Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
3/9/2002	KDD	6/25/2002	BW	BCS00010651-23P-2137	0.00	2.50	0.2	0.4	0.0	1.0	14.5				10YR 5/2	☐	☑	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010652-23P-2138	2.50	5.00	0.2	0.4	0.0	1.0	14.5				10YR 5/2	☐	☑	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010653-23P-2139	5.00	7.50	0.2	0.4	0.0	2.0	14.5				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010654-23P-2140	7.50	10.00	0.2	0.4	0.0	1.5	14.5				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010655-23P-2141	10.00	12.50	0.2	0.4	0.0	0.5	14.5				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010656-23P-2142	12.50	15.00	0.2	0.4	0.0	2.5	14.5				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010657-23P-2143	15.00	17.50	0.2	0.4	0.0	3.0	14.5				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010658-23P-2144	17.50	20.00	0.2	0.4	0.0	2.5	14.5				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010659-23P-2145	20.00	22.50	0.2	0.4	0.0	6.0	14.5				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010660-23P-2146	22.50	25.00	0.0	1.7	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010661-23P-2147	25.00	27.50	0.0	1.7	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010662-23P-2148	27.50	30.00	0.0	1.7	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010663-23P-2149	30.00	32.50	0.0	1.7	0.0	3.0	8.5				5YR 5/3	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010664-23P-2150	32.50	35.00	0.0	1.7	0.0	3.0	8.5				5YR 5/3	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010665-23P-2151	35.00	37.50	0.0	1.7	0.0	2.0	8.5				5YR 5/3	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010666-23P-2152	37.50	40.00	0.0	1.7	0.0	4.0	8.5				5YR 5/3	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010667-23P-2153	40.00	42.50	0.0	0.7	0.0	4.0	8.5				5YR 5/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010668-23P-2154	42.50	45.00	0.0	0.7	0.0	5.0	8.5				5YR 5/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010669-23P-2155	45.00	47.50	0.0	0.7	0.0	4.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010670-23P-2156	47.50	50.00	0.0	0.7	0.0	3.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010671-23P-2157	50.00	52.50	0.0	0.7	0.0	4.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010672-23P-2158	52.50	55.00	0.0	0.7	0.0	3.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010673-23P-2159	55.00	57.50	0.0	0.6	0.0	4.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/9/2002	KDD	6/25/2002	BW	BCS00010674-23P-2160	57.50	60.00	0.0	0.6	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010675-23P-2161	60.00	62.50	0.0	0.3	0.0	5.0	8.5				5YR 4/4	☐	☑	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010676-23P-2162	62.50	65.00	0.0	0.3	0.0	0.5	8.5				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010677-23P-2163	65.00	67.50	0.0	0.3	0.0	6.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010678-23P-2164	67.50	70.00	0.0	0.3	0.0	1.0	8.5				5YR 3/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010679-23P-2165	70.00	72.50	0.0	0.3	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010680-23P-2166	72.50	75.00	0.0	0.3	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP- 23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
3/10/2002	HJA	3/11/2002	KDD	BCS00010681-23P-2167	75.00	77.50	0.0	0.3	0.0	2.0	8.5				5YR 3/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010682-23P-2168	77.50	80.00	0.0	0.3	0.0	2.0	8.5				5YR 3/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010683-23P-2169	80.00	82.50	0.0	0.4	0.0	6.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010684-23P-2170	82.50	85.00	0.0	0.4	0.0	5.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010685-23P-2171	85.00	87.50	0.0	0.4	0.0	4.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010686-23P-2172	87.50	90.00	0.0	0.4	0.0	3.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010687-23P-2173	90.00	92.50	0.0	0.4	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010688-23P-2174	92.50	95.00	0.0	0.4	0.0	4.0	8.5				5R 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010689-23P-2175	95.00	97.50	0.0	0.4	0.0	3.0	8.5				5YR 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010690-23P-2176	97.50	100.00	0.0	0.4	0.0	2.0	8.5				5R 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010691-23P-2177	100.00	102.50	0.0	0.5	0.0	3.0	8.5				5R 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010692-23P-2178	102.50	105.00	0.0	0.5	0.0	3.0	8.5				5R 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010693-23P-2179	105.00	107.50	0.0	0.5	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010694-23P-2180	107.50	110.00	0.0	0.5	0.0	4.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010695-23P-2181	110.00	112.50	0.0	0.5	0.0	4.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010696-23P-2182	112.50	115.00	0.0	0.5	0.0	4.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010697-23P-2183	115.00	117.50	0.0	0.5	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010698-23P-2184	117.50	120.00	0.0	0.5	0.0	2.0	8.5				10R 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010699-23P-2185	120.00	122.50	0.0	0.5	0.0	2.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010700-23P-2186	122.50	125.00	0.0	0.5	0.0	2.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010701-23P-2187	125.00	127.50	0.0	0.5	0.0	6.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010702-23P-2188	127.50	130.00	0.0	0.5	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010703-23P-2189	130.00	132.50	0.0	0.5	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010704-23P-2190	132.50	135.00	0.0	0.5	0.0	6.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010705-23P-2191	135.00	137.50	0.0	0.5	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010706-23P-2192	137.50	140.00	0.0	0.5	0.0	2.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010707-23P-2193	140.00	142.50	0.0	0.4	0.0	1.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010708-23P-2194	142.50	145.00	0.0	0.4	0.0	1.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010709-23P-2195	145.00	147.50	0.0	0.4	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010710-23P-2196	147.50	150.00	0.0	0.4	0.0	2.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP- 23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs)		Drilling Data					Sample Density Measurements			Munsell Color Symbol	Moisture Content			Particle Size Distribution (%)					Grading		Estimated Plasticity				USCS Group Symbol	Gravel/Sand GrainShape				Cementation				HCL Reaction			Major Rock Type (%)		
					From	To	Liquid Drilling Fluid Injection Rate (gpm)	Drilling Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)		Dry	Moist	Wet	Gravel	Sand	Silt	Clay	Fines (Silt plus Clay)	Well Graded	Poorly Graded	None	Low	Moderate	High		Angular	Subangular	Subrounded	Rounded	None	Weak	Moderate	Strong	None	Weak	Strong	Volcanics	Carbonates	Other
3/10/2002	HJA	3/11/2002	KDD	BCS00010711-23P-2197	150.00	152.50	0.0	0.4	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010712-23P-2198	152.50	155.00	0.0	0.4	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010713-23P-2199	155.00	157.50	0.0	0.4	0.0	2.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010714-23P-2200	157.50	160.00	0.0	0.4	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010715-23P-2201	160.00	162.50	0.0	0.6	0.0	3.0	8.5				5R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010716-23P-2202	162.50	165.00	0.0	0.6	0.0	2.0	8.5				10R 3/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010717-23P-2203	165.00	167.50	0.0	0.6	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010718-23P-2204	167.50	170.00	0.0	0.6	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010719-23P-2205	170.00	172.50	0.0	0.6	0.0	2.0	8.5				10R 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010720-23P-2206	172.50	175.00	0.0	0.6	0.0	2.5	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010721-23P-2207	175.00	177.50	0.0	0.6	0.0	2.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010722-23P-2208	177.50	180.00	0.0	0.6	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010723-23P-2209	180.00	182.50	0.0	0.3	0.0	3.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☐	☐	☑	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010724-23P-2210	182.50	185.00	0.0	0.3	0.0	3.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010725-23P-2211	185.00	187.50	0.0	0.3	0.0	4.0	8.5				10R 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/10/2002	HJA	3/11/2002	KDD	BCS00010726-23P-2212	187.50	190.00	0.0	0.3	0.0	4.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010727-23P-2213	190.00	192.50	0.0	0.4	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010728-23P-2214	192.50	195.00	0.0	0.4	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010729-23P-2215	195.00	197.50	0.0	0.4	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010730-23P-2216	197.50	200.00	0.0	0.4	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010731-23P-2217	200.00	202.50	0.0	0.4	0.0	0.5	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010732-23P-2218	202.50	205.00	0.0	0.4	0.0	0.5	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010733-23P-2219	205.00	207.50	0.0	0.4	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010734-23P-2220	207.50	210.00	0.0	0.4	0.0	3.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010735	210.00	212.50	0.0	0.4	0.0	4.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010736	212.50	215.00	0.0	0.4	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010737	215.00	217.50	0.0	0.4	0.0	3.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010738	217.50	220.00	0.0	0.4	0.0	4.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010739	220.00	222.50	0.0	0.3	0.0	4.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010740	222.50	225.00	0.0	0.3	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
3/11/2002	KDD	6/25/2002	BW	BCS00010741	225.00	227.50	0.0	0.3	0.0	1.5	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010742	227.50	230.00	0.0	0.3	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010743	230.00	232.50	0.0	0.3	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010744	232.50	235.00	0.0	0.3	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010745	235.00	237.50	0.0	0.3	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010746	237.50	240.00	0.0	0.3	0.0	7.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010747	240.00	242.50	0.0	0.4	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010748	242.50	245.00	0.0	0.4	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010749	245.00	247.50	0.0	0.4	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010750	247.50	250.00	0.0	0.4	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010751	250.00	252.50	0.0	0.4	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010752	252.50	255.00	0.0	0.4	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010753	255.00	257.50	0.0	0.4	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010754	257.50	260.00	0.0	0.4	0.0	4.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010755	260.00	262.50	0.0	0.5	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010756	262.50	265.00	0.0	0.5	0.0	1.0	8.5				5YR 4/4	☑	☐	☐						▣	▣	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010757	265.00	267.50	0.0	0.5	0.0	3.0	8.5				5YR 6/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010758	267.50	270.00	0.0	0.5	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010759	270.00	272.50	0.0	0.5	0.0	2.0	8.5				5YR 5/6	☑	☐	☐						▣	▣	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010760	272.50	275.00	0.0	0.5	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☐	☑	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010761	275.00	277.50	0.0	0.5	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010762	277.50	280.00	0.0	0.5	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010763	280.00	282.50	0.0	0.6	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010764	282.50	285.00	0.0	0.6	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010765	285.00	287.50	0.0	0.6	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010766	287.50	290.00	0.0	0.6	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010767	290.00	292.50	0.0	0.5	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010768	292.50	295.00	0.0	0.5	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	95	5	
3/11/2002	KDD	6/25/2002	BW	BCS00010769	295.00	297.50	0.0	0.5	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010770	297.50	300.00	0.0	0.5	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs)		Drilling Data					Sample Density Measurements			Munsell Color Symbol	Moisture Content			Particle Size Distribution (%)					Grading		Estimated Plasticity				USCS Group Symbol	Gravel/Sand GrainShape				Cementation				HCL Reaction			Major Rock Type (%)		
					From	To	Liquid Drilling Fluid Injection Rate (gpm)	Drilling Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)		Dry	Moist	Wet	Gravel	Sand	Silt	Clay	Fines (Silt plus Clay)	Well Graded	Poorly Graded	None	Low	Moderate	High		Angular	Subangular	Subrounded	Rounded	None	Weak	Moderate	Strong	None	Weak	Strong	Volcanics	Carbonates	Other
3/11/2002	KDD	6/25/2002	BW	BCS00010771	300.00	302.50	0.0	0.4	0.0	4.0	8.5				5YR 5/3	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010772	302.50	305.00	0.0	0.4	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010773	305.00	307.50	0.0	0.4	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010774	307.50	310.00	0.0	0.4	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010775	310.00	312.50	0.0	0.4	0.0	3.0	8.5				5YR 5/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010776	312.50	315.00	0.0	0.4	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010777	315.00	317.50	0.0	0.4	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/11/2002	KDD	6/25/2002	BW	BCS00010778	317.50	320.00	0.0	0.4	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010779	320.00	322.50	0.0	0.5	0.0	0.5	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010780	322.50	325.00	0.0	0.5	0.0	1.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010781	325.00	327.50	0.0	0.5	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010782	327.50	330.00	0.0	0.5	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010783	330.00	332.50	0.0	0.5	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010784	332.50	335.00	0.0	0.5	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010785	335.00	337.50	0.0	0.5	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010786	337.50	340.00	0.0	0.5	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010787	340.00	342.50	0.0	0.5	0.0	3.0	8.5				5YR 3/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010788	342.50	345.00	0.0	0.5	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010789	345.00	347.50	0.0	0.5	0.0	3.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010790	347.50	350.00	0.0	0.5	0.0	2.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010791	350.00	352.50	0.0	0.6	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010792	352.50	355.00	0.0	0.6	0.0	4.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010793	355.00	357.50	0.0	0.6	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010794	357.50	360.00	0.0	0.6	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010795	360.00	362.50	0.0	0.4	0.0	2.0	8.5				5YR 4/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010796	362.50	365.00	0.0	0.4	0.0	4.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010797	365.00	367.50	0.0	0.4	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010798	367.50	370.00	0.0	0.4	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010799	370.00	372.50	0.0	0.4	0.0	3.0	8.5				10YR 5/2	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010800	372.50	375.00	0.0	0.4	0.0	3.0	8.5				10YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
3/12/2002	KDD	6/25/2002	BW	BCS00010801	375.00	377.50	0.0	0.4	0.0	3.0	8.5				10YR 5/2	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010802	377.50	380.00	0.0	0.4	0.0	3.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010803	380.00	382.50	0.0	0.7	0.0	1.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010804	382.50	385.00	0.0	0.7	0.0	0.3	8.5				5YR 5/6	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010805	385.00	387.50	0.0	0.7	0.0	1.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010806	387.50	390.00	0.0	0.7	0.0	2.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010807	390.00	392.50	0.0	0.7	0.0	2.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010808	392.50	395.00	0.0	0.7	0.0	3.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010809	395.00	397.50	0.0	0.7	0.0	2.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010810	397.50	400.00	0.0	0.7	0.0	3.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010811	400.00	402.50	0.0	0.4	0.0	2.0	8.5				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010812	402.50	405.00	0.0	0.4	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010813	405.00	407.50	0.0	0.4	0.0	3.0	8.5				5YR 4/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010814	407.50	410.00	0.0	0.4	0.0	3.0	8.5				5YR 5/6	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010815	410.00	412.50	0.0	0.4	0.0	2.0	8.5				5YR 5/6	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010816	412.50	415.00	0.0	0.4	0.0	3.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010817	415.00	417.50	0.0	0.4	0.0	2.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010818	417.50	420.00	0.0	0.4	0.0	3.0	8.5				5YR 5/5	☑	☐	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010819	420.00	422.50	0.0	0.3	0.0	2.0	8.5				5YR 5/5	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	6/25/2002	BW	BCS00010820	422.50	425.00	0.0	0.3	0.0	1.0	8.5				5YR 5/5	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	7/2/2002	JSW	BCS00010821	425.00	427.50	0.0	0.3	0.0	2.0	8.5				5YR 5/5	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	7/2/2002	JSW	BCS00010822	427.50	430.00	0.0	0.3	0.0	3.0	8.5				5YR 5/6	☐	☑	☐						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	7/2/2002	JSW	BCS00010823	430.00	432.50	2.0	0.3	0.0	1.0	8.5				5YR 3/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
3/12/2002	KDD	7/2/2002	JSW	BCS00010824	432.50	435.00	2.0	0.3	0.0	1.0	8.5				5YR 4/4	☐	☑	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010825	435.00	437.50	2.0	0.3	0.9	0.5	8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010826	437.50	440.00	0.0	0.3	0.7	0.5	8.5				5YR 5/5	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010827	440.00	442.50	0.0	1.1	0.0	1.0	8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010828	442.50	445.00	0.0	1.1	0.6	1.0	8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010829	445.00	447.50	0.0	1.1	0.0	2.0	8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010830	447.50	450.00	0.0	1.1	0.0	2.0	8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs)		Drilling Data					Sample Density Measurements			Munsell Color Symbol	Moisture Content			Particle Size Distribution (%)					Grading		Estimated Plasticity				USCS Group Symbol	Gravel/Sand GrainShape				Cementation				HCL Reaction			Major Rock Type (%)		
					From	To	Liquid Drilling Fluid Injection Rate (gpm)	Drilling Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)		Dry	Moist	Wet	Gravel	Sand	Silt	Clay	Fines (Silt plus Clay)	Well Graded	Poorly Graded	None	Low	Moderate	High		Angular	Subangular	Subrounded	Rounded	None	Weak	Moderate	Strong	None	Weak	Strong	Volcanics	Carbonates	Other
6/12/2002	BW	7/2/2002	JSW	BCS00010831	450.00	455.00	0.0	1.1	0.7		8.5				5YR 5/5	☑	☐	☐						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010832	455.00	460.00	0.0	1.1	1.4		8.5				5YR 5/5	☑	☐	☐						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010833	460.00	465.00	0.0	1.1	0.0		8.5				5YR 5/5	☑	☐	☐						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010834	465.00	470.00	0.0	1.1	0.7		8.5				5YR 5/5	☑	☐	☐						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010835	470.00	475.00	0.0	1.1	2.4		8.5				5YR 5/5	☑	☐	☐						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010836	475.00	480.00	0.0	1.1	3.7		8.5				5YR 5/5	☑	☐	☐						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010837	480.00	485.00	0.0	0.9	5.1		8.5				5YR 5/5	☑	☐	☐						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010838	485.00	490.00	0.0	0.9	2.3		8.5				5YR 5/5	☑	☐	☐						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010839	490.00	495.00	0.0	0.9	1.7		8.5				5YR 5/5	☑	☐	☐						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010840	495.00	500.00	0.0	0.9	2.3		8.5				5YR 5/5	☑	☐	☐						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010841	500.00	505.00	0.0	0.6	7.3		8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010842	505.00	510.00	0.0	1.4	3.3		8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010843	510.00	515.00	0.0	1.4	3.3		8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010844	515.00	520.00	0.0	1.4	6.8		8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010845	520.00	525.00	0.0	1.7	3.3		8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/12/2002	BW	7/2/2002	JSW	BCS00010846	525.00	530.00	0.0	1.7	11.7		8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010847	530.00	535.00	0.0	1.7	6.0		8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☑	☐	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010848	535.00	540.00	0.0	1.7	5.3		8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010849	540.00	545.00	0.0	1.3	8.5		8.5				5YR 5/6	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010850	545.00	550.00	0.0	1.3	13.0		8.5				5YR 5/6	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010851	550.00	555.00	0.0	1.3	12.0		8.5				5YR 5/6	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010852	555.00	560.00	0.0	1.3	13.3		8.5				5YR 5/6	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010853	560.00	565.00	0.0	1.7	25.4		8.5				5YR 5/6	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010854	565.00	570.00	0.0	1.7	12.7		8.5				5YR 5/6	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010855	570.00	575.00	0.0	1.7	10.7		8.5				5YR 5/6	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010856	575.00	580.00	0.0	1.7	13.4		8.5				5YR 5/6	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010857	580.00	585.00	0.0	1.5	19.7		8.5				5YR 5/6	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010858	585.00	590.00	0.0	1.5	16.0		8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010859	590.00	595.00	0.0	1.5	15.4		8.5				5YR 5/5	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010860	595.00	600.00	0.0	1.5	8.0		8.5				5YR 5/5	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
6/13/2002	BW	7/2/2002	JSW	BCS00010861	600.00	605.00	0.0	1.3	23.0		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010862	605.00	610.00	0.0	1.3	11.0		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010863	610.00	615.00	0.0	1.3	18.0		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010864	615.00	620.00	0.0	1.3	18.0		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010865	620.00	625.00	0.0	1.5	23.4		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010866	625.00	630.00	0.0	1.5	13.6		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/13/2002	BW	7/2/2002	JSW	BCS00010867	630.00	635.00	0.0	1.5	13.6		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010868	635.00	640.00	0.0	1.5	16.0		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010869	640.00	645.00	0.0	1.5	35.7		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010870	645.00	650.00	0.0	1.5	16.0		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010871	650.00	655.00	0.0	1.5	16.0		8.5				5YR 6/3	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010872	655.00	660.00	0.0	1.5	16.0		8.5				5YR 6/3	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010873	660.00	665.00	0.0	1.3	23.4		8.5				5YR 6/3	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010874	665.00	670.00	0.0	1.3	23.9		8.5				5YR 6/3	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010875	670.00	675.00	0.0	1.3	21.3		8.5				5YR 6/3	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010876	675.00	680.00	0.0	1.3	20.2		8.5				5YR 6/3	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010877	680.00	685.00	0.0	1.3	22.3		8.5				5YR 6/3	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010878	685.00	690.00	0.0	1.3	20.8		8.5				5YR 6/3	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010879	690.00	695.00	0.0	1.3	10.6		8.5				5YR 6/3	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☐	☑	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010880	695.00	700.00	0.0	1.3	14.9		8.5				5YR 6/3	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/14/2002	BW	7/2/2002	JSW	BCS00010881	700.00	705.00	0.0	0.9	28.0		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☐	☐	☑	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010882	705.00	710.00	0.0	0.9	21.1		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☐	☐	☑	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010883	710.00	715.00	0.0	0.9	18.2		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☐	☐	☑	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010884	715.00	720.00	0.0	0.9	16.7		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☐	☐	☑	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010885	720.00	725.00	0.0	1.3	38.8		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010886	725.00	730.00	0.0	1.3	18.1		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010887	730.00	735.00	0.0	1.3	10.6		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010888	735.00	740.00	0.0	1.3	29.3		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010889	740.00	745.00	0.0	1.1	35.1		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010890	745.00	750.00	0.0	1.1	21.8		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☐	☑	☐	☐	☑	☐	☐	☐	☑	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
6/17/2002	BW	7/2/2002	JSW	BCS00010891	750.00	755.00	0.0	1.1	15.5		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010892	755.00	760.00	0.0	1.1	24.0		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010893	760.00	765.00	0.0	1.4	44.6		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010894	765.00	770.00	0.0	1.4	22.3		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010895	770.00	775.00	0.0	1.4	22.3		8.5				5YR 7/2	☐	☐	☑						☐	☑	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010896	775.00	780.00	0.0	1.4	24.1		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010897	780.00	785.00	0.0	1.3	17.5		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010898	785.00	790.00	0.0	1.3	23.5		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010899	790.00	795.00	0.0	1.3	29.5		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010900	795.00	800.00	0.0	1.3	19.5		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010901	800.00	805.00	0.0	1.3	27.5		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010902	805.00	810.00	0.0	1.3	21.5		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010903	810.00	815.00	0.0	1.3	34.0		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010904	815.00	820.00	0.0	1.3	44.0		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010905	820.00	825.00	0.0	1.0	36.5		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010906	825.00	830.00	0.0	1.0	22.0		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010907	830.00	835.00	0.0	1.0	33.1		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010908	835.00	840.00	0.0	1.0	20.5		8.5				5YR 7/2	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010909	840.00	845.00	0.0	1.2	53.8		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010910	845.00	850.00	0.0	1.2	42.5		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010911	850.00	855.00	0.0	1.2	38.2		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010912	855.00	860.00	0.0	1.2	45.3		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010913	860.00	865.00	0.0	1.0	33.4		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010914	865.00	870.00	0.0	1.0	28.1		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010915	870.00	875.00	0.0	1.0	45.6		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010916	875.00	880.00	0.0	1.0	46.7		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/17/2002	BW	7/2/2002	JSW	BCS00010917	880.00	885.00	0.0	0.9	42.2		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/18/2002	BW	7/2/2002	JSW	BCS00010918	885.00	890.00	0.0	0.9	24.8		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/18/2002	BW	7/2/2002	JSW	BCS00010919	890.00	895.00	0.0	0.9	32.8		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/18/2002	BW	7/2/2002	JSW	BCS00010920	895.00	900.00	0.0	0.9	62.6		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
6/18/2002	BW	7/2/2002	JSW	BCS00010921	900.00	905.00	0.0	1.2	43.4		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/18/2002	BW	7/2/2002	JSW	BCS00010922	905.00	910.00	0.0	1.2	33.0		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/18/2002	BW	7/2/2002	JSW	BCS00010923	910.00	915.00	0.0	1.2	46.3		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/18/2002	BW	7/2/2002	JSW	BCS00010924	915.00	920.00	0.0	1.2	36.8		8.5				5YR 7/2	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/18/2002	BW	7/2/2002	JSW	BCS00010925	920.00	925.00	0.0	1.4	53.8		8.5				5YR 7/2	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☑	☐	☐	☐	☐	☑	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010926	925.00	930.00	0.0	1.4	51.5		8.5				5YR 5/4	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☑	☐	☐	☐	☐	☑	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010927	930.00	935.00	0.0	1.4	52.1		8.5				5YR 5/4	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☑	☐	☐	☐	☐	☑	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010928	935.00	940.00	0.0	1.4	42.9		8.5				5YR 5/4	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☑	☐	☐	☐	☐	☑	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010929	940.00	945.00	0.0	0.3	18.5		8.5				5Y 7/2	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☑	☐	☐	☐	☐	☑	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010930	945.00	950.00	0.0	0.3	15.0		8.5				10YR 6/2	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☑	☐	☐	☐	☐	☑	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010931	950.00	955.00	0.0	0.3	12.0		8.5				10YR 6/3	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010932	955.00	960.00	0.0	0.3	27.9		8.5				5YR 6/3	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010933	960.00	965.00	0.0	0.6	35.3		8.5				5YR 6/3	☐	☐	☑						▣	▣	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010934	965.00	970.00	0.0	0.6	35.3		8.5				10R 5/4	☐	☐	☑						▣	▣	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010935	970.00	975.00	0.0	0.6	28.2		8.5				5YR 6/3	☐	☐	☑						▣	▣	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010936	975.00	980.00	0.0	0.6	13.1		8.5				5YR 6/3	☐	☐	☑						▣	▣	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010937	980.00	985.00	0.0	1.0	19.4		8.5				5YR 6/3	☐	☐	☑						▣	▣	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010938	985.00	990.00	0.0	1.0	19.0		8.5				5YR 6/3	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010939	990.00	995.00	0.0	1.0	22.4		8.5				5YR 6/3	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/19/2002	BW	7/2/2002	JSW	BCS00010940	995.00	1000.00	0.0	1.0	26.6		8.5				5YR 6/3	☐	☐	☑						☑	☐	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010941	1000.00	1005.00	0.0	0.8	38.5		8.5				5YR 6/4	☐	☐	☑						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010942	1005.00	1010.00	0.0	0.8	29.0		8.5				5YR 6/4	☐	☐	☑						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010943	1010.00	1015.00	0.0	0.8	27.2		8.5				5YR 6/4	☐	☐	☑						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010944	1015.00	1020.00	0.0	0.8	28.6		8.5				5YR 6/4	☐	☐	☑						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010945	1020.00	1025.00	0.0	0.7	40.9		8.5				5YR 6/4	☐	☐	☑						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010946	1025.00	1030.00	0.0	0.7	32.9		8.5				5YR 6/3	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010947	1030.00	1035.00	0.0	0.7	43.2		8.5				5YR 6/4	☐	☐	☑						☐	☑	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010948	1035.00	1040.00	0.0	0.7	54.5		8.5				5YR 6/4	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010949	1040.00	1045.00	0.0	0.8	38.2		8.5				5YR 6/4	☐	☐	☑						▣	▣	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010950	1045.00	1050.00	0.0	0.8	56.1		8.5				5YR 6/4	☐	☐	☑						▣	▣	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
6/20/2002	BW	7/2/2002	JSW	BCS00010951	1050.00	1055.00	0.0	0.8	62.2		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010952	1055.00	1060.00	0.0	0.8	44.4		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010953	1060.00	1065.00	0.0	0.8	63.7		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010954	1065.00	1070.00	0.0	0.8	39.8		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010955	1070.00	1075.00	0.0	0.8	50.5		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010956	1075.00	1080.00	0.0	0.8	41.8		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010957	1080.00	1085.00	0.0	0.7	39.2		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010958	1085.00	1090.00	0.0	0.7	42.5		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010959	1090.00	1095.00	0.0	0.7	53.0		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010960	1095.00	1100.00	0.0	0.7	44.2		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010961	1100.00	1105.00	0.0	0.5	23.6		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010962	1105.00	1110.00	0.0	0.5	29.1		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010963	1110.00	1115.00	0.0	0.5	39.0		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010964	1115.00	1120.00	0.0	0.5	30.9		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010965	1120.00	1125.00	0.0	0.9	66.8		8.5				5YR 6/4	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010966	1125.00	1130.00	0.0	0.9	45.9		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010967	1130.00	1135.00	0.0	0.9	52.9		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010968	1135.00	1140.00	0.0	0.9	40.4		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010969	1140.00	1145.00	0.0	1.0	64.0		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/20/2002	BW	7/2/2002	JSW	BCS00010970	1145.00	1150.00	0.0	1.0	42.4		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/21/2002	BW	7/2/2002	JSW	BCS00010971	1150.00	1155.00	0.0	1.0	32.0		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		
6/21/2002	BW	7/2/2002	JSW	BCS00010972	1155.00	1160.00	0.0	1.0	37.6		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/21/2002	BW	7/2/2002	JSW	BCS00010973	1160.00	1165.00	0.0	0.7	36.4		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/21/2002	BW	7/2/2002	JSW	BCS00010974	1165.00	1170.00	0.0	0.7	25.1		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		
6/21/2002	BW	7/2/2002	JSW	BCS00010975	1170.00	1175.00	0.0	0.7	35.4		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/21/2002	BW	7/2/2002	JSW	BCS00010976	1175.00	1180.00	0.0	0.7	32.5		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/21/2002	BW	7/2/2002	JSW	BCS00010977	1180.00	1185.00	0.0	1.0	50.9		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/21/2002	BW	7/2/2002	JSW	BCS00010978	1185.00	1190.00	0.0	1.0	43.7		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/21/2002	BW	7/2/2002	JSW	BCS00010979	1190.00	1195.00	0.0	1.0	29.3		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		
6/21/2002	BW	7/2/2002	JSW	BCS00010980	1195.00	1200.00	0.0	1.0	35.3		8.5				5YR 5/4	☐	☐	☑						■	■	☐	☐	☐	☑		☐	☐	☑	☐	☐	☑	☐	☐	☐	☐	☑	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-23P** (Phase 3) Driller/Drilling Company: Larry Renolds/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 0 to 1340 Start Date: 3/9/2002 End Date: 3/20/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs)		Drilling Data					Sample Density Measurements			Munsell Color Symbol	Moisture Content			Particle Size Distribution (%)					Gra-ding		Estimated Plasticity				USCS Group Symbol	Gravel/Sand GrainShape				Cementation				HCL Reaction			Major Rock Type (%)		
					From	To	Liquid Drilling Fluid Injection Rate (gpm)	Drilling Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)		Dry	Moist	Wet	Gravel	Sand	Silt	Clay	Fines (Silt plus Clay)	Well Graded	Poorly Graded	None	Low	Moderate	High		Angular	Subangular	Subrounded	Rounded	None	Weak	Moderate	Strong	None	Weak	Strong	Volcanics	Carbonates	Other
7/1/2002	BW	7/2/2002	JSW	BCS00010981	1200.00	1205.00	0.0	0.7	41.0		8.5				5YR 5/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010982	1205.00	1210.00	0.0	1.0	41.0		8.5				5YR 5/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010983	1210.00	1215.00	0.0	1.3	41.0		8.5				5YR 5/5	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010984	1215.00	1220.00	0.0	1.3	41.0		8.5				5YR 5/5	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010985	1220.00	1225.00	0.0	0.8	41.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010986	1225.00	1230.00	0.0	0.7	41.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010987	1230.00	1235.00	0.0	1.0	41.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010988	1235.00	1240.00	0.0	0.8	41.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010989	1240.00	1245.00	0.0	0.7	41.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010990	1245.00	1250.00	0.0	1.0	41.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010991	1250.00	1255.00	0.0	1.0	89.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010992	1255.00	1260.00	0.0	1.0	89.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010993	1260.00	1265.00	0.0	0.6	89.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010994	1265.00	1270.00	0.0	0.8	89.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010995	1270.00	1275.00	0.0	0.7	89.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010996	1275.00	1280.00	0.0	0.8	89.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010997	1280.00	1285.00	0.0	0.6	89.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010998	1285.00	1290.00	0.0	0.7	89.0		8.5				5YR 4/3	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00010999	1290.00	1295.00	0.0	0.7	89.0		8.5				10YR 7/4	☐	☐	☑						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00011000	1295.00	1300.00	0.0	0.7	89.0		8.5				10YR 7/4	☐	☐	☑						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00011001	1300.00	1305.00	0.0	0.4	89.0		8.5				5YR 4/2	☐	☐	☑						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00011002	1305.00	1310.00	0.0	0.3	89.0		8.5				5YR 4/2	☐	☐	☑						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00011003	1310.00	1315.00	0.0	0.4	89.0		8.5				5YR 4/2	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00011004	1315.00	1320.00	0.0	0.5	103.0		8.5				5YR 4/2	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	100		
7/1/2002	BW	7/2/2002	JSW	BCS00011005	1320.00	1325.00	0.0	0.3	103.0		8.5				5YR 2/1	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00011006	1325.00	1330.00	0.0	0.4	103.0		8.5				5YR 2/2	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00011007	1330.00	1335.00	0.0	0.4	103.0		8.5				5YR 3/2	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
7/1/2002	BW	7/2/2002	JSW	BCS00011008	1335.00	1340.00	0.0	0.4	103.0		8.5				5YR 3/4	☐	☐	☑						☑	☐	☐	☐	☐	☑		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		