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

Borehole ID: **NC-EWDP-4PD** (Phase 6) Driller/Drilling Company: Nick Owens/Chris VanKeuren/Drill Tech, Inc. Drilling Method: Conventional Mud-Rotary Non-Alluvium Depth (ft bgs): 1770 to 1860 Start Date: 8/7/2008 End Date: 10/7/2008

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)	
08/07/08	BW	09/05/08	JSW	4PD-1770-1780	1770.00	1780.00	150.00	0.50		15.00	7.88				2.5Y 8/4
08/07/08	BW	09/05/08	JSW	4PD-1780-1783.8	1780.00	1783.80	150.00	0.50		15.00	7.88				2.5Y 8/4
08/07/08	BW	09/05/08	JSW	4PD-1783.8-1790	1783.80	1790.00	150.00	0.60		5.00	7.88				2.5Y 8/4
08/07/08	BW	09/05/08	JSW	4PD-1790-1800	1790.00	1800.00	150.00	0.60		10.00	7.88				2.5Y 8/4
08/07/08	BW	09/05/08	JSW	4PD-1800-1810	1800.00	1810.00	150.00	1.10		10.00	7.88				2.5Y 8/4
08/07/08	BW	09/05/08	JSW	4PD-1810-1820	1810.00	1820.00	150.00	1.10		10.00	7.88				2.5Y 8/4
08/07/08	BW	09/05/08	JSW	4PD-1820-1830	1820.00	1830.00	150.00	1.00		10.00	7.88				10YR 5/3
08/07/08	BW	09/05/08	JSW	4PD-1830-1840	1830.00	1840.00	150.00	1.00		10.00	7.88				10YR 7/3
08/07/08	BW	09/05/08	JSW	4PD-1840-1846.6	1840.00	1846.60	150.00	1.00		10.00	7.88				10YR 7/3
10/07/08	BW	11/25/08	JSW	4PD-1846.6-1850	1846.60	1850.00	200.00	0.32			7.88				10YR 7/3
10/07/08	BW	11/25/08	JSW	4PD-1850-1860	1850.00	1860.00	200.00	0.20			7.88				10YR 7/3

Sample	Moisture Content				HCL Re-action			Rock Unit – Tuff – Deposition			Welding				Alteration					Sedimentary						Carbonate		Other	Weathering					Structure					Matrix		
	Not Applicable	Dry	Moist	Wet	None	Weak	Strong	Ash Fall	Ash Flow	Reworked	Dense	Moderate	Weak	None	Vitric	Devitrified	Matrix	Vapor Phase	Spherulitic	Claystone	Mudstone	Siltstone	Sandstone	Conglomerate	Chert	Limestone	Dolomite		Fresh	Slight	Moderate	High	Decomposed	None Observed	Stratified	Laminated	Fractured	Other	Dense/Non-porous	Open/Porous	Other
4PD-1770-1780				✔	✔				✔					✔	✔														✔					✔					✔		
4PD-1780-1783.8				✔	✔				✔					✔	✔														✔					✔					✔		
4PD-1783.8-1790				✔	✔				✔					✔	✔														✔					✔					✔		
4PD-1790-1800				✔	✔				✔					✔	✔														✔					✔					✔		
4PD-1800-1810				✔	✔				✔					✔	✔														✔					✔					✔		
4PD-1810-1820				✔	✔				✔					✔	✔														✔					✔					✔		
4PD-1820-1830				✔	✔				✔					✔	✔															✔				✔					✔		
4PD-1830-1840				✔	✔				✔					✔	✔															✔				✔					✔		
4PD-1840-1846.6				✔	✔				✔					✔	✔															✔				✔					✔		
4PD-1846.6-1850				✔	✔				✔					✔	✔														✔					✔					✔		
4PD-1850-1860				✔	✔				✔					✔	✔														✔					✔					✔		

Sample	Phenocrysts – Mafics			Quartz			Feldspar			Clasts – Pumice			Lithics		
	% by Vol.	Munsell Color Symbol	Max. Size (mm)	% by Vol.	Munsell Color Symbol	Max. Size (mm)	% by Vol.	Munsell Color Symbol	Max. Size (mm)	% by Vol.	Munsell Color Symbol	Max. Size (mm)	% by Vol.	Munsell Color Symbol	Max. Size (mm)
4PD-1770-1780	3	N 2.5	4	1	CL	1	0			10	N8	3	1	5 YR 5/2	2
4PD-1780-1783.8	2	N 2.5	2	1	CL	1	0			10	N 8	3	0		
4PD-1783.8-1790	1	N 2.5	1	1	CL	1	0			10	N 8	3	0		
4PD-1790-1800	1	N 2.5	1	1	CL	1	0			10	N 8	3	1	5 YR 5/2	1
4PD-1800-1810	2	N 2.5	3	1	CL	1	0			10	N 8	3	0		
4PD-1810-1820	2	N 2.5	2	3	CL	1	0			10	N 8	3	0		
4PD-1820-1830	1	N 2.5	1	3	CL	1	0			10	N 8	3	0		
4PD-1830-1840	1	N 2.5	1	1	CL	1	0			10	N 8	3	0		
4PD-1840-1846.6	1	N 2.5	1	1	CL	1	0			10	N 8	3	0		
4PD-1846.6-1850	1	N 2.5	1	1	CL	1	0			10	N 8	3	0		
4PD-1850-1860	1	N 2.5	1	1	CL	1	0			10	N 8	3	0		