 spls @ 1'/spl (two 6" pieces fm top 3 hole. Spl needs & btm of run or one 1' piece fm mid-run) = 300 depend on whether any core fm hole is		300
					<i>Number of samples requested by PI</i>	<i>500 spls Footage requested by PI</i>	<i>300 ft</i>
	Joe Rosenbaum	Magnetic properties and stratigraphic correlations	All	whole, intact, unaltered, unfaulted	Random; approx 250 spls @ 6"/spl=125'	For rock magnetics properties testing. Denser splg freq. if core	125
					<i>Number of samples requested by PI</i>	<i>250 spls Footage requested by PI</i>	<i>125 ft</i>
	John Sass	Surface-based evaluation of ambient thermal conditions	All	random. No spls requested around lith dcs.	6" spl/50'=100 spls=50'	1mmx50mm hole in spl for needle probe or 1 1/2" overcore	50
					<i>Number of samples requested by PI</i>	<i>100 spls Footage requested by PI</i>	<i>50 ft</i>
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units		continuous			
				based on lithologic changes	250 spls @ 3-6" = 62.5-125'	Depths of hole @ amt core recovered fm SBIP	125
					<i>Number of samples requested by PI</i>	<i>250 spls Footage requested by PI</i>	<i>125 ft</i>
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain	Tpt below host rock and lower		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
					<i>Number of samples requested by PI</i>	<i>15 spls Footage requested by PI</i>	<i>4.5 ft</i>
	Zell Peterman	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All		Intermittant; 50 spls @ 6"-25'	Trace elements testing? SMF could crush spls w/ training	25
					<i>Number of samples requested by PI</i>	<i>50 spls Footage requested by PI</i>	<i>25 ft</i>
					<i>Total Requests per Hole</i>	<i>1102.5 ft Per Cent Core Requested</i>	<i>22%</i>
					<i>Total Core to be Recovered</i>	<i>5000.0 ft Core Avail. for Requests</i>	<i>3897.5 ft</i>
G-8	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=7'. Spls approx 1' long		7
			Tcb		2 splg criteria: 1'/50'=7'; 1' w/ frac in mid=1'. Total =8'. All spls>6"		8

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	t. Req.	
SCH-1	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 50 spigs @ 3-6" = 12.5-25'	Depths of hole & amt core recovered from SBIP.	25	
					<i>Number of samples requested by PI</i>	50 spigs	<i>Footage requested by PI</i>	25 ft
					<i>Total Requests per Hole</i>	25.0 ft	<i>Per Cent Core Requested</i>	INFINIT
					<i>Total Core to be Recovered</i>	0.0 ft	<i>Core Avail. for Requests</i>	-25.0 ft
SD-1	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=7'. Spigs approx 1' long		7	
					Tcp	2 spig criteria: 1'/50"=9'; 1' w/ frac in mid=1'. Total =10'. All spigs >6"	10	
					Tnt	2 spig criteria: 1'/10"=32'; 1' w/ frac in mid=1'. Total =33'. All spigs >6"	33	
					Tpc	3 spig criteria: 1'/5"=22'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =25'. All spigs >6"	25	
					Tpp	3 spig criteria: 1'/5"=22'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =25'. All spigs >6"	25	
					Tpt	2 spig criteria: 1'/50"=22'; 1' w/ frac in mid=1'. Total =23'. All spigs >6"	23	
					Tpy	3 spig criteria: 1'/5"=8'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =11'. All spigs >6"	11	
					<i>Number of samples requested by PI</i>	261 spigs	<i>Footage requested by PI</i>	134 ft
	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" spig / 3' @ 2015' = 672 spigs = 448'		448	
					<i>Number of samples requested by PI</i>	672 spigs	<i>Footage requested by PI</i>	448 ft
	Arend Meijer	Batch sorption measurements as a function of solid phase composition	Tht	below repository horizon. Mineralogy will determine spigs.	15-20 spigs @ .5' = 7.5-10'	Share spigs with 8.3.1.3.6.1.1	10	
					Tpt	below repository horizon. Mineralogy will determine spigs.	10	
					<i>Number of samples requested by PI</i>	40 spigs	<i>Footage requested by PI</i>	20 ft

Hole	requester	Activity:	Lith Unit	Intvl Cha.	Spig Frequency	Comments	ft. Req.
	Barbara Carlos	Fracture mineralogy	All	Intvls w/ coated fractures	4 spls/100' = 80 spls @ .3-.5 = 24-40'	split core or rubble OK.	40
					<i>Number of samples requested by PI</i>	80 spls	<i>Footage requested by PI</i> 40 ft
	Chris Raufman	Systematic drilling program		through water table + 200'			
			All, partic in Tpt, Tht		spls every 10' fm base of alluv. to 200' below water table; 200 spls @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs andl	100
					<i>Number of samples requested by PI</i>	200 spls	<i>Footage requested by PI</i> 100 ft
	Larry Hersman	none	Tht	top, mid, btm	3 spls fm top, mid, btm @ 4-6" per spl = 1.5-2'	uncontam by drlg fluids, no (few) vis fracs, can be in pieces but must be	2
			Tpt	top, mid, btm	3 spls fm top, mid, btm @ 4-6" per spl = 1.5-2'	uncontam by drlg fluids, no (few) vis fracs, can be in pieces but must be	2
					<i>Number of samples requested by PI</i>	6 spls	<i>Footage requested by PI</i> 4 ft
	Phillip Nelson	Petrophysical properties testing	All		Variable; 40 spls @ 6" = 20'	spls used to validate elect. resistivity and bulk density	20
					<i>Number of samples requested by PI</i>	40 spls	<i>Footage requested by PI</i> 20 ft
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 100 spls @ 3-6" = 25-50'	Depths of hole & amt core recovered fm SBIP.	50
					<i>Number of samples requested by PI</i>	100 spls	<i>Footage requested by PI</i> 50 ft
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
					<i>Number of samples requested by PI</i>	15 spls	<i>Footage requested by PI</i> 4.5 ft
	Thomas Hinkebein	Detailed property determination of cementitious-based and	CHn1	3 spig locs; up. (1700'), mid. (1850'), and low. (2000') portions of unit	cum 6' core (2' from each of 3 spig. locs.); all segments greater than 0.3'		6
			PTn	@ 400'	cum 2' core; all segments greater than 0.3'		2

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	t. Req.	
			TDw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4	
			Tsw1, Tsw2	top of units @ 800' (Tsw1) and 1200' and 1400' (Tsw2)	cum 2' core per unit = 4' ; all segments greater than 0.3'		4	
			Tsw2	approx. repository horizon @ 1600'	cum 2' core ; all segments greater than 0.3'		2	
					<i>Number of samples requested by PI</i>	0 sps	<i>Footage requested by PI</i>	18 ft
					<i>Total Requests per Hole</i>	838.5 ft	<i>Per Cent Core Requested</i>	42%
					<i>Total Core to be Recovered</i>	2015.0 ft	<i>Core Avail. for Requests</i>	1176.5 ft

SD-10	Al Yang	Aqueous-phase chemical investigations	All	Wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long		6
			Tcp		2 spig criteria: 1'/50'=13'; 1' w/ frac in mid=1'. Total =14'. All spis>6"		14
			Tht		2 spig criteria: 1'/10'=35'; 1' w/ frac in mid=1'. Total =36'. All spis>6"		36
			Tpc		3 spig criteria: 1'/5'=20'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =23'. All spis>6"		23
			Tpp		3 spig criteria: 1'/5'=2'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =5'. All spis>6"		5
			Tpt		2 spig criteria: 1'/50'=20'; 1' w/ frac in mid=1'. Total =21'. All spis>6"		21

Number of samples requested by PI 204 sps *Footage requested by PI* 105 ft

Alan Flint	Matrix hydrologic properties testing	evenly spaced. No spig @ lith contacts	8" spl / 3' @ 1915' = 638 sps = 426'				426
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Number of samples requested by PI 638 sps *Footage requested by PI* 426 ft

Barbara Carlos	Fracture mineralogy	All	Intvlis w/ coated fractures	4 sps/100' = 80 sps @ .3-.5 = 24-40'	split core or rubble OK.		40
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Number of samples requested by PI 80 sps *Footage requested by PI* 40 ft

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	t. Req.
	Chris Rautman	Systematic drilling program			through water table + 200'		
			Al, partic Tpt, Tht		spls every 10' fm base of alluv. to 200' below water table; 200 spls @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs and	100
				<i>Number of samples requested by PI</i>	200 spls	<i>Footage requested by PI</i>	100 ft
Dave Broxton		Mineral distributions between the host rock and the accessible environment	Al	evenly spaced thruout depth of hole	1 spl per 40' = 50 spls @ .5 per spl = 25'	Request some of holes S. of repos block be deepened to charact.	25
				<i>Number of samples requested by PI</i>	50 spls	<i>Footage requested by PI</i>	25 ft
Fran Nimick		Density and porosity characterization	CHn1	ashflows and bedded units, vitric or zeolitized	22 spls fm vitric zones and 22 spls fm zeolitized zones: 10 evenly distrib. + 4 fm 3 of the 10 Intvls=44 spls @ 0.1' = 4.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.4
			CHn2	basal bedded unit	13 spls fm vitric zones and 13 spls fm zeolitized zones: 5 evenly distrib. + 4 fm 2 of the 5 Intvls=26 spls @ 0.1' = 2.6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.6
			PTn	vitric nonwelded	10 evenly distrib. spls + 4 fm 2 of the 10 Intvls = 18 spls @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
			TOw	welded, devitrified	10 evenly distrib. spls + 4 fm 2 of the 10 Intvls = 18 spls @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
			TSw1	alternating layers of lithophysae-rich & -poor welded, devit. tuff	10 evenly distrib. spls + 4 fm 3 of the 10 Intvls = 22 spls @ 0.1' = 2.2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.2
			TSw2	repository horizon (nonlithophysal)	35 evenly distrib. spls + 4 fm 5 of the 35 Intvls = 55 spls @ 0.1' = 5.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	5.5
			TSw3	Topopah Springs vitrophyre	5 spls fm altered, 22 spls fm unaltered = 27 spls @ 0.1' = 2.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.7
		Thermal conductivity characterization	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls fm vitric zones & 10 spls fm zeolitic zones = 20 spls @ 0.4' = 8.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	8
			CHn2	basal bedded unit	6 spls fm vitric zones & 6 spls fm zeolitic zone = 12 spls @ 0.4' = 4.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.8
			PTn	vitric nonwelded	5 spls @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2

Hole	Requester	Activity:	Lith Unit	Intvl Char.	Spig Frequency	Comments	Req.
			TOw	welded, devitrified	5 sps @ 0.4' =2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			TSw1	lithophysae-rich & lithophysae-poor welded devit tuff	10 sps @ 0.4' =4.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4
			TSw2	nonlithophysal repository horizon	35 sps @ 0.4' =14'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	14
			TSw3	vitrophyre	5 sps fm altered zone & 10 sps fm unaltered zone = 15 sps @ 0.4' =6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6
		Thermal expansion characterization	CHn1	ashflows and bedded units, vitric or zeolitized; unfractured	10 sps fm vitric zone & 10 fm zeolitized zone = 20 sps @ 0.17' =3.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.4
			CHn2	basal bedded unit; unfractured	5 sps fm vitric zone & 5 fm zeolitized zone = 10 sps @ 0.17' =1.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.7
			PTn	vitric, nonwelded	5 sps @ 0.17' =0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9
			TOw	welded, devitrified	5 sps @ 0.17' =0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9
			TSw1	altmtg lithophysae-rich and lithophysae-poor welded devit. tuff	10 sps @ 0.17' =1.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.7
			TSw2	nonlithophysal repository horizon	35 sps @ 0.17' =6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6
			TSw3	vitrophyre, unfractured	10 sps fm altered zone & 10 fm unaltered zone = 20 sps @ 0.17' =3.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.4
		Volumetric heat capacity characterization	CHn1	ash flows and bedded units; vitric or zeolitized	10 sps fm vitric zone and 10 fm zeolitized zone = 20 sps @ 0.1' = 2.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			CHn2	basal bedded unit	5 sps fm vitric zone and 5 fm zeolitized zone = 10 sps @ 0.1' = 1.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1
			PTn	vitric nonwelded	5 sps @ 0.1' =0.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.5

Hole	Requester	Activity:	Lith Unit	Intvl Char.	Spig Frequency	Comments	Req.	
			TOw	welded, devitrified	5 spls @ 0.1' = 0.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.5	
			TSw1	altrntg lithophysae-rich & lithophysae-poor welded devit tuff	10 spls @ 0.1' = 1.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1	
			TSw2	nonlithophysal repository horizon	35 spls @ 0.1' = 3.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.5	
			TSw3	vitrophyre	5 spls fm altered zone & 4 fm nonaltered zone = 9 spls @ 0.1' = 0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9	
					<i>Number of samples requested by PI</i>	511 spls	<i>Footage requested by PI</i>	89.2 ft
Rick Spengler		Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 95 spls @ 3-6" = 23.75-47.5'	Depths of hole & amt core recovered fm SBIP.	47.5	
					<i>Number of samples requested by PI</i>	95 spls	<i>Footage requested by PI</i>	47.5 ft
Ron Price		Compressive mechanical properties of intact rock at baseline experiment	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls @ .5 = 5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	5	
			CHn2	basal bedded unit	5 spls @ .5 = 2.5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	2.5	
			PTn	vitric, nonwelded	10 spls @ .5 = 5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	5	
			TOw	welded, devitrified	10 spls @ .5 = 5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	5	
			TSw1	altrntg lithophysae-rich and lithophysae-poor welded devit. tuff	35 spls @ .5 = 17.5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	17.5	
			TSw2	nonlithophysal repository horizon	35 spls @ .5 = 17.5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	17.5	
			TSw3	vitrophyre	10 spls @ .5 = 5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	5	
		Mechanical properties of fractures at baseline experimental conditions	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls @ .5 = 5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	5	

Hole	Requester	Activity:	Lith Unit	Intvl Char.	Spig Frequency	Comments	Req.
			CHn2	basal bedded unit	5 spls @ .5 = 2.5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	2.5
			PTn	vitric, nonwelded	10 spls @ .5 = 5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	5
			TCw		10 spls @ .5 = 5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	5
			TSw1	altrng lithophysae-rich and lithophysae-poor welded devit. tuff	35 spls @ .5 = 17.5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	17.5
			TSw2	nonlithophysal repository horizon	35 spls @ .5 = 17.5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	17.5
			TSw3	vitrophyre	10 spls @ .5 = 5'	Spig freq as indicated only if core diam = 2.4". Fewer spls required if	5
			<i>Number of samples requested by PI</i>		230 spls	<i>Footage requested by PI</i>	115 ft
Schon Levy		History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
			<i>Number of samples requested by PI</i>		15 spls	<i>Footage requested by PI</i>	4.5 ft
Thomas Hinkebein		Detailed property determination of cementitious-based and	CHn1	3 spig locs; up. (1440'), mid. (1540'), and low. (1640') portions of unit	cum 6' core (2' from each of 3 spig. locs.); all segments greater than 0.3'		6
			CHn2/3	middle of unit @ 1800'	cum 2' core ; all segments greater than 0.3'		2
			PTn	@ 500'	cum 2' core; all segments greater than 0.3'		2
			TCw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4
			TSw1, TSw2	top of units @ 620' (TSw1) and 840' (TSw2)	cum 2' core per unit = 4' ; all segments greater than 0.3'		4
			TSw2	approx. repository horizon @ 1100'	cum 2' core ; all segments greater than 0.3'		2
			<i>Number of samples requested by PI</i>		-1 spls	<i>Footage requested by PI</i>	20 ft

Hole	Requester	Activity:	Lith Unit	Intvl Char.	Spig Frequency	Comments	Req.	
					<i>Total Requests per Hole</i>	972.2 ft	<i>Per Cent Core Requested</i>	51%
					<i>Total Core to be Recovered</i>	1915.0 ft	<i>Core Avail. for Requests</i>	942.8 ft
SD-11	Al Yang	Aqueous-phase chemical investigations	All	wet zones		1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long	6	
			Tcp			2 spig criteria: 1'50'=13'; 1' w/ frac in mid=1'. Total =14'. All spis>6"	14	
			Tht			2 spig criteria: 1'10'=35'; 1' w/ frac in mid=1'. Total =36'. All spis>6"	36	
			Tpc			3 spig criteria: 1'5'=20'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =23'. All spis>6"	23	
			Tpp			3 spig criteria: 1'5'=2'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =5'. All spis>6"	5	
			Tpt			2 spig criteria: 1'50'=20'; 1' w/ frac in mid=1'. Total =21'. All spis>6"	21	
					<i>Number of samples requested by PI</i>	204 sps	<i>Footage requested by PI</i>	105 ft
Alan Flint	Matrix hydrologic properties testing				evenly spaced. No spig @ lith contacts	.8" sp/8' @ 1945' = 648 sps = 432'	432	
					<i>Number of samples requested by PI</i>	648 sps	<i>Footage requested by PI</i>	432 ft
Chris Rautman	Systematic drilling program				through water table + 200'			
			All, partic			spis every 10' fm base of alluv. to 200' below water table; 200 sps @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs and	100
			Tpt, Tht					
					<i>Number of samples requested by PI</i>	200 sps	<i>Footage requested by PI</i>	100 ft
Dave Broxton	Mineral distributions between the host rock and the accessible environment		All		evenly spaced thruout depth of hole	1 spl per 40' = 50 sps @ .5 per spl = 25'	Request some of holes S. of repos block be deepened to charact.	25
					<i>Number of samples requested by PI</i>	50 sps	<i>Footage requested by PI</i>	25 ft

Hole	requester	Activity:	Lith Unit	Intvl Cha.	Splg Frequency	Comments	L. Req.
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 95 spls @ 3-6" =23.75-47.5'	Depths of hole & amt core recovered fm SBIP.	47.5
					<i>Number of samples requested by PI</i>	95 spls	<i>Footage requested by PI</i> 47.5 ft
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
					<i>Number of samples requested by PI</i>	15 spls	<i>Footage requested by PI</i> 4.5 ft
	Thomas Hinkelein	Detailed property determination of cementitious-based and	CHn1	3 splg locs; up. (1380'), mid. (1540'), and low. (1700') portions of unit	cum 6' core (2' from each of 3 splg. locs.); all segments greater than 0.3'		6
			CHn2/3	middle of unit @ 1760'	cum 2' core ; all segments greater than 0.3'		2
			PTn	@ 360'	cum 2' core; all segments greater than 0.3'		2
			TCw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4
			TSw1, TSw2	top of units @ 500' (TSw1) and 700' (TSw2)	cum 2' core per unit = 4'; all segments greater than 0.3'		4
			TSw2	approx. repository horizon @ 1040'	cum 2' core ; all segments greater than 0.3'		2
					<i>Number of samples requested by PI</i>	-1 spls	<i>Footage requested by PI</i> 20 ft
					<i>Total Requests per Hole</i>	734.0 ft	<i>Per Cent Core Requested</i> 38%
					<i>Total Core to be Recovered</i>	1945.0 ft	<i>Core Avail. for Requests</i> 1211.0 ft

SD-12	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spls approx 1' long		6
			Tcp		2 splg criteria: 1'/50'=13'; 1' w/ frac in mid=1'. Total =14'. All spls>6"		14
			Tht		2 splg criteria: 1'/10'=35'; 1' w/ frac in mid=1'. Total =36'. All spls>6"		36

Hole	Requester	Activity:	Lith Unit	Intvl Ch:	Spig Frequency	Comments	nt. Req.
			Tpc		3 spig criteria: 1/5' = 20'; 1' either side of lith ctc = 2'; 1' w/ frac in mid = 1'. Total = 23'. All spls > 6"		23
			Tpp		3 spig criteria: 1/5' = 2'; 1' either side of lith ctc = 2'; 1' w/ frac in mid = 1'. Total = 5'. All spls > 6"		5
			Tpt		2 spig criteria: 1/50' = 20'; 1' w/ frac in mid = 1'. Total = 21'. All spls > 6"		21
					<i>Number of samples requested by PI</i>	204 spls	<i>Footage requested by PI</i> 105 ft
Alan Flint	Matrix hydrologic properties testing			evenly spaced. No spig @ lith contacts	8" sp / 3' @ 1880' = 627 spls = 418'		418
					<i>Number of samples requested by PI</i>	627 spls	<i>Footage requested by PI</i> 418 ft
Barbara Carlos	Fracture mineralogy	All		Intvls w/ coated fractures	4 spls/100' = 80 spls @ .3-.5 = 24-40'	split core or rubble OK.	40
					<i>Number of samples requested by PI</i>	80 spls	<i>Footage requested by PI</i> 40 ft
Chris Rautman	Systematic drilling program			through water table + 200'			
			All, partic Tpt, Tht		spls every 10' fm base of alluv. to 200' below water table; 200 spls @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs andf	100
					<i>Number of samples requested by PI</i>	200 spls	<i>Footage requested by PI</i> 100 ft
Dave Broxton	Mineral distributions between the host rock and the accessible environment	All		evenly spaced thruout depth of hole	1 spl per 40' = 50 spls @ .5 per spl = 25'	Request some of holes S. of repos block be deepened to charact.	25
					<i>Number of samples requested by PI</i>	50 spls	<i>Footage requested by PI</i> 25 ft
Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All		Variable	Variable; 95 spls @ 3-6" = 23.75-47.5'	Depths of hole & amt core recovered fm SBiP	47.5
					<i>Number of samples requested by PI</i>	95 spls	<i>Footage requested by PI</i> 47.5 ft
Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain		Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
					<i>Number of samples requested by PI</i>	15 spls	<i>Footage requested by PI</i> 4.5 ft

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Splg Frequency	Comments	ft. Req.
Thomas Hinkebein		Detailed property determination of cementitious-based and	CHn1	3 splg locs; up. (1120'), mid. (1220'), and low. (1320') portions of unit	cum 6' core (2' from each of 3 splg. locs.); all segments greater than 0.3'		6
			CHn2/3	middle of unit @ 1380'	cum 2' core ; all segments greater than 0.3'		2
			PTn	@ 240'	cum 2' core; all segments greater than 0.3'		2
			T0w	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4
			TSw1, TSw2	top of units @ 360' (TSw1) and 640' (TSw2)	cum 2' core per unit = 4' ; all segments greater than 0.3'		4
			TSw2	approx. repository horizon @ 900'	cum 2' core ; all segments greater than 0.3'		2

Number of samples requested by PI -1 spls Footage requested by PI 20 ft
 Total Requests per Hole 760.0 ft Per Cent Core Requested 40%
 Total Core to be Recovered 1880.0 ft Core Avail. for Requests 1120.0 ft

SD-2	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=7'. Spls approx 1' long		7
			Tcp		2 splg criteria: 1'50'=9'; 1' w/ frac in mid=1'. Total =10'. All spls>6"		10
			Tht		2 splg criteria: 1'10'=32'; 1' w/ frac in mid=1'. Total =33'. All spls>6"		33
			Tpc		3 splg criteria: 1'5'=22'; 1' either side of lith cic=2'; 1' w/ frac in mid=1'. Total =25'. All spl>6"		25
			Tpp		3 splg criteria: 1'5'=22'; 1' either side of lith cic=2'; 1' w/ frac in mid=1'. Total =25'. All spl>6"		25
			Tpt		2 splg criteria: 1'50'=22'; 1' w/ frac in mid=1'. Total =23'. All spls>6"		23

Hole	Requester	Activity:	Lith Unit	Intvl Chg	Spig Frequency	Comments	ft. Req.
			Tpy		3 spig criteria: 1'5"-8"; 1' either side of lith ctc=2; 1' w/ frac in mid=1'. Total =11'. All spl>6"		11
				<i>Number of samples requested by PI</i>	261 spls	<i>Footage requested by PI</i>	134 ft
Alan Flint		Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" spl / 3' @ 2229' = 743 spls = 495'		495
				<i>Number of samples requested by PI</i>	743 spls	<i>Footage requested by PI</i>	495 ft
Arend Meijer		Batch sorption measurements as a function of solid phase composition	Tht	below repository horizon. Mineralogy will determine spls.	15-20 spls @ .5' = 7.5-10'	Share spls with 8.3.1.3.6.1.1	10
			Tpt	below repository horizon. Mineralogy will determine spls.	15-20 spls @ .5' = 7.5-10'	Share spls with 8.3.1.3.6.1.1	10
				<i>Number of samples requested by PI</i>	40 spls	<i>Footage requested by PI</i>	20 ft
Barbara Carlos		Fracture mineralogy	All	Intvls w/ coated fractures	4 spls/100' = 80 spls @ .3-.5 = 24-40'	split core or rubble OK.	40
				<i>Number of samples requested by PI</i>	80 spls	<i>Footage requested by PI</i>	40 ft
Chris Rautman		Systematic drilling program		through water table + 200'			
			All, partic Tpt, Tht		spls every 10' fm base of alluv. to 200' below water table; 200 spls @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs andf	100
				<i>Number of samples requested by PI</i>	200 spls	<i>Footage requested by PI</i>	100 ft
Dave Broxton		Mineral distributions between the host rock and the accessible environment	All except Tpt	evenly spaced thruout depth of hole except in Topopah Spg	1 spl per 40' = 25 spls @ .5 per spl = 12.5'	Request some of holes S. of repos block be deepened to charact.	12.5
		Petrologic stratigraphy of the Topopah Spring Member	Tpt	evenly distributed thru Topopah Spg	1 spl per 20' = 50 spls @ .5' = 25'	Vaniman will use portions of these spls to char. Topopah Spgs for	25
				<i>Number of samples requested by PI</i>	75 spls	<i>Footage requested by PI</i>	37.5 ft
Everett Springer		Unsaturated tuff columns	Tht	zeolitic @ 1500', bedded 5-10' req. per zone = 10-20'. Min spl lgth = 1' Min 1 ft spl length. Must tuff @ 1720' (approx)		have specified features	20
			Tpt	lithophysal @1050', vitric 5-10' req. per zone = 15-30'. Min spl lgth = 1' Min 1 ft spl length. Must @ 1340', zeolitic @ 1380' (approx)		have specified features	30

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Splog Frequency	Comments	ft. Req.
					Number of samples requested by PI	50 spls	Footage requested by PI
							50 ft
	Fran Nimick	Density and porosity characterization	CHn1	ashflows and bedded units, vitric or zeolitized	22 spls fm vitric zones and 22 spls fm zeolitized zones: 10 evenly distrib. + 4 fm 3 of the 10 intvls=44 spls @ 0.1' = 4.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.4
			CHn2	basal bedded unit	13 spls fm vitric zones and 13 spls fm zeolitized zones: 5 evenly distrib. + 4 fm 2 of the 5 intvls=26 spls @ 0.1' = 2.6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.6
			PTn	vitric, nonwelded	10 evenly distrib. spls + 4 fm 2 of the 10 intvls = 18 spls @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
			TOw	welded, devitrified	10 evenly distrib. spls + 4 fm 2 of the 10 intvls = 18 spls @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
			TSw1	alternating layers of lithophysae-rich & -poor welded, devit. tuff	10 evenly distrib. spls + 4 fm 3 of the 10 intvls = 22 spls @ 0.1' = 2.2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.2
			TSw2	repository horizon (nonlithophysal)	35 evenly distrib. spls + 4 fm 5 of the 35 intvls = 55 spls @ 0.1' = 5.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	5.5
			TSw3	Topopah Springs vitrophyre	5 spls fm altered, 22 spls fm unaltered = 27 spls @ 0.1' = 2.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.7
		Thermal conductivity characterization	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls fm vitric zones & 10 spls fm zeolitic zones = 20 spls @ 0.4' = 8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	8
			CHn2	basal bedded unit	6 spls fm vitric zones & 6 spls fm zeolitic zone = 12 spls @ 0.4' = 4.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.8
			PTn	vitric nonwelded	5 spls @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			TOw	welded, devitrified	5 spls @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			TSw1	lithophysae-rich & lithophysae-poor welded devit tuff	10 spls @ 0.4' = 4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4
			TSw2	nonlithophysal repository horizon	35 spls @ 0.4' = 14'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	14
			TSw3	vitrophyre	5 spls fm altered zone & 10 spls fm unaltered = 15 spls @ 0.4' = 6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6

Hole	Requester	Activity:	Lith Unit	Intvl Ch:	Splg Frequency	Comments	nt. Req.	
		Thermal expansion characterization	CHn1	ashflows and bedded units, vitric or zeolitized; unfractured	10 spls fm vitric zone & 10 fm zeolitized zone = 20 spls @ 0.17' =3.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.4	
			CHn2	basal bedded unit; unfractured	5 spls fm vitric zone & 5 fm zeolitized zone = 10 spls @ 0.17' =1.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.7	
			PTn	vitric, nonwelded	5 spls @ 0.17' =0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9	
			TOw	welded, devitrified	5 spls @ 0.17' =0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9	
			TSw1	altrntg lithophysae-rich and lithophysae-poor welded devit. tuff	10 spls @ 0.17' =1.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.7	
			TSw2	nonlithophysal repository horizon	35 spls @ 0.17' =6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6	
			TSw3	vitrophyre, unfractured	10 spls fm altered zone & 10 fm unaltered zone = 20 spls @ 0.17' =3.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.4	
		Volumetric heat capacity characterization	CHn1	ashflows and bedded units; vitric or zeolitized	10 spls fm vitric zone and 10 fm zeolitized zone = 20 spls @ 0.1' = 2.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2	
			CHn2	basal bedded unit	5 spls fm vitric zone and 5 fm zeolitized zone = 10 spls @ 0.1' = 1.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1	
			PTn	vitric nonwelded	5 spls @ 0.1' =0.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.5	
			TOw	welded, devitrified	5 spls @ 0.1' =0.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.5	
			TSw1	altrntg lithophysae-rich & lithophysae-poor welded devit tuff	10 spls @ 0.1' =1.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1	
			TSw2	nonlithophysal repository horizon	35 spls @ 0.1' =3.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.5	
			TSw3	vitrophyre	5 spls fm altered zone & 4 fm nonaltered zone = 9 spls @ 0.1' =0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9	
					<i>Number of samples requested by PI</i>	511 spls	<i>Footage requested by PI</i>	89.2 ft

Hole	Requester	Activity:	Lith Unit	Intvl Chz	Splg Frequency	Comments	nt. Req.
	Ray Finley	Anelastic strain recovery experiments in core holes	TCw, PTn, TSw1,		TCw, PTn, CHn1, and CHn2 require 1 spl each; TSw1 and TSw2 require 3 spls each; TSw3 requires no spls. Total is 10 spls.	Nondestructive testing; available for other uses after ASR testing.	35
					<i>Number of samples requested by PI</i>	<i>Footage requested by PI</i>	35 ft
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 110 spls @ 3-6" =27.5-55'	Depths of hole & amt core recovered fm SBIP.	55
					<i>Number of samples requested by PI</i>	<i>Footage requested by PI</i>	55 ft
	Ron Price	Compressive mechanical properties of intact rock at baseline experiment	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls @ .5 = 5'		5
			CHn2	basal bedded unit	5 spls @ .5 = 2.5'		2.5
			PTn	vitric, nonwelded	10 spls @ .5 = 5'		5
			TCw	welded, devitrified	10 spls @ .5 = 5'		5
			TSw1	altnig lithophysae-rich and lithophysae-poor welded devit. till	35 spls @ .5 = 17.5'		17.5
			TSw2	nonlithophysal repository horizon	35 spls @ .5 = 17.5'		17.5
			TSw3	vitrophyre	10 spls @ .5 = 5'		5
		Mechanical properties of fractures at baseline experimental conditions	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls @ .5 = 5'		5
			CHn2	basal bedded unit	5 spls @ .5 = 2.5'		2.5
			PTn	vitric, nonwelded	10 spls @ .5 = 5'		5
			TCw	welded, devitrified	10 spls @ .5 = 5'		5

Hole	Requester	Activity:	Lith Unit	Intvl Char	Splg Frequency	Comments	ft. Req.
			TSw1	altmntg lithophysae-rich and lithophysae-poor welded devit. tuff	35 spls @ .5 = 17.5'		17.5
			TSw2	nonlithophysal repository horizon	35 spls @ .5 = 17.5'		17.5
			TSw3	vitrophyre	10 spls @ .5 = 5'		5
				<i>Number of samples requested by PI</i>	230 spls	<i>Footage requested by PI</i>	115 ft
Schon Levy		History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
				<i>Number of samples requested by PI</i>	15 spls	<i>Footage requested by PI</i>	4.5 ft
Thomas Hinkebein		Detailed property determination of cementitious-based and	CHn1	3 splg locs; up. (1800'), mid. (1900'), and low. (2000') portions of unit	cum 6' core (2' from each of 3 splg. locs.); all segments greater than 0.3'		6
			PTn	@ 400'	cum 2' core; all segments greater than 0.3'		2
			TOw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4
			TSw1, TSw2	top of units @ 640' (TSw1) and 1120' and 1400' (TSw2)	cum 2' core per unit = 4'; all segments greater than 0.3'		4
			TSw2	approx. repository horizon @ 1600'	cum 2' core; all segments greater than 0.3'		2
				<i>Number of samples requested by PI</i>	0 spls	<i>Footage requested by PI</i>	18 ft
				<i>Total Requests per Hole</i>	1193.2 ft	<i>Per Cent Core Requested</i>	54%
				<i>Total Core to be Recovered</i>	2229.0 ft	<i>Core Avail. for Requests</i>	1035.8 ft
SD-3	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spls approx 1' long		6
			Tcp		2 splg criteria: 1'/50'=5'; 1' w/ frac in mid=1'. Total =6'. All spls>6"		6

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	ft. Req.		
				Tht	2 spig criteria: 1'/10' = 24'; 1' w/ frac in mid = 1'. Total = 25'. All spigs > 6"		25		
				Tpc	3 spig criteria: 1'/5' = 87'; 1' either side of lith ctc = 2'; 1' w/ frac in mid = 1'. Total = 90'. All spigs > 6"		90		
				Tpp	3 spig criteria: 1'/5' = 11'; 1' either side of lith ctc = 2'; 1' w/ frac in mid = 1'. Total = 14'. All spigs > 6"		14		
				Tpt	2 spig criteria: 1'/50' = 21'; 1' w/ frac in mid = 1'. Total = 22'. All spigs > 6"		22		
				<i>Number of samples requested by PI</i>			320 sps	<i>Footage requested by PI</i>	163 ft
Alan Flint	Matrix hydrologic properties testing			evenly spaced. No spig @ lith contacts	8" spig / 3' @ 2475' = 825 spigs = 550'		550		
				<i>Number of samples requested by PI</i>			825 sps	<i>Footage requested by PI</i>	550 ft
Arend Meljer	Batch sorption measurements as a function of solid phase composition			Tht	below repository horizon. Mineralogy will determine spigs	15-20 spigs @ .5' = 7.5-10'	Share spigs with 8.3.1.3.6.1.1	10	
				Tpt	below repository horizon. Mineralogy will determine spigs	15-20 spigs @ .5' = 7.5-10'	Share spigs with 8.3.1.3.6.1.1	10	
				<i>Number of samples requested by PI</i>			40 sps	<i>Footage requested by PI</i>	20 ft
Barbara Carlos	Fracture mineralogy			All	intvals w/ coated fractures	4 spigs / 100' = 80 spigs @ .3-.5 = 24-40'	split core or rubble OK.	40	
				<i>Number of samples requested by PI</i>			80 sps	<i>Footage requested by PI</i>	40 ft
Chris Rautman	Systematic drilling program				through water table + 200'				
				All, partic Tpt, Tht	spigs every 10' fm base of alluv. to 200' below water table; 200 spigs @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs and	100		
				<i>Number of samples requested by PI</i>			200 sps	<i>Footage requested by PI</i>	100 ft
Dave Broxton	Mineral distributions between the host rock and the accessible environment			All except Tpt	evenly spaced thruout depth of hole except in Topopah Spg	1 spig per 40' = 25 spigs @ .5 per spig = 12.5'	Request some of holes S. of repos block be deepened to charact.	12.5	

Hole	Requester	Activity:	Lith Unit	Intvl Chz	Splg Frequency	Comments	nt. Req.
		Petrologic stratigraphy of the Topopah Spring Member	Tpt	evenly distributed thru Topopah Spg	1 spl per 20' = 50 spls @ .5' = 25'	Vaniman will use portions of these spls to char. Topopah Spgs for	25
				<i>Number of samples requested by PI</i>	75 spls	<i>Footage requested by PI</i>	37.5 ft
	Fran Nimick	Density and porosity characterization	CHn1	ashflows and bedded units, vitric or zeolitized	22 spls fm vitric zones and 22 spls fm zeolitized zones: 10 evenly distrib. + 4 fm 3 of the 10 intvls=44 spls @ 0.1' = 4.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.4
			CHn2	basal bedded unit	13 spls fm vitric zones and 13 spls fm zeolitized zones: 5 evenly distrib. + 4 fm 2 of the 5 intvls=26 spls @ 0.1' = 2.6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.6
			PTn	vitric, nonwelded	10 evenly distrib. spls + 4 fm 2 of the 10 intvls = 18 spls @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
			TOw	welded, devitrified	10 evenly distrib. spls + 4 fm 2 of the 10 intvls = 18 spls @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
			TSw1	Alternating layers of lithophysae-rich & -poor welded devit. tuff	10 evenly distrib. spls + 4 fm 3 of the 10 intvls = 22 spls @ 0.1' = 2.2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.2
			TSw2	repository horizon (nonlithophysal)	35 evenly distrib. spls + 4 fm 5 of the 35 intvls = 55 spls @ 0.1' = 5.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	5.5
			TSw3	Topopah Springs vitrophyre	5 spls fm altered, 22 spls fm unaltered = 27 spls @ 0.1' = 2.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.7
		Thermal conductivity characterization	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls fm vitric zones & 10 spls fm zeolitic zones = 20 spls @ 0.4' = 8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	8
			CHn2	basal bedded unit	6 spls fm vitric zones & 6 spls fm zeolitic zone = 12 spls @ 0.4' = 4.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.8
			PTn	vitric nonwelded	5 spls @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			TOw	welded, devitrified	5 spls @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			TSw1	lithophysae-rich & lithophysae-poor welded devit tuff	10 spls @ 0.4' = 4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4
			TSw2	nonlithophysal repository horizon	35 spls @ 0.4' = 14'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	14

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Splg Frequency	Comments	It. Req.
			TSw3	vitrophyre	5 spls fm altered zone & 10 spls fm unaltered 15 spls @ 0.4' = 6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6
		Thermal expansion	CHn1	ashflows and bedded	10 spls fm vitric zone & 10 fm zeolitized zone	with 6 in. diam. core	24

Hole	Requester	Activity:	Lith Unit	Intvl Chg	Splg Frequency	Comments	.nt. Req.
			TSw3	vitrophyre	5 spls fm altered zone & 4 fm nonaltered zone with 6 in. diam. core, = 9 spls @ 0.1' = 0.9'	thermal expansion, heat capacity, and bulk	0.9
			<i>Number of samples requested by PI</i>		511 spls	<i>Footage requested by PI</i>	89.2 ft
	Ray Finley	Anelastic strain recovery experiments in core holes	TCw, PTn, TSw1.		TCw, PTn, CHn1, and CHn2 require 1 spl each; TSw1 and TSw2 require 3 spls each; TSw3 requires no spls. Total is 10 spls.	Nondestructive testing; available for other uses after ASR testing.	35
			<i>Number of samples requested by PI</i>		10 spls	<i>Footage requested by PI</i>	35 ft
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 120 spls @ 3-6" = 30-60'	Depths of hole & amt core recovered fm SBIP.	60
			<i>Number of samples requested by PI</i>		120 spls	<i>Footage requested by PI</i>	60 ft
	Ron Price	Compressive mechanical properties of intact rock at baseline experiment	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls @ .5 = 5'		5
			CHn2	basal bedded unit	5 spls @ .5 = 2.5'		2.5
			PTn	vitric/nonwelded	10 spls @ .5 = 5'		5
			TCw	welded, devitified	10 spls @ .5 = 5'		5
			TSw1	altrng lithophysae-rich and lithophysae-poor welded devit. tuff	35 spls @ .5 = 17.5'		17.5
			TSw2	nonlithophysal repository horizon	35 spls @ .5 = 17.5'		17.5
			TSw3	vitrophyre	10 spls @ .5 = 5'		5
		Mechanical properties of fractures at baseline experimental conditions	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls @ .5 = 5'		5
			CHn2	basal bedded unit	5 spls @ .5 = 2.5'		2.5

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Splg Frequency	Comments	.nt. Req.
			PTn	vitric, nonwelded	10 spls @ .5 = 5'		5
			TCw	welded, devitrified	10 spls @ .5 = 5'		5
			TSw1	altrntg lithophysae-rich and lithophysae-poor welded devit. tuff	35 spls @ .5 = 17.5'		17.5
			TSw2	nonlithophysal repository horizon	35 spls @ .5 = 17.5'		17.5
			TSw3	vitrophyre	10 spls @ .5 = 5'		5
			<i>Number of samples requested by PI</i>		230 spls	<i>Footage requested by PI</i>	115 ft
Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'		For all petrographic and XRD analysis	4.5
			<i>Number of samples requested by PI</i>		15 spls	<i>Footage requested by PI</i>	4.5 ft
<i>Total Requests per Hole</i>					1214.2 ft	<i>Per Cent Core Requested</i>	49%
<i>Total Core to be Recovered</i>					2475.0 ft	<i>Core Avail. for Requests</i>	1260.8 ft

SD-4	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones, max=6'. Spls approx 1' long		6
			Tcp		2 splg criteria: 1'/.50'=13'; 1' w/ frac in mid=1'. Total =14'. All spls>6"		14
			Tht		2 splg criteria: 1'/.10'=26'; 1' w/ frac in mid=1'. Total =27'. All spls>6"		27
			Tpc		3 splg criteria: 1'/.5'=33'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =36'. All spls>6"		36
			Tpp		3 splg criteria: 1'/.5'=16'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =19'. All spls>6"		19
			Tpt		2 splg criteria: 1'/.50'=21'; 1' w/ frac in mid=1'. Total =22'. All spls>6"		22

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	nt. Req.
					<i>Number of samples requested by PI</i>	242 sps	<i>Footage requested by PI</i> 124 ft
Alan Flint		Matrix hydrologic properties testing			evenly spaced. No spig @ lith contacts	8" spl / 3' @ 1995' = 665 sps = 443'	443
					<i>Number of samples requested by PI</i>	665 sps	<i>Footage requested by PI</i> 443 ft
Arend Meijer		Batch sorption measurements as a function of solid phase composition	Tht	below repository horizon. Mineralogy will determine sps.	15-20 sps @ .5' = 7.5-10'	Share sps with 8.3.1.3.6.1.1	10
			Tpt	below repository horizon. Mineralogy will determine sps.	15-20 sps @ .5' = 7.5-10'	Share sps with 8.3.1.3.6.1.1	10
					<i>Number of samples requested by PI</i>	40 sps	<i>Footage requested by PI</i> 20 ft
Barbara Carlos		Fracture mineralogy	All	intvls w/ coated fractures	4 sps/100' = 80 sps @ .3-.5 = 24-40'	split core or rubble OK.	40
					<i>Number of samples requested by PI</i>	80 sps	<i>Footage requested by PI</i> 40 ft
Chris Rautman		Systematic drilling program		through water table + 200'			
			All, partic Tpt, Tht		sps every 10' fm base of alluv. to 200' below water table; 200 sps @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs and	100
					<i>Number of samples requested by PI</i>	200 sps	<i>Footage requested by PI</i> 100 ft
Dave Broxton		Mineral distributions between the host rock and the accessible environment	All except Tpt	evenly spaced thruout depth of hole except in Topopah Spg	1 spl per 40' = 25 sps @ .5 per spl = 12.5'	Request some of holes S. of repos block be deepened to charact.	12.5
		Petrologic stratigraphy of the Topopah Spring Member	Tpt	evenly distributed thru Topopah Spg	1 spl per 20' = 50 sps @ .5' = 25'	Vaniman will use portions of these sps to char. Topopah Spgs for	25
					<i>Number of samples requested by PI</i>	75 sps	<i>Footage requested by PI</i> 37.5 ft
Les Shephard		Mechanical and dynamic laboratory property tests	CHn1		3 sps @ .5'=1.5'	spig freq as indicated only if core diam=2.4". Fewre sps required if	1.5
			CHn2		3 sps @ .5'=1.5'	spig freq as indicated only if core diam=2.4". Fewre sps required if	1.5
			PTn		3 sps @ .5'=1.5'	spig freq as indicated only if core diam=2.4". Fewre sps required if	1.5

Hole	Requester	Activity:	Lith Unit	Intvl Cha.	Splg Frequency	Comments	Int. Req.
			TCw		3 spls @ .5'=1.5'	splq freq as indicated only if core diam=2.4".	1.5
			TSw1		3 spls @ .5'=1.5'	Fewre spls required if splq freq as indicated only if core diam=2.4".	1.5
			TSw2		3 spls @ .5'=1.5'	Fewre spls required if splq freq as indicated only if core diam=2.4".	1.5
			TSw3		3 spls @ .5'=1.5'	Fewre spls required if splq freq as indicated only if core diam=2.4".	1.5
					<i>Number of samples requested by PI</i>	21 spls	<i>Footage requested by PI</i> 10.5 ft
Ray Finley	Anelastic strain recovery experiments in core holes		TCw, PTn, TSw1.		TCw, PTn, CHn1, and CHn2 require 1 spl each; TSw1 and TSw2 require 3 spls each; TSw3 requires no spls. Total is 10 spls.	Nondestructive testing; available for other uses after ASR testing.	35
					<i>Number of samples requested by PI</i>	10 spls	<i>Footage requested by PI</i> 35 ft
Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units		All	Variable	Variable; 100 spls @ 3-6" =25-50'	Depths of hole & amt core recovered fm SBIP.	50
					<i>Number of samples requested by PI</i>	100 spls	<i>Footage requested by PI</i> 50 ft
Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain		Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
					<i>Number of samples requested by PI</i>	15 spls	<i>Footage requested by PI</i> 4.5 ft
Thomas Hinkebein	Detailed property determination of cementitious-based and		CHn1	3 splg locs; up. (1400'), mid. (1600'), and low. (1800') portions of unit	cum 6' core (2' from each of 3 splg. locs.); all segments greater than 0.3'		6
			CHn2/3	middle of unit @ 1840'	cum 2' core ; all segments greater than 0.3'		2
			PTn	@ 100'	cum 2' core; all segments greater than 0.3'		2
			TCw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4
			TSw1, TSw2	top of units @ 360' (TSw1) and 640' and 800'(TSw2)	cum 2' core per unit = 4' ; all segments greater than 0.3'		4

Hole	Requester	Activity:	Lith Unit	Intvl Chg	Spig Frequency	Comments	mt. Req.	
			TSw2	approx. repository horizon @ 1200'	cum 2' core ; all segments greater than 0.3'		2	
				<i>Number of samples requested by PI</i>		-1 spls	<i>Footage requested by PI</i>	20 ft
				<i>Total Requests per Hole</i>		884.5 ft	<i>Per Cent Core Requested</i>	44%
				<i>Total Core to be Recovered</i>		1995.0 ft	<i>Core Avail. for Requests</i>	1110.5 ft
SD-5	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long		6	
			Tcp		2 spig criteria: 1'/50'=12'; 1' w/ frac in mid=1'. Total =13'. All spis>6"		13	
			Tht		2 spig criteria: 1'/10'=35'; 1' w/ frac in mid=1'. Total =36'. All spis>6"		36	
			Tpc		3 spig criteria: 1'/5'=20'; 1' either side of lith etc=2'; 1' w/ frac in mid=1'. Total =23'. All spis>6"		23	
			Tpp		3 spig criteria: 1'/5'=2'; 1' either side of lith etc=2'; 1' w/ frac in mid=1'. Total =5'. All spis>6"		5	
			Tpt		2 spig criteria: 1'/50'=20'; 1' w/ frac in mid=1'. Total =21'. All spis>6"		21	
				<i>Number of samples requested by PI</i>		202 spls	<i>Footage requested by PI</i>	104 ft
Alan Flint	Matrix hydrologic properties testing			evenly spaced. No spig @ lith contacts	8" sp / 3' @ 1965' = 665 spis = 437'		437	
				<i>Number of samples requested by PI</i>		665 spls	<i>Footage requested by PI</i>	437 ft
Barbara Carlos	Fracture mineralogy		All	Intvls w/ coated fractures	4 spis/100' = 80 spis @ .3-.5 = 24-40'	split core or rubble OK.	40	
				<i>Number of samples requested by PI</i>		80 spls	<i>Footage requested by PI</i>	40 ft
Chris Rautman	Systematic drilling program			through water table + 200'				

Hole	Requester	Activity:	Lith Unit	Intvl Ch.	Splg Frequency	Comments	amt. Req.
			All, partic Tpt, Tht		spls every 10' fm base of alluv. to 200' below water table; 200 spls @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs andf	100
			<i>Number of samples requested by PI</i>		200 spls	<i>Footage requested by PI</i>	100 ft
Dave Broxton	Mineral distributions between the host rock and the accessible environment	All except Tpt	evenly spaced thruout depth of hole except in Topopah Spg		1 spl per 40' = 25 spls @ .5 per spl = 12.5'	Request some of holes S. of repos block be deepened to charact.	12.5
	Petrologic stratigraphy of the Topopah Spring Member	Tpt	evenly distributed thru Topopah Spg		1 spl per 20' = 50 spls @ .5' = 25'	Vaniman will use portions of these spls to char. Topopah Spgs for	25
			<i>Number of samples requested by PI</i>		75 spls	<i>Footage requested by PI</i>	37.5 ft
Fran Nimick	Density and porosity characterization	CHn1	ashflows and bedded units, vitric or zeolitized		22 spls fm vitric zones and 22 spls fm zeolitized zones: 10 evenly distrib. + 4 fm 3 of the 10 Intvls=44 spls @ 0.1' = 4.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.4
		CHn2	basal bedded unit		13 spls fm vitric zones and 13 spls fm zeolitized zones: 5 evenly distrib. + 4 fm 2 of the 5 Intvls=26 spls @ 0.1' = 2.6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.6
		PTn	vitric, nonwelded		10 evenly distrib. spls + 4 fm 2 of the 10 Intvls = 18 spls @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
		TOw	welded, devitrified		10 evenly distrib. spls + 4 fm 2 of the 10 Intvls = 18 spls @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
		TSw1	alternng layers of lithophysae-rich & poor welded, devit. tuff		10 evenly distrib. spls + 4 fm 3 of the 10 Intvls = 22 spls @ 0.1' = 2.2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.2
		TSw2	repository horizon (nonlithophysal)		35 evenly distrib. spls + 4 fm 5 of the 35 Intvls = 55 spls @ 0.1' = 5.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	5.5
		TSw3	Topopah Springs vitrophyre		5 spls fm altered, 22 spls fm unaltered = 27 spls @ 0.1' = 2.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.7
	Thermal conductivity characterization	CHn1	ashflows and bedded units, vitric or zeolitized		10 spls fm vitric zones & 10 spls fm zeolitic zones = 20 spls @ 0.4' = 8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	8
		CHn2	basal bedded unit		6 spls fm vitric zones & 6 spls fm zeolitic zone: = 12 spls @ 0.4' = 4.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.8
		PTn	vitric nonwelded		5 spls @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2

Hole	Requester	Activity:	Lith Unit	Intvl Ch.	Spig Frequency	Comments	nt. Req.
			TOw	welded, devitrified	5 sps @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			TSw1	lithophysae-rich & lithophysae-poor welded devit tuff	10 sps @ 0.4' = 4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4
			TSw2	nonlithophysal repository horizon	35 sps @ 0.4' = 14'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	14
			TSw3	vitrophyre	5 sps fm altered zone & 10 sps fm unaltered zone = 15 sps @ 0.4' = 6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6
		Thermal expansion characterization	CHn1	ashflows and bedded units, vitric or zeolitized; unfractured	10 sps fm vitric zone & 10 fm zeolitized zone = 20 sps @ 0.17' = 3.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.4
			CHn2	basal bedded unit; unfractured	5 sps fm vitric zone & 5 fm zeolitized zone = 10 sps @ 0.17' = 1.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.7
			PTn	vitric, nonwelded	5 sps @ 0.17' = 0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9
			TOw	welded, devitrified	5 sps @ 0.17' = 0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9
			TSw1	altrntg lithophysae-rich and lithophysae-poor welded devit. tuff	10 sps @ 0.17' = 1.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.7
			TSw2	nonlithophysal repository horizon	35 sps @ 0.17' = 6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6
			TSw3	vitrophyre, unfractured	10 sps fm altered zone & 10 fm unaltered zone = 20 sps @ 0.17' = 3.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.4
		Volumetric heat capacity characterization	CHn1	ash flows and bedded units; vitric or zeolitized	10 sps fm vitric zone and 10 fm zeolitized zone = 20 sps @ 0.1' = 2.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			CHn2	basal bedded unit	5 sps fm vitric zone and 5 fm zeolitized zone = 10 sps @ 0.1' = 1.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1
			PTn	vitric nonwelded	5 sps @ 0.1' = 0.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.5

Hole	Requester	Activity:	Lith Unit	Intvl Chg	Spig Frequency	Comments	Int. Req.
			TCw	welded, devitrified	5 sps @ 0.1' = 0.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.5
			TSw1	altrntg lithophysae-rich & lithophysae-poor welded devit tuff	10 sps @ 0.1' = 1.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1
			TSw2	nonlithophysal repository horizon	35 sps @ 0.1' = 3.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.5
			TSw3	vitrophyre	5 sps fm altered zone & 4 fm nonaltered zone = 9 sps @ 0.1' = 0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9
			<i>Number of samples requested by PI</i>		511 sps	<i>Footage requested by PI</i>	89.2 ft
Philip Nelson	Petrophysical properties testing	All		Variable; 40 sps @ 6" = 20'		spls used to validate elect. resistivity and bulk density	20
			<i>Number of samples requested by PI</i>		40 sps	<i>Footage requested by PI</i>	20 ft
Ray Finley	Anelastic strain recovery experiments in core holes	TCw, PTn, TSw1,		TCw, PTn, CHnlv, and CHnlz require 1 spl each; TSw1 and TSw2 require 3 sps each; TSw3 requires no sps. Total is 10 sps.		Nondestructive testing; available for other uses after ASR testing.	35
			<i>Number of samples requested by PI</i>		10 sps	<i>Footage requested by PI</i>	35 ft
Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 95 sps @ 3-6" = 23.75-47.5'		Depths of hole & amt core recovered fm SBIP.	47.5
			<i>Number of samples requested by PI</i>		95 sps	<i>Footage requested by PI</i>	47.5 ft
Ron Price	Compressive mechanical properties of intact rock at baseline experiment	CHn1	ashflows and bedded units, vitric or zeolitized	10 sps @ .5 = 5'			5
		CHn2	basal bedded unit	5 sps @ .5 = 2.5'			2.5
		PTn	vitric, nonwelded	10 sps @ .5 = 5'			5
		TCw	welded, devitrified	10 sps @ .5 = 5'			5
		TSw1	altrntg lithophysae-rich and lithophysae-poor welded devit. tuff	35 sps @ .5 = 17.5'			17.5

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Splg Frequency	Comments	Int. Req.
			Tsw2	nonlithophysal repository horizon	35 spls @ .5 = 17.5'		17.5
			Tsw3	vitrophyre	10 spls @ .5 = 5'		5
		Mechanical properties of fractures at baseline experimental conditions	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls @ .5 = 5'		5
			CHn2	basal bedded unit	5 spls @ .5 = 2.5'		2.5
			PTn	vitric, nonwelded	10 spls @ .5 = 5'		5
			TOw	welded, devitrified	10 spls @ .5 = 5'		5
			Tsw1	altrng lithophysae-rich and lithophysae-poor welded devit. unit	35 spls @ .5 = 17.5'		17.5
			Tsw2	nonlithophysal repository horizon	35 spls @ .5 = 17.5'		17.5
			Tsw3	vitrophyre	10 spls @ .5 = 5'		5
			<i>Number of samples requested by PI</i>		230 spls	<i>Footage requested by PI</i>	115 ft
Schon Levy		History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
			<i>Number of samples requested by PI</i>		15 spls	<i>Footage requested by PI</i>	4.5 ft
Thomas Hinkebein		Detailed property determination of cementitious-based and	CHn1	3 splg locs; up. (1460'), mid. (1660'), and low. (1860') portions of unit	cum 6' core (2' from each of 3 splg. locs.); all segments greater than 0.3'		6
			PTn	@ 100'	cum 2' core; all segments greater than 0.3'		2
			TOw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4

Hole	Requester	Activity:	Lith Unit	Intvl Cha.	Spig Frequency	Comments	Int. Req.	
			Tsw1, Tsw2	top of units @ 340' (Tsw1) and 780' and 1080' (Tsw2)	cum 2' core per unit = 4' ; all segments greater than 0.3'		4	
			Tsw2	approx. repository horizon @ 1260'	cum 2' core ; all segments greater than 0.3'		2	
					<i>Number of samples requested by PI</i>	0 spls	<i>Footage requested by PI</i>	18 ft
					<i>Total Requests per Hole</i>	1047.7 ft	<i>Per Cent Core Requested</i>	53%
					<i>Total Core to be Recovered</i>	1965.0 ft	<i>Core Avail. for Requests</i>	917.3 ft
SD-6	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long		6	
			Tcp		2 spig criteria: 1/50'=5'; 1' w/ frac in mid=1'. Total =6'. All spis>6"		6	
			Thi		2 spig criteria: 1/10'=24'; 1' w/ frac in mid=1'. Total =25'. All spis>6"		25	
			Tpc		3 spig criteria: 1/5'=87'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =90'. All spis>6"		90	
			Tpp		3 spig criteria: 1/5'=11'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =14'. All spis>6"		14	
			Tpt		2 spig criteria: 1/50'=21'; 1' w/ frac in mid=1'. Total =22'. All spis>6"		22	
					<i>Number of samples requested by PI</i>	320 spls	<i>Footage requested by PI</i>	163 ft
	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" sp / 3' @ 2330' = 777 sps = 518'		518	
					<i>Number of samples requested by PI</i>	777 spls	<i>Footage requested by PI</i>	518 ft
	Barbara Carlos	Fracture mineralogy	All	intvls w/ coated fractures	4 sps/100' = 80 sps @ .3-.5 = 24-40'	split core or rubble OK.	40	
					<i>Number of samples requested by PI</i>	80 spls	<i>Footage requested by PI</i>	40 ft

Hole	Requester	Activity:	Lith Unit	Intvl Cha.	Splg Frequency	Comments	nt. Req.
	Chris Rautman	Systematic drilling program		through water table + 200'			
			All, partic Tpt, Tht		spls every 10' fm base of alluv. to 200' below water table; 200 spls @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs andf	100
			<i>Number of samples requested by PI</i>		200 spls	<i>Footage requested by PI</i>	100 ft
Dave Broxton		Mineral distributions between the host rock and the accessible environment	All except Tpt	evenly spaced thruout depth of hole except in Topopah Spg	1 spl per 40' = 25 spls @ .5 per spl = 12.5'	Request some of holes S. of repos block be deepened to charact.	12.5
		Petrologic stratigraphy of the Topopah Spring Member	Tpt	evenly distributed thru Topopah Spg	1 spl per 20' = 50 spls @ .5' = 25'	Vaniman will use portions of these spls to char. Topopah Spgs for	25
			<i>Number of samples requested by PI</i>		75 spls	<i>Footage requested by PI</i>	37.5 ft
Fran Nimick		Density and porosity characterization	CHn1	ashflows and bedded units, vitric or zeolitized	22 spls fm vitric zones and 22 spls fm zeolitized zones: 10 evenly distrib. + 4 fm 3 of the 10 intvls=44 spls @ 0.1' = 4.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.4
			CHn2	basal bedded unit	13 spls fm vitric zones and 13 spls fm zeolitized zones: 5 evenly distrib. + 4 fm 2 of the 5 intvls=26 spls @ 0.1' = 2.6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.6
			PTn	vitric, nonwelded	10 evenly distrib. spls + 4 fm 2 of the 10 intvls = 18 spls @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
			TOw	welded, devitrified	10 evenly distrib. spls + 4 fm 2 of the 10 intvls = 18 spls @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
			TSw1	alternng layers of lithophysae-rich & -poor welded, devit. tuff	10 evenly distrib. spls + 4 fm 3 of the 10 intvls = 22 spls @ 0.1' = 2.2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.2
			TSw2	repository horizon (nonlithophysal)	35 evenly distrib. spls + 4 fm 5 of the 35 intvls = 55 spls @ 0.1' = 5.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	5.5
			TSw3	Topopah Springs vitrophyre	5 spls fm altered, 22 spls fm unaltered = 27 spls @ 0.1' = 2.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.7
		Thermal conductivity characterization	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls fm vitric zones & 10 spls fm zeolitic zones = 20 spls @ 0.4' = 8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	8
			CHn2	basal bedded unit	6 spls fm vitric zones & 6 spls fm zeolitic zone: = 12 spls @ 0.4' = 4.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.8

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	At. Req.
			PTn	vitric nonwelded	5 sps @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			TOw	welded, devitrified	5 sps @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			TSw1	lithophysae-rich & lithophysae-poor welded devit tuff	10 sps @ 0.4' = 4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4
			TSw2	nonlithophysal repository horizon	35 sps @ 0.4' = 14'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	14
			TSw3	vitrophyre	5 sps fm altered zone & 10 sps fm unaltered zone = 15 sps @ 0.4' = 6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6
		Thermal expansion characterization	CHn1	ashflows and bedded units, vitric or zeolitized; unfractured	10 sps fm vitric zone & 10 fm zeolitized zone = 20 sps @ 0.17' = 3.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.4
			CHn2	basal bedded unit; unfractured	5 sps fm vitric zone & 5 fm zeolitized zone = 10 sps @ 0.17' = 1.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.7
			PTn	vitric, nonwelded	5 sps @ 0.17' = 0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9
			TOw	welded, devitrified	5 sps @ 0.17' = 0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9
			TSw1	altrntg lithophysae-rich and lithophysae-poor welded devit. tuff	10 sps @ 0.17' = 1.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.7
			TSw2	nonlithophysal repository horizon	35 sps @ 0.17' = 6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6
			TSw3	vitrophyre, unfractured	10 sps fm altered zone & 10 fm unaltered zone = 20 sps @ 0.17' = 3.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.4
		Volumetric heat capacity characterization	CHn1	ash flows and bedded units; vitric or zeolitized	10 sps fm vitric zone and 10 fm zeolitized zone = 20 sps @ 0.1' = 2.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2
			CHn2	basal bedded unit	5 sps fm vitric zone and 5 fm zeolitized zone = 10 sps @ 0.1' = 1.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1

Hole	Requester	Activity:	Lith Unit	Intvl Cha.	Splg Frequency	Comments	Int. Req.
			PTn	vitric nonwelded	5 spls @ 0.1' = 0.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.5
			TCw	welded, devitrified	5 spls @ 0.1' = 0.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.5
			TSw1	altrntg lithophysae-rich & lithophysae-poor welded devit tuff	10 spls @ 0.1' = 1.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1
			TSw2	nonlithophysal repository horizon	35 spls @ 0.1' = 3.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.5
			TSw3	vitrophyre	5 spls fm altered zone & 4 fm nonaltered zone = 9 spls @ 0.1' = 0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9

Number of samples requested by PI 511 spls *Footage requested by PI* 89.2 ft

Les Shephard Mechanical and dynamic laboratory property tests

CHn1	3 spls @ .5'=1.5'	splq freq as indicated only if core diam=2.4". Fewre spls required if	1.5
CHn2	3 spls @ .5'=1.5'	splq freq as indicated only if core diam=2.4". Fewre spls required if	1.5
PTn	3 spls @ .5'=1.5'	splq freq as indicated only if core diam=2.4". Fewre spls required if	1.5
TCw	3 spls @ .5'=1.5'	splq freq as indicated only if core diam=2.4". Fewre spls required if	1.5
TSw1	3 spls @ .5'=1.5'	splq freq as indicated only if core diam=2.4". Fewre spls required if	1.5
TSw2	3 spls @ .5'=1.5'	splq freq as indicated only if core diam=2.4". Fewre spls required if	1.5
TSw3	3 spls @ .5'=1.5'	splq freq as indicated only if core diam=2.4". Fewre spls required if	1.5

Number of samples requested by PI 21 spls *Footage requested by PI* 10.5 ft

Ray Finley Anelastic strain recovery experiments in core holes

TCw, PTn, TSw1,	TCw, PTn, CHn1, and CHn2 require 1 spl each; TSw1 and TSw2 require 3 spls each; TSw3 requires no spls. Total is 10 spls.	Nondestructive testing; available for other uses after ASR testing.	35
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Number of samples requested by PI 10 spls *Footage requested by PI* 35 ft

Hole	Requester	Activity:	Lith Unit	Intvl Ch.	Splg Frequency	Comments	mt. Req.	
	Ron Price	Compressive mechanical properties of intact rock at baseline experiment	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls @ .5 = 5'		5	
			CHn2	basal bedded unit	5 spls @ .5 = 2.5'		2.5	
			PTn	vitric, nonwelded	10 spls @ .5 = 5'		5	
			TOw	welded, devitrified	10 spls @ .5 = 5'		5	
			Tsw1	altmng lithophysae-rich and lithophysae-poor welded devit. tuff	35 spls @ .5 = 17.5'		17.5	
			Tsw2	nonlithophysal repository horizon	35 spls @ .5 = 17.5'		17.5	
			Tsw3	vitrophyre	10 spls @ .5 = 5'		5	
			Mechanical properties of fractures at baseline experimental conditions	CHn1	ashflows and bedded units, vitric or zeolitized	10 spls @ .5 = 5'		5
				CHn2	basal bedded unit	5 spls @ .5 = 2.5'		2.5
		PTn		vitric, nonwelded	10 spls @ .5 = 5'		5	
		TOw		welded, devitrified	10 spls @ .5 = 5'		5	
		Tsw1		altmng lithophysae-rich and lithophysae-poor welded devit. tuff	35 spls @ .5 = 17.5'		17.5	
		Tsw2		nonlithophysal repository horizon	35 spls @ .5 = 17.5'		17.5	
		Tsw3		vitrophyre	10 spls @ .5 = 5'		5	

Number of samples requested by PI 230 spls Footage requested by PI 115 ft

Hole	Requester	Activity:	Lith Unit	Intvl Ch.	Spig Frequency	Comments	mt. Req.
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain		Tpp, Tpt below host rock,	15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
			<i>Number of samples requested by PI</i>		15 spls	<i>Footage requested by PI</i>	4.5 ft
	Thomas Hinkebein	Detailed property determination of cementitious-based and	CHn1	3 spig locs; up. (1680'), mid. (1780'), and low. (1880') portions of unit	cum 6' core (2' from each of 3 spig. locs.); all segments greater than 0.3'		6
			CHn2/3	middle of unit @ 1960'	cum 2' core ; all segments greater than 0.3'		2
			PTn	@ 500'	cum 2' core; all segments greater than 0.3'		2
			TOw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4
			TSw1, TSw2	top of units @ 640' (TSw1) and 840' (TSw2)	cum 2' core per unit = 4' ; all segments greater than 0.3'		4
			TSw2	approx. repository horizon @ 1200'	cum 2' core ; all segments greater than 0.3'		2
			<i>Number of samples requested by PI</i>		-1 spls	<i>Footage requested by PI</i>	20 ft
			<i>Total Requests per Hole</i>		132.7 ft	<i>Per Cent Core Requested</i>	49%
			<i>Total Core to be Recovered</i>		2330.0 ft	<i>Core Avail. for Requests</i>	1197.3 ft
SD-7	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=5' Spis approx 1' long		5
			Tcp		2 spig criteria: 1'50"-12"; 1' w/ frac in mid=1". Total =13'. All spis>6"		13
			Tht		2 spig criteria: 1'10"-9"; 1' w/ frac in mid=1". Total =10'. All spis>6"		10
			Tpc		3 spig criteria: 1'5"-66"; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =69'. All spis>6"		69
			Tpt		2 spig criteria: 1'50"-18"; 1' w/ frac in mid=1". Total =19'. All spis>6"		19

Hole	Requester	Activity:	Lith Unit	Intvl Cha.	Spig Frequency	Comments	Int. Req.
					<i>Number of samples requested by PI</i>	227 sps	<i>Footage requested by PI</i> 116 ft
Alan Flint		Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" spl / 3' @ 2245' = 748 sps = 499'		499
					<i>Number of samples requested by PI</i>	748 sps	<i>Footage requested by PI</i> 499 ft
Barbara Carlos		Fracture mineralogy	All	Intvls w/ coated fractures	4 sps/100' = 80 sps @ .3-.5 = 24-40'	split core or rubble OK.	40
					<i>Number of samples requested by PI</i>	80 sps	<i>Footage requested by PI</i> 40 ft
Chris Rautman		Systematic drilling program		through water table + 200'			
			All, partic Tpt, Tht		spis every 10' fm base of alluv. to 200' below water table; 200 sps @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs andf	100
					<i>Number of samples requested by PI</i>	200 sps	<i>Footage requested by PI</i> 100 ft
Dave Broxton		Mineral distributions between the host rock and the accessible environment	All	evenly spaced thruout depth of hole	1 spl per 40' = 50 sps @ .5 per spl = 25'	Request some of holes S. of repos block be deepened to charact.	25
					<i>Number of samples requested by PI</i>	50 sps	<i>Footage requested by PI</i> 25 ft
Fran Nimick		Density and porosity characterization	CHn1	ashflows and bedded units, vitric or zeolitized	22 sps fm vitric zones and 22 sps fm zeolitized zones: 10 evenly distrib. + 4 fm 3 of the 10 intvls=44 sps @ 0.1' = 4.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.4
			CHn2	basal bedded unit	13 sps fm vitric zones and 13 sps fm zeolitized zones: 5 evenly distrib. + 4 fm 2 of the 5 intvls=26 sps @ 0.1' = 2.6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.6
			PTn	vitric, nonwelded	10 evenly distrib. sps + 4 fm 2 of the 10 intvls = 18 sps @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
			TOw	welded, devitrified	10 evenly distrib. sps + 4 fm 2 of the 10 intvls = 18 sps @ 0.1' = 1.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.8
			TSw1	alternng layers of lithophysae-rich & -poor welded, devit. tuff	10 evenly distrib. sps + 4 fm 3 of the 10 intvls = 22 sps @ 0.1' = 2.2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.2
			TSw2	repository horizon (nonlithophysal)	35 evenly distrib. sps + 4 fm 5 of the 35 intvls = 55 sps @ 0.1' = 5.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	5.5

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	nt. Req.
		Thermal conductivity characterization	TSw3	Topopah Springs vitrophyre	5 sps fm altered, 22 sps fm unaltered = 27 sps @ 0.1' = 2.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2.7
	CHn1		ashflows and bedded units, vitric or zeolitized	10 sps fm vitric zones & 10 sps fm zeolitic zones = 20 sps @ 0.4' = 8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	8	
	CHn2		basal bedded unit	6 sps fm vitric zones & 6 sps fm zeolitic zone = 12 sps @ 0.4' = 4.8'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4.8	
	PTn		vitric nonwelded	5 sps @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2	
	TOw		welded, devitrified	5 sps @ 0.4' = 2'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2	
		Thermal expansion characterization	TSw1	lithophysae-rich & lithophysae-poor welded devit. tuff	10 sps @ 0.4' = 4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	4
	TSw2		nonlithophysal repository horizon	35 sps @ 0.4' = 14'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	14	
	TSw3		vitrophyre	5 sps fm altered zone & 10 sps fm unaltered = 15 sps @ 0.4' = 6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6	
	CHn1		ashflows and bedded units, vitric or zeolitized, unfractured	10 sps fm vitric zone & 10 fm zeolitized zone = 20 sps @ 0.17' = 3.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.4	
	CHn2		basal bedded unit; unfractured	5 sps fm vitric zone & 5 fm zeolitized zone = 10 sps @ 0.17' = 1.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.7	
	PTn		vitric, nonwelded	5 sps @ 0.17' = 0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9	
	TOw		welded, devitrified	5 sps @ 0.17' = 0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9	
	TSw1		altrmtg lithophysae-rich and lithophysae-poor welded devit. tuff	10 sps @ 0.17' = 1.7'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1.7	
	TSw2		nonlithophysal repository horizon	35 sps @ 0.17' = 6'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	6	

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Splg Frequency	Comments	nt. Req.
		Volumetric heat capacity characterization	Tsw3	vitrophyre, unfractured	10 spls 1m altered zone & 10 fm unaltered zone = 20 spls @ 0.1' = 3.4'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.4
	CHn1		ash flows and bedded units; vitric or zeolitized	10 spls 1m vitric zone and 10 fm zeolitized zone = 20 spls @ 0.1' = 2.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	2	
	CHn2		basal bedded unit	5 spls 1m vitric zone and 5 fm zeolitized zone = 10 spls @ 0.1' = 1.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1	
	PTn		vitric nonwelded	5 spls @ 0.1' = 0.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.5	
	TCw		welded, devitrified	5 spls @ 0.1' = 0.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.5	
			Tsw1	altrng lithophysae-rich & lithophysae-poor welded devituff	10 spls @ 0.1' = 1.0'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	1
			Tsw2	nonlithophysal repository horizon	35 spls @ 0.1' = 3.5'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	3.5
			Tsw3	vitrophyre	5 spls 1m altered zone & 4 fm nonaltered zone = 9 spls @ 0.1' = 0.9'	with 6 in. diam. core, thermal expansion, heat capacity, and bulk	0.9
			<i>Number of samples requested by PI</i>		511 spls	<i>Footage requested by PI</i>	89.2 ft
Larry Hersman	none		Tht	top, mid, btm	3 spls 1m top, mid, btm @ 4-6" per spl = 1.5-2'	uncontam by drlg fluids, no (few) vis frags, can be in pieces but must be	2
			Tpt	top, mid, btm	3 spls 1m top, mid, btm @ 4-6" per spl = 1.5-2'	uncontam by drlg fluids, no (few) vis frags, can be in pieces but must be	2
			<i>Number of samples requested by PI</i>		6 spls	<i>Footage requested by PI</i>	4 ft
Ray Finley	Anelastic strain recovery experiments in core holes		TCw, PTn, Tsw1,		TCw, PTn, CHn1v, and CHn1z require 1 spl each; Tsw1 and Tsw2 require 3 spls each; Tsw3 requires no spls. Total is 10 spls.	Nondestructive testing; available for other uses after ASR testing.	35
			<i>Number of samples requested by PI</i>		10 spls	<i>Footage requested by PI</i>	35 ft
Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units		All	Variable	Variable; 110 spls @ 3-6" = 27.5-55'	Depths of hole & amt core recovered fm SBIP.	55
			<i>Number of samples requested by PI</i>		110 spls	<i>Footage requested by PI</i>	55 ft

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	nt. Req.
	Ron Price	Compressive mechanical properties of intact rock at baseline experiment	CHn1	ashflows and bedded units, vitric or zeolitized	10 sps @ .5 = 5'		5
			CHn2	basal bedded unit	5 sps @ .5 = 2.5'		2.5
			PTn	vitric, nonwelded	10 sps @ .5 = 5'		5
			TCw	welded, devitrified	10 sps @ .5 = 5'		5
			TSw1	altmtg lithophysae-rich and lithophysae-poor welded devit. tuff	35 sps @ .5 = 17.5'		17.5
			TSw2	nonlithophysal repository horizon	35 sps @ .5 = 17.5'		17.5
			TSw3	vitrophyre	10 sps @ .5 = 5'		5
		Mechanical properties of fractures at baseline experimental conditions	CHn1	ashflows and bedded units, vitric or zeolitized	10 sps @ .5 = 5'		5
			CHn2	basal bedded unit	5 sps @ .5 = 2.5'		2.5
			PTn	vitric, nonwelded	10 sps @ .5 = 5'		5
			TCw	welded, devitrified	10 sps @ .5 = 5'		5
			TSw1	altmtg lithophysae-rich and lithophysae-poor welded devit. tuff	35 sps @ .5 = 17.5'		17.5
			TSw2	nonlithophysal repository horizon	35 sps @ .5 = 17.5'		17.5
			TSw3	vitrophyre	10 sps @ .5 = 5'		5

Number of samples requested by PI 230 sps Footage requested by PI 115 ft

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Splg Frequency	Comments	nt. Req.	
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5	
					<i>Number of samples requested by PI</i>	15 spls	<i>Footage requested by PI</i>	4.5 ft
	Thomas Hinkebein	Detailed property determination of cementitious-based and	CHn1	3 splg locs; up. (1500'), mid. (1650'), and low. (1800') portions of unit	cum 6' core (2' from each of 3 splg. locs.); all segments greater than 0.3'		6	
			CHn2/3	middle of unit @ 1840'	cum 2' core ; all segments greater than 0.3'		2	
			PTn	@ 460'	cum 2' core; all segments greater than 0.3'		2	
			TOw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4	
			TSw1, TSw2	top of units @ 600' (TSw1) and 800' (TSw2)	cum 2' core per unit = 4' ; all segments greater than 0.3'		4	
			TSw2	approx. repository horizon @ 1200'	cum 2' core ; all segments greater than 0.3'		2	
					<i>Number of samples requested by PI</i>	-1 spls	<i>Footage requested by PI</i>	20 ft
					<i>Total Requests per Hole</i>	1102.7 ft	<i>Per Cent Core Requested</i>	49 %
					<i>Total Core to be Recovered</i>	2245.0 ft	<i>Core Avail. for Requests</i>	1142.3 ft
SD-8	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6; Spls approx 1' long		6	
			Tcb		2 splg criteria: 1'50"=8'; 1' w/ frac in mid=1'. Total =9'. All spls>6"		9	
			Tcp		2 splg criteria: 1'50"=12'; 1' w/ frac in mid=1'. Total =13'. All spls>6"		13	
			Tht		2 splg criteria: 1'10"=24'; 1' w/ frac in mid=1'. Total =25'. All spls>6"		25	
			Tpc		3 splg criteria: 1'5"=37'; 1' either side of lith ct>2'; 1' w/ frac in mid=1'. Total =40'. All spls>6"		40	

Hole	Requester	Activity:	Lith Unit	Intvl Chg	Splg Frequency	Comments	nt. Req.
			Tpt		2 splg criteria: 1'/50'=20'; 1' w/ frac in mid=1'. Total =21'. All spls>6"		21
				<i>Number of samples requested by PI</i>	222 spls	<i>Footage requested by PI</i>	114 ft
Alan Flint		Matrix hydrologic properties testing		evenly spaced. No splg @ lith contacts	8" spl / 3' @ 1915' = 638 spls = 426'		426
				<i>Number of samples requested by PI</i>	638 spls	<i>Footage requested by PI</i>	426 ft
Barbara Carlos		Fracture mineralogy	All	Intvlis w/ coated fractures	4 spls/100' = 80 spls @ .3-.5 = 24-40'	split core or rubble OK.	40
				<i>Number of samples requested by PI</i>	80 spls	<i>Footage requested by PI</i>	40 ft
Chris Rautman		Systematic drilling program		through water table + 200'			
			All, partic Tpt, Th		spls every 10' fm base of alluv. to 200' below water table; 200 spls @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs andf	100
				<i>Number of samples requested by PI</i>	200 spls	<i>Footage requested by PI</i>	100 ft
Dave Broxton		Mineral distributions between the host rock and the accessible environment	All	evenly spaced thruout depth of hole	1 spl per 40' = 50 spls @ .5 per spl = 25'	Request some of holes S. of repos block be deepened to charact.	25
				<i>Number of samples requested by PI</i>	50 spls	<i>Footage requested by PI</i>	25 ft
Rick Spengler		Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 95 spls @ 3-6" =23.75-47.5'	Depths of hole & amt core recovered fm SBIP.	47.5
				<i>Number of samples requested by PI</i>	95 spls	<i>Footage requested by PI</i>	47.5 ft
Schon Levy		History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock,		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
				<i>Number of samples requested by PI</i>	15 spls	<i>Footage requested by PI</i>	4.5 ft
Thomas Hinkebein		Detailed property determination of cementitious-based and	CHn1	3 splg locs; up. (1340'), mid. (1590'), and low. (1840') portions of unit	cum 6' core (2' from each of 3 splg. locs.); all segments greater than 0.3'		6
			PTn	@ 240'	cum 2' core; all segments greater than 0.3'		2

Hole	Requester	Activity:	Lith Unit	Intvl Ch:	Spig Frequency	Comments	nt. Req.	
			TCw	top 40' of welded portion	one 1' sp/10' for 40' = 4' core	Area where seal may potentially be placed.	4	
			TSw1, TSw2	top of units @ 340' (TSw1) and 1040' (TSw2)	cum 2' core per unit = 4'; all segments greater than 0.3'		4	
			TSw2	approx. repository horizon @ 1200'	cum 2' core ; all segments greater than 0.3'		2	
					<i>Number of samples requested by PI</i>	0 sps	<i>Footage requested by PI</i>	18 ft
					<i>Total Requests per Hole</i>	775.0 ft	<i>Per Cent Core Requested</i>	40%
					<i>Total Core to be Recovered</i>	1915.0 ft	<i>Core Avail. for Requests</i>	1140.0 ft

SD-9	Al Yang	Aqueous-phase chemical investigations	All	Wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long		6	
			Tcp		2 spig criteria: 1'50'=13'; 1' w/ frac in mid=1'. Total =14'. All sps>6"		14	
			Tht		2 spig criteria: 1'10'=35'; 1' w/ frac in mid=1'. Total =36'. All sps>6"		36	
			Tpc		3 spig criteria: 1'5'=20'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =23'. All sps>6"		23	
			Tpp		3 spig criteria: 1'5'=2'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =5'. All sps>6"		5	
			Tpt		2 spig criteria: 1'50'=20'; 1' w/ frac in mid=1'. Total =21'. All sps>6"		21	
					<i>Number of samples requested by PI</i>	204 sps	<i>Footage requested by PI</i>	105 ft
	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" sp/ 3' @ 1885' = 628 sps = 419'		419	
					<i>Number of samples requested by PI</i>	628 sps	<i>Footage requested by PI</i>	419 ft
	Chris Rautman	Systematic drilling program		through water table + 200'				

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Splg Frequency	Comments	nt. Req.
			All, partic Tpt, Tht		spls every 10' fm base of alluv. to 200' below water table; 200 spls @ 0.5' = 100'	Primary interest holes. Particular interest in Topopah Spgs andf	100
				<i>Number of samples requested by PI</i>	200 spls	<i>Footage requested by PI</i>	100 ft
Dave Broxton		Mineral distributions between the host rock and the accessible environment	All	evenly spaced thruout depth of hole	1 spl per 40' = 50 spls @ .5 per spl = 25'	Request some of holes S. of repos block be deepened to charact.	25
				<i>Number of samples requested by PI</i>	50 spls	<i>Footage requested by PI</i>	25 ft
Rick Spengler		Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 95 spls @ 3-6" = 23.75-47.5'	Depths of hole & amt core recovered fm SBIP.	47.5
				<i>Number of samples requested by PI</i>	95 spls	<i>Footage requested by PI</i>	47.5 ft
Schon Levy		History of mineralogic and geochemical alteration of Yucca Mountain	Tpp, Tpt below host rock		15 spls @ .3' per spl = 4.5'	For all petrographic and XRD analysis	4.5
				<i>Number of samples requested by PI</i>	15 spls	<i>Footage requested by PI</i>	4.5 ft
Thomas Hinkebein		Detailed property determination of cementitious-based and	CHn1	3 splg locs; up. (1480') mid. (1580') and low. (1680') portions of unit	cum 6' core (2' from each of 3 splg. locs.); all segments greater than 0.3'		6
			PTn	@ 500'	cum 2' core; all segments greater than 0.3'		2
			TOw	top 40' of welded portion	one 1 spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4
			TSw1, TSw2	top of units @ 600' (TSw1) and 800' (TSw2)	cum 2' core per unit = 4'; all segments greater than 0.3'		4
			TSw2	approx. repository horizon @ 1200'	cum 2' core ; all segments greater than 0.3'		2
				<i>Number of samples requested by PI</i>	0 spls	<i>Footage requested by PI</i>	18 ft
				<i>Total Requests per Hole</i>	719.0 ft	<i>Per Cent Core Requested</i>	38%
				<i>Total Core to be Recovered</i>	1885.0 ft	<i>Core Avail. for Requests</i>	1166.0 ft

Hole	requester	Activity:	Lith Unit	Intvl Cha	Splg Frequency	Comments	nt. Req.	
UZ-10	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spls approx 1' long		6	
			Tcp		2 splg criteria: 1'/50'=1'; 1' w/ frac in mid=1'. Total =2'. All spls>6"		2	
			Tht		2 splg criteria: 1'/10'=10'; 1' w/ frac in mid=1'. Total =11'. All spls>6"		11	
			Tpc		3 splg criteria: 1'/5'=61'; 1' either side of lith dc=2'; 1' w/ frac in mid=1'. Total =64'. All spls>6"		64	
			Tpt		2 splg criteria: 1'/50'=30'; 1' w/ frac in mid=1'. Total =31'. All spls>6"		31	
					<i>Number of samples requested by PI</i>	222 spls	<i>Footage requested by PI</i>	114 ft
Alan Flint	Matrix hydrologic properties testing			evenly spaced. No splg @ lith contacts	8" spl / 3' @ 2245' = 748 spls = 499'		499	
					<i>Number of samples requested by PI</i>	748 spls	<i>Footage requested by PI</i>	499 ft
Chris Rautman	Systematic drilling program	All			spls every 20' fm base of alluv. to bottom of hole (not exceeding 200' below water table); 75 spls @ 0.5' = 37.5'	Lesser but definite interest holes. Nondestructive testing	37.5	
					<i>Number of samples requested by PI</i>	75 spls	<i>Footage requested by PI</i>	37.5 ft
Joe Rousseau	Site vertical borehole studies							
					<i>Number of samples requested by PI</i>	0 spls	<i>Footage requested by PI</i>	0 ft
John Sass	Surface-based evaluation of ambient thermal conditions	All		random. No spls requested around lith ctcs.	6" spl/50'=44 spls=22'	1mmx50mm hole in spl for needle probe or 1 1/2" overcore	22	
					<i>Number of samples requested by PI</i>	44 spls	<i>Footage requested by PI</i>	22 ft
Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All		Variable	Variable; 110 spls @ 3-6" =27.5-55'	Depths of hole & amt core recovered fm SBIP.	55	
					<i>Number of samples requested by PI</i>	110 spls	<i>Footage requested by PI</i>	55 ft
Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain			location of spls dependent on alteration features	5 spls @ .3' per spl = 1.5'	For all petrographic and XRD analysis	1.5	

Hole	Geologist	Activity:	Lith Unit	Interval Char	Splog Frequency	Comments	ft. Req.	
					<i>Number of samples requested by PI</i>	5 sps	<i>Footage requested by PI</i>	1.5 ft
					<i>Total Requests per Hole</i>	729.0 ft	<i>Per Cent Core Requested</i>	32%
					<i>Total Core to be Recovered</i>	2245.0 ft	<i>Core Avail. for Requests</i>	1516.0 ft
UZ-11	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long		6	
			Tcp		2 splog criteria: 1'/50'=1'; 1' w/ frac in mid=1'. Total =2'. All sps>6"		2	
			Tht		2 splog criteria: 1'/10'=10'; 1' w/ frac in mid=1'. Total =11'. All sps>6"		11	
			Tpc		3 splog criteria: 1'/5'=61'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =64'. All sps>6"		64	
			Tpl		2 splog criteria: 1'/50'=30'; 1' w/ frac in mid=1'. Total =31'. All sps>6"		31	
					<i>Number of samples requested by PI</i>	222 sps	<i>Footage requested by PI</i>	114 ft
	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No splog @ lith contacts	8' splog / 3' @ 1949' = 650 sps = 433'		433	
					<i>Number of samples requested by PI</i>	650 sps	<i>Footage requested by PI</i>	433 ft
	Joe Rousseau	Site vertical borehole studies						
					<i>Number of samples requested by PI</i>	0 sps	<i>Footage requested by PI</i>	0 ft
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 95 sps @ 3-6" = 23.75-47.5'	Depths of hole & amt core recovered fm SBIP.	47.5	
					<i>Number of samples requested by PI</i>	95 sps	<i>Footage requested by PI</i>	47.5 ft
	Thomas Hinkebein	Detailed property determination of cementitious-based and	PTn	@ 260'	cum 2' core; all segments greater than 0.3'		2	
			TCw	top 40' of welded portion	one 1' splog/10' for 40' = 4' core	Area where seal may potentially be placed.	4	

Hole	requester	Activity:	Lith Unit	Intvl Chg	Spig Frequency	Comments	ft. Req.
			Tsw1	top of unit @ 380'	cum 2' core ; all segments greater than 0.3'		2
				<i>Number of samples requested by PI</i>	2	<i>spls Footage requested by PI</i>	8 ft
				<i>Total Requests per Hole</i>	602.5 ft	<i>Per Cent Core Requested</i>	31%
				<i>Total Core to be Recovered</i>	1949.0 ft	<i>Core Avail. for Requests</i>	1346.5 ft
UZ-12	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" spig / 3" @ 1857' = 619 spigs = 413'		413
				<i>Number of samples requested by PI</i>	619	<i>spls Footage requested by PI</i>	413 ft
	Joe Rousseau	Site vertical borehole studies					
				<i>Number of samples requested by PI</i>	0	<i>spls Footage requested by PI</i>	0 ft
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 90 spigs @ 3-6" = 22.5-45'	Depths of hole & amt core recovered fm SBIP.	45
				<i>Number of samples requested by PI</i>	90	<i>spls Footage requested by PI</i>	45 ft
	Thomas Hinkebein	Detailed property determination of cementitious-based and	PTn	@ 260'	cum 2' core; all segments greater than 0.3'		2
				TOw	top 40' of welded portion, one spig / 10' for 40' = 4' core	Area where seal may potentially be placed.	4
				Tsw1	top of unit @ 380'	cum 2' core ; all segments greater than 0.3'	2
				<i>Number of samples requested by PI</i>	2	<i>spls Footage requested by PI</i>	8 ft
				<i>Total Requests per Hole</i>	466.0 ft	<i>Per Cent Core Requested</i>	25%
				<i>Total Core to be Recovered</i>	1857.0 ft	<i>Core Avail. for Requests</i>	1391.0 ft

Hole	requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	nt. Req.
UZ-13a	Al Yang	Aqueous-phase chemical investigations	Tpc		3 spig criteria: 1/5'=65'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =68'. All spls>6"		68
			Tpt		2 spig criteria: 1/50'=2'; 1' w/ frac in mid=1'. Total =3'. All spls>6"		3
				<i>Number of samples requested by PI</i>	142 sps	<i>Footage requested by PI</i>	71 ft
	Rick Spangler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 5 sps/100'. Depth unknown	Depths of hole & amt core recovered fm SBIP.	-1
				<i>Number of samples requested by PI</i>	-1 sps	<i>Footage requested by PI</i>	-1 ft
				<i>Total Requests per Hole</i>	70.0 ft	<i>Per Cent Core Requested</i>	INFINIT
				<i>Total Core to be Recovered</i>	0.0 ft	<i>Core Avail. for Requests</i>	-70.0 ft
<hr/>							
UZ-14	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long		6
			Tht		2 spig criteria: 1/10'=36'; 1' w/ frac in mid=1'. Total =37'. All spls>6"		37
			Tpp		3 spig criteria: 1/5'=20'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =23'. All spls>6"		23
			Tpt		2 spig criteria: 1/50'=20'; 1' w/ frac in mid=1'. Total =21'. All spls>6"		21
			Tpy		3 spig criteria: 1/5'=5'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =8'. All spls>6"		8
				<i>Number of samples requested by PI</i>	184 sps	<i>Footage requested by PI</i>	95 ft
	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" sp / 3' @ 2090' = 697 sps = 464'		464
				<i>Number of samples requested by PI</i>	697 sps	<i>Footage requested by PI</i>	464 ft
	Joe Rousseau	Site vertical borehole studies					
				<i>Number of samples requested by PI</i>	0 sps	<i>Footage requested by PI</i>	0 ft

Hole	requester	Activity:	Lith Unit	Intvl Cha.	Splg Frequency	Comments	t. Req.
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain	lower Tpt	location of spls dependent on alteration penetrate features	5 spls @ .3' per spl = 1.5'	For all petrographic and XRD analysis	1.5
					<i>Number of samples requested by PI</i>	5 spls <i>Footage requested by PI</i>	1.5 ft
	Thomas Hinkbein	Detailed property determination of cementitious-based and	PTn	@ 140'	cum 2' core; all segments greater than 0.3'		2
			TCw	fm 80-120' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed. Locs. est. assuming	4
			TSw1	top of unit @ 380'	cum 2' core ; all segments greater than 0.3'		2
					<i>Number of samples requested by PI</i>	2 spls <i>Footage requested by PI</i>	8 ft
					<i>Total Requests per Hole</i>	568.5 ft <i>Per Cent Core Requested</i>	27%
					<i>Total Core to be Recovered</i>	2090.0 ft <i>Core Avail. for Requests</i>	1521.5 ft
UZ-2	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spls approx 1' long		6
			Tcb		2 splg criteria: 1/50'=10'; 1' w/ frac in mid=1'. Total =11'. All spls>6"		11
			Tcp		2 splg criteria: 1/50'=7'; 1' w/ frac in mid=1'. Total =8'. All spls>6"		8
			Tht		2 splg criteria: 1/10'=11'; 1' w/ frac in mid=1'. Total =12'. All spls>6"		12
			Tpc		3 splg criteria: 1/5'=80'; 1' either side of lith etc=2'; 1' w/ frac in mid=1'. Total =83'. All spls>6"		83
			Tpp		3 splg criteria: 1/5'=6'; 1' either side of lith etc=2'; 1' w/ frac in mid=1'. Total =9'. All spls>6"		9
			Tpt		2 splg criteria: 1/50'=21'; 1' w/ frac in mid=1'. Total =22'. All spls>6"		22
					<i>Number of samples requested by PI</i>	296 spls <i>Footage requested by PI</i>	151 ft

Hole	Requester	Activity:	Lith Unit	Intvl Chg	Splg Frequency	Comments	ft. Req.
	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No splg @ lith contacts	8" spl / 3' @ 2665' = 888 spls = 592'		592
				<i>Number of samples requested by PI</i>	888 spls	<i>Footage requested by PI</i>	592 ft
	Chris Hautman	Systematic drilling program	All		spls every 10' fm base of alluv. to 200' below water table; 200 spls @ 0.5' = 100'	Particular interest holes. Nondestructive testing	100
				<i>Number of samples requested by PI</i>	200 spls	<i>Footage requested by PI</i>	100 ft
	Dave Broxton	Mineral distributions between the host rock and the accessible environment	All except Tpt	evenly spaced thruout depth of hole except in Topopah Spg	1 spl per 40' = 25 spls @ .5 per spl = 12.5'	Request some of holes S. of repos block be deepened to charact.	12.5
		Petrologic stratigraphy of the Topopah Spring Member	Tpt	evenly distributed thru Topopah Spg	1 spl per 20' = 50 spls @ .5' = 25'	Vaniman will use portions of these spls to char. Topopah Spgs for	25
				<i>Number of samples requested by PI</i>	75 spls	<i>Footage requested by PI</i>	37.5 ft
	Everett Springer	Unsaturated tuff columns	Thi	zeolitic @ 1500', bedded 5-10' req. per zone = 10-20'. tuff @ 1720' (approx)		Min spl lgth = 1' Min 1 ft spl length. Must have specified features	20
			Tpt	lithophysal @ 1650', vitric 5-10' req. per zone = 15-30'. @ 1340', zeolitic @ 1380' (approx)		Min spl lgth = 1' Min 1 ft spl length. Must have specified features	30
				<i>Number of samples requested by PI</i>	50 spls	<i>Footage requested by PI</i>	50 ft
	Joe Rousseau	Site vertical borehole studies					
				<i>Number of samples requested by PI</i>	0 spls	<i>Footage requested by PI</i>	0 ft
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 130 spls @ 3-6' = 32.5-65'	Depths of hole & amt core recovered fm SBIP.	65
				<i>Number of samples requested by PI</i>	130 spls	<i>Footage requested by PI</i>	65 ft
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain		location of spls depends on alteration features	3 spls @ .3' per spl = .9'	For all petrographic and XRD analysis	0.9
				<i>Number of samples requested by PI</i>	3 spls	<i>Footage requested by PI</i>	0.9 ft
	Thomas Hinkebein	Detailed property determination of cementitious-based and	CHn1	3 splg locs; up. (1240'), mid. (1320'), and low. (1400') portions of unit	cum 6' core (2' from each of 3 splg. locs.); all segments greater than 0.3'		6

Hole	Requester	Activity:	Lith Unit	Intvl Chg	Spig Frequency	Comments	nt. Req.		
			CHn2/3	middle of unit @ 1600'	cum 2' core ; all segments greater than 0.3'		2		
			PTn	@ 340'	cum 2' core; all segments greater than 0.3'		2		
			TCw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4		
			TSw1, TSw2	top of units @ 440' (TSw1) and 640' (TSw2)	cum 2' core per unit = 4' ; all segments greater than 0.3'		4		
			TSw2	approx. repository horizon @ 1000'	cum 2' core ; all segments greater than 0.3'		2		
<i>Number of samples requested by PI</i>							-1 sps	<i>Footage requested by PI</i>	20 ft
<i>Total Requests per Hole</i>					1016.4 ft	<i>Per Cent Core Requested</i>	38%		
<i>Total Core to be Recovered</i>					2665.0 ft	<i>Core Avail. for Requests</i>	1648.6 ft		

UZ-3	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long		6		
			Tpc		3 spig criteria: 1/5'=80'; 1' either side of lith cto=2'; 1' w/ frac in mid=1'. Total =83'. All spils>6"		83		
			Tpp		3 spig criteria: 1/5'=6'; 1' either side of lith cto=2'; 1' w/ frac in mid=1'. Total =9'. All spils>6"		9		
			Tpt		2 spig criteria: 1/50'=21'; 1' w/ frac in mid=1'. Total =22'. All spils>6"		22		
<i>Number of samples requested by PI</i>							234 sps	<i>Footage requested by PI</i>	120 ft
	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" spl / 3' @ 2660' = 887 sps = 591'		591		
<i>Number of samples requested by PI</i>							887 sps	<i>Footage requested by PI</i>	591 ft
	Barbara Carlos	Fracture mineralogy	Tpc, Tpt	intvlis w/ coated fractures	4 sps/100' = 60 sps @ .3-.5 = 18-30'	split core or rubble OK.	30		
<i>Number of samples requested by PI</i>							60 sps	<i>Footage requested by PI</i>	30 ft

Hole	Requester	Activity:	Lith Unit	Intvl Chz	Splg Frequency	Comments	nt. Req.	
	Dave Broxton	Mineral distributions between the host rock and the accessible environment	All except Tpt	evenly spaced thruout depth of hole except in Topopah Spg	1 spl per 40' = 25 spls @ .5 per spl = 12.5'	Request some of holes S. of repos block be deepened to charact.	12.5	
		Petrologic stratigraphy of the Topopah Spring Member	Tpt	evenly distributed thru Topopah Spg	1 spl per 20' = 50 spls @ .5' = 25'	Vaniman will use portions of these spls to char. Topopah Spgs for	25	
					<i>Number of samples requested by PI</i>	75 spls	<i>Footage requested by PI</i> 37.5 ft	
	Joe Rousseau	Site vertical borehole studies						
					<i>Number of samples requested by PI</i>	0 spls	<i>Footage requested by PI</i> 0 ft	
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 130 spls @ 3-6" = 32.5-65'	Depths of hole & amt core recovered fm SBIP.	65	
					<i>Number of samples requested by PI</i>	130 spls	<i>Footage requested by PI</i> 65 ft	
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain		location of spls dependent on alteration features	3 spls @ .3' per spl = .9'	For all petrographic and XRD analysis	0.9	
					<i>Number of samples requested by PI</i>	3 spls	<i>Footage requested by PI</i> 0.9 ft	
	Thomas Hinkebein	Detailed property determination of cementitious-based and	CHn1	3 splg locs: up. (1240'), mid. (1320'), and low. (1400') portions of unit	cum 6' core (2' from each of 3 splg. locs.); all segments greater than 0.3'		6	
			CHn2/3	middle of unit @ 1500'	cum 2' core; all segments greater than 0.3'		2	
			PTn	@ 340'	cum 2' core; all segments greater than 0.3'		2	
			TCw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4	
			Tsw1, Tsw2	top of units @ 440' (Tsw1) and 640' (Tsw2)	cum 2' core per unit = 4'; all segments greater than 0.3'		4	
			Tsw2	approx. repository horizon @ 1000'	cum 2' core; all segments greater than 0.3'		2	
					<i>Number of samples requested by PI</i>	-1 spls	<i>Footage requested by PI</i> 20 ft	
					<i>Total Requests per Hole</i>	864.4 ft	<i>Per Cent Core Requested</i> 32%	

Hole	Requester	Activity:	Lith Unit	Intvl Ch:	Spig Frequency	Comments	ft. Req.	
					<i>Total Core to be Recovered</i>	2660.0 ft	<i>Core Avail. for Requests</i> 1795.6 ft	
UZ-4	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long		6	
			Tpc		3 spig criteria: 1'5'=18'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =21'. All sps>6"		21	
			Tpp		3 spig criteria: 1'5'=20'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =23'. All sps>6"		23	
			Tpt		2 spig criteria: 1'50'=1'; 1' w/ frac in mid=1'. Total =2'. All sps>6"		2	
			Tpy		3 spig criteria: 1'5'=15'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =18'. All sps>6"		18	
					<i>Number of samples requested by PI</i>	134 sps	<i>Footage requested by PI</i>	70 ft
Alan Flint	Matrix hydrologic properties testing			evenly spaced. No spig @ lith contacts	8" spl / 3' @ 1744' = 581 sps = 387'		387	
					<i>Number of samples requested by PI</i>	581 sps	<i>Footage requested by PI</i>	387 ft
Barbara Carlos	Fracture mineralogy		Tpc, Tpt	Intvls w/ coated fractures	1 sps/100' @ 1744' = 72 sps @ .5'/spl = 36'	split core or rubble OK.	36	
					<i>Number of samples requested by PI</i>	72 sps	<i>Footage requested by PI</i>	36 ft
Joe Rousseau	Site vertical borehole studies							
					<i>Number of samples requested by PI</i>	0 sps	<i>Footage requested by PI</i>	0 ft
Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units		All	Variable	Variable; 85 sps @ 3-6" =21.25-42.5'	Depths of hole & amt core recovered fm SBIP	42.5	
					<i>Number of samples requested by PI</i>	85 sps	<i>Footage requested by PI</i>	42.5 ft
Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain		lower Tpt	location of sps dependent on alteration penetrate features	2 sps @ .3' per spl = .6'	For all petrographic and XRD analysis	0.6	
					<i>Number of samples requested by PI</i>	2 sps	<i>Footage requested by PI</i>	0.6 ft

Hole	Requester	Activity:	Lith Unit	Intvl Cha.	Spig Frequency	Comments	ft. Req.
					Total Requests per Hole	536.1 ft Per Cent Core Requested	31%
					Total Core to be Recovered	1744.0 ft Core Avail. for Requests	1207.9 ft
UZ-5	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long		6
			Tpc		3 spig criteria: 1'5'=20'; 1' either side of lith cto=2'; 1' w/ frac in mid=1'. Total =23'. All spis>6"		23
			Tpp		3 spig criteria: 1'5'=25'; 1' either side of lith cto=2'; 1' w/ frac in mid=1'. Total =28'. All spis>6"		28
			Tpt		2 spig criteria: 1'50'=1'; 1' w/ frac in mid=1'. Total =2'. All spis>6"		2
			Tpy		3 spig criteria: 1'5'=16'; 1' either side of lith cto=2'; 1' w/ frac in mid=1'. Total =19'. All spis>6"		19
					Number of samples requested by PI	150 spis Footage requested by PI	78 ft
Alan Flint	Matrix hydrologic properties testing			evenly spaced. No spig @ lith contacts	8" spl / 3' @ 1757' = 586 sps = 390'		390
					Number of samples requested by PI	586 spis Footage requested by PI	390 ft
Barbara Carlos	Fracture mineralogy		Tpc, Tpt	Intvls w/ coated fractures	4 sps/100' @ 1757' = 72 sps @ .5'/spl = 36'	split core or rubble OK.	36
					Number of samples requested by PI	72 spis Footage requested by PI	36 ft
Joe Rousseau	Site vertical borehole studies						
					Number of samples requested by PI	0 spis Footage requested by PI	0 ft
Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units		All	Variable	Variable; 85 sps @ 3-6" =21.25-42.5'	Depths of hole & amt core recovered fm SBIP.	42.5
					Number of samples requested by PI	85 spis Footage requested by PI	42.5 ft
Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain		lower Tpt	location of sps dependent on alteration penetrate features	2 sps @ .3' per spl = .6'	For all petrographic and XRD analysis	0.6

Hole	Requester	Activity:	Lith Unit	Intvl Chr	Spig Frequency	Comments	ft. Req.	
					Number of samples requested by PI	2 spls	Footage requested by PI	0.6 ft
					Total Requests per Hole	547.1 ft	Per Cent Core Requested	31%
					Total Core to be Recovered	1757.0 ft	Core Avail. for Requests	1209.9 ft

UZ-7	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spis approx 1' long		6
			Tcp		2 spig criteria: 1'/50'=5'; 1' w/ frac in mid=1'. Total =6'. All spigs>6"		6
			Tht		2 spig criteria: 1'/10'=30'; 1' w/ frac in mid=1'. Total =31'. All spigs>6"		31
			Tpc		3 spig criteria: 1'/5'=18'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =21'. All spigs>6"		21
			Tpp		3 spig criteria: 1'/5'=1'; 1' either side of lith ctc=2'; 1' w/ frac in mid=1'. Total =4'. All spigs>6"		4
			Tpt		2 spig criteria: 1'/50'=21'; 1' w/ frac in mid=1'. Total =22'. All spigs>6"		22

Number of samples requested by PI 174 spls Footage requested by PI 90 ft

Alan Flint Matrix hydrologic properties testing evenly spaced. No spig @ lith contacts 8" sp @ 1974' = 658 sps = 439' 439

Number of samples requested by PI 658 spls Footage requested by PI 439 ft

Dave Broxton Mineral distributions between the host rock and the accessible environment Petrologic stratigraphy of the Topopah Spring Member All except Tpt evenly spaced thruout depth of hole except in Topopah Spg 1 sp per 40' = 25 sps @ .5 per sp = 12.5' Request some of holes S. of repos block be deepened to charact. 12.5
Tpt evenly distributed thru Topopah Spg 1 sp per 20' = 50 sps @ .5 = 25' Vaniman will use portions of these sps to char. Topopah Spgs for 25

Number of samples requested by PI 75 spls Footage requested by PI 37.5 ft

Joe Rousseau Site vertical borehole studies

Number of samples requested by PI 0 spls Footage requested by PI 0 ft

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	ft. Req.
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 95 sps @ 3-6" = 23.75-47.5'	Depths of hole & amt core recovered fm SBIP.	47.5
					<i>Number of samples requested by PI</i> 95 sps	<i>Footage requested by PI</i>	47.5 ft
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain	lower Tpt & penetrate features	location of sps dependent on alteration	5 sps @ .3' per spl = 1.5'	For all petrographic and XRD analysis	1.5
					<i>Number of samples requested by PI</i> 5 sps	<i>Footage requested by PI</i>	1.5 ft
					<i>Total Requests per Hole</i> 615.5 ft	<i>Per Cent Core Requested</i> 31%	
					<i>Total Core to be Recovered</i> 1974.0 ft	<i>Core Avail. for Requests</i> 1358.5 ft	
UZ-8	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spls approx 1' long		6
			Tcp		2 spig criteria: 1'/50"=5'; 1' w/ frac in mid=1'. Total =6'. All sps>6"		6
			Tht		2 spig criteria: 1'/10"=30'; 1' w/ frac in mid=1'. Total =31'. All sps>6"		31
			Tpc		3 spig criteria: 1'/5"=18'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =21'. All sps>6"		21
			Tpp		3 spig criteria: 1'/5"=1'; 1' either side of lith c/c=2'; 1' w/ frac in mid=1'. Total =4'. All sps>6"		4
			Tpt		2 spig criteria: 1'/50"=21'; 1' w/ frac in mid=1'. Total =22'. All sps>6"		22
					<i>Number of samples requested by PI</i> 174 sps	<i>Footage requested by PI</i>	90 ft
	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" spl / 3' @ 2032' = 677 sps = 452'		452
					<i>Number of samples requested by PI</i> 677 sps	<i>Footage requested by PI</i>	452 ft
	Barbara Carlos	Fracture mineralogy	Tpc, Tpt	intvls w/ coated fractures	4 sps/100' = 16 sps @ .3-.5 = 5-8'	split core or rubble OK.	8
					<i>Number of samples requested by PI</i> 16 sps	<i>Footage requested by PI</i>	8 ft

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	ft. Req.
Dave Broxton		Mineral distributions between the host rock and the accessible environment	All except Tpt	evenly spaced thruout depth of hole except in Topopah Spg	1 spl per 40' = 25 spls @ .5 per spl = 12.5'	Request some of holes S. of repos block be deepened to charact.	12.5
			Tpt	evenly distributed thru Topopah Spg	1 spl per 20' = 50 spls @ .5' = 25'	Vaniman will use portions of these spls to char. Topopah Spgs for	25
			<i>Number of samples requested by PI:</i>		75 spls	<i>Footage requested by PI</i>	37.5 ft
Everett Springer		Unsaturated tuff columns	Tht	zeolitic @ 1500', bedded 5-10' req. per zone = 10-20'. Min spl lgth = 1'		Min 1 ft spl length. Must have specified features	20
			Tpt	lithophysal @ 1050', vitric 5-10' req. per zone = 15-30'. Min spl lgth = 1'		Min 1 ft spl length. Must have specified features	30
			<i>Number of samples requested by PI</i>		50 spls	<i>Footage requested by PI</i>	50 ft
Joe Rousseau		Site vertical borehole studies					
			<i>Number of samples requested by PI</i>		0 spls	<i>Footage requested by PI</i>	0 ft
Rick Spengler		Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 100 spls @ 3-6" = 25-50'	Depths of hole & amt core recovered fm SBIP.	50
			<i>Number of samples requested by PI</i>		100 spls	<i>Footage requested by PI</i>	50 ft
Schon Levy		History of mineralogic and geochemical alteration of Yucca Mountain	lower Tpt	location of spls dependent on alteration penetrate features	5 spls @ .3' per spl = 1.5'	For all petrographic and XRD analysis	1.5
			<i>Number of samples requested by PI</i>		5 spls	<i>Footage requested by PI</i>	1.5 ft
Thomas Hinkebeln		Detailed property determination of cementitious-based and	PTn	@ 340'	cum 2' core; all segments greater than 0.3'		2
			TOw	top 40' of welded portion	one 1' spl/10' for 40' = 4' core	Area where seal may potentially be placed.	4
			<i>Number of samples requested by PI</i>		3 spls	<i>Footage requested by PI</i>	6 ft
<i>Total Requests per Hole</i>					695.0 ft	<i>Per Cent Core Requested</i>	34%
<i>Total Core to be Recovered</i>					2032.0 ft	<i>Core Avail. for Requests</i>	1337.0 ft

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Splg Frequency	Comments	It. Req.	
UZ-9	Al Yang	Aqueous-phase chemical investigations	All	wet zones	1' fm wet zones, several feet fm thicker wet zones; max=6'. Spls approx 1' long		6	
			Tcp		2 splg criteria: 1'/50'=5'; 1' w/ frac in mid=1'. Total =6'. All spls>6"		6	
			Tht		2 splg criteria: 1'/10'=37'; 1' w/ frac in mid=1'. Total =38'. All spls>6"		38	
			Tpc		3 splg criteria: 1'/5'=18'; 1' either side of lith clc=2'; 1' w/ frac in mid=1'. Total =21'. All spls>6"		21	
			Tpp		3 splg criteria: 1'/5'=2'; 1' either side of lith clc=2'; 1' w/ frac in mid=1'. Total =5'. All spls>6"		5	
			Tpt		2 splg criteria: 1'/50'=21'; 1' w/ frac in mid=1'. Total =22'. All spls>6"		22	
					<i>Number of samples requested by PI</i>	188 spls	<i>Footage requested by PI</i>	98 ft
Alan Flint	Matrix hydrologic properties testing			evenly spaced; No splg @ fill contacts	8" spl / 3' @ 1815' = 605 spls = 403'		403	
					<i>Number of samples requested by PI</i>	605 spls	<i>Footage requested by PI</i>	403 ft
Barbara Carlos	Fracture mineralogy		Tpc, Tpt	Intvls w/ coated fractures	4 spls / 100' = 80 spls @ .3-.5 = 24-40'	split core or rubble OK.	40	
					<i>Number of samples requested by PI</i>	80 spls	<i>Footage requested by PI</i>	40 ft
Bill Glassley	Composition of vadose water from the waste package environment		Tpt	devit. welded tuff of repos. horizon	min 1 spl or aggregate spl 5' total	Spls may also come fm MPBH-1,-2,-9a,-9b,-2,-3, VSP-1,	5	
			Tpt	devit. welded tuff of repos. horizon	5' total, from different Intvls TBD. May be single spl or aggregate	5' DRY core from any hole(s) within 3000' fm repos: MPBH-1,-2,	5	
	Effects of container and borehole liner corrosion products on water chemistry		Tpt	devit. welded tuff of repos. horizon	approx. 10' needed from SMF working split, largest diameter available.	Spls fm ESF or any hole(s) within 3000' of repos: MPBH-1,-2,	10	
	Effects of radiation on water chemistry		Tpt	devit. welded tuff of repos. horizon	3' total. May be single spl or aggregate.	Must be DRY! Spls fm ESF or any hole(s) w/ 3000' fm repos:	3	

Hole	Requester	Activity:	Lith Unit	Intvl Cha	Spig Frequency	Comments	nt. Req.
		Rock-water interactions at elevated temperatures	Tpt	devit. welded tuff of repos. horizon	one 1' dry drilled spl fm any 3 holes (MPBH-1,-2, -9a,-9b,-2,-3, VSP-1) = 3' total core. Largest diam avail.	1" plugs will be taken fm spl. Very important that spl is uncontaminated.	3
					<i>Number of samples requested by PI</i>	<i>Footage requested by PI</i>	26 ft
	Chris Rautman	Systematic drilling program	All		spls every 10' fm base of alluv. to 200' below water table; 150 spls @ 0.5' = 75'	Particular interest holes. Nondestructive testing	75
					<i>Number of samples requested by PI</i>	<i>Footage requested by PI</i>	75 ft
	Henry Shaw	Dissolution and leaching of spent fuel	Tpt	devit. welded tuff of repos. horizon	10 spls @ 2", 1' total	Spls needed ASAP! Spls may also come fm MPBH-1,-2,	1
		Radionuclide distribution in tuff core	Tpt	devit. welded tuff of repos. horizon	10 spls @ 4", 3' total	Spls needed ASAP! Spls may also come fm MPBH-1,-2,	3
		Radionuclide distribution in tuff waters	Tpt	devit. welded tuff of repos. horizon	10 spls @ 2", 1' total	Spls needed ASAP! Spls may also come fm MPBH-1,-2,	1
					<i>Number of samples requested by PI</i>	<i>Footage requested by PI</i>	5 ft
	Joe Rousseau	Site vertical borehole studies			continuous		
					<i>Number of samples requested by PI</i>	<i>Footage requested by PI</i>	0 ft
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 85 spls @ 3-6" = 21.25-42.5'	Depths of hole & amt core recovered fm SBIP.	42.5
					<i>Number of samples requested by PI</i>	<i>Footage requested by PI</i>	42.5 ft
	Schon Levy	History of mineralogic and geochemical alteration of Yucca Mountain		location of spls dependent on alteration features	3 spls @ .3' per spl = .9'	For all petrographic and XRD analysis	0.9
					<i>Number of samples requested by PI</i>	<i>Footage requested by PI</i>	0.9 ft
	Wunan Lin	Single-phase fluid system properties	Tpt	devit. welded tuff of repos. horizon	5 pieces, 6-12" long, approx. 5' total required containing long, poss healed fracs.	Core must be DRY and WHOLE, 6" min. Fracs long as poss and have	5
		Two-phase fluid system properties	Tpt	devit. welded tuff of repos. horizon	5 pieces 6-12" 5' total required. Half spls to be intact w/long healed frac. Other half to be intact & frac free.	DRY & WHOLE. Fracs as long as poss & have min frac fillings. Half of	5
					<i>Number of samples requested by PI</i>	<i>Footage requested by PI</i>	10 ft
					<i>Total Requests per Hole</i>	<i>Per Cent Core Requested</i>	700.4 ft 39%

Hole	Requester	Activity:	Lith Unit	Intvl Ch:	Spig Frequency	Comments	nt. Req.	
					Total Core to be Recovered	1815.0 ft	Core Avail. for Requests	1114.6 ft
UZ-9a	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" spig / 3' @ 1815' = 605 spigs = 403'		403	
				<i>Number of samples requested by PI</i>	605 spigs	<i>Footage requested by PI</i>	403 ft	
	Joe Rousseau	Site vertical borehole studies						
				<i>Number of samples requested by PI</i>	0 spigs	<i>Footage requested by PI</i>	0 ft	
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 85 spigs @ 3-6" = 21.25-42.5'	Depths of hole & amt core recovered fm SBIP.	42.5	
				<i>Number of samples requested by PI</i>	85 spigs	<i>Footage requested by PI</i>	42.5 ft	
					Total Requests per Hole	445.5 ft	Per Cent Core Requested	25%
					Total Core to be Recovered	1815.0 ft	Core Avail. for Requests	1369.5 ft
UZ-9b	Alan Flint	Matrix hydrologic properties testing		evenly spaced. No spig @ lith contacts	8" spig / 3' @ 1815' = 605 spigs = 403'		403	
				<i>Number of samples requested by PI</i>	605 spigs	<i>Footage requested by PI</i>	403 ft	
	Joe Rousseau	Site vertical borehole studies						
				<i>Number of samples requested by PI</i>	0 spigs	<i>Footage requested by PI</i>	0 ft	
	Rick Spengler	Surface and subsurface stratigraphic studies of the host rock and surrounding units	All	Variable	Variable; 85 spigs @ 3-6" = 21.25-42.5'	Depths of hole & amt core recovered fm SBIP.	42.5	
				<i>Number of samples requested by PI</i>	85 spigs	<i>Footage requested by PI</i>	42.5 ft	
					Total Requests per Hole	445.5 ft	Per Cent Core Requested	25%
					Total Core to be Recovered	1815.0 ft	Core Avail. for Requests	1369.5 ft

Removed Specimens: Total Length by borehole

Borehole ID & Name

BHL # 8 ;/: USW G4

Depth of Cored Interval: 3.001.0

Total Removed Footage: 402.6

Number of Specimens Taken: 874

Minimum Percentage of core removed: 13.42

Date of Report:
Wed, Nov 18, 1992

Removed Specimens: Total Length by borehole**Borehole ID & Name*****BHL # 1 ;/: UE25 A1*****Depth of Cored Interval: 2,500.6****Total Removed Footage: 673.1****Number of Specimens Taken: 1287****Minimum Percentage of core removed: 26.92****Date of Report:
Mon, Nov 23, 1992**

Removed Specimens: Total Length by borehole**Borehole ID & Name****BHL# 2 :/: USW G2****Depth of Cored Interval: 6.006.0****Total Removed Footage: 856.3****Number of Specimens Taken: 1821****Minimum Percentage of core removed: 14.26****Date of Report:
Mon, Nov 23, 1992**

Removed Specimens: Total Length by borehole**Borehole ID & Name****BHL # 56 : 1: USW VHI****Depth of Cored Intervals: 2,501.0****Total Removed Footage: 223.5****Number of Specimens Taken: 917****Minimum Percentage of core removed: 8.94****Date of Report:
Mon, Nov 23, 1992**

Removed Specimens: Total Length by borehole

Borehole ID & Name <i>BHL # 63 ;/: UE25 A-4</i>

Depth of Cored Intervals: 500.0

Total Removed Footage: 7.7

Number of Specimens Taken: 24

Minimum Percentage of core removed: 1.54

Date of Report:
Mon, Nov 23, 1992

Removed Specimens: Total Length by borehole**Borehole ID & Name****BHL# 6 :/: USW GU3****Depth of Cored Interval: 2,686.0****Total Removed Footage: 861.5****Number of Specimens Taken: 648****Minimum Percentage of core removed: 32.07****Date of Report:
Mon, Nov 23, 1992**