Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-13P** (Phase 5) Driller/Drilling Company: Chris Bufkin/WDC Drilling Method: Air-Rotary Reverse Circulation Non-Alluvium Depth (ft bgs): 87 to 1569 Start Date: 6/17/2005 End Date: 7/23/2005

Logged Date	Logged By	Checked Date	Checked By	Sample	Depth Interval (feet/bgs) From	Depth Interval (feet/bgs) To	Drilling/Coring Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling/Coring Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Sample Density Data: Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Not Applicable	Dry	Moist	Wet	HCL Re-action: None	Weak	Strong	Rock Unit: Tuff: Deposition: Ash Fall	Ash Flow	Reworked	Welding: Dense	Moderate	Weak	None	Alteration: Vitric	Devitrified	Matrix	Vapor Phase	Spherulitic	Sedimentary: Claystone	Mudstone	Siltstone	Sandstone	Conglomerate	Chert	Carbonate: Limestone	Dolomite	Other	Weathering: Fresh	Slight	Moderate	High	Decomposed	Structure: None Observed	Stratified	Laminated	Fractured	Other	Matrix: Dense/Non-porous	Open/Porous	Other	Phenocrysts: Mafics % by Vol.	Mafics Munsell Color Symbol	Mafics Max. Size (mm)	Quartz % by Vol.	Quartz Munsell Color Symbol	Quartz Max. Size (mm)	Feldspar % by Vol.	Feldspar Munsell Color Symbol	Feldspar Max. Size (mm)	Clasts: Pumice % by Vol.	Pumice Munsell Color Symbol	Pumice Max. Size (mm)	Lithics % by Vol.	Lithics Munsell Color Symbol	Lithics Max. Size (mm)
06/17/05	EJH	06/18/05	DD	13P-87.0-90.0-D	87.00	90.00	0.00	0.20	0.00	5.50	6.50				N1		✓					✓																								✓			✓					✓			5	5YR 5/6	1.5												
06/17/05	EJH	06/18/05	DD	13P-90.0-95.0-D	90.00	95.00	0.00	0.20	0.00	6.00	6.50				N1		✓				✓																								✓				✓					✓			8	5YR 5/6	1.5												
06/17/05	EJH	06/18/05	DD	13P-95.0-100.0-D	95.00	100.00	0.00	0.20	0.00	6.00	6.50				N1		✓				✓																								✓				✓					✓			8	5YR 5/6	1.5												
06/18/05	EJH	06/29/05	JSW	13P-100.0-105.0-D	100.00	105.00	0.00	0.10	0.00	5.00	6.50				N1		✓					✓																						✓					✓					✓			2	5YR 5/6	1												
06/18/05	EJH	06/29/05	JSW	13P-105.0-110.0-D	105.00	110.00	0.00	0.10	0.00	1.00	6.50				N1		✓			✓																										✓		✓					✓			1	5YR 5/6	1												
06/18/05	EJH	06/29/05	JSW	13P-110.0-115.0-D	110.00	115.00	0.00	0.10	0.00	4.00	6.50				N1		✓				✓																									✓			✓					✓			2	5YR 5/6	1												
06/18/05	EJH	06/29/05	JSW	13P-115.0-120.0-D	115.00	120.00	0.00	0.10	0.00	4.00	6.50				N1		✓				✓																								✓				✓					✓			1	5YR 5/6	1												
06/18/05	EJH	06/29/05	JSW	13P-120.0-125.0-D	120.00	125.00	0.00	0.10	0.00	4.50	6.50				N1		✓			✓																								✓					✓					✓			2	10Y 6/6	2												
06/19/05	EJH	06/29/05	JSW	13P-125.0-130.0-D	125.00	130.00	0.00	0.10	0.00	6.00	6.50				N1		✓				✓																							✓					✓					✓			2	5Y 5/6	1												
06/19/05	EJH	06/29/05	JSW	13P-130.0-132.5-D	130.00	132.50	0.00	0.10	0.00	1.50	6.50				N1		✓				✓																							✓					✓					✓			1	5Y 5/6	1												
06/19/05	EJH	07/20/05	BW	13P-260.0-265.0-D	260.00	265.00	0.00	2.90	0.00	2.00	6.50				10YR 5/4		✓					✓			✓				✓		✓																✓		✓						✓																	
06/19/05	EJH	07/20/05	BW	13P-265.0-270.0-D	265.00	270.00	0.00	2.90	0.00	5.50	6.50				5YR 7/2		✓					✓			✓				✓		✓																✓		✓						✓																	
06/19/05	EJH	07/20/05	BW	13P-270.0-275.0-D	270.00	275.00	0.00	2.90	0.00	5.00	6.50				10YR 5/4		✓					✓			✓				✓		✓																✓			✓					✓																	
06/19/05	EJH	07/20/05	BW	13P-275.0-280.0-D	275.00	280.00	0.00	2.90	0.00	6.00	6.50				10YR 5/4		✓					✓			✓				✓		✓																✓			✓					✓																	
06/19/05	EJH	07/20/05	BW	13P-280.0-285.0-D	280.00	285.00	0.00	1.40	0.00	5.50	6.50				10YR 5/4		✓					✓			✓				✓		✓																✓		✓						✓																	
06/19/05	EJH	07/20/05	BW	13P-285.0-290.0-D	285.00	290.00	0.00	1.40	0.00	4.50	6.50				10YR 6/2		✓					✓			✓				✓		✓																✓		✓						✓																	
06/19/05	EJH	07/20/05	BW	13P-290.0-295.0-D	290.00	295.00	0.00	1.40	0.00	4.00	6.50				10YR 6/2		✓					✓			✓				✓		✓																✓		✓						✓																	
06/19/05	EJH	07/20/05	BW	13P-295.0-300.0-D	295.00	300.00	0.00	1.40	0.00	7.00	6.50				10YR 6/6		✓					✓			✓				✓		✓																✓		✓						✓																	
06/20/05	EJH	07/20/05	BW	13P-300.0-305.0-D	300.00	305.00	0.00	1.10	0.00	8.00	6.50				10YR 6/6		✓					✓			✓				✓		✓																✓		✓						✓														1	10R 2/2	1
06/20/05	EJH	07/20/05	BW	13P-305.0-310.0-D	305.00	310.00	0.00	1.10	0.00	5.50	6.50				10YR 6/6		✓					✓			✓				✓		✓																✓		✓						✓														1	10R 2/2	1
06/20/05	EJH	07/20/05	BW	13P-310.0-315.0-D	310.00	315.00	0.00	1.10	0.00	2.00	6.50				10YR 6/6			✓				✓			✓				✓		✓																✓		✓						✓														1	10R 2/2	1
06/20/05	EJH	07/20/05	BW	13P-315.0-320.0-D	315.00	320.00	0.00	1.10	0.00	2.00	6.50				10YR 6/6			✓				✓			✓				✓		✓																✓		✓						✓														1	10R 2/2	2
06/20/05	EJH	07/20/05	BW	13P-320.0-325.0-D	320.00	325.00	0.00	1.40	0.00	2.00	6.50				10YR 6/6			✓				✓			✓				✓		✓																✓		✓						✓																	
06/20/05	EJH	07/20/05	BW	13P-325.0-330.0-D	325.00	330.00	0.00	1.40	0.00		6.50				10YR 6/6		✓					✓			✓				✓		✓																✓		✓						✓																	
06/20/05	EJH	07/20/05	BW	13P-330.0-335.0-D	330.00	335.00	0.00	1.40	0.00		6.50				10YR 6/6		✓					✓			✓				✓		✓																✓		✓						✓																	
06/20/05	EJH	07/20/05	BW	13P-335-0-340.0-D	335.00	340.00	0.00	1.40	0.00		6.50				10YR 6/6		✓					✓			✓				✓		✓																✓		✓						✓																	
06/20/05	EJH	07/20/05	BW	13P-340.0-345.0-D	340.00	345.00	0.00	1.70	0.00	4.50	6.50				10YR 6/6		✓					✓			✓				✓																		✓		✓						✓											3	10YR 8/2	10			
06/20/05	EJH	07/20/05	BW	13P-345.0-350.0-D	345.00	350.00	0.00	1.70	0.00	4.00	6.50				10YR 6/6		✓				✓				✓				✓																	✓			✓						✓											5	10YR 8/2	20	1	10R 2/2	1

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Borehole ID: **NC-EWDP-13P** (Phase 5) Driller/Drilling Company: Chris Bufkin/WDC Drilling Method: Air-Rotary Reverse Circulation Non-Alluvium Depth (ft bgs): 87 to 1569 Start Date: 6/17/2005 End Date: 7/23/2005

Logged		Checked		Sample	Depth Interval (feet/bgs)		Drilling/Coring Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling/Coring Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Sample Density Data: Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)	Munsell Color Symbol
06/20/05	EJH	07/20/05	BW	13P-350.0-355.0-D	350.00	355.00	0.00	1.70	0.00	3.50	6.50				10YR 6/6
06/20/05	EJH	07/20/05	BW	13P-355.0-360.0-D	355.00	360.00	0.00	1.70	0.00	3.50	6.50				10YR 6/6
06/20/05	EJH	07/20/05	BW	13P-360.0-365.0-D	360.00	365.00	0.00	1.20	0.00	2.50	6.50				10YR 6/6
06/20/05	EJH	07/20/05	BW	13P-365.0-370.0-D	365.00	370.00	0.00	1.20	0.00	1.00	6.50				5YR 6/1
06/20/05	EJH	07/20/05	BW	13P-370.0-375.0-D	370.00	375.00	0.00	1.20	0.00	0.90	6.50				5YR 6/1
06/20/05	EJH	07/20/05	BW	13P-375.0-380.0-D	375.00	380.00	0.00	1.20	0.00	1.00	6.50				10YR 6/6
06/20/05	EJH	07/20/05	BW	13P-380.0-385.0-D	380.00	385.00	0.00	2.50	0.00	1.50	6.50				5YR 6/4
06/20/05	EJH	07/20/05	BW	13P-385.0-390.0-D	385.00	390.00	0.00	2.50	0.00	6.00	6.50				5YR 6/4
06/20/05	EJH	07/20/05	BW	13P-390.0-395.0-D	390.00	395.00	0.00	2.50	0.00	7.50	6.50				5YR 6/4
06/20/05	EJH	07/20/05	BW	13P-395.0-400.0-D	395.00	400.00	0.00	2.50	0.00	8.50	6.50				5YR 4/2
06/20/05	EJH	07/20/05	BW	13P-400.0-405.0-D	400.00	405.00	0.00	3.30	0.00	8.00	6.50				5YR 4/2
06/20/05	EJH	07/20/05	BW	13P-405.0-410.0-D	405.00	410.00	0.00	3.30	0.00	6.50	6.50				5YR 4/2
06/20/05	EJH	07/20/05	BW	13P-410.0-415.0-D	410.00	415.00	0.00	3.30	0.00	7.00	6.50				5YR 4/2
06/20/05	EJH	07/20/05	BW	13P-415.0-420.0-D	415.00	420.00	0.00	3.30	0.00	7.00	6.50				5YR 4/2
06/20/05	EJH	07/20/05	BW	13P-420.0-425.0-D	420.00	425.00	0.00	1.80	0.00	8.00	6.50				5YR 5/6
06/20/05	EJH	07/20/05	BW	13P-425.0-430.0-D	425.00	430.00	0.00	1.80	0.00	10.00	6.50				5YR 5/6
06/20/05	EJH	07/20/05	BW	13P-430.0-435.0-D	430.00	435.00	0.00	1.80	0.00	8.00	6.50				5YR 5/6
06/20/05	EJH	07/20/05	BW	13P-435.0-440.0-D	435.00	440.00	15.00	1.80	0.00	3.00	6.50				5YR 5/6
06/20/05	EJH	07/20/05	BW	13P-440.0-445.0-D	440.00	445.00	15.00	0.70	0.00	3.50	6.50				5YR 5/6
06/20/05	EJH	07/20/05	BW	13P-445.0-450.0-D	445.00	450.00	15.00	0.70	0.00	2.50	6.50				10YR 5/4
06/20/05	EJH	07/20/05	BW	13P-450.0-455.0-D	450.00	455.00	15.00	0.70	0.00	2.00	6.50				10YR 5/4
06/20/05	EJH	07/20/05	BW	13P-455.0-460.0-D	455.00	460.00	15.00	0.70	0.00	4.00	6.50				10YR 5/4
06/20/05	EJH	07/20/05	BW	13P-460.0-465.0-D	460.00	465.00	15.00	1.20	0.00	3.50	6.50				10YR 5/4
06/20/05	EJH	07/20/05	BW	13P-465.0-470.0-D	465.00	470.00	15.00	1.20	0.00	5.00	6.50				10YR 5/4
06/20/05	EJH	07/20/05	BW	13P-470.0-475.0-D	470.00	475.00	15.00	1.20	0.00	5.00	6.50				10YR 5/4
06/20/05	EJH	07/20/05	BW	13P-475.0-480.0-D	475.00	480.00	15.00	1.20	0.00	7.00	6.50				10YR 5/4
06/20/05	EJH	07/20/05	BW	13P-480.0-485.0-D	480.00	485.00	0.00	1.70	0.00	6.00	6.50				10YR 5/4
06/21/05	EJH	07/20/05	BW	13P-485.0-490.0-D	485.00	490.00	0.00	1.70	0.00	1.00	6.50				10YR 5/4

Sample	Moisture Content: Not Applicable	Dry	Moist	Wet	HCL Reaction: None	Weak	Strong	Tuff Deposition: Ash Fall	Ash Flow	Reworked	Welding: Dense	Moderate	Weak	None	Alteration: Vitric	Devitrified	Matrix	Vapor Phase	Spherulitic	Sedimentary: Claystone	Mudstone	Siltstone	Sandstone	Conglomerate	Chert	Carbonate: Limestone	Dolomite	Other	Weathering: Fresh	Slight	Moderate	High	Decomposed	Structure: None Observed	Stratified	Laminated	Fractured	Other	Matrix: Dense/Non-porous	Open/Porous	Other
13P-350.0-355.0-D		✓			✓					✓				✓															✓				✓						✓	
13P-355.0-360.0-D		✓			✓					✓				✓															✓					✓					✓	
13P-360.0-365.0-D		✓				✓				✓				✓															✓				✓						✓	
13P-365.0-370.0-D		✓			✓			✓						✓															✓				✓						✓	
13P-370.0-375.0-D		✓			✓			✓						✓															✓				✓						✓	
13P-375.0-380.0-D		✓				✓		✓						✓															✓				✓						✓	
13P-380.0-385.0-D		✓			✓			✓						✓															✓				✓							
13P-385.0-390.0-D			✓		✓					✓				✓															✓				✓						✓	
13P-390.0-395.0-D			✓		✓					✓				✓																✓			✓						✓	
13P-395.0-400.0-D			✓		✓					✓				✓																✓			✓						✓	
13P-400.0-405.0-D			✓		✓					✓				✓		✓														✓			✓						✓	
13P-405.0-410.0-D			✓		✓					✓				✓		✓														✓			✓						✓	
13P-410.0-415.0-D			✓			✓				✓				✓		✓														✓			✓						✓	
13P-415.0-420.0-D			✓			✓				✓				✓		✓														✓			✓						✓	
13P-420.0-425.0-D			✓				✓			✓				✓		✓													✓				✓						✓	
13P-425.0-430.0-D			✓				✓			✓				✓		✓													✓				✓						✓	
13P-430.0-435.0-D				✓			✓			✓				✓		✓													✓				✓						✓	
13P-435.0-440.0-D				✓			✓			✓				✓		✓													✓				✓						✓	
13P-440.0-445.0-D				✓		✓				✓				✓		✓													✓				✓						✓	
13P-445.0-450.0-D				✓			✓			✓				✓		✓													✓				✓						✓	
13P-450.0-455.0-D				✓			✓			✓				✓		✓													✓				✓						✓	
13P-455.0-460.0-D				✓		✓				✓				✓		✓														✓			✓						✓	
13P-460.0-465.0-D				✓			✓			✓				✓		✓													✓				✓						✓	
13P-465.0-470.0-D				✓			✓			✓				✓		✓													✓				✓						✓	
13P-470.0-475.0-D				✓			✓			✓				✓		✓													✓				✓						✓	
13P-475.0-480.0-D				✓			✓			✓				✓		✓													✓				✓						✓	
13P-480.0-485.0-D				✓			✓			✓				✓		✓													✓				✓						✓	
13P-485.0-490.0-D				✓			✓			✓				✓		✓													✓				✓						✓	

Sample	Phenocrysts – Mafics: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Quartz: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Feldspar: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Clasts – Pumice: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Lithics: % by Vol.	Munsell Color Symbol	Max. Size (mm)
13P-350.0-355.0-D										2	10YR 8/2	3	1	10R 2/2	4
13P-355.0-360.0-D										10	10YR 8/2	8	2	10R 2/2	3
13P-360.0-365.0-D										8	10YR 8/2	3			
13P-365.0-370.0-D										2	10YR 8/2	3	1	10R 2/2	1
13P-370.0-375.0-D										2	10YR 8/2	3			
13P-375.0-380.0-D										2	10YR 8/2	3	1	10R 2/2	4
13P-380.0-385.0-D	1	N1	3							2	10YR 8/2	2	2	10YR 8/2	2
13P-385.0-390.0-D										3	10YR 8/2	2	3	10YR 8/2	2
13P-390.0-395.0-D										5	10YR 8/2	3	5	10YR 8/2	3
13P-395.0-400.0-D										2	10YR 8/2	2	2	10YR 8/2	2
13P-400.0-405.0-D										5	10YR 7/4	2			
13P-405.0-410.0-D										2	10YR 7/4	3			
13P-410.0-415.0-D										5	10YR 6/2	10	2	10R 3/4	3
13P-415.0-420.0-D										2	10YR 6/2	4			
13P-420.0-425.0-D										1	10YR 6/2	3			
13P-425.0-430.0-D															
13P-430.0-435.0-D															
13P-435.0-440.0-D										5	N7	2			
13P-440.0-445.0-D										5	N7	10			
13P-445.0-450.0-D										2	N7	8	2	N7	8
13P-450.0-455.0-D	1	N2	1							2	N7	5	5	N7	5
13P-455.0-460.0-D										1	N7	2	3	N7	8
13P-460.0-465.0-D										10	N7	12	3	N7	4
13P-465.0-470.0-D										1	N7	1	2	N7	5
13P-470.0-475.0-D										2	N7	4	10	N7	3
13P-475.0-480.0-D										2	N7	3	3	N7	2
13P-480.0-485.0-D										1	N7	2	8	N7	3
13P-485.0-490.0-D										1	N7	2	8	N7	5

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-13P** (Phase 5) Driller/Drilling Company: Chris Bufkin/WDC Drilling Method: Air-Rotary Reverse Circulation Non-Alluvium Depth (ft bgs): 87 to 1569 Start Date: 6/17/2005 End Date: 7/23/2005

Logged		Checked		Sample	Depth Interval (feet/bgs)		Drilling/Coring Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling/Coring Data: Drilling/Coring Rate (feet/min)	Drilling/Coring Data: Water Production (gpm)	Drilling/Coring Data: Sample Recovery (gallons)	Sample Density Data: Borehole Diameter (inches)	Sample Density Data: Tare Weight (kg)	Sample Density Data: Sample Plus Tare Weight (kg)	Sample Density Data: Sample Weight (kg)	Munsell Color Symbol
06/21/05	EJH	07/20/05	BW	13P-490.0-495.0-D	490.00	495.00	0.00	1.70	0.00	1.50	6.50				10YR 5/4
06/21/05	EJH	07/20/05	BW	13P-495.0-500.0-D	495.00	500.00	0.00	1.70	0.00	2.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-500.0-505.0-D	500.00	505.00	0.00	2.00	0.00	3.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-505.0-510.0-D	505.00	510.00	0.00	2.00	0.00	2.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-510.0-515.0-D	510.00	515.00	0.00	2.00	0.00	1.00	6.50				10YR 6/2
06/21/05	EJH	01/24/07	JSW	13P-515.0-520.0-D	515.00	520.00	0.00	2.00	0.00	1.50	6.50				10YR 6/2
06/21/05	EJH	01/24/07	JSW	13P-520.0-525.0-D	520.00	525.00	0.00	1.50	0.00	1.50	6.50				10YR 6/2
06/21/05	EJH	01/24/07	JSW	13P-525.0-530.0-D	525.00	530.00	0.00	1.50	0.00	5.00	6.50				5YR 6/4
06/21/05	EJH	01/24/07	JSW	13P-530.0-535.0-D	530.00	535.00	0.00	1.50	0.00	3.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-535.0-540.0-D	535.00	540.00	0.00	1.50	0.00	4.50	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-540.0-545.0-D	540.00	545.00	0.00	1.10	0.00	5.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-545.0-550.0-D	545.00	550.00	0.00	1.10	0.00	5.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-550.0-555.0-D	550.00	555.00	0.00	1.10	0.00	2.50	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-555.0-560.0-D	555.00	560.00	0.00	1.10	0.00	10.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-560.0-565.0-D	560.00	565.00	15.00	1.30	0.00	5.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-565.0-570.0-D	565.00	570.00	15.00	1.30	0.00	2.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-570.0-575.0-D	570.00	575.00	15.00	1.30	0.00	3.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-575.0-580.0-D	575.00	580.00	15.00	1.30	0.00	2.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-580.0-585.0-D	580.00	585.00	15.00	1.50	0.00	3.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-585.0-590.0-D	585.00	590.00	15.00	1.50	0.00	2.50	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-590.0-595.0-D	590.00	595.00	15.00	1.50	0.00	1.50	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-595.0-600.0-D	595.00	600.00	15.00	1.50	0.00	1.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-600.0-605.0-D	600.00	605.00	15.00	1.50	0.00	1.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-605.0-610.0-D	605.00	610.00	15.00	1.50	0.00	1.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-610.0-615.0-D	610.00	615.00	15.00	1.50	0.00	1.50	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-615.0-620.0-D	615.00	620.00	15.00	1.50	0.00	3.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-620.0-625.0-D	620.00	625.00	15.00	0.90	0.00	5.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-625.0-630.0-D	625.00	630.00	15.00	0.90	0.00	1.00	6.50				10YR 5/4

Sample	Moisture Content: Not Applicable	Dry	Moist	Wet	HCL Reaction: None	Weak	Strong	Rock Unit – Tuff – Deposition: Ash Fall	Ash Flow	Reworked	Welding: Dense	Moderate	Weak	None	Alteration: Vitric	Devitrified	Matrix	Vapor Phase	Spherulitic	Sedimentary: Claystone	Mudstone	Siltstone	Sandstone	Condlomerate	Chert	Carbonate: Limestone	Dolomite	Other	Weathering: Fresh	Slight	Moderate	High	Decomposed	Structure: None Observed	Stratified	Laminated	Fractured	Other	Matrix: Dense/Non-porous	Open/Porous	Other
13P-490.0-495.0-D				✓			✓			✓				✓		✓														✓				✓						✓	
13P-495.0-500.0-D				✓			✓			✓				✓		✓														✓				✓						✓	
13P-500.0-505.0-D				✓		✓				✓				✓		✓													✓					✓						✓	
13P-505.0-510.0-D				✓		✓				✓				✓		✓													✓					✓						✓	
13P-510.0-515.0-D				✓		✓		✓				✓				✓													✓					✓						✓	
13P-515.0-520.0-D				✓			✓	✓				✓				✓													✓					✓						✓	
13P-520.0-525.0-D				✓			✓	✓				✓				✓													✓					✓						✓	
13P-525.0-530.0-D				✓		✓		✓					✓			✓													✓					✓						✓	
13P-530.0-535.0-D				✓		✓				✓				✓		✓													✓					✓						✓	
13P-535.0-540.0-D				✓		✓				✓				✓		✓													✓					✓						✓	
13P-540.0-545.0-D				✓		✓				✓				✓		✓													✓					✓						✓	
13P-545.0-550.0-D				✓		✓				✓				✓		✓													✓					✓						✓	
13P-550.0-555.0-D				✓		✓														✓									✓					✓					✓		
13P-555.0-560.0-D				✓			✓													✓									✓					✓					✓		
13P-560.0-565.0-D				✓			✓													✓									✓					✓					✓		
13P-565.0-570.0-D				✓			✓													✓									✓					✓					✓		
13P-570.0-575.0-D				✓			✓													✓									✓					✓					✓		
13P-575.0-580.0-D				✓			✓													✓									✓					✓					✓		
13P-580.0-585.0-D				✓			✓													✓									✓					✓					✓		
13P-585.0-590.0-D				✓			✓													✓									✓					✓					✓		
13P-590.0-595.0-D				✓			✓													✓									✓					✓					✓		
13P-595.0-600.0-D				✓			✓													✓									✓					✓					✓		
13P-600.0-605.0-D				✓			✓			✓				✓		✓																✓		✓							✓
13P-605.0-610.0-D				✓			✓			✓				✓		✓																✓		✓							✓
13P-610.0-615.0-D				✓			✓			✓				✓		✓																✓		✓							✓
13P-615.0-620.0-D				✓			✓			✓				✓		✓																✓		✓							✓
13P-620.0-625.0-D				✓			✓			✓				✓		✓															✓			✓							✓
13P-625.0-630.0-D				✓			✓			✓				✓		✓														✓				✓					✓		

Sample	Phenocrysts – Mafics: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Quartz: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Feldspar: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Clasts – Pumice: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Lithics: % by Vol.	Munsell Color Symbol	Max. Size (mm)
13P-490.0-495.0-D										5	N7	5	10	N7	10
13P-495.0-500.0-D										7	N8	5	10	N7	10
13P-500.0-505.0-D										2	N7	8			
13P-505.0-510.0-D										1	N7	5			
13P-510.0-515.0-D															
13P-515.0-520.0-D															
13P-520.0-525.0-D															
13P-525.0-530.0-D													1	10R 3/4	2
13P-530.0-535.0-D													1	VARIOUS	0.5
13P-535.0-540.0-D													1	VARIOUS	0.5
13P-540.0-545.0-D													1	VARIOUS	0.5
13P-545.0-550.0-D															
13P-550.0-555.0-D															
13P-555.0-560.0-D															
13P-560.0-565.0-D															
13P-565.0-570.0-D															
13P-570.0-575.0-D															
13P-575.0-580.0-D															
13P-580.0-585.0-D															
13P-585.0-590.0-D															
13P-590.0-595.0-D															
13P-595.0-600.0-D															
13P-600.0-605.0-D															
13P-605.0-610.0-D															
13P-610.0-615.0-D															
13P-615.0-620.0-D															
13P-620.0-625.0-D															
13P-625.0-630.0-D										1	N7	2	1	N7	4

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-13P** (Phase 5) Driller/Drilling Company: Chris Bufkin/WDC Drilling Method: Air-Rotary Reverse Circulation Non-Alluvium Depth (ft bgs): 87 to 1569 Start Date: 6/17/2005 End Date: 7/23/2005

Logged		Checked		Sample	Depth Interval (feet/bgs)		Drilling/Coring Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling/Coring Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Sample Density Data: Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)	Munsell Color Symbol
06/21/05	EJH	01/24/07	JSW	13P-630.0-635.0-D	630.00	635.00	15.00	0.90	0.00	1.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-635.0-640.0-D	635.00	640.00	15.00	0.90	0.00	2.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-640.0-645.0-D	640.00	645.00	15.00	1.30	0.00	1.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-645.0-650.0-D	645.00	650.00	15.00	1.30	0.00	2.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-650.0-655.0-D	650.00	655.00	15.00	1.30	0.00	1.50	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-655.0-660.0-D	655.00	660.00	15.00	1.30	0.00	1.50	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-660.0-665.0-D	660.00	665.00	15.00	1.30	0.00	1.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-665.0-670.0-D	665.00	670.00	15.00	1.30	0.00	2.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-670.0-675.0-D	670.00	675.00	15.00	1.30	0.00	2.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-675.0-680.0-D	675.00	680.00	15.00	1.30	0.00	1.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-680.0-685.0-D	680.00	685.00	15.00	1.20	0.00	2.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-685.0-690.0-D	685.00	690.00	15.00	1.20	0.00	2.00	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-690.0-695.0-D	690.00	695.00	15.00	1.20	0.00	2.50	6.50				10YR 5/4
06/21/05	EJH	01/24/07	JSW	13P-695.0-700.0-D	695.00	700.00	15.00	1.20	0.00	2.00	6.50				5YR 5/6
06/21/05	EJH	01/24/07	JSW	13P-700.0-705.0-D	700.00	705.00	15.00	0.90	0.00	3.00	6.50				5YR 5/6
06/21/05	EJH	01/24/07	JSW	13P-705.0-710.0-D	705.00	710.00	15.00	0.90	0.00	2.50	6.50				5YR 5/6
06/21/05	EJH	01/24/07	JSW	13P-710.0-715.0-D	710.00	715.00	15.00	0.90	0.00	2.50	6.50				5YR 5/6
06/21/05	EJH	01/24/07	JSW	13P-715.0-720.0-D	715.00	720.00	15.00	0.90	0.00	2.50	6.50				5YR 5/6
06/21/05	EJH	01/24/07	JSW	13P-720.0-725.0-D	720.00	725.00	15.00	1.80	0.00	2.50	6.50				5YR 5/6
06/21/05	EJH	01/24/07	JSW	13P-725.0-730.0-D	725.00	730.00	15.00	1.80	0.00	1.00	6.50				5YR 4/4
06/21/05	EJH	01/24/07	JSW	13P-730.0-735.0-D	730.00	735.00	15.00	1.80	0.00	3.00	6.50				5YR 4/4
06/21/05	EJH	01/24/07	JSW	13P-735.0-740.0-D	735.00	740.00	15.00	1.80	0.00	3.00	6.50				N4
06/21/05	EJH	01/24/07	JSW	13P-740.0-745.0-D	740.00	745.00	15.00	1.20	0.00	3.50	6.50				5YR 4/4
06/21/05	EJH	01/24/07	JSW	13P-745.0-750.0-D	745.00	750.00	15.00	1.20	17.00	2.50	6.50				5YR 4/4
06/21/05	EJH	01/24/07	JSW	13P-750.0-755.0-D	750.00	755.00	15.00	1.20	17.00	2.50	6.50				5YR 5/6
06/21/05	EJH	01/24/07	JSW	13P-755.0-760.0-D	755.00	760.00	15.00	1.20	17.00	2.50	6.50				5YR 5/6
06/21/05	EJH	01/24/07	JSW	13P-760.0-765.0-D	760.00	765.00	15.00	1.20	17.00	4.00	6.50				5YR 5/6
06/22/05	EJH	01/24/07	JSW	13P-765.0-770.0-D	765.00	770.00	0.00	1.30	17.00	3.50	6.50				5YR 4/4

Sample	Moisture Content: Not Applicable	Dry	Moist	Wet	HCL Reaction: None	Weak	Strong	Tuff Deposition: Ash Fall	Ash Flow	Reworked	Welding: Dense	Moderate	Weak	None	Alteration: Vitric	Devitrified	Matrix	Vapor Phase	Spherulitic	Sedimentary: Claystone	Mudstone	Siltstone	Sandstone	Conglomerate	Chert	Carbonate: Limestone	Dolomite	Other
13P-630.0-635.0-D				✓			✓			✓				✓		✓												
13P-635.0-640.0-D				✓			✓			✓				✓		✓												
13P-640.0-645.0-D				✓			✓			✓				✓		✓												
13P-645.0-650.0-D				✓			✓			✓				✓		✓												
13P-650.0-655.0-D				✓			✓			✓				✓		✓												
13P-655.0-660.0-D				✓			✓			✓				✓		✓												
13P-660.0-665.0-D				✓			✓			✓				✓		✓												
13P-665.0-670.0-D				✓			✓			✓				✓		✓												
13P-670.0-675.0-D				✓			✓			✓				✓		✓												
13P-675.0-680.0-D				✓			✓			✓				✓		✓												
13P-680.0-685.0-D				✓			✓			✓				✓		✓												
13P-685.0-690.0-D				✓			✓			✓				✓		✓												
13P-690.0-695.0-D				✓			✓			✓				✓		✓												
13P-695.0-700.0-D				✓		✓				✓				✓		✓												
13P-700.0-705.0-D				✓		✓				✓				✓		✓												
13P-705.0-710.0-D				✓		✓				✓				✓		✓												
13P-710.0-715.0-D				✓		✓				✓				✓		✓												
13P-715.0-720.0-D				✓		✓				✓				✓		✓												
13P-720.0-725.0-D				✓		✓				✓				✓		✓												
13P-725.0-730.0-D				✓		✓																	✓					
13P-730.0-735.0-D				✓		✓				✓				✓		✓												
13P-735.0-740.0-D				✓	✓			✓						✓		✓												
13P-740.0-745.0-D				✓		✓														✓								
13P-745.0-750.0-D				✓		✓																	✓					
13P-750.0-755.0-D				✓		✓																	✓					
13P-755.0-760.0-D				✓		✓																	✓					
13P-760.0-765.0-D				✓		✓																	✓					
13P-765.0-770.0-D				✓	✓															✓								

Sample	Weathering: Fresh	Slight	Moderate	High	Decomposed	Structure: None Observed	Stratified	Laminated	Fractured	Other	Matrix: Dense/Non-porous	Open/Porous	Other
13P-630.0-635.0-D			✓			✓					✓		
13P-635.0-640.0-D			✓			✓					✓		
13P-640.0-645.0-D			✓			✓					✓		
13P-645.0-650.0-D			✓				✓				✓		
13P-650.0-655.0-D			✓			✓					✓		
13P-655.0-660.0-D			✓			✓					✓		
13P-660.0-665.0-D			✓			✓					✓		
13P-665.0-670.0-D			✓			✓					✓		
13P-670.0-675.0-D			✓			✓					✓		
13P-675.0-680.0-D			✓			✓					✓		
13P-680.0-685.0-D			✓			✓					✓		
13P-685.0-690.0-D			✓			✓					✓		
13P-690.0-695.0-D			✓			✓							✓
13P-695.0-700.0-D			✓			✓							✓
13P-700.0-705.0-D			✓			✓					✓		
13P-705.0-710.0-D			✓			✓					✓		
13P-710.0-715.0-D			✓			✓					✓		
13P-715.0-720.0-D			✓			✓					✓		
13P-720.0-725.0-D			✓			✓					✓		
13P-725.0-730.0-D			✓			✓							✓
13P-730.0-735.0-D			✓			✓					✓		
13P-735.0-740.0-D				✓		✓							✓
13P-740.0-745.0-D			✓			✓					✓		
13P-745.0-750.0-D			✓			✓					✓		
13P-750.0-755.0-D			✓			✓					✓		
13P-755.0-760.0-D			✓			✓					✓		
13P-760.0-765.0-D			✓			✓					✓		
13P-765.0-770.0-D			✓			✓					✓		

Sample	Phenocrysts: Mafics % by Vol.	Mafics Munsell Color Symbol	Mafics Max. Size (mm)	Quartz % by Vol.	Quartz Munsell Color Symbol	Quartz Max. Size (mm)	Feldspar % by Vol.	Feldspar Munsell Color Symbol	Feldspar Max. Size (mm)	Clasts: Pumice % by Vol.	Pumice Munsell Color Symbol	Pumice Max. Size (mm)	Lithics % by Vol.	Lithics Munsell Color Symbol	Lithics Max. Size (mm)
13P-630.0-635.0-D										2	N7	3	1	VARIOUS	1
13P-635.0-640.0-D										2	N7	2	1	VARIOUS	1
13P-640.0-645.0-D										1	N7	2	1	VARIOUS	1
13P-645.0-650.0-D										1	N7	1	1	VARIOUS	1
13P-650.0-655.0-D										1	N7	2	1	VARIOUS	1
13P-655.0-660.0-D										1	N7	2	1	VARIOUS	1
13P-660.0-665.0-D										1	N7	3	1	VARIOUS	1
13P-665.0-670.0-D										2	N7	3	1	VARIOUS	1
13P-670.0-675.0-D										1	N7	3	1	VARIOUS	1
13P-675.0-680.0-D										2	N7	4	1	VARIOUS	1
13P-680.0-685.0-D										1	N7	2	1	VARIOUS	1
13P-685.0-690.0-D										1	N7	2	1	VARIOUS	1
13P-690.0-695.0-D															
13P-695.0-700.0-D										2	N7	3			
13P-700.0-705.0-D													1	N3	1
13P-705.0-710.0-D													1	N3	1
13P-710.0-715.0-D															
13P-715.0-720.0-D													1	N3	2
13P-720.0-725.0-D													1	N3	1
13P-725.0-730.0-D										1	N9	5			
13P-730.0-735.0-D										1	N9	3	1	N3	2
13P-735.0-740.0-D	5	5GY 2/1	2												
13P-740.0-745.0-D				1	N9	7				1	N9	10	1	N4	1.5
13P-745.0-750.0-D													1	N4	1.5
13P-750.0-755.0-D													1	N4	1
13P-755.0-760.0-D				1	COLORLESS	1									
13P-760.0-765.0-D	1	5Y 2/1	2										1	5YR 2/1	2
13P-765.0-770.0-D															

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-13P** (Phase 5) Driller/Drilling Company: Chris Bufkin/WDC Drilling Method: Air-Rotary Reverse Circulation Non-Alluvium Depth (ft bgs): 87 to 1569 Start Date: 6/17/2005 End Date: 7/23/2005

Logged		Checked		Sample	Depth Interval (feet/bgs)		Drilling/Coring Data				Sample Density Data				Munsell Color Symbol
							Liquid Drilling Fluid Injection Rate (gpm)	Drilling/Coring Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)	
06/22/05	EJH	01/24/07	JSW	13P-770.0-775.0-D	770.00	775.00	0.00	1.30	17.00	3.50	6.50				5YR 4/4
06/22/05	EJH	01/24/07	JSW	13P-775.0-780.0-D	775.00	780.00	0.00	1.30	17.00	3.50	6.50				5YR 4/4
06/22/05	EJH	01/24/07	JSW	13P-780.0-785.0-D	780.00	785.00	0.00	1.30	17.00	3.50	6.50				5YR 4/4
06/22/05	EJH	01/24/07	JSW	13P-785.0-790.0-D	785.00	790.00	0.00	2.00	30.00	2.00	6.50				5YR 4/4
06/22/05	EJH	01/24/07	JSW	13P-790.0-795.0-D	790.00	795.00	0.00	2.00	30.00	5.00	6.50				5YR 4/4
06/22/05	EJH	01/24/07	JSW	13P-795.0-800.0-D	795.00	800.00	0.00	2.00	30.00	3.00	6.50				10YR 4/2
06/22/05	EJH	01/24/07	JSW	13P-800.0-805.0-D	800.00	805.00	0.00	2.00	30.00	3.00	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-805.0-810.0-D	805.00	810.00	0.00	4.00	30.00	0.20	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-810.0-815.0-D	810.00	815.00	0.00	4.00	30.00	3.00	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-815.0-820.0-D	815.00	820.00	0.00	4.00	30.00	3.00	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-820.0-825.0-D	820.00	825.00	0.00	4.00	30.00	4.50	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-825.0-830.0-D	825.00	830.00	0.00	2.20	30.00	5.00	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-830.0-835.0-D	830.00	835.00	0.00	2.20	30.00	3.50	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-835.0-840.0-D	835.00	840.00	0.00	2.20	30.00	3.50	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-840.0-845.0-D	840.00	845.00	0.00	2.20	30.00	4.00	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-845.0-850.0-D	845.00	850.00	0.00	1.66	37.50	3.00	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-850.0-855.0-D	850.00	855.00	0.00	1.66	37.50	2.50	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-855.0-860.0-D	855.00	860.00	0.00	1.66	37.50	4.50	6.50				5YR 6/1
06/22/05	EJH	01/24/07	JSW	13P-860.0-865.0-D	860.00	865.00	0.00	1.66	37.50	4.50	6.50				5YR 5/6
06/22/05	EJH	01/24/07	JSW	13P-865.0-870.0-D	865.00	870.00	0.00	1.25	37.50	4.50	6.50				5YR 5/6
06/22/05	EJH	01/24/07	JSW	13P-870.0-875.0-D	870.00	875.00	0.00	1.25	37.50	4.50	6.50				5YR 5/6
06/22/05	EJH	01/24/07	JSW	13P-875.0-880.0-D	875.00	880.00	0.00	1.25	37.50	4.50	6.50				5YR 5/6
06/22/05	EJH	01/24/07	JSW	13P-880.0-885.0-D	880.00	885.00	0.00	1.25	43.00	4.50	6.50				5YR 5/6
06/22/05	EJH	01/24/07	JSW	13P-885.0-890.0-D	885.00	890.00	0.00	0.90	43.00	4.50	6.50				5YR 5/6
06/22/05	EJH	01/24/07	JSW	13P-890.0-895.0-D	890.00	895.00	0.00	0.90	43.00	3.50	6.50				5YR 5/6
06/22/05	EJH	01/24/07	JSW	13P-895.0-900.0-D	895.00	900.00	0.00	0.90	43.00	4.00	6.50				5YR 5/6
06/22/05	EJH	07/20/05	BW	13P-900.0-905.0-D	900.00	905.00	0.00	0.90	43.00	4.00	6.50				5YR 5/6
06/22/05	EJH	07/20/05	BW	13P-905.0-910.0-D	905.00	910.00	0.00	1.05	43.00	4.50	6.50				10YR 6/2

Sample	Moisture Content: Not Applicable	Dry	Moist	Wet	HCL Re-action: None	Weak	Strong	Rock Unit – Tuff – Deposition: Ash Fall	Ash Flow	Reworked	Welding: Dense	Moderate	Weak	None	Alteration: Vitric	Devitrified	Matrix	Vapor Phase	Spherulitic	Sedimentary: Claystone	Mudstone	Siltstone	Sandstone	Condlomerate	Chert	Car-bon-ate: Limestone	Dolomite	Other	Weathering: Fresh	Slight	Moderate	High	Decomposed	Structure: None Observed	Stratified	Laminated	Fractured	Other	Matrix: Dense/Non-porous	Open/Porous	Other
13P-770.0-775.0-D				✓	✓					✓				✓		✓															✓			✓					✓		
13P-775.0-780.0-D				✓		✓				✓				✓		✓															✓			✓					✓		
13P-780.0-785.0-D				✓		✓				✓				✓		✓															✓			✓					✓		
13P-785.0-790.0-D				✓	✓					✓				✓		✓															✓			✓					✓		
13P-790.0-795.0-D				✓	✓					✓				✓		✓															✓			✓					✓		
13P-795.0-800.0-D				✓		✓																	✓								✓			✓					✓		
13P-800.0-805.0-D				✓	✓																		✓									✓		✓						✓	
13P-805.0-810.0-D				✓	✓																		✓									✓		✓						✓	
13P-810.0-815.0-D				✓	✓																		✓									✓		✓						✓	
13P-815.0-820.0-D				✓	✓																		✓									✓		✓						✓	
13P-820.0-825.0-D				✓		✓																	✓									✓		✓						✓	
13P-825.0-830.0-D				✓		✓																	✓									✓		✓						✓	
13P-830.0-835.0-D				✓		✓																	✓									✓		✓						✓	
13P-835.0-840.0-D				✓	✓																		✓									✓		✓						✓	
13P-840.0-845.0-D				✓	✓																		✓									✓		✓						✓	
13P-845.0-850.0-D				✓	✓																		✓									✓		✓						✓	
13P-850.0-855.0-D				✓	✓																		✓									✓		✓						✓	
13P-855.0-860.0-D				✓	✓																		✓									✓		✓						✓	
13P-860.0-865.0-D				✓	✓															✓												✓		✓					✓		
13P-865.0-870.0-D				✓		✓																	✓									✓		✓						✓	
13P-870.0-875.0-D				✓		✓														✓												✓		✓					✓		
13P-875.0-880.0-D				✓		✓														✓												✓		✓					✓		
13P-880.0-885.0-D				✓		✓																	✓									✓		✓						✓	
13P-885.0-890.0-D				✓		✓																	✓									✓		✓						✓	
13P-890.0-895.0-D				✓		✓														✓												✓		✓					✓		
13P-895.0-900.0-D				✓		✓																	✓									✓		✓						✓	
13P-900.0-905.0-D				✓	✓															✓									✓					✓					✓		
13P-905.0-910.0-D				✓	✓																		✓						✓					✓						✓	

Sample	Phenocrysts – Mafics: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Quartz: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Feldspar: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Clasts – Pumice: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Lithics: % by Vol.	Munsell Color Symbol	Max. Size (mm)
13P-770.0-775.0-D	1		1.5										2	N4	2
13P-775.0-780.0-D															
13P-780.0-785.0-D										1	N9	5	1	N5	1
13P-785.0-790.0-D										2	N9	4	2	N9	10
13P-790.0-795.0-D				1	N7	1	1	COLOR LESS	1.5	2	N9	10			
13P-795.0-800.0-D				2	N6	1.5	1	COLOR LESS	1.5				1	N2	2
13P-800.0-805.0-D				95	COLOR LESS	1.5							1	VARIOU S	2
13P-805.0-810.0-D				50	COLOR LESS	1.5							1	VARIOU S	2
13P-810.0-815.0-D				95	COLOR LESS	1.5							1	VARIOU S	2
13P-815.0-820.0-D				95	COLOR LESS	1.5							1	VARIOU S	2
13P-820.0-825.0-D				95	COLOR LESS	1.5							1	VARIOU S	2
13P-825.0-830.0-D				95	COLOR LESS	1.5							1	VARIOU S	2
13P-830.0-835.0-D				95	COLOR LESS	1.5							1	VARIOU S	2
13P-835.0-840.0-D				95	COLOR LESS	1.5							1	VARIOU S	2
13P-840.0-845.0-D				95	COLOR LESS	1.5							1	VARIOU S	2
13P-845.0-850.0-D				95	COLOR LESS	1.5							1	VARIOU S	2
13P-850.0-855.0-D				95	COLOR LESS	1.5							1	VARIGA TED	2
13P-855.0-860.0-D				95	COLOR LESS	1.5							1	VARIGA TED	2
13P-860.0-865.0-D															
13P-865.0-870.0-D															
13P-870.0-875.0-D															
13P-875.0-880.0-D															
13P-880.0-885.0-D				70	COLOR LESS	1							6	VARIOU S	2
13P-885.0-890.0-D				70	COLOR LESS	1							8	VARIOU S	1.5
13P-890.0-895.0-D															
13P-895.0-900.0-D				75	COLOR LESS	1.5							10	VARIOU S	1.5
13P-900.0-905.0-D															
13P-905.0-910.0-D															

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-13P** (Phase 5) Driller/Drilling Company: Chris Bufkin/WDC Drilling Method: Air-Rotary Reverse Circulation Non-Alluvium Depth (ft bgs): 87 to 1569 Start Date: 6/17/2005 End Date: 7/23/2005

Logged		Checked		Sample	Depth Interval (feet/bgs)		Drilling/Coring Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling/Coring Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Sample Density Data: Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)	Munsell Color Symbol
06/22/05	EJH	07/20/05	BW	13P-910.0-915.0-D	910.00	915.00	0.00	1.05	43.00	3.00	6.50				10YR 6/2
06/22/05	EJH	07/20/05	BW	13P-915.0-920.0-D	915.00	920.00	0.00	1.05	43.00	3.50	6.50				10YR 6/2
06/22/05	EJH	07/20/05	BW	13P-920.0-925.0-D	920.00	925.00	0.00	1.05	50.00	4.50	6.50				10YR 6/2
06/22/05	EJH	07/20/05	BW	13P-925.0-930.0-D	925.00	930.00	0.00	1.17	50.00	4.50	6.50				10YR 5/4
06/22/05	EJH	07/20/05	BW	13P-930.0-935.0-D	930.00	935.00	0.00	1.17	50.00	4.50	6.50				10YR 5/4
06/22/05	EJH	07/20/05	BW	13P-935.0-940.0-D	935.00	940.00	0.00	1.17	50.00	3.50	6.50				10YR 5/4
06/22/05	EJH	07/20/05	BW	13P-940.0-945.0-D	940.00	945.00	0.00	1.17	50.00	4.00	6.50				10YR 5/4
06/22/05	EJH	07/20/05	BW	13P-945.0-950.0-D	945.00	950.00	0.00	1.25	50.00	2.00	6.50				10YR 5/4
06/22/05	EJH	07/20/05	BW	13P-950.0-955.0-D	950.00	955.00	0.00	1.25	50.00	3.00	6.50				5YR 6/4
06/22/05	EJH	07/20/05	BW	13P-955.0-960.0-D	955.00	960.00	0.00	1.25	50.00	2.50	6.50				5YR 6/4
06/22/05	EJH	07/20/05	BW	13P-960.0-965.0-D	960.00	965.00	0.00	1.25	37.50	4.50	6.50				5YR 6/4
06/22/05	EJH	07/20/05	BW	13P-965.0-970.0-D	965.00	970.00	0.00	1.54	37.50	1.00	6.50				5YR 6/4
06/22/05	EJH	07/20/05	BW	13P-970.0-975.0-D	970.00	975.00	0.00	1.54	37.50	4.50	6.50				5YR 6/4
06/22/05	EJH	07/20/05	BW	13P-975.0-980.0-D	975.00	980.00	0.00	1.54	37.50	3.00	6.50				5YR 6/4
06/22/05	EJH	07/20/05	BW	13P-980.0-985.0-D	980.00	985.00	0.00	1.54	37.50	2.50	6.50				5YR 6/4
06/22/05	EJH	07/20/05	BW	13P-985.0-990.0-D	985.00	990.00	0.00	1.42	37.50	2.00	6.50				5YR 6/4
06/22/05	EJH	07/20/05	BW	13P-990.0-995.0-D	990.00	995.00	0.00	1.42	37.50	3.00	6.50				5YR 6/4
06/22/05	EJH	07/20/05	BW	13P-995.0-1000.0-D	995.00	1000.00	0.00	1.42	37.50	3.00	6.50				5YR 6/4
06/22/05	EJH	01/24/07	JSW	13P-1000.0-1005.0-D	1000.00	1005.00	0.00	1.42	37.50	4.00	6.50				10R 4/2
06/22/05	EJH	01/24/07	JSW	13P-1005.0-1010.0-D	1005.00	1010.00	0.00	1.05	37.50	2.00	6.50				10R 4/2
06/22/05	EJH	01/24/07	JSW	13P-1010.0-1015.0-D	1010.00	1015.00	0.00	1.10	37.50	3.00	6.50				10R 4/2
06/22/05	EJH	01/24/07	JSW	13P-1015.0-1020.0-D	1015.00	1020.00	0.00	1.10	37.50	4.00	6.50				10R 4/2
06/22/05	EJH	01/24/07	JSW	13P-1020.0-1025.0-D	1020.00	1025.00	0.00	1.10	37.50	4.50	6.50				10R 4/2
06/22/05	EJH	01/24/07	JSW	13P-1025.0-1030.0-D	1025.00	1030.00	0.00	0.27	37.50	3.50	6.50				10R 4/2
06/22/05	EJH	01/24/07	JSW	13P-1030.0-1035.0-D	1030.00	1035.00	15.00	0.27	50.00	4.00	6.50				10R 4/2
06/22/05	EJH	01/24/07	JSW	13P-1035.0-1040.0-D	1035.00	1040.00	15.00	0.27	50.00	3.00	6.50				10YR 6/2
06/22/05	EJH	01/24/07	JSW	13P-1040.0-1045.0-D	1040.00	1045.00	15.00	0.27	50.00	5.00	6.50				10R 4/2
06/23/05	EJH	01/24/07	JSW	13P-1045.0-1050.0-D	1045.00	1050.00	0.00	0.20	50.00	5.00	6.50				10R 4/2

Sample	Moisture Content: Not Applicable	Dry	Moist	Wet	HCL Re-action: None	Weak	Strong	Rock Unit – Tuff – Deposition: Ash Fall	Ash Flow	Reworked	Welding: Dense	Moderate	Weak	None	Alteration: Vitric	Devitrified	Matrix	Vapor Phase	Spherulitic	Sedimentary: Claystone	Mudstone	Siltstone	Sandstone	Conglomerate	Chert	Carbonate: Limestone	Dolomite	Other	Weathering: Fresh	Slight	Moderate	High	Decomposed	Structure: None Observed	Stratified	Laminated	Fractured	Other	Matrix: Dense/Non-porous	Open/Porous	Other
13P-910.0-915.0-D				✔	✔																		✔						✔					✔					✔		
13P-915.0-920.0-D				✔	✔																		✔						✔					✔					✔		
13P-920.0-925.0-D				✔	✔																		✔						✔					✔					✔		
13P-925.0-930.0-D				✔	✔																		✔						✔					✔					✔		
13P-930.0-935.0-D				✔	✔																		✔						✔					✔						✔	
13P-935.0-940.0-D				✔	✔															✔									✔					✔					✔		
13P-940.0-945.0-D				✔	✔																✔								✔					✔					✔		
13P-945.0-950.0-D				✔		✔															✔								✔					✔					✔		
13P-950.0-955.0-D				✔	✔																		✔									✔		✔						✔	
13P-955.0-960.0-D				✔	✔																		✔									✔		✔						✔	
13P-960.0-965.0-D				✔		✔																	✔									✔		✔						✔	
13P-965.0-970.0-D				✔	✔																		✔									✔		✔						✔	
13P-970.0-975.0-D				✔	✔																		✔									✔		✔						✔	
13P-975.0-980.0-D				✔		✔																	✔									✔		✔						✔	
13P-980.0-985.0-D				✔	✔																		✔									✔		✔						✔	
13P-985.0-990.0-D				✔	✔																		✔									✔		✔						✔	
13P-990.0-995.0-D				✔	✔																		✔									✔		✔						✔	
13P-995.0-1000.0-D				✔	✔																		✔									✔		✔						✔	
13P-1000.0-1005.0-D				✔		✔																	✔									✔		✔						✔	
13P-1005.0-1010.0-D				✔	✔																		✔									✔		✔						✔	
13P-1010.0-1015.0-D				✔	✔																		✔									✔		✔						✔	
13P-1015.0-1020.0-D				✔		✔																	✔									✔		✔						✔	
13P-1020.0-1025.0-D				✔		✔																	✔									✔		✔						✔	
13P-1025.0-1030.0-D				✔	✔																		✔									✔		✔						✔	
13P-1030.0-1035.0-D				✔		✔																	✔										✔	✔						✔	
13P-1035.0-1040.0-D				✔			✔	✔						✔																			✔	✔						✔	
13P-1040.0-1045.0-D				✔			✔	✔						✔																			✔	✔						✔	
13P-1045.0-1050.0-D				✔			✔	✔						✔																			✔	✔						✔	

Sample	Phenocrysts – Mafics: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Quartz: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Feldspar: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Clasts – Pumice: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Lithics: % by Vol.	Munsell Color Symbol	Max. Size (mm)
13P-910.0-915.0-D															
13P-915.0-920.0-D															
13P-920.0-925.0-D															
13P-925.0-930.0-D															
13P-930.0-935.0-D															
13P-935.0-940.0-D															
13P-940.0-945.0-D															
13P-945.0-950.0-D															
13P-950.0-955.0-D				75	COLORLESS	2	10	10YR 8/2	2				15	VARIOUS	5
13P-955.0-960.0-D				75	COLORLESS	2	10	10YR 8/2	2				15	VARIOUS	5
13P-960.0-965.0-D				75	COLORLESS	2	10	10YR 8/2	2				15	VARIOUS	5
13P-965.0-970.0-D				75	COLORLESS	2	10	10YR 8/2	2	1	10R 4/6	15	15	VARIOUS	5
13P-970.0-975.0-D				75	COLORLESS	2	10	10YR 8/2	2				15	VARIOUS	5
13P-975.0-980.0-D				75	COLORLESS	2	10	10YR 8/2	2				15	VARIOUS	5
13P-980.0-985.0-D				75	COLORLESS	2	10	10YR 8/2	2				15	VARIOUS	8
13P-985.0-990.0-D				75	COLORLESS	2	10	10YR 8/2	2				15	VARIOUS	10
13P-990.0-995.0-D				75	COLORLESS	2	10	10YR 8/2	2				15	VARIOUS	8
13P-995.0-1000.0-D				75	COLORLESS	2	10	10YR 8/2	2	1	10YR 8/2	2	15	VARIOUS	6
13P-1000.0-1005.0-D	0.5	5YR 2/1	1	1	COLORLESS	2							0.5	VARIOUS	1
13P-1005.0-1010.0-D	1	5YR 2/1	2	2	COLORLESS	2							1	VARIOUS	1
13P-1010.0-1015.0-D	0.5	5YR 2/1	1	1	COLORLESS	2							0.5	VARIOUS	1
13P-1015.0-1020.0-D				1	COLORLESS	2							0.5	VARIOUS	1
13P-1020.0-1025.0-D				2	COLORLESS	2							1	VARIOUS	2
13P-1025.0-1030.0-D				1	COLORLESS	2							0.5	VARIOUS	1
13P-1030.0-1035.0-D				1	COLORLESS	2							0.5	VARIOUS	1
13P-1035.0-1040.0-D				1	COLORLESS	2							0.5	VARIOUS	1
13P-1040.0-1045.0-D				1	COLORLESS	2							0.5	VARIOUS	1
13P-1045.0-1050.0-D	0.5	5YR 2/1	1	1	COLORLESS	1							1	VARIOUS	2

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-13P** (Phase 5) Driller/Drilling Company: Chris Bufkin/WDC Drilling Method: Air-Rotary Reverse Circulation Non-Alluvium Depth (ft bgs): 87 to 1569 Start Date: 6/17/2005 End Date: 7/23/2005

Logged		Checked		Sample	Depth Interval (feet/bgs)		Drilling/Coring Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling/Coring Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Sample Density Data: Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)	Munsell Color Symbol
06/23/05	EJH	01/24/07	JSW	13P-1050.0-1055.0-D	1050.00	1055.00	0.00	0.20	50.00	4.50	6.50				10R 4/2
06/23/05	EJH	01/24/07	JSW	13P-1055.0-1060.0-D	1055.00	1060.00	0.00	0.20	50.00	4.50	6.50				10R 4/2
06/23/05	EJH	01/24/07	JSW	13P-1060.0-1065.0-D	1060.00	1065.00	0.00	0.30	50.00	5.00	6.50				10R 4/2
06/24/05	EJH	01/24/07	JSW	13P-1065.0-1070.0-D	1065.00	1070.00	2.00	0.30	50.00	5.00	6.50				10R 4/2
06/24/05	EJH	01/24/07	JSW	13P-1070.0-1075.0-D	1070.00	1075.00	2.00	0.30	50.00	5.00	6.50				10R 4/2
06/24/05	EJH	01/24/07	JSW	13P-1075.0-1080.0-D	1075.00	1080.00	2.00	0.30	50.00	3.00	6.50				10R 4/2
06/24/05	EJH	01/24/07	JSW	13P-1080.0-1085.0-D	1080.00	1085.00	2.00	0.20	50.00	4.50	6.50				10R 2/2
06/24/05	EJH	01/24/07	JSW	13P-1085.0-1090.0-D	1085.00	1090.00	2.00	0.20	50.00	4.50	6.50				10R 2/2
06/24/05	EJH	01/24/07	JSW	13P-1090.0-1095.0-D	1090.00	1095.00	2.00	0.20	50.00	4.00	6.50				10R 2/2
06/24/05	EJH	01/24/07	JSW	13P-1095.0-1100.0-D	1095.00	1100.00	2.00	0.20	50.00	4.00	6.50				10R 2/2
06/24/05	EJH	01/24/07	JSW	13P-1100.0-1105.0-D	1100.00	1105.00	2.00	0.20	60.00	4.50	6.50				5YR 3/2
06/24/05	EJH	01/24/07	JSW	13P-1105.0-1110.0-D	1105.00	1110.00	2.00	0.20	60.00	3.50	6.50				5YR 5/2
06/24/05	EJH	01/24/07	JSW	13P-1110.0-1115.0-D	1110.00	1115.00	2.00	0.20	60.00	4.50	6.50				5YR 5/2
06/24/05	EJH	01/24/07	JSW	13P-1115.0-1120.0-D	1115.00	1120.00	2.00	0.20	60.00	4.50	6.50				5YR 5/2
06/24/05	EJH	01/24/07	JSW	13P-1120.0-1125.0-D	1120.00	1125.00	2.00	0.20	60.00	4.50	6.50				5YR 5/2
06/24/05	EJH	01/24/07	JSW	13P-1125.0-1130.0-D	1125.00	1130.00	2.00	0.20	60.00	4.50	6.50				5YR 5/2
06/24/05	EJH	01/24/07	JSW	13P-1130.0-1135.0-D	1130.00	1135.00	2.00	0.20	60.00	5.00	6.50				5YR 5/2
06/25/05	EJH	01/24/07	JSW	13P-1135.0-1140.0-D	1135.00	1140.00	2.00	0.20	60.00	5.00	6.50				5YR 3/2
06/25/05	EJH	01/24/07	JSW	13P-1140.0-1145.0-D	1140.00	1145.00	2.00	0.30	60.00	5.00	6.50				5YR 4/2
06/25/05	EJH	01/24/07	JSW	13P-1145.0-1150.0-D	1145.00	1150.00	2.00	0.30	57.00	4.50	6.50				5R 4/2
06/25/05	EJH	01/24/07	JSW	13P-1150.0-1155.0-D	1150.00	1155.00	2.00	0.30	57.00	5.00	6.50				5R 4/2
06/25/05	EJH	01/24/07	JSW	13P-1155.0-1160.0-D	1155.00	1160.00	2.00	0.30	57.00	5.00	6.50				5R 4/2
06/25/05	EJH	01/24/07	JSW	13P-1160.0-1165.0-D	1160.00	1165.00	2.00	0.40	57.00	5.00	6.50				5R 4/2
06/25/05	EJH	01/24/07	JSW	13P-1165.0-1170.0-D	1165.00	1170.00	2.00	0.40	57.00	4.00	6.50				5R 4/2
06/25/05	EJH	01/24/07	JSW	13P-1170.0-1175.0-D	1170.00	1175.00	2.00	0.40	57.00	4.00	6.50				5R 4/2
06/25/05	EJH	01/24/07	JSW	13P-1175.0-1180.0-D	1175.00	1180.00	2.00	0.40	57.00	2.50	6.50				5R 4/2
06/25/05	EJH	01/24/07	JSW	13P-1180.0-1185.0-D	1180.00	1185.00	2.00	0.50	57.00	5.00	6.50				5R 4/2
06/25/05	EJH	01/24/07	JSW	13P-1185.0-1190.0-D	1185.00	1190.00	2.00	0.50	57.00	3.50	6.50				5R 4/2

Sample	Moisture: Not Applicable	Dry	Moist	Wet	HCL: None	Weak	Strong	Tuff Deposition: Ash Fall	Ash Flow	Reworked	Welding: Dense	Moderate	Weak	None	Alteration: Vitric	Devitrified	Matrix	Vapor Phase	Spherulitic	Sedimentary: Claystone	Mudstone	Siltstone	Sandstone	Conglomerate	Chert	Carbonate: Limestone	Dolomite	Rock Unit: Other	Weathering: Fresh	Slight	Moderate	High	Decomposed	Structure: None Observed	Stratified	Laminated	Fractured	Other	Matrix: Dense/Non-porous	Open/Porous	Other
13P-1050.0-1055.0-D				✓			✓	✓						✓																	✓	✓						✓	
13P-1055.0-1060.0-D				✓			✓	✓						✓																	✓	✓						✓	
13P-1060.0-1065.0-D				✓			✓	✓						✓																	✓	✓						✓	
13P-1065.0-1070.0-D				✓			✓	✓						✓																✓		✓						✓	
13P-1070.0-1075.0-D				✓			✓	✓						✓																✓		✓						✓	
13P-1075.0-1080.0-D				✓			✓	✓						✓																✓		✓						✓	
13P-1080.0-1085.0-D				✓	✓				✓		✓																		✓					✓					✓		
13P-1085.0-1090.0-D				✓	✓				✓		✓																		✓					✓					✓		
13P-1090.0-1095.0-D				✓	✓				✓		✓																		✓					✓					✓		
13P-1095.0-1100.0-D				✓	✓				✓		✓																		✓					✓					✓		
13P-1100.0-1105.0-D				✓	✓			✓				✓				✓													✓							✓			✓		
13P-1105.0-1110.0-D				✓	✓			✓				✓				✓																✓		✓					✓		
13P-1110.0-1115.0-D				✓	✓			✓				✓				✓																✓				✓			✓		
13P-1115.0-1120.0-D				✓			✓	✓				✓				✓																✓				✓			✓		
13P-1120.0-1125.0-D				✓			✓	✓				✓				✓																✓		✓						✓	
13P-1125.0-1130.0-D				✓			✓	✓				✓				✓																✓		✓						✓	
13P-1130.0-1135.0-D				✓			✓	✓				✓				✓																✓		✓						✓	
13P-1135.0-1140.0-D				✓			✓	✓				✓				✓																✓		✓						✓	
13P-1140.0-1145.0-D				✓	✓																		✓								✓			✓						✓	
13P-1145.0-1150.0-D				✓	✓																		✓								✓			✓						✓	
13P-1150.0-1155.0-D				✓	✓																		✓								✓			✓						✓	
13P-1155.0-1160.0-D				✓		✓																	✓								✓			✓						✓	
13P-1160.0-1165.0-D				✓		✓																	✓							✓				✓						✓	
13P-1165.0-1170.0-D				✓		✓																	✓							✓				✓						✓	
13P-1170.0-1175.0-D				✓		✓																	✓							✓				✓						✓	
13P-1175.0-1180.0-D				✓		✓																	✓						✓					✓						✓	
13P-1180.0-1185.0-D				✓		✓																	✓						✓					✓						✓	
13P-1185.0-1190.0-D				✓		✓																	✓						✓					✓						✓	

Sample	Phenocrysts: Mafics % by Vol.	Mafics Munsell Color Symbol	Mafics Max. Size (mm)	Quartz % by Vol.	Quartz Munsell Color Symbol	Quartz Max. Size (mm)	Feldspar % by Vol.	Feldspar Munsell Color Symbol	Feldspar Max. Size (mm)	Clasts: Pumice % by Vol.	Pumice Munsell Color Symbol	Pumice Max. Size (mm)	Lithics % by Vol.	Lithics Munsell Color Symbol	Lithics Max. Size (mm)
13P-1050.0-1055.0-D				1	COLORLESS	1							0.5	VARIOUS	1
13P-1055.0-1060.0-D				1	COLORLESS	1	2	COLORLESS	0.5	1	10R 4/2	15	1	VARIOUS	1
13P-1060.0-1065.0-D	0.5	5YR 2/1	2	1	COLORLESS	1	2	COLORLESS	1	1	10R 4/2	10	1	VARIOUS	1
13P-1065.0-1070.0-D				1	COLORLESS	1	2	COLORLESS	0.5				1	VARIOUS	1
13P-1070.0-1075.0-D				1	COLORLESS	1	1	COLORLESS	1	1	10R 4/2	4	1	VARIED	2
13P-1075.0-1080.0-D				1	COLORLESS	1	1	COLORLESS	1	1	10R 4/2	4	1	VARIED	1
13P-1080.0-1085.0-D				2	COLORLESS	2	2	COLORLESS	2				3	N6	3
13P-1085.0-1090.0-D				2	COLORLESS	2	1	COLORLESS	1	1	10R 4/2	8	2	VARIED	2
13P-1090.0-1095.0-D				2	COLORLESS	2	2	COLORLESS	1				2	VARIED	2
13P-1095.0-1100.0-D				2	COLORLESS	2	1	COLORLESS	2				1	VARIED	2
13P-1100.0-1105.0-D				3	N6	1.5							1	N3	10
13P-1105.0-1110.0-D				2	N7	2	1	COLORLESS	1.5				1	5YR 4/1	3
13P-1110.0-1115.0-D				2	N7	1.5	2	COLORLESS	1				1	5YR 4/1	2
13P-1115.0-1120.0-D				1	COLORLESS	1	2	COLORLESS	1	1	5YR 6/1	8	2	VARIOUS	4
13P-1120.0-1125.0-D				2	COLORLESS	1.5	1	COLORLESS	2	1	N9	5	1	VARIOUS	3
13P-1125.0-1130.0-D				2	N7	1.5	2	COLORLESS	1.5	1	N9	4	1	N5	3
13P-1130.0-1135.0-D				2	N8	1.5	2	COLORLESS	1	1	N9	8	2	VARIOUS	4
13P-1135.0-1140.0-D	1	5Y 2/1	1.5	2	COLORLESS	2	1	COLORLESS	1	1	10R 6/6	5			
13P-1140.0-1145.0-D				1	COLORLESS	2	1	COLORLESS	1.5						
13P-1145.0-1150.0-D							1	COLORLESS	1.5						
13P-1150.0-1155.0-D							1	COLORLESS	1	1	N9	6	1	10R 6/6	3
13P-1155.0-1160.0-D	1	5Y 2/1	2				1	COLORLESS	1	1	10R 6/6	4			
13P-1160.0-1165.0-D							1	COLORLESS	1				3	5YR 6/1	1
13P-1165.0-1170.0-D							1	COLORLESS	1	1	10R 6/6	3	4	5YR 6/1	2
13P-1170.0-1175.0-D							1	COLORLESS	1				4	5YR 6/1	1
13P-1175.0-1180.0-D							1	COLORLESS	1				1	5YR 4/1	1
13P-1180.0-1185.0-D							1	COLORLESS	1				1	5YR 4/1	1
13P-1185.0-1190.0-D							1	COLORLESS	1	1	N9	8	1	5YR 4/1	2

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-13P** (Phase 5) Driller/Drilling Company: Chris Bufkin/WDC Drilling Method: Air-Rotary Reverse Circulation Non-Alluvium Depth (ft bgs): 87 to 1569 Start Date: 6/17/2005 End Date: 7/23/2005

Logged		Checked		Sample	Depth Interval (feet/bgs)		Drilling/Coring Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling/Coring Data: Drilling/Coring Rate (feet/min)	Drilling/Coring Data: Water Production (gpm)	Drilling/Coring Data: Sample Recovery (gallons)	Sample Density Data: Borehole Diameter (inches)	Sample Density Data: Tare Weight (kg)	Sample Density Data: Sample Plus Tare Weight (kg)	Sample Density Data: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Not Applicable	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	HCL Re-action: None	HCL Re-action: Weak	HCL Re-action: Strong	Tuff Deposition: Ash Fall	Tuff Deposition: Ash Flow	Tuff Deposition: Reworked	Tuff Welding: Dense	Tuff Welding: Moderate	Tuff Welding: Weak	Tuff Welding: None	Tuff Alteration: Vitric	Tuff Alteration: Devitrified	Tuff Alteration: Matrix	Tuff Alteration: Vapor Phase	Tuff Alteration: Spherulitic	Sedimentary: Claystone	Sedimentary: Mudstone	Sedimentary: Siltstone	Sedimentary: Sandstone	Sedimentary: Conglomerate	Sedimentary: Chert	Carbonate: Limestone	Carbonate: Dolomite	Rock Unit: Other	Weathering: Fresh	Weathering: Slight	Weathering: Moderate	Weathering: High	Weathering: Decomposed	Structure: None Observed	Structure: Stratified	Structure: Laminated	Structure: Fractured	Structure: Other	Matrix: Dense/Non-porous	Matrix: Open/Porous	Matrix: Other	Phenocrysts Mafics: % by Vol.	Phenocrysts Mafics: Munsell Color Symbol	Phenocrysts Mafics: Max. Size (mm)	Phenocrysts Quartz: % by Vol.	Phenocrysts Quartz: Munsell Color Symbol	Phenocrysts Quartz: Max. Size (mm)	Phenocrysts Feldspar: % by Vol.	Phenocrysts Feldspar: Munsell Color Symbol	Phenocrysts Feldspar: Max. Size (mm)	Clasts Pumice: % by Vol.	Clasts Pumice: Munsell Color Symbol	Clasts Pumice: Max. Size (mm)	Clasts Lithics: % by Vol.	Clasts Lithics: Munsell Color Symbol	Clasts Lithics: Max. Size (mm)
06/25/05	EJH	01/24/07	JSW	13P-1190.0-1195.0-D	1190.00	1195.00	2.00	0.50	57.00	5.00	6.50				5R 4/2				✓		✓																	✓						✓					✓						✓												1	N9	3			
06/25/05	EJH	01/24/07	JSW	13P-1195.0-1200.0-D	1195.00	1200.00	2.00	0.50	57.00	4.50	6.50				5R 4/2				✓		✓																	✓						✓					✓						✓		1	5Y 2/1	1				1	COLOR LESS	1				1	5YR 4/1	1
06/25/05	EJH	01/24/07	JSW	13P-1200.0-1205.0-D	1200.00	1205.00	2.00	0.20	57.00	4.50	6.50				5YR 5/2				✓		✓																		✓						✓				✓						✓								1	COLOR LESS	1	1	N9	3	1	N4	1
06/25/05	EJH	01/24/07	JSW	13P-1205.0-1210.0-D	1205.00	1210.00	2.00	0.20	57.00	3.50	6.50				10R 4/2				✓		✓				✓				✓																		✓		✓						✓												5	10R 7/4	3			
06/25/05	EJH	01/24/07	JSW	13P-1210.0-1215.0-D	1210.00	1215.00	2.00	0.20	57.00	4.00	6.50				10R 4/2				✓		✓																		✓								✓		✓						✓								1	COLOR LESS	1.5	2	N9	3	2	5YR 2/1	2
06/27/05	EJH	01/24/07	JSW	13P-1215.0-1220.0-D	1215.00	1220.00	2.00	0.20	57.00	5.00	6.50				10R 4/2				✓		✓																	✓									✓		✓						✓								1	COLOR LESS	2	1	5R 6/6	5	1	5YR 3/1	1
06/27/05	EJH	01/24/07	JSW	13P-1220.0-1225.0-D	1220.00	1225.00	2.00	0.20	57.00	5.00	6.50				10R 4/2				✓		✓																		✓								✓		✓						✓					30	COLOR LESS	2	25	COLOR LESS	2	1	5R 6/6	3	40	10R 4/2	10
06/27/05	EJH	01/24/07	JSW	13P-1225.0-1230.0-D	1225.00	1230.00	2.00	0.20	58.00	4.50	6.50				10R 4/2				✓		✓																		✓								✓		✓						✓					25	COLOR LESS	2	30	COLOR LESS	2	2	5R 6/6	2	40	10R 4/2	10
06/27/05	EJH	01/24/07	JSW	13P-1230.0-1235.0-D	1230.00	1235.00	2.00	0.20	58.00	5.00	6.50				10R 4/2				✓		✓																		✓								✓		✓						✓					30	COLOR LESS	2	30	COLOR LESS	2	1	5R 6/6	3	38	10R 4/2	8
06/27/05	EJH	01/24/07	JSW	13P-1235.0-1240.0-D	1235.00	1240.00	2.00	0.20	58.00	5.00	6.50				10R 4/2				✓		✓																		✓								✓		✓						✓					20	COLOR LESS	1	20	COLOR LESS	1.5				50	10R 4/2	8
07/13/05	EJH	01/24/07	JSW	13P-1240.0-1245.0-D	1240.00	1245.00	15.00	0.40	58.00	10.00	6.50				10R 4/2				✓		✓																	✓									✓		✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1245.0-1250.0-D	1245.00	1250.00	15.00	0.40	58.00	5.00	6.50				10R 4/2				✓	✓																		✓									✓		✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1250.0-1255.0-D	1250.00	1255.00	0.00	0.40	58.00	4.50	6.50				10R 4/2				✓	✓																			✓								✓		✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1255.0-1260.0-D	1255.00	1260.00	0.00	0.40	58.00	4.50	6.50				10R 4/2				✓	✓																			✓							✓			✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1260.0-1265.0-D	1260.00	1265.00	0.00	0.40	58.00	3.50	6.50				10R 4/2				✓	✓																			✓							✓			✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1265.0-1270.0-D	1265.00	1270.00	0.00	0.40	81.00	4.00	6.50				10R 4/2				✓	✓																			✓							✓			✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1270.0-1275.0-D	1270.00	1275.00	0.00	0.40	81.00	4.50	6.50				10R 4/2				✓	✓																		✓								✓			✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1275.0-1280.0-D	1275.00	1280.00	0.00	0.40	81.00	4.50	6.50				10R 4/2				✓	✓																		✓								✓			✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1280.0-1285.0-D	1280.00	1285.00	0.00	0.30	81.00	4.50	6.50				10R 4/2				✓	✓																		✓								✓			✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1285.0-1290.0-D	1285.00	1290.00	0.00	0.30	81.00	4.50	6.50				10R 4/2				✓	✓																		✓								✓			✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1290.0-1295.0-D	1290.00	1295.00	0.00	0.30	81.00	4.50	6.50				10R 4/2				✓	✓																		✓								✓			✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1295.0-1300.0-D	1295.00	1300.00	0.00	0.30	81.00	4.50	6.50				10R 4/2				✓	✓																		✓								✓			✓						✓																
07/13/05	EJH	01/24/07	JSW	13P-1300.0-1305.0-D	1300.00	1305.00	0.00	0.40	79.00	4.00	6.50				5YR 2/2				✓	✓																		✓									✓								✓																
07/13/05	EJH	01/24/07	JSW	13P-1305.0-1310.0-D	1305.00	1310.00	0.00	0.40	79.00	4.00	6.50				5YR 2/2				✓	✓																		✓									✓								✓																
07/13/05	EJH	01/24/07	JSW	13P-1310.0-1315.0-D	1310.00	1315.00	15.00	0.40	79.00	4.00	6.50				5YR 2/2				✓	✓																		✓									✓								✓																
07/13/05	EJH	01/24/07	JSW	13P-1315.0-1320.0-D	1315.00	1320.00	15.00	0.40	79.00	4.50	6.50				5YR 4/1				✓	✓																		✓									✓								✓																
07/13/05	EJH	01/24/07	JSW	13P-1320.0-1325.0-D	1320.00	1325.00	0.00	0.30	79.00	4.00	6.50				5YR 4/1				✓	✓																		✓									✓								✓																
07/13/05	EJH	01/24/07	JSW	13P-1325.0-1330.0-D	1325.00	1330.00	15.00	0.30	79.00	4.50	6.50				5YR 4/1				✓	✓															✓													✓							✓																2	N5	5

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-13P** (Phase 5) Driller/Drilling Company: Chris Bufkin/WDC Drilling Method: Air-Rotary Reverse Circulation Non-Alluvium Depth (ft bgs): 87 to 1569 Start Date: 6/17/2005 End Date: 7/23/2005

Logged		Checked		Sample	Depth Interval (feet/bgs)		Drilling/Coring Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling/Coring Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Sample Density Data: Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)	Munsell Color Symbol
07/14/05	EJH	01/24/07	JSW	13P-1330.0-1335.0-D	1330.00	1335.00	15.00	0.30	79.00	8.00	6.50				5YR 4/1
07/14/05	EJH	01/24/07	JSW	13P-1335.0-1340.0-D	1335.00	1340.00	15.00	0.30	79.00	4.50	6.50				5YR 4/1
07/14/05	EJH	01/24/07	JSW	13P-1340.0-1345.0-D	1340.00	1345.00	0.00	0.30	79.00	4.50	6.50				5YR 4/1
07/14/05	EJH	01/24/07	JSW	13P-1345.0-1350.0-D	1345.00	1350.00	15.00	0.30	79.00	4.00	6.50				5YR 4/1
07/14/05	EJH	01/24/07	JSW	13P-1350.0-1355.0-D	1350.00	1355.00	15.00	0.30	79.00	4.50	6.50				5YR 4/1
07/14/05	EJH	01/24/07	JSW	13P-1355.0-1360.0-D	1355.00	1360.00	15.00	0.30	79.00	4.50	6.50				5YR 4/1
07/14/05	EJH	01/24/07	JSW	13P-1360.0-1365.0-D	1360.00	1365.00	17.00	0.20	79.00	4.00	6.50				5YR 4/1
07/14/05	EJH	01/24/07	JSW	13P-1365.0-1370.0-D	1365.00	1370.00	20.00	0.20	79.00	4.00	6.50				5YR 4/1
07/14/05	EJH	01/24/07	JSW	13P-1370.0-1375.0-D	1370.00	1375.00	15.00	0.20	79.00	4.50	6.50				5YR 4/1
07/14/05	EJH	01/24/07	JSW	13P-1375.0-1380.0-D	1375.00	1380.00	0.00	0.20	79.00	4.00	6.50				5YR 4/1
07/14/05	EJH	01/24/07	JSW	13P-1380.0-1385.0-D	1380.00	1385.00	20.00	0.50	79.00	4.50	6.50				5YR 5/2
07/14/05	EJH	01/24/07	JSW	13P-1385.0-1390.0-D	1385.00	1390.00	0.00	0.50	79.00	4.50	6.50				5YR 5/2
07/14/05	EJH	01/24/07	JSW	13P-1390.0-1395.0-D	1390.00	1395.00	15.00	0.50	79.00	3.00	6.50				5YR 5/2
07/14/05	EJH	01/24/07	JSW	13P-1395.0-1400.0-D	1395.00	1400.00	15.00	0.50	79.00	4.50	6.50				5YR 5/2
07/14/05	EJH	01/24/07	JSW	13P-1400.0-1405.0-D	1400.00	1405.00	15.00	0.30	34.00	2.00	6.50				10R 6/2
07/15/05	EJH	01/24/07	JSW	13P-1405.0-1410.0-D	1405.00	1410.00	15.00	0.30	34.00	9.00	6.50				10R 6/2
07/15/05	EJH	01/24/07	JSW	13P-1410.0-1415.0-D	1410.00	1415.00	5.00	0.30	34.00	4.50	6.50				10R 6/2
07/15/05	EJH	01/24/07	JSW	13P-1415.0-1420.0-D	1415.00	1420.00	0.00	0.30	34.00	4.50	6.50				10R 6/2
07/15/05	EJH	01/24/07	JSW	13P-1420.0-1425.0-D	1420.00	1425.00	0.00	0.20	34.00	4.50	6.50				10R 6/2
07/15/05	EJH	01/24/07	JSW	13P-1425.0-1430.0-D	1425.00	1430.00	0.00	0.20	34.00	4.50	6.50				10R 6/2
07/15/05	EJH	01/24/07	JSW	13P-1430.0-1435.0-D	1430.00	1435.00	0.00	0.20	34.00	4.50	6.50				10R 6/2
07/15/05	EJH	01/24/07	JSW	13P-1435.0-1440.0-D	1435.00	1440.00	0.00	0.20	34.00	4.00	6.50				5YR 4/1
07/15/05	EJH	01/24/07	JSW	13P-1440.0-1445.0-D	1440.00	1445.00	0.00	0.30	140.00	4.00	6.50				5YR 4/1
07/15/05	EJH	01/24/07	JSW	13P-1445.0-1450.0-D	1445.00	1450.00	0.00	0.30	140.00	4.50	6.50				5YR 4/1
07/15/05	EJH	01/24/07	JSW	13P-1450.0-1455.0-D	1450.00	1455.00	0.00	0.30	140.00	4.50	6.50				5YR 4/1
07/15/05	EJH	01/24/07	JSW	13P-1455.0-1460.0-D	1455.00	1460.00	0.00	0.30	140.00	4.50	6.50				5YR 4/1
07/15/05	EJH	01/24/07	JSW	13P-1460.0-1465.0-D	1460.00	1465.00	0.00	0.40	140.00	4.00	6.50				5YR 4/1
07/15/05	EJH	01/24/07	JSW	13P-1465.0-1470.0-D	1465.00	1470.00	0.00	0.40	140.00	3.00	6.50				5YR 4/1

Sample	Moisture Content: Not Applicable	Dry	Moist	Wet	HCL Reaction: None	Weak	Strong	Tuff Deposition: Ash Fall	Ash Flow	Reworked	Welding: Dense	Moderate	Weak	None	Alteration: Vitric	Devitrified	Matrix	Vapor Phase	Spherulitic	Sedimentary: Claystone	Mudstone	Siltstone	Sandstone	Conglomerate	Chert	Carbonate: Limestone	Dolomite	Other	Weathering: Fresh	Slight	Moderate	High	Decomposed	Structure: None Observed	Stratified	Laminated	Fractured	Other	Matrix: Dense/Non-porous	Open/Porous	Other
13P-1330.0-1335.0-D				✓	✓															✓												✓							✓		
13P-1335.0-1340.0-D				✓	✓															✓												✓								✓	
13P-1340.0-1345.0-D				✓	✓																		✓									✓								✓	
13P-1345.0-1350.0-D				✓	✓																		✓									✓								✓	
13P-1350.0-1355.0-D				✓	✓																		✓									✓								✓	
13P-1355.0-1360.0-D				✓	✓																		✓									✓								✓	
13P-1360.0-1365.0-D				✓	✓																		✓									✓								✓	
13P-1365.0-1370.0-D				✓	✓															✓												✓							✓		
13P-1370.0-1375.0-D				✓	✓																		✓									✓								✓	
13P-1375.0-1380.0-D				✓	✓																		✓									✓								✓	
13P-1380.0-1385.0-D				✓	✓															✓												✓							✓		
13P-1385.0-1390.0-D				✓	✓																		✓									✓								✓	
13P-1390.0-1395.0-D				✓	✓																		✓									✓								✓	
13P-1395.0-1400.0-D				✓	✓																		✓									✓								✓	
13P-1400.0-1405.0-D				✓		✓																	✓									✓									
13P-1405.0-1410.0-D				✓		✓														✓												✓									
13P-1410.0-1415.0-D				✓	✓																		✓									✓									
13P-1415.0-1420.0-D				✓	✓																		✓									✓									
13P-1420.0-1425.0-D				✓	✓																		✓									✓									
13P-1425.0-1430.0-D				✓	✓																		✓									✓									
13P-1430.0-1435.0-D				✓	✓																		✓									✓									
13P-1435.0-1440.0-D				✓	✓																		✓									✓									
13P-1440.0-1445.0-D				✓	✓																		✓									✓									
13P-1445.0-1450.0-D				✓	✓																		✓									✓									
13P-1450.0-1455.0-D				✓	✓																		✓								✓										
13P-1455.0-1460.0-D				✓	✓																		✓							✓											
13P-1460.0-1465.0-D				✓	✓																		✓							✓											
13P-1465.0-1470.0-D				✓	✓																		✓							✓											

Sample	Phenocrysts: Mafics % by Vol.	Mafics Munsell Color Symbol	Mafics Max. Size (mm)	Quartz % by Vol.	Quartz Munsell Color Symbol	Quartz Max. Size (mm)	Feldspar % by Vol.	Feldspar Munsell Color Symbol	Feldspar Max. Size (mm)	Clasts: Pumice % by Vol.	Pumice Munsell Color Symbol	Pumice Max. Size (mm)	Lithics % by Vol.	Lithics Munsell Color Symbol	Lithics Max. Size (mm)
13P-1330.0-1335.0-D													3	N5	5
13P-1335.0-1340.0-D													2	N5	3
13P-1340.0-1345.0-D															
13P-1345.0-1350.0-D													1	N4	2
13P-1350.0-1355.0-D															
13P-1355.0-1360.0-D															
13P-1360.0-1365.0-D													1	N4	2
13P-1365.0-1370.0-D													2	N4	2
13P-1370.0-1375.0-D															
13P-1375.0-1380.0-D										2	10R 8/2	3			
13P-1380.0-1385.0-D													2	N4	3
13P-1385.0-1390.0-D															
13P-1390.0-1395.0-D															
13P-1395.0-1400.0-D															
13P-1400.0-1405.0-D															
13P-1405.0-1410.0-D															
13P-1410.0-1415.0-D										2	N9	3			
13P-1415.0-1420.0-D										2	N9	3			
13P-1420.0-1425.0-D															
13P-1425.0-1430.0-D															
13P-1430.0-1435.0-D															
13P-1435.0-1440.0-D															
13P-1440.0-1445.0-D															
13P-1445.0-1450.0-D															
13P-1450.0-1455.0-D															
13P-1455.0-1460.0-D															
13P-1460.0-1465.0-D															
13P-1465.0-1470.0-D															

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-13P** (Phase 5) Driller/Drilling Company: Chris Bufkin/WDC Drilling Method: Air-Rotary Reverse Circulation Non-Alluvium Depth (ft bgs): 87 to 1569 Start Date: 6/17/2005 End Date: 7/23/2005

Logged		Checked		Sample	Depth Interval (feet/bgs)		Drilling/Coring Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling/Coring Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Sample Density Data: Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)	Munsell Color Symbol
07/15/05	EJH	01/24/07	JSW	13P-1470.0-1475.0-D	1470.00	1475.00	0.00	0.40	140.00	3.50	6.50				5YR 4/1
07/15/05	EJH	01/24/07	JSW	13P-1475.0-1480.0-D	1475.00	1480.00	0.00	0.40	140.00	3.50	6.50				5YR 4/1
07/15/05	EJH	01/24/07	JSW	13P-1480.0-1485.0-D	1480.00	1485.00	0.00	0.50	135.00	4.00	6.50				5YR 4/1
07/20/05	EJH	01/24/07	JSW	13P-1485.0-1490.0-D	1485.00	1490.00	0.00	0.50	135.00	3.50	6.50				5YR 4/1
07/20/05	EJH	01/24/07	JSW	13P-1490.0-1495.0-D	1490.00	1495.00	0.00	0.50	135.00	3.50	6.50				5YR 4/1
07/20/05	EJH	01/24/07	JSW	13P-1495.0-1500.0-D	1495.00	1500.00	0.00	0.50	135.00	4.50	6.50				5YR 4/1
07/20/05	EJH	01/24/07	JSW	13P-1500.0-1505.0-D	1500.00	1505.00	2.00	0.30	135.00	4.50	6.50				10R 4/2
07/20/05	EJH	01/24/07	JSW	13P-1505.0-1510.0-D	1505.00	1510.00	2.00	0.30	135.00	4.50	6.50				10R 4/2
07/20/05	EJH	01/24/07	JSW	13P-1510.0-1515.0-D	1510.00	1515.00	0.00	0.30	135.00	4.50	6.50				10R 4/2
07/20/05	EJH	01/24/07	JSW	13P-1515.0-1520.0-D	1515.00	1520.00	0.00	0.30	135.00	4.50	6.50				10R 4/2
07/20/05	EJH	01/24/07	JSW	13P-1520.0-1525.0-D	1520.00	1525.00	0.00	0.40	100.00	4.50	6.50				10R 4/2
07/20/05	EJH	01/24/07	JSW	13P-1525.0-1530.0-D	1525.00	1530.00	0.00	0.40	100.00	4.00	6.50				5YR 3/4
07/20/05	EJH	01/24/07	JSW	13P-1530.0-1535.0-D	1530.00	1535.00	0.00	0.40	100.00	4.00	6.50				5YR 3/4
07/20/05	EJH	01/24/07	JSW	13P-1535.0-1540.0-D	1535.00	1540.00	0.00	0.40	100.00	4.50	6.50				5YR 3/4
07/20/05	EJH	01/24/07	JSW	13P-1540.0-1545.0-D	1540.00	1545.00	0.00	0.50	100.00		6.50				5YR 3/4
07/20/05	EJH	01/24/07	JSW	13P-1545.0-1550.0-D	1545.00	1550.00	0.00	0.50	100.00		6.50				5YR 3/4
07/20/05	EJH	01/24/07	JSW	13P-1550.0-1555.0-D	1550.00	1555.00	0.00	0.50	100.00		6.50				5YR 5/6
07/20/05	EJH	01/24/07	JSW	13P-1555.0-1560.0-D	1555.00	1560.00	0.00	0.50	100.00		6.50				5YR 5/6
07/20/05	EJH	01/24/07	JSW	13P-1560.0-1565.0-D	1560.00	1565.00	0.00		87.00		6.50				5YR 5/6
07/23/05	EJH	01/24/07	JSW	13P-1565.0-1569.0-D	1565.00	1569.00	0.00				6.50				5YR 5/2

Sample	Moisture Content: Not Applicable	Dry	Moist	Wet	HCL Re-action: None	Weak	Strong	Rock Unit: Tuff: Deposition: Ash Fall	Ash Flow	Reworked	Welding: Dense	Moderate	Weak	None	Alteration: Vitric	Devitrified	Matrix	Vapor Phase	Spherulitic	Sedimentary: Claystone	Mudstone	Siltstone	Sandstone	Conglomerate	Chert	Carbonate: Limestone	Dolomite	Other	Weathering: Fresh	Slight	Moderate	High	Decomposed	Structure: None Observed	Stratified	Laminated	Fractured	Other	Matrix: Dense/Non-porous	Open/Porous	Other
13P-1470.0-1475.0-D				✓	✓																		✓							✓											
13P-1475.0-1480.0-D				✓	✓																		✓							✓											
13P-1480.0-1485.0-D				✓	✓																		✓							✓											
13P-1485.0-1490.0-D				✓	✓																		✓								✓										
13P-1490.0-1495.0-D				✓	✓																		✓									✓									
13P-1495.0-1500.0-D				✓	✓																		✓									✓									
13P-1500.0-1505.0-D				✓	✓					✓				✓																		✓		✓						✓	
13P-1505.0-1510.0-D				✓	✓					✓				✓																		✓		✓						✓	
13P-1510.0-1515.0-D				✓	✓					✓				✓																		✓		✓						✓	
13P-1515.0-1520.0-D				✓	✓					✓				✓																		✓		✓						✓	
13P-1520.0-1525.0-D				✓	✓					✓				✓																		✓		✓						✓	
13P-1525.0-1530.0-D				✓	✓				✓			✓				✓															✓			✓						✓	
13P-1530.0-1535.0-D				✓	✓				✓			✓				✓															✓			✓						✓	
13P-1535.0-1540.0-D				✓	✓				✓			✓						✓													✓			✓						✓	
13P-1540.0-1545.0-D				✓	✓				✓			✓																			✓			✓						✓	
13P-1545.0-1550.0-D				✓	✓				✓			✓																			✓			✓						✓	
13P-1550.0-1555.0-D				✓	✓				✓			✓																			✓					✓				✓	
13P-1555.0-1560.0-D				✓	✓				✓		✓																				✓			✓						✓	
13P-1560.0-1565.0-D				✓	✓				✓			✓																			✓			✓						✓	
13P-1565.0-1569.0-D				✓	✓					✓				✓																		✓		✓							✓

Sample	Phenocrysts: Mafics: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Quartz: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Feldspar: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Clasts: Pumice: % by Vol.	Munsell Color Symbol	Max. Size (mm)	Lithics: % by Vol.	Munsell Color Symbol	Max. Size (mm)
13P-1470.0-1475.0-D															
13P-1475.0-1480.0-D										1	10R 8/2	2			
13P-1480.0-1485.0-D															
13P-1485.0-1490.0-D															
13P-1490.0-1495.0-D															
13P-1495.0-1500.0-D															
13P-1500.0-1505.0-D										1	N9	1			
13P-1505.0-1510.0-D										2	N9	3			
13P-1510.0-1515.0-D										1	N9	1			
13P-1515.0-1520.0-D										1	N9	2			
13P-1520.0-1525.0-D										1	N9	7			
13P-1525.0-1530.0-D															
13P-1530.0-1535.0-D															
13P-1535.0-1540.0-D													25	N4	3
13P-1540.0-1545.0-D													25	N4	2
13P-1545.0-1550.0-D							1	N8	2				10	N4	3
13P-1550.0-1555.0-D							1	COLOR LESS	2				40	N4	3
13P-1555.0-1560.0-D	1	5GY 2/1	1	1	COLOR LESS	2	1	COLOR LESS	2				40	N4	3
13P-1560.0-1565.0-D	1	5GY 2/1	1.5	1	COLOR LESS	3	1	COLOR LESS	3				40	VARIED	3
13P-1565.0-1569.0-D															