

Attachment 3-1

Excerpts from CEC July 2004 *Final Remedial Action Report, Liberty National Development Project*

**Table 5.5-D-2
Group 4, Area 112A Final Post-Excavation Samples**

<i>Target Criteria (See notes at end of table)</i>				< 20 mg/kg	<2 mg/kg	<250 mg/kg	<370 mg/kg				
Sample Location	Northing	Easting	Elevation	Hexavalent Chromium (mg/kg)	Beryllium (mg/kg)	Nickel (mg/kg)	Vanadium (mg/kg)				
BE0001	676744.9731	2162072.1604	5.035	3.5	J	0.22	J	9.5	J	10.9	J
BE0002	676737.7470	2162103.3160	5.399	599	J	---		---		---	
BE0003	676711.8735	2162134.0032	4.913	159	J	---		---		---	
BE0004	676689.1810	2162151.2667	5.061	13.7	J	0.18	J	267		437	
BE0005	676671.3213	2162177.9339	4.643	1.1	J	0.22	J	7.7	J	12.8	
BE0006	676658.6388	2162203.9790	5.141	130	J	---		---		---	
BE0007	676653.2213	2162239.5305	4.873	132	J	---		---		---	
BE0008	676612.3959	2162250.7746	5.07	16.9	J	0.18	J	11.3		17.2	
BE0009	676606.0602	2162278.3207	4.649	18.6	J	0.82	J	53.6		29.2	
BE0010	676578.3873	2162315.3521	4.384	165	J	---		---		---	
BE0011	676567.0765	2162336.9122	3.888	328	J	---		---		---	
BE0012A	676543.3444	2162353.0017	3.72	199	J	---		---		---	
BE0012B	676738.0353	2162028.5080	5.505	12.4	J	0.26	J	8.7	J	9.6	J
BE0013	676723.7742	2162058.6548	5.352	155	J	---		---		---	
BE0014	676703.2684	2162085.6251	5.572	130	J	---		---		---	
BE0015	676680.7250	2162112.7634	5.513	162	J	---		---		---	
BE0016	676667.1341	2162130.4073	5.108	28.0	J	0.24	J	14.2		22.3	
BE0017	676648.9317	2162155.1659	5.406	0.60	UJ	0.22	J	17.4		24.2	
BE0018	676630.5286	2162180.2903	5.321	0.58	UJ	0.24	J	13.1		26.1	
BE0019	676616.3900	2162202.4037	5.624	109	J	---		---		---	
BE0020	676593.4800	2162229.1013	5.389	247	J	---		---		---	
BE0021	676573.1790	2162256.4135	4.865	3.3	J	0.12	J	9.3		8.1	J
BE0022	676556.7215	2162281.0455	4.966	83.1	J	0.14	J	13.7	J	42.5	
BE0023	676533.2201	2162300.3560	4.791	218	J	---		---		---	
BE0024	676522.6663	2162331.9942	4.534	31.0	J	0.02	UJ	103	J	178	
BE0025	676497.8343	2162347.1188	4.665	32.4	J	0.02	UJ	135	J	157	
BE0026	676481.8913	2162373.8456	3.588	11.2		0.28	J	10.8		40.0	
BE0027	676713.8685	2162009.2758	5.996	7.1	J	0.21	J	8.7	J	10.1	J
BE0028	676698.3234	2162032.2548	6.357	5.3	J	0.31	J	10.5		12.0	J
BE0029	676680.3016	2162055.4147	6.018	6.9	J	0.47	J	13.1		11.9	J
BE0030	676661.5920	2162082.0228	6.011	13.6	J	0.27	J	8.2	J	8.2	J
BE0031	676643.2531	2162108.6694	5.326	4.4	J	0.27	J	8.3	J	10.6	J
BE0032	676626.4058	2162135.4558	5.267	35.4	J	0.21	J	7.9	J	12.7	
BE0033	676606.8392	2162159.0671	5.266	4.2	J	0.28	J	27.0		42.7	
BE0034/02	676589.0228	2162184.0877	5.383	0.66	UJ	0.18	J	14.5		20.6	
BE0035/02	676572.2074	2162208.1441	5.362	7.3	J	0.32	J	12.9		14.8	
BE0036	676553.4715	2162235.4129	4.945	5.2	J	0.18	J	8.3	J	8.8	J
BE0037	676534.4948	2162260.8241	5.016	12.4	J	0.16	J	8.4		11.0	
BE0038/02	676518.2643	2162285.0763	4.281	7.3	J	0.19	J	7.3	J	42.5	
BE0039/02	676495.2626	2162304.4380	4.543	9.2	J	0.37	J	16.0	J	29.3	J
BE0040	676485.8142	2162335.9244	4.798	0.67	UJ	0.40	J	61.0	J	94.1	
BE0041	676467.6070	2162356.1865	4.893	0.66	J	0.28	J	93.9		132	
*BE0042	676708.7123	2161963.4346	6.122	0.53	UJ	0.14	J	7.2	J	9.5	J
BE0043/02	676690.2572	2161988.4568	4.884	2.4	J	0.23	J	73.2	J	103	
BE0044	676673.2199	2162011.3296	5.614	1.3	J	0.15	J	6.9	J	6.5	J

**Table 5.5-D-2
Group 4, Area 112A Final Post-Excavation Samples**

<i>Target Criteria (See notes at end of table)</i>				< 20 mg/kg	<2 mg/kg	<250 mg/kg	<370 mg/kg				
Sample Location	Northing	Easting	Elevation	Hexavalent Chromium (mg/kg)	Beryllium (mg/kg)	Nickel (mg/kg)	Vanadium (mg/kg)				
BE0045	676655.5235	2162035.4920	6.04	0.72	J	0.18	J	11.8		13.9	
BE0046	676637.2311	2162061.0159	6.195	7.8	J	0.24	J	33.7		39.6	J
BE0047	676619.8921	2162086.9980	5.569	2.0	J	0.23	J	6.6	J	7.4	J
BE0048	676601.7218	2162112.5178	5.053	23.1	J	0.24	J	8.9		68.4	J
BE0049	676583.5412	2162137.9468	5.168	41.8	J	0.26	J	7.6	J	20.4	J
BE0050	676578.1257	2162158.8890	5.285	91.4	J	0.21	J	168		298	
BE0051	676548.7382	2162187.0027	5.495	16.5	J	0.31	J	36.1		38.0	
BE0052	676532.2358	2162213.3554	5.665	3.0	J	0.13	J	18.1		31.9	
BE0053	676512.3249	2162240.2276	5.91	25.4	J	0.14	J	9.4		32.9	
BE0054/02	676497.8857	2162261.8106	4.883	13.4	J	0.03	UJ	9.2		75.7	
BE0055	676471.6796	2162306.3596	4.999	0.64	UJ	0.43	J	18.5		40.7	
BE0056	676456.4833	2162326.4427	4.895	12.2	J	0.03	UJ	229	J	217	
BE0057	676449.0800	2162339.6222	4.867	0.66	U	0.50	J	50.6		68.1	
*BE0058	676685.9408	2161942.9950	6.786	0.54	UJ	0.15	J	8.8		9.3	J
BE0059	676668.7549	2161968.4122	5.953	1.3	J	0.13	J	5.9	J	11.1	
BE0060	676650.8577	2161993.0933	6.15	2.4	J	0.15	J	16.6		23.1	
BE0061	676633.3280	2162017.1412	6.663	5.3	J	0.09	J	7.8	J	7.1	J
BE0062/02	676610.9531	2162065.4389	4.842	0.73	J	0.18	J	4.8	J	5.1	J
BE0063	676597.4188	2162069.3259	6.236	5.4	J	0.13	J	8.8		13.8	
BE0064	676584.2284	2162094.0576	4.827	14.5	J	0.08	J	34.7		61.9	
BE0065	676561.3400	2162118.8350	5.623	5.5	J	0.27	J	8.7	J	10.9	J
BE0066	676546.9705	2162135.9466	5.436	82.3	J	0.21	J	158		283	
BE0067	676526.4230	2162164.6219	5.758	4.5	J	0.25	J	13.1		12.4	
BE0068	676510.3083	2162190.5515	6.167	38.4	J	0.38	J	26.4		22.7	
BE0069	676491.0837	2162220.6973	5.863	30.6	J	0.10	J	62.3		52.7	
BE0070	676478.2579	2162243.4103	5.203	15.4	J	0.02	UJ	191		117	
BE0071	676640.7443	2161901.5681	6.614	1.7	J	0.14	J	4.6	J	6.3	J
BE0072	676663.8458	2161922.3758	6.709	0.9	J	0.18	J	8.0	J	9.7	J
BE0073	676646.5727	2161947.5256	6.981	0.55	UJ	0.14	J	5.6	J	6.3	J
BE0074	676629.0532	2161972.3119	6.946	0.62	J	0.18	J	7.4		9.6	J
BE0075	676610.4781	2161997.7190	6.821	2.5	J	0.24	J	9.0	J	13.1	
BE0076	676592.7407	2162023.2572	6.884	1.6	J	0.17	J	7.1	J	7.6	J
BE0077	676575.5437	2162048.2407	6.559	1.2	J	0.16	J	6.8	J	7.3	J
BE0078	676557.3088	2162071.6548	6.839	1.2	J	0.18	J	7.2	J	8.0	J
BE0079	676539.8907	2162096.8868	6.636	1.9	J	0.12	J	7.0	J	8.7	J
BE0080	676520.8818	2162120.1784	6.113	6.2	J	0.18	J	7.1	J	8.3	J
BE0081	676623.6694	2161926.2019	6.92	0.94	J	0.14	J	6.4	J	7.2	J
BE0082	676607.0211	2161951.1342	7.055	1.0	J	0.11	J	7.6	J	8.7	J
BE0083	676589.5528	2161976.0267	7.044	1.7	J	0.10	J	6.8	J	9.0	J
BE0084	676572.2249	2162001.7091	6.863	5.4	J	0.13	J	6.7	J	9.4	J
BE0085	676554.0832	2162026.7706	6.201	1.5	J	0.11	J	8.9		11.0	
BE0086	676535.7126	2162051.3507	6.414	0.53	UJ	0.15	J	8.3		10.3	
BE0087	676517.4521	2162075.0452	6.86	0.60	J	0.14	J	7.9	J	9.0	J
BE0088	676499.3361	2162099.0267	6.475	18.7	J	0.16	J	8.9	J	11.1	J
BE0089	676601.6810	2161906.0027	6.716	1.8	J	0.14	J	7.8	J	8.5	J

**Table 5.5-D-2
Group 4, Area 112A Final Post-Excavation Samples**

Sample Location	Northing	Easting	Elevation	< 20 mg/kg		<2 mg/kg		<250 mg/kg		<370 mg/kg	
				Hexavalent Chromium (mg/kg)		Beryllium (mg/kg)		Nickel (mg/kg)		Vanadium (mg/kg)	
BE0090	676584.4277	2161931.5523	6.588	5.9	J	0.16	J	11.6		9.6	J
BE0091	676567.7440	2161956.8906	6.696	1.8	J	0.14	J	11.8		14.8	
BE0092	676550.4495	2161981.9994	6.67	0.80	J	0.14	J	7.6	J	9.8	
BE0093	676532.4226	2162006.3251	6.66	1.5	J	0.13	J	7.0	J	9.3	J
BE0094	676513.7041	2162030.7019	6.866	2.2	J	0.15	J	7.5	J	8.2	J
BE0095	676495.9891	2162054.8606	6.95	0.53	UJ	0.16	J	7.3	J	8.1	J
BE0096	676477.3200	2162078.1918	6.801	10.2	J	0.14	J	14.9		25.7	
BE0097	676579.6492	2161885.6430	6.582	0.54	UJ	0.17	J	7.5	J	8.4	J
BE0098	676562.4767	2161910.3418	6.585	1.6	J	0.21	J	9.2		11.2	J
BE0099	676546.4659	2161935.5079	6.707	0.72	J	0.17	J	13.3		23.2	J
BE0100	676529.3393	2161960.6545	6.88	0.53	UJ	0.14	J	6.4	J	8.6	J
BE0101	676511.1776	2161985.1337	6.922	0.53	UJ	0.18	J	7.5	J	9.8	J
BE0102	676493.1999	2162010.0944	6.917	0.53	UJ	0.15	J	7.1	J	9.3	J
BE0103	676477.0971	2162036.0661	6.669	1.9	J	0.16	J	7.2	J	8.1	J
BE0104	676447.8172	2162050.3771	7.009	1.4	J	0.02	UJ	80.0		134	
BE0106	676540.2171	2161889.9027	7.533	0.54	UJ	0.16	J	8.4	J	11.7	J
BE0107	676524.2556	2161915.5611	6.477	1.3	J	0.17	J	8.4	J	11.0	J
BE0108	676506.8354	2161940.6917	6.527	0.53	UJ	0.18	J	8.1	J	9.4	J
BE0180	676509.3598	2161892.6261	8.311	7.2	J	0.17	J	9.6	J	13.6	
BE0109	676489.1638	2161964.9744	6.831	0.54	UJ	0.18	J	7.0	J	7.6	J
BE0110	676471.3169	2161989.8981	6.889	0.53	UJ	0.21	J	7.1	J	8.7	J
BE0111	676452.1379	2162012.8935	6.492	1.2	J	0.16	J	7.4	J	8.8	J
BE0112	676437.4155	2162045.3936	7.358	2.8	J	0.26	J	18.2		20.3	J
BE0114	676494.5465	2161907.4835	6.433	0.54	UJ	0.19	J	7.8	J	9.2	J
BE0115	676485.3031	2161920.0383	6.5	0.53	UJ	0.19	J	8.0	J	10.7	J
BE0116	676468.1970	2161943.6317	6.902	0.53	UJ	0.17	J	7.4	J	10.4	J
BE0117	676449.8900	2161968.0471	6.967	1.6	J	0.17	J	7.7	J	9.4	J
BE0118	676431.5363	2161991.2854	7.934	0.53	UJ	0.19	J	7.8	J	9.5	J
BE0119	676413.0038	2162009.2110	7.87	0.57	UJ	0.23	J	16.6		24.2	J
BE0120	676465.6639	2161898.7322	7.633	0.73	J	0.25	J	8.3		14.0	
BE0121	676447.5486	2161922.3793	7.598	5.9	J	0.21	J	10.8		18.6	
BE0122	676428.6606	2161947.0934	7.784	2.8	J	0.21	J	7.5	J	7.9	J
BE0123	676410.1279	2161970.0541	7.861	0.96	J	0.19	J	7.6	J	21.5	
BE0124	676401.9867	2161987.5834	8.176	0.54	UJ	0.26	J	11.0		14.2	
BE0125	676425.8659	2161901.0053	7.944	0.88	J	0.22	J	7.9	J	19.9	
BE0126	676407.4450	2161926.3454	8.259	0.70	J	0.17	J	73.9		109	
BE0127	676387.8531	2161948.2811	8.25	1.2	J	0.21	J	8.1	J	9.9	J
BE0128	676405.4204	2161880.5065	8.562	0.65	J	0.21	J	8.1		10.2	
BE0129	676396.2928	2161916.0061	8.329	0.53	UJ	0.29	J	8.3	J	12.7	
BE0130	676376.7005	2161936.2946	8.201	1.0	J	0.26	J	7.7	J	9.8	J
BE0131	676410.8441	2161821.2075	8.421	0.54	UJ	0.17	J	8.6		10.9	
BE0132	676402.1328	2161834.1249	8.512	0.67	J	0.20	J	8.4		9.5	J
BE0134	676483.0384	2162394.0864	3.859	32.7		0.22	J	92.7		110	
BE0135	676495.4389	2162424.4011	3.013	10.1		0.21	J	44.2		63.5	
BE0136	676528.6297	2162381.3912	3.494	44.6	J	0.03	UJ	104	J	162	

**Table 5.5-D-2
Group 4, Area 112A Final Post-Excavation Samples**

Sample Location	Northing	Easting	Elevation	< 20 mg/kg		<2 mg/kg		<250 mg/kg		<370 mg/kg	
				Hexavalent Chromium (mg/kg)		Beryllium (mg/kg)		Nickel (mg/kg)		Vanadium (mg/kg)	
BE0137	676589.0878	2162319.3888	4.546	436	J	---		---		---	
BE0138	676515.6160	2162392.0056	3.467	11.4	J	0.10	J	55.7		91.4	
BE0139	676625.1712	2162287.8925	5.109	6.7	J	0.16	J	58.8		73.0	
BE0140	676636.6883	2162272.2257	5.133	717	J	---		---		---	
BE0141	676635.2031	2162228.5407	4.592	13.4	J	0.31	J	14.8		15.5	
BE0142	676677.2444	2162225.1393	4.933	3020	J	---		---		---	
BE0143	676699.2808	2162203.7137	5.287	1060	J	---		---		---	
BE0144	676712.8020	2162172.8210	4.957	2370	J	---		---		---	
BE0145	676734.7822	2162145.7402	4.897	1170	J	---		---		---	
BE0146	676753.1771	2162118.7835	5.01	285	J	---		---		---	
BE0147	676783.6565	2162104.2631	5.042	1580	J	---		---		---	
BE0148	676780.3363	2162100.3966	5.115	39.7	J	0.03	U	484		673	
*BE0149	676762.8491	2162046.6184	5.029	3.9	J	0.03	U	209		290	
*BE0150	676787.2995	2162063.9360	5.389	0.78	UJ	0.26	J	151		192	
*BE0151	676801.7717	2162081.3697	5.263	17.9	J	0.15	J	197		257	
*BE0152/02	676795.1450	2162042.2935	5.504	0.86	J	0.27	J	13.1		343	
*BE0153	676774.2826	2162024.4607	5.634	0.82	J	0.26	J	234		288	
*BE0154	676752.6075	2162004.0011	5.426	2.2	J	0.12	J	8.9		11.9	
*BE0155	676730.7759	2161983.8997	5.889	0.54	UJ	0.17	J	9.6		10.8	
*BE0156	676808.1831	2162053.5481	5.645	2.9	J	0.23	J	30.2		40.1	
*BE0157/02	676800.6882	2162021.9358	6.348	27	J	0.11	J	68.1		94.4	J
*BE0158	676782.4880	2162011.3502	5.865	16.9	J	0.26	J	172		250	
*BE0159	676765.1270	2161992.7176	6.195	0.65	UJ	0.28	J	186		255	
BE0160/02	676740.5683	2161971.7302	4.762	0.62	UJ	0.32	J	6.6	J	9.0	J
*BE0161	676713.7345	2161948.5328	5.253	0.61	UJ	0.10	J	5.8	J	7.9	J
*BE0162	676694.1810	2161933.6915	6.538	0.54	UJ	0.15	J	6.4	J	8.9	J
BE0163	676444.5522	2161876.5496	8.052	0.53	UJ	0.23	J	9.5		13.7	
BE0164	676423.3287	2161856.0907	8.563	0.63	J	0.21	J	8.3		11.6	
BE0165	676432.8296	2161844.2871	8.574	2.3	J	0.23	J	15.5		20.9	
BE0166	676610.4857	2161893.9169	6.733	2.2	J	0.18	J	9.4		8.8	J
BE0167	676504.5260	2162145.4274	5.706	3.8	J	0.24	J	19.6		20.2	
BE0168	676487.8762	2162170.4083	5.677	5.8	J	0.26	J	16.4		28.9	
BE0169	676471.2503	2162195.9979	5.207	1.5	J	0.24	J	8.1	J	13.1	
BE0170	676462.5392	2162208.4003	4.449	5.9	J	0.21	J	10.4		15.0	
BE0171	676451.2336	2162173.5217	5.308	7.1	J	0.21	J	6.9	J	11.8	
BE0172	676441.7981	2162184.9835	4.883	7.7	J	0.30	J	80.8		109	
BE0173	676468.1667	2162147.2084	5.657	10.6		0.21	J	23.2		33.9	
BE0174	676427.7780	2161816.2444	10.977	1.2	J	0.24	J	34.4	J	19.4	
BE0175	676448.0076	2161830.3839	10.193	0.69	J	0.18	J	7.8	J	12.9	
BE0178	676492.3578	2161881.3799	8.706	5.0	J	0.20	J	25.8	J	41.5	
BE0181	676536.8292	2161886.3898	8.148	10.5	J	0.24	J	18.1	J	29.7	
BE0182	676570.5841	2161857.1490	7.429	14.4	J	0.18	J	16.3	J	26.9	
BE0183	676592.9134	2161860.2683	7.578	0.28	UJ	0.18	J	8.0	J	11.4	
BE0184	676626.5076	2161875.2873	7.262	15.7	J	0.15	J	56.3		83.6	
*BE0185	676669.5647	2161898.6877	7.146	6.7	J	0.25	J	31.8		46.1	

**Table 5.5-D-2
Group 4, Area 112A Final Post-Excavation Samples**

<i>Target Criteria (See notes at end of table)</i>				< 20 mg/kg		<2 mg/kg		<250 mg/kg		<370 mg/kg	
Sample Location	Northing	Easting	Elevation	Hexavalent Chromium (mg/kg)		Beryllium (mg/kg)		Nickel (mg/kg)		Vanadium (mg/kg)	
*BE0186	676709.2416	2161921.9931	6.488	2.4	J	0.23	J	78.0		97.7	
*BE0187	676729.1230	2161949.5986	5.522	3.0	J	0.22	J	194		230	
*BE0188	676811.2374	2162025.6586	5.004	0.60	J	0.25	J	171		218	
BE0189	676379.0698	2161894.6843	9.902	0.28	UJ	0.27	J	13.2		11.7	
BE0190	676437.5423	2162067.1994	10.383	0.31	U	0.24	J	52.6		68.4	
BE0191	676412.8432	2162035.9383	9.349	0.38	J	0.61	J	30.1		40.5	
BE0192	676390.9193	2161993.3445	10.403	0.31	U	0.57	J	24.8	J	22.5	
*BE0193	676634.8841	2161855.9827	6.471	5.4		0.22	J	11.2		14.1	
*BE0194	676645.3982	2161834.1487	6.332	0.49	J	0.18	J	6.7	J	9.6	J
BE0195	676479.8303	2161809.4280	9.862	0.36	J	0.22	J	8.1	J	13.6	
BE0196	676468.4295	2161795.4020	9.484	1.3	J	0.22	J	7.2	J	15.5	
BE0197	676453.5611	2161785.6726	10.102	1.1	J	0.36	J	28.4		42.5	
BE0198	676465.9694	2161745.8115	9.405	0.85	J	0.23	J	12.4		14.7	
BE0199	676484.6898	2161751.9323	9.012	1.4	J	0.20	J	6.8	J	14.9	
BE0200	676501.3876	2161758.7769	9.513	2.6		0.25	J	17.6		18.3	
BE0201	676496.0617	2161828.7766	9.595	3.2	J	0.28	J	12.5		24.0	
BE0202	676511.0696	2161844.1116	8.923	2.8	J	0.23	J	9.1		12.8	
BE0203	676531.2630	2161840.8030	8.732	5.3	J	0.30	J	10.2		18.6	
BE0204	676551.4063	2161840.8653	8.337	2.8	J	0.27	J	9.5		10.4	J
BE0205	676526.2043	2161820.6761	8.917	2.4	J	0.24	J	9.2		17.4	
BE0206	676521.1538	2161797.0975	8.944	1.0	J	0.23	J	8.6		12.0	
BE0207	676543.0731	2161789.9339	8.804	1.1	J	0.23	J	8.9		11.1	
BE0208	676555.9260	2161809.1431	8.068	9.2	J	0.27	J	64.6		88.4	
BE0209	676579.8956	2161826.9722	7.825	1.4	J	0.21	J	7.7	J	12.5	
*BE0210	676598.7328	2161802.9649	7.538	0.28	UJ	0.25	J	9.4		12.7	
BE0211	676574.3650	2161785.5404	8.208	3.0	J	0.25	J	9.3		11.8	
BE0212	676559.0317	2161765.4967	8.338	0.28	UJ	0.24	J	7.9	J	11.9	
*BE0213	676568.3842	2161743.4891	8.344	0.28	UJ	0.28	J	9.8		14.5	
*BE0214	676591.7637	2161761.3418	7.67	0.28	UJ	0.28	J	9.7		16.8	
*BE0215	676616.6736	2161779.2216	7.821	0.91	J	0.20	J	5.4	J	6.2	J
*BE0216	676587.3846	2161743.8854	7.861	0.76	J	0.25	J	9.6		16.8	
*BE0217	676572.7593	2161720.3844	8.269	0.42	J	0.25	J	15.0		19.4	
BE0218	676371.1161	2161955.4835	11.363	0.31	UJ	0.49	J	11.6	J	19.1	J
BE0219	676426.3772	2162200.0181	5.871	10.1	J	0.26	J	37.7	J	56.0	J
BE0220	676416.8590	2162218.9278	5.817	0.29	UJ	0.24	J	16.1	J	36.4	J
BE0221	676439.2328	2162227.9692	5.598	5.4	J	0.24	J	10.5	J	16.8	J
BE0222	676422.2352	2162246.2054	5.74	1.4	J	0.21	J	8.5	J	17.3	J
BE0223	676509.5062	2161734.0737	8.52	0.285	U	0.24	J	10.3		11.5	
BE0224	676504.8457	2161775.6399	9.26	0.292	U	0.17	J	12.0		15.5	
BE0225	676525.4329	2161766.3573	9.32	0.284	U	0.19	J	7.9		7.8	
BE0226	676531.4259	2161746.7381	9.02	0.48		0.22	J	29.5		42.4	
*BE0227	676548.6665	2161724.9454	9.01	0.285	U	0.20	J	8.4		13.6	
BE0228	676601.0000	2161840.0000	7.35	0.75		0.17	J	8.0		10.7	
BE0229	676614.0000	2161848.0000	7.06	1.0		0.15	J	6.4		11.0	
*BE0230	676622.7975	2161897.1109	6.83	0.284	U	0.16	J	6.3		10.2	

**Table 5.5-D-2
Group 4, Area 112A Final Post-Excavation Samples**

<i>Target Criteria (See notes at end of table)</i>				< 20 mg/kg	<2 mg/kg	<250 mg/kg	<370 mg/kg				
Sample Location	Northing	Easting	Elevation	Hexavalent Chromium (mg/kg)	Beryllium (mg/kg)	Nickel (mg/kg)	Vanadium (mg/kg)				
*BE0231	676631.0000	2161821.0000	7.17	0.326	U	0.16	J	7.0		7.4	
*BE0232	676652.3186	2161855.1593	6.54	1.9		0.18	J	6.4		8.6	
*BE0233	676669.5978	2161871.0645	6.35	0.88		0.20	J	7.2		7.5	
BE0234	676698.0000	2161895.0000	6.86	0.80		0.15	J	4.2		9.2	
SW0001	676717.5247	2162194.7878	6.421	298	J	---		---		---	
SW0002	676698.3412	2162217.7089	6.561	279	J	---		---		---	
SW0003	676678.3103	2162239.8044	6.25	103	J	---		---		---	
SW0004	676656.7691	2162261.5892	5.13	1190	J	---		---		---	
SW0005/02	676642.9758	2162290.9844	5.775	71.4	J	0.02	UJ	313		453	J
SW0006	676615.8612	2162303.6099	5.385	7.1	J	0.16	J	17.2		31.1	
SW0007/02	676620.8942	2162323.9111	6.155	0.56	UJ	0.25	J	16.1		39.1	
SW0008/02	676597.5016	2162359.8133	5.441	0.67	UJ	0.31	J	30.8		39.9	
SW0009	676552.2280	2162367.7002	6.101	1400	J	---		---		---	
SW0010	676531.9592	2162390.1489	6.173	3.5	J	0.03	UJ	240	J	351	
SW0011/02	676522.5578	2162426.2974	3.711	42.4		0.02	U	11.4		349	
SW0012/02	676516.6812	2162445.5450	3.213	26.3		0.02	U	202		244	
SW0013	676490.2353	2162445.0084	4.68	5.5		0.24	J	20.8		29.9	
SW0014/02	676465.8401	2162442.2483	4.074	17.9		0.02	U	105		122	
SW0015	676464.6993	2162386.2664	4.179	17.1		0.02	U	146		160	
SW0016	676454.4186	2162371.3022	4.392	0.96	J	0.02	U	77.5		94.1	
SW0017	676435.6311	2162338.6798	7.224	4.9		0.27	J	39.1		48.5	
SW0018	676440.5366	2162322.6757	7.613	1.5	J	0.59	J	76.6		102	
SW0019/02	676404.5784	2162234.0938	6.072	20.6	J	0.02	UJ	14.3		25.7	
SW0020/02	676408.1628	2162206.6329	6.054	34	J	0.02	UJ	112		335	
SW0021/02	676415.8950	2162178.3273	6.515	14.5	J	0.03	UJ	43.0		277	
SW0022/02	676441.3550	2162160.7860	6.419	0.91	J	0.52	J	200		164	
SW0023/02	676464.6519	2162142.9949	7.673	0.58	UJ	0.02	UJ	80.9		103	
SW0024/03	676482.8067	2162121.0701	8.419	9.9		0.04	J	196	J	260	
SW0025/A	676513.6103	2162130.8570	9.031	0.55	UJ	0.23	J	10.0		11.0	
SW0026/A	676488.6119	2162102.5149	6.873	10.8	J	0.21	J	60.5		95.3	
SW0027	676479.8674	2162094.6305	6.791	12.7	J	0.15	J	30.4		50.9	
SW0028/02	676453.9668	2162069.1112	8.52	6.9	J	0.02	U	9.8		259	
SW0029/02	676430.2069	2162051.2894	8.026	2.3	J	0.60	J	12.8		13.2	
SW0030/02	676413.9668	2162023.4170	8.505	1.3	J	0.02	U	11.9		8.7	J
SW0031	676399.5162	2161993.0577	11.964	0.96	J	0.02	U	230		256	
SW0032/02	676388.8098	2161970.8722	9.179	17.9	J	0.02	U	48.3		51.9	J
SW0033/02	676372.4696	2161941.1277	10.167	2.2	J	0.02	U	14.3		339	
SW0034	676371.2286	2161927.5044	10.172	1.7	J	0.02	U	234		307	
SW0035/02	676368.3291	2161891.8460	11.713	5.4	J	0.39	J	215		321	
SW0036	676392.2818	2161872.2577	12.455	1.8	J	0.02	U	208		271	
SW0037	676394.1432	2161853.2796	12.891	1.3	J	0.18	J	45.1		49.9	
SW0038	676411.5069	2161812.5949	13.265	0.56	UJ	0.23	J	86.8		24.2	
*SW0041/03	676582.6520	2161713.1050	9.722	11.1	J	0.11	J	8.6		13.3	
*SW0044/03	676653.6983	2161817.6436	7.017	14.0	J	0.03	J	138	J	122	
*SW0045/02	676659.3497	2161884.9177	7.975	4.6	J	0.25	J	176	J	270	

**Table 5.5-D-2
Group 4, Area 112A Final Post-Excavation Samples**

<i>Target Criteria (See notes at end of table)</i>				<i>< 20 mg/kg</i>		<i><2 mg/kg</i>		<i><250 mg/kg</i>		<i><370 mg/kg</i>	
Sample Location	Northing	Easting	Elevation	Hexavalent Chromium (mg/kg)		Beryllium (mg/kg)		Nickel (mg/kg)		Vanadium (mg/kg)	
*SW0046/02	676682.1442	2161896.2524	7.642	1.2	J	0.30	J	211		298	
*SW0047/02	676709.3122	2161910.7978	7.708	13.1	J	0.20	J	162	J	218	
*SW0048/02	676733.1195	2161931.3308	6.764	1.8	J	0.28	J	84.6	J	112	
*SW0049/02	676755.8028	2161949.7568	8.088	1.1	J	0.38	J	43.7	J	49.2	
*SW0050	676764.9064	2161986.7072	7.448	6.7	J	0.29	J	205		291	
*SW0051	676794.8615	2162012.2188	7.698	1.2	J	0.25	J	210		361	
*SW0052/02	676825.0454	2162013.2687	5.797	0.73	J	0.25	J	104	J	361	
*SW0053	676813.3088	2162052.3119	6.12	0.67	UJ	0.21	J	112		173	
*SW0054	676814.3841	2162079.9058	6.103	3.0	J	0.14	J	21.9		38.6	
SW0055	676790.5664	2162107.3670	6.262	2.8	J	0.03	U	294		404	
SW0056	676774.5920	2162123.4789	5.546	39.7	J	0.03	U	265		373	
SW0057	676757.8862	2162147.6042	7.764	180	J	---		---		---	
SW0058	676737.4614	2162171.2842	6.787	223	J	---		---		---	
SW0061	676435.8655	2161799.6600	10.998	0.31	U	0.33	J	30.5		28.3	
SW0062	676446.4726	2161771.8437	10.521	0.31	U	0.27	J	81.9		93.6	
SW0064	676524.4712	2161775.7747	9.263	20.4		0.27	J	135		215	
*SW0066	676637.3300	2161822.3335	6.612	18.1		0.21	J	166		238	
*SW0067	676654.2112	2161842.4905	6.44	17.5		0.18	J	497		564	
*SW0068/02	676661.7890	2161829.9728	7.281	4.6		0.16	J	181		238	
*SW0069/02	676540.7723	2161716.7570		20.9		0.28	J	221		156	
SW0070	676512.7311	2161741.8025	9.197	0.89	J	0.28	J	29.0		37.7	
SW0071/02	676489.1083	2161732.4843	9.424	8.1		0.41	J	52.5		89.5	
SW0072	676470.3716	2161724.3583	9.839	0.29	U	0.23	J	116		141	
SW0073	676452.9602	2161740.5718	10.008	10.4		0.22	J	17.6		14.2	
SW0074	676542.9550	2161769.1385	9.352	30	J	0.20	J	228		308	
*SW0075	676555.0327	2161737.8300	10.118	6.0	J	0.16	J	169	J	214	J
*SW0076	676561.4086	2161712.3439	9.975	6.9	J	0.16	J	150	J	238	J
*SW0077	676599.6732	2161737.6234	9.565	320	J	---		---		---	
*SW0078	676616.2715	2161762.5059	9.14	27.4	J	0.16	J	258	J	389	J
*SW0079/02	676629.2778	2161788.1680	8.997	30.7	J	0.18	J	8.9		15.5	
*SW0080	676612.1667	2161812.4987	9.212	32.2	J	0.12	J	172	J	250	J
SW0081				28.2	J	0.13	J	307	J	482	J
SW0082	676415.0651	2162262.3953	5.957	2.8	J	0.24	J	44.5	J	61.0	J
SW0083	676643.9869	2161801.5789	6.61	25.6		0.21	J	214		350	
SW0084	676677.6330	2161854.1144	6.46	191		---		---		---	

All data has been validated according to NJDEP protocols.

See Drawing M5.5-3 for sample locations.

* indicates sample location on Site 016.

J = Estimated

U = Below Detection limit

BE prefix indicates an excavation floor sample.

SW prefix indicates an excavation sidewall sample.

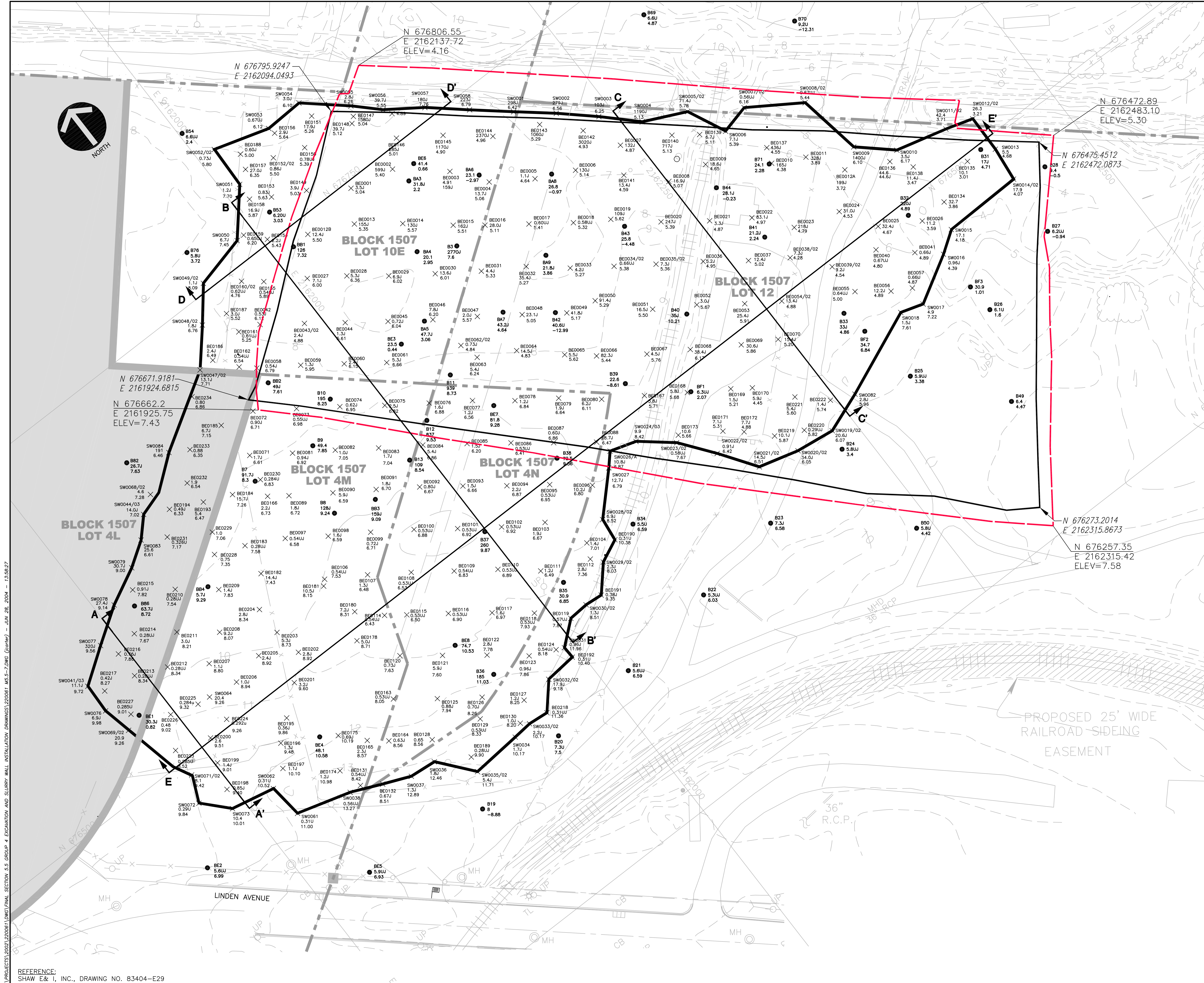
Bold Font - indicates above the target criteria *Italic Font* = Cr+6 >20 but < 100 mg/kg

30.7 - indicates above the target criteria.

SW sample numbering is not sequential because excavation was performed through the sidewall.

The location of the original SW sample was replaced by a BE location.

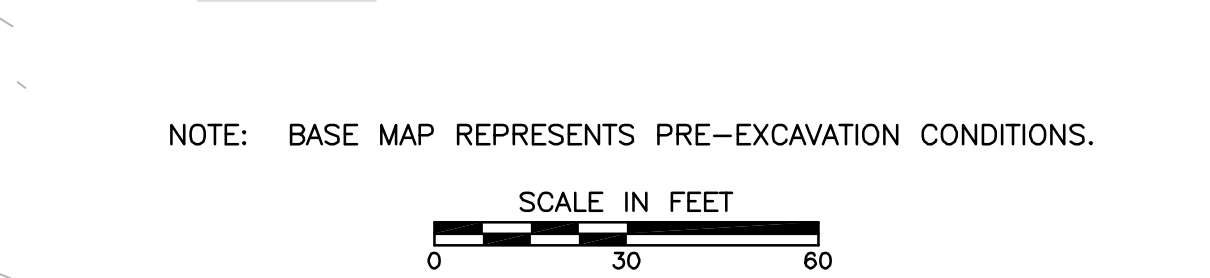
REVISION RECORD	
DATE	DESCRIPTION



LEGEND

- AS-BUILT HDPE LINER EXTENT
- AS-BUILT SLURRY WALL LOCATION (SEE DRAWING M5.5-5 FOR CROSS SECTIONS)
- APPROXIMATE LIMIT OF EXCAVATION
- RI SAMPLE LOCATION
- RI SAMPLE NUMBER
- HEXAVALENT CHROMIUM mg/kg
- BOTTOM MSL OF SAMPLE INTERVAL
- POST-EXCAVATION SAMPLE LOCATION
- POST-EXCAVATION SAMPLE NUMBER
- HEXAVALENT CHROMIUM mg/kg
- TOP MSL OF SAMPLE INTERVAL
- SITE 016 BEYOND RAMP BOUNDARIES

NOTE: BASE MAP REPRESENTS PRE-EXCAVATION CONDITIONS.



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REMEDIAL ACTION REPORT
LIBERTY NATIONAL DEVELOPMENT COMPANY, LLC
JERSEY CITY, NEW JERSEY, AND
PPG INDUSTRIES, INC., PITTSBURGH, PA

DATE: 10-16-03	APPROVED BY:	DWN BY: CEM
SCALE: 1"=30'		CHKD. BY:
RI SAMPLES AND POST EXCAVATION SAMPLES		SHEET 1 OF 1 DRAWING NUMBER M5.5-7

REFERENCE:
 SHAW E & T, INC., DRAWING NO. 83404-E29