Site Name: CELL 1 – 1983		Qualitative			Quantitative									
Exposure: E					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	0–1°	S–M	N	48.67	9.00	11.67	30.67	54.81	0.83	44.35	9665	1007
2000	AUG. 28–SEPT. 2	0–1°	S–M	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	0–1°	S–M	N	53.50	9.65	12.00	24.85	55.96	0.63	43.41	–	–
2002	SEPT. 9–14	0–1°	S–M	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	0–1°	S–M	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	0–1°	S–M	N	NOT SAMPLED				NOT SAMPLED				

Site Name: CELL 2 – 1984		Qualitative			Quantitative									
Exposure: E					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	0–1°	M	N	43.33	10.67	14.67	31.33	40.01	0.83	59.15	8364	718
2000	AUG. 28–SEPT. 2	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	0–1°	M	N	42.50	9.00	20.75	27.75	46.34	0.00	53.66	–	–
2002	SEPT. 9–14	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				

Site Name: CELL 3 – 1985		Qualitative			Quantitative									
Exposure: E					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	0–1°	S	N	52.00	9.67	9.00	29.33	52.74	0.00	47.26	12592	851
2000	AUG. 28–SEPT. 2	0–1°	S	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	0–1°	S	N	55.00	11.00	8.00	26.00	45.68	0.00	54.32	–	–
2002	SEPT. 9–14	0–1°	S	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	0–1°	S	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	0–1°	S	N	NOT SAMPLED				NOT SAMPLED				

Site Name: CELL 4 – 1986		Qualitative			Quantitative									
Exposure: E					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	0–1°	M	N	42.83	11.83	11.33	34.00	6.18	1.41	92.41	568	209
2000	AUG. 28–SEPT. 2	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	0–1°	M	N	44.33	12.33	18.50	24.83	5.37	0.64	93.99	–	–
2002	SEPT. 9–14	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				

Site Name: CELL 5 – 1993		Qualitative			Quantitative									
Exposure: E					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	0–1°	M	N	44.67	10.00	19.17	26.17	16.36	5.83	77.81	1120	776
2000	AUG. 28–SEPT. 2	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	0–1°	M	N	48.33	7.50	20.83	23.33	19.80	1.11	79.09	–	–
2002	SEPT. 9–14	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				

Site Name: CELL 6 – 1993		Qualitative			Quantitative									
Exposure: E					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	0–1°	H	N	47.00	10.50	12.33	30.17	13.26	16.01	70.73	1156	248
2000	AUG. 28–SEPT. 2	0–1°	H	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	0–1°	H	N	47.83	5.77	15.60	30.80	19.59	7.67	72.74	–	–
2002	SEPT. 9–14	0–1°	H	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	0–1°	H	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	0–1°	M	N	NOT SAMPLED				NOT SAMPLED				

Site Name: CELL 7 – 1992 & 1993		Qualitative			Quantitative									
Exposure: E					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	0–1°	S	N	42.89	11.89	15.22	30.00	9.03	2.25	88.72	1590	413
2000	AUG. 28–SEPT. 2	0–2°	S	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	0–2°	S	N	36.75	8.68	25.33	29.25	7.74	0.00	92.26	–	–
2002	SEPT. 9–14	0–2°	S	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	0–2°	S	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	0–2°	S	N	NOT SAMPLED				NOT SAMPLED				

Site Name: BERM 1 – 1983		Qualitative			Quantitative									
Exposure: S					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	1–20°	M	N	38.00	8.50	11.00	42.50	63.06	8.93	28.01	3389	1552
2000	AUG. 28–SEPT. 2	1–20°	M	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	1–20°	M	N	49.50	14.50	11.50	24.50	39.23	18.07	42.70	–	–
2002	SEPT. 9–14	1–20°	M	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	1–20°	M	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	1–20°	M	N	NOT SAMPLED				NOT SAMPLED				

Site Name: BERM 2 – 1984		Qualitative			Quantitative									
Exposure: W & N					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	0–20°	S	N	54.00	16.50	11.00	18.50	40.14	0.00	59.86	3469	2801
2000	AUG. 28–SEPT. 2	0–20°	S	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	0–20°	S	N	58.50	11.00	9.50	21.00	53.55	0.00	46.45	–	–
2002	SEPT. 9–14	0–20°	S	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	0–20°	S	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	0–20°	S	N	NOT SAMPLED				NOT SAMPLED				

Site Name: BERM 3 – 1985		Qualitative			Quantitative									
Exposure: NE & SW					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	0–20°	S	N	60.33	12.00	12.33	15.33	64.94	1.21	33.85	3415	2370
2000	AUG. 28–SEPT. 2	0–20°	S	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	0–20°	S	N	57.25	12.75	12.25	17.75	58.53	4.11	37.36	–	–
2002	SEPT. 9–14	0–20°	S	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	0–20°	S	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	0–20°	S	N	NOT SAMPLED				NOT SAMPLED				

Site Name: BERM 4 – 1986		Qualitative			Quantitative									
Exposure: N, E					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	28°	S	N	45.83	14.17	10.00	30.00	15.27	4.05	80.69	1942	565
2000	AUG. 28–SEPT. 2	28°	S	N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	28°	S	N	47.50	13.50	8.00	31.00	12.62	0.00	87.38	–	–
2002	SEPT. 9–14	28°	S	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	28°	S	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	28°	S	N	NOT SAMPLED				NOT SAMPLED				

Site Name: REFERENCE AREA		Qualitative			Quantitative									
Exposure: E					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	1–5°	M	N	26.87	28.41	22.06	32.22	64.77	34.12	1.11	618	–
2000	AUG. 28–SEPT. 2	1–5°	M	S,N	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	1–5°	M	S,N	14.50	35.34	26.88	23.28	64.77	34.12	1.11	–	–
2002	SEPT. 9–14	1–5°	M	S,N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	1–5°	M	S,N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	1–5°	M	S,N	NOT SAMPLED				NOT SAMPLED				

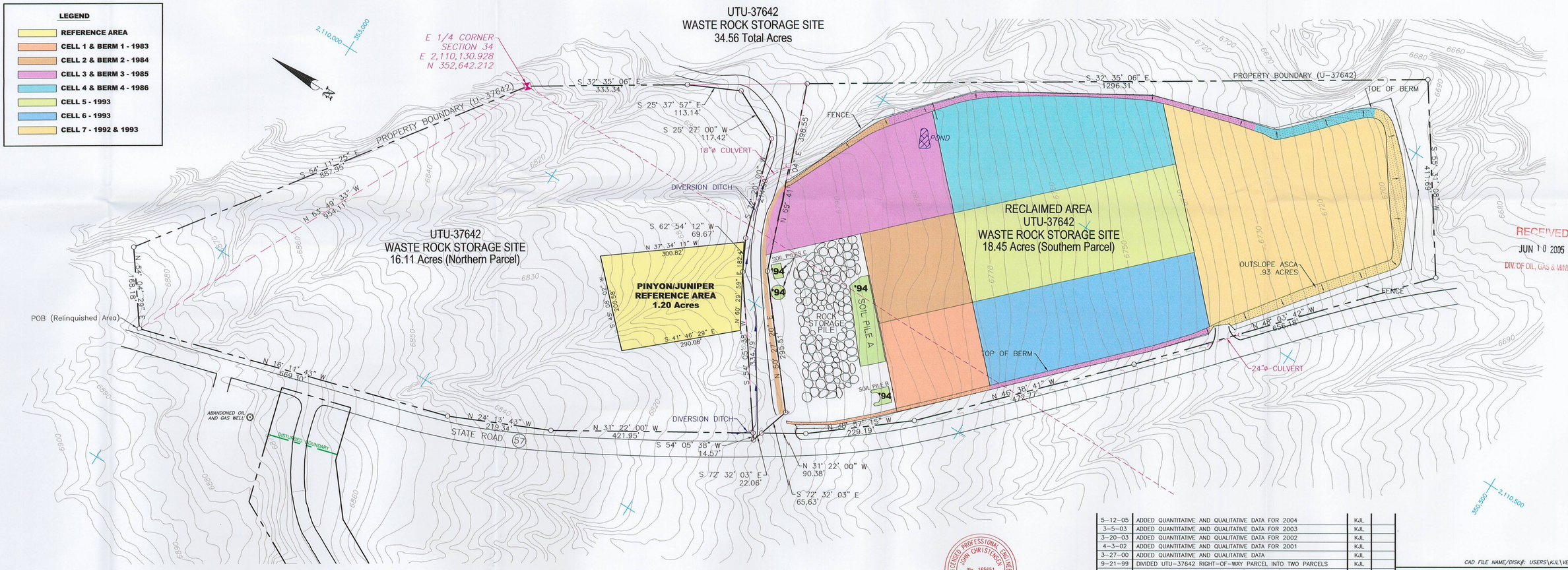
Site Name: TOPSOIL PILE A & C – '94		Qualitative			Quantitative									
Exposure: S					Cover				% Composition					
Year	Date	Slope	Animal Use	Erosion	Total Living	Litter	Bareground	Rock	Shrubs	Forbs	Grasses	Density	Productivity
1999	AUG. 15–26	25°	S	S	25.00	21.56	12.19	41.25	40.65	15.42	43.93	–	–
2000	AUG. 28–SEPT. 2	25°	S	N,S	NOT SAMPLED				NOT SAMPLED				
2001	AUG. 13–AUG. 18	25°	S	N,S	NOT SAMPLED				NOT SAMPLED				
2002	SEPT. 9–14	25°	N	N	NOT SAMPLED				NOT SAMPLED				
2003	OCT. 13–18	25°	N	N	NOT SAMPLED				NOT SAMPLED				
2004	SEPT. 13–17	25°	N	N	NOT SAMPLED				NOT SAMPLED				

NOTE:
QUALITATIVE AND QUANTITATIVE DATA PROVIDED BY MT. NEBO SCIENTIFIC, INC.

LEGEND

- REFERENCE AREA
- CELL 1 & BERM 1 - 1983
- CELL 2 & BERM 2 - 1984
- CELL 3 & BERM 3 - 1985
- CELL 4 & BERM 4 - 1986
- CELL 5 - 1993
- CELL 6 - 1993
- CELL 7 - 1992 & 1993

UTU-37642
WASTE ROCK STORAGE SITE
34.56 Total Acres



RECEIVED
JUN 10 2005
DIV. OF OIL, GAS & MINING

LICENSED PROFESSIONAL ENGINEER
JOHN CHRISTENSEN
No. 165651
STATE OF UTAH

John Christensen 5/12/05
JOHN CHRISTENSEN P.E. #165651 DATE

AS BUILT CONDITION

I do hereby certify that I am a Registered Professional Engineer in the State of Utah, and do also certify that this drawing represents the as built condition of the Waste Storage Site Facility, to the best of my knowledge.

DATE	REVISIONS	BY	CHK
5–12–05	ADDED QUANTITATIVE AND QUALITATIVE DATA FOR 2004	KJL	
3–5–03	ADDED QUANTITATIVE AND QUALITATIVE DATA FOR 2003	KJL	
3–20–03	ADDED QUANTITATIVE AND QUALITATIVE DATA FOR 2002	KJL	
4–3–02	ADDED QUANTITATIVE AND QUALITATIVE DATA FOR 2001	KJL	
3–27–00	ADDED QUANTITATIVE AND QUALITATIVE DATA	KJL	
9–21–99	DIVIDED UTU–37642 RIGHT–OF–WAY PARCEL INTO TWO PARCELS	KJL	
2–12–97	ADDED AREA TO BE RELINQUISHED (1.08 ACRES)	KJL	
2–4–97	REVISED PINYON/JUNIPER AREA, ADDED AREA TO BE RELINQUISHED	KJL	
12–11–96	ADDED PROPERTY DESCRIPTION TO PINYON/JUNIPER REFERENCE AREA	KJL	
11–27–96	REVISED TO REFLECT CURRENT CONDITIONS FOR RELINQUISHMENT	KJL	
8–28–96	REVISED TO REFLECT CURRENT CONDITIONS	KJL	
1–10–90	ADDED OUTSLOPE ASCA 1.3 ACRES	KJL	
2–11–88	REVISED TO REFLECT AS BUILT CONDITIONS	KJL	
6–3–87	AS BUILT SITES 1 THRU 8 – ADDED BERM CROSS SECTION	KJL	
5–1–84	REVISED DRAINAGE DITCH AS BUILT	AWB	
5–3–83	ADDED PROPOSED DISPOSAL SITES 3 THRU 8	SMC	
2–18–83	CHANGED EPHEMERAL DRAINAGE DIVERSION	SMC	
2–8–83	AS BUILT SITE #1 & PROPOSED SITE #2	SMC	

CAD FILE NAME/DISK#: USERS\KJL\VEGMAPS\CWVEG3.DWG

ENERGY WEST
MINING COMPANY
HUNTINGTON, UTAH 84528

COTTONWOOD/WILBERG & DES–BEE DOVE MINES
WASTE STORAGE SITE
2004 VEGETATION MONITORING MAP

DRAWN BY: K. LARSEN
SCALE: 1" = 100'
DATE: FEBRUARY 13, 1997
DRAWING #: KS1650D
SHEET 1 OF 1
REV. ___