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Project No.: 013-6054

United States Environmental Protection Agency
290 Broadway, 19th Floor
New York, New York 10007-1866

Attn.: Ms. Renee Gelblat

**RE: ADDENDUM TO REMEDIAL INVESTIGATION REPORT
UN-NATURALLY COLORED SOIL INVESTIGATION
LIGHTMAN DRUM COMPANY SITE, WINSLOW TOWNSHIP, NJ**

Dear Ms. Gelblat:

On behalf of the Lightman Yard PRP Group (Group), Golder Associates Inc. (Golder) is pleased to provide this letter report on the investigation of un-naturally colored soil performed at the Lightman Drum Company Superfund Site (Site). An initial sample of un-naturally colored (purple) soil was taken in November 2007 upon its discovery during soil source removal activities and further investigation was performed during January 2008 pursuant to a work scope approved by United States Environmental Protection Agency (USEPA). Results of this work were transmitted to USEPA and discussed during a meeting on February 14, 2008. A follow-up investigation was performed in March to complete the horizontal and vertical delineation of the unnaturally colored soils. This letter report details each of these investigations.

Background

A Soil Source Removal Action was performed by a subset of the Group in the Former Waste Storage Tank Area between October 2007 and March 2008 pursuant to Administrative Settlement Agreement and Order on Consent, Index No. CERCLA-02-2007-2007. During construction work in November 2007, discrete areas of un-naturally colored soils; primarily purple, yellow, green, blue, and red were observed. The un-naturally colored soil was observed to be within several inches of ground surface with the exception of purple soils in and adjacent to the source removal area excavation. Purple soils at this location were found to extend to a depth of approximately 6-feet. A sample of the purple soil (designated SS-10) located adjacent to the source area excavation was taken during the source removal action and was analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL Pesticides and polychlorinated biphenyls (PCBs), and Total Analyte List (TAL) metals.

Results of the analysis of the purple soil indicated that there were no exceedances of any of the New Jersey Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) or Impact to Groundwater Soil Cleanup Criteria (IGWSCC). The laboratory also evaluated sample chromatograms for tentatively identified compounds (TICs). Two semi-volatile organic TICs may account for the purple color: Cinnamyl cinnamate, the TIC with the highest estimated concentration (9.5 ppm) and bis (4-(dimethylamino)phenyl)-methanone, which is otherwise known as Michler's ketone at an estimated concentration of 0.48 mg/kg. Cinnamyl cinnamate is used for the artificial production of indigo (a probable explanation for the color) and is insoluble in water. It is also used as a spicy flavor additive in foods at concentrations of 10-25 ppm. and so

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does not presents an ingestion concern at these concentrations (which exceed those in the soil). Michler's ketone is used in the manufacture of various dyes and pigments (including blues and violets) and it can be present at residual levels in the dyes. It is insoluble in water and at the estimated concentration risks would be expected to be negligible.

Subsequently, the Group agreed to sample the other colors observed in near surface soil as well as to resample the purple soil. The overall objective of this investigation was to analyze each of the different colored soils to further evaluate if they could present a risk to human health or the environment.

January 2008 Investigation

Fieldwork

The scope of work for this phase of investigation was provided to the USEPA by e-mail correspondence on January 9, 2008 and was supplemented on January 12, 2008 to address verbal comments from USEPA. Samples were collected of each different color soil on January 27, 2008, including purple, red, green, blue green, yellow, and reddish orange. Each sample was analyzed for TCL VOCs, SVOCs, pesticides and PCBs, and TAL metals. Sample locations are shown on Figure 1. The samples were collected at depths between 0 and 4-inches. The extent of the un-naturally colored soil was limited to under 4-inches vertically and appeared to also have a limited horizontal extent. Samples were collected using a clean shovel to expose the un-naturally colored soil. VOC samples were promptly collected directly from the exposed colored soil with an EnCore® sampler, as described in Section A.2.7.2.1 of the approved Sampling and Analysis Plan (SAP) for the RI/FS. A decontaminated stainless steel spoon was then used to collect additional soil volume, which was placed in a bowl for compositing prior to filling sample containers for the remaining analytes. Dedicated previously decontaminated stainless steel sample equipment was used for each sample location. The sample equipment was decontaminated prior to field mobilization according to the approved procedures in the RI/FS SAP.

The following quality control samples were also collected in accordance with the RI/FS SAP:

- One Trip Blank;
- One Field Rinsate Blank;
- One Field Duplicate; and
- One Matrix Spike/Matrix Spike Duplicate (MS/MSD) Sample.

Results

Nine primary soil samples (designated SC-11 through SC-19) were analyzed for TCL VOCs, TCL SVOCs, TCL Pesticides and PCBs, and TAL metals. Additionally, soil samples SC-13, SC-14, and SC-16 were analyzed for hexavalent chromium. A summary of the results is provided in Table 1, including comparison with New Jersey NRDCSCC and New Jersey IGWSCC, as applicable. The laboratory also evaluated sample chromatograms for TICs.

No TCL VOCs, TCL SVOCs, or PCBs were detected above the New Jersey criteria, with the exception of diethyl phthalate at 75 mg/kg in sample SC-18, which exceeds the New Jersey IGWSCC (50 mg/kg) but is well below the NRDCSCC (1,000 mg/kg).

The only TCL Pesticides detected above the respective NRDCSCC were heptachlor and 4,4-DDT, also in SC-18. Sample SC-18 was of red impacted soil collected at a depth of 0 to 3-inches. Heptachlor was detected in sample SC-18 at a concentration of 340 mg/kg, which is above the NRDCSCC of 0.65 mg/kg and the IGWSCC of 50 mg/kg. 4,4-DDT was detected at a concentration of 9.9 mg/kg which is above the NRDCSCC of 9 mg/kg, but below the IGWSCC of 500 mg/kg. Additionally, alpha-chlordane and gamma-chlordane were detected in sample SC-18 at 900 mg/kg and 980 mg/kg, respectively; there are no New Jersey published criteria for these compounds.

Arsenic and lead were the only metals detected above the respective NRDCSCC. Arsenic was detected in a red colored sample SC-11 at a concentration of 31.6 mg/kg which is above the NRDCSCC of 20 mg/kg. Lead was detected above the New Jersey NRDCSCC of 600 mg/kg in samples SC-11, SC-13, SC-14, SC-15, SC-16, SC-18, and SC-19 at concentrations ranging between 714 mg/kg and 23,800 mg/kg. The highest concentration of lead was detected in an orange/red colored sample at location SC-16 where the measured concentration was 23,800 mg/kg.

Hexavalent chromium was detected in two of the three samples analyzed at 146 mg/kg (SC-13) and 161 mg/kg (SC-14), which are below the ingestion-based criterion of 6,100 mg/kg but exceed the preliminary inhalation criterion of 20 mg/kg.

A summary of TICs identified by the laboratory is presented in Table 2. The highest levels of TICs are in sample SC-18 and appear to be associated with the pesticide chlordane.

The results of the analyses of the initial soil samples were transmitted to the USEPA on February 13, 2008 and discussed at the February 14, 2008 meeting. Based on review of the results of this investigation, a follow-up investigation was proposed to complete the delineation of colored soil impacts.

March 2008 Investigation

Fieldwork

The scope of the follow up investigation was provided to the USEPA by e-mail correspondence on March 7, 2008 and included delineation of the extent of colored soil throughout the former drum storage and handling areas of the Lightman Yard and the collection of samples at deeper intervals (below the colored zone) at six locations where elevated concentrations of pesticides and metals were found from the initial investigation. Additionally, if new colors were observed other than those previously documented and sampled, then samples were to be collected of the new color and analyzed for TCL organics and TAL metals. Following USEPA approval of the work scope, the follow-up investigation was performed between March 26 and March 28, 2008.

An orthogonal grid was established in the former drum storage and handling areas with a 40-foot spacing as shown on the attached Figure 1. Each grid node was evaluated for the presence of colored soil in the following manner. Initially, a clean shovel was used to carefully excavate up to 6-inches observing for the presence of un-naturally colored soil. If un-naturally colored soil was found at the grid node, the vertical extent was documented, including excavating to at least 12-inches at each location. In areas where un-naturally colored soil was not found, the grid spacing was reduced to 20-feet to provide further assurance that isolated areas were not overlooked. The final delineated extents were recorded by surveying the relevant soil sample locations. No additional colors were found, other than those previously sampled and analyzed.

Soil samples at deeper intervals were collected at six locations corresponding to the initial investigation locations that exhibited elevated concentrations of lead, arsenic, and/or pesticides (SC-11, SC-13, SC-14, SC-16, SC-18, and SC-19). The samples were collected by first excavating with a clean shovel and removing the un-naturally colored soil at each location. A decontaminated stainless steel spoon was used to collect additional soil volume below the colored zone, which was placed in a bowl for compositing prior to filling sample containers. Dedicated stainless steel sample equipment was used for each sample location. Quality control samples included the collection of one duplicate, one field rinse blank, and one matrix spike/matrix spike duplicate in accordance with the RI/FS SAP.

Results

Figure 1 shows the sampling grid and sample locations where un-naturally colored soil was found. The conditions at each grid node are described in Table 3 and summarized below:

- Un-naturally colored soil was found at 27 of 283 grid nodes evaluated;
- Eight (8) of the 27 nodes with indications of colors were limited to trace amounts of un-naturally colored material as noted on Table 1;
- A majority of grid nodes with color impacts are located in the western portion of the investigation area near the previously identified locations, with only a few outliers;
- No new colors were found beyond those identified in the initial investigation;
- Color impacts were all observed to be between 0 and 4 inches below ground surface, excepting one location with color impacts between 0 and 5 inches and one with color impacts between 0 and 6 inches;
- Colored soil was observed at four additional locations between evaluation grid nodes as shown on Figure 1; and,
- In the southern portion of the impacted area colored soil is present up to the fence line. Beyond the property line, the adjacent area was re-graded as part of the recent development and was lowered by approximately 1-foot.

Six soil samples (designated SC-11A, SC-13A, SC-14A, SC-16A, SC-18A, and SC-19A) were collected at depths of between 4 and 8-inches below ground and analyzed for TCL pesticides and TAL metals. Each of these locations corresponded to a previous shallower colored soil sample that contained metals and/or pesticides. Results of the analyses indicate that no TCL pesticides or TAL metals were detected in any of the deeper samples above the New Jersey screening criteria.

Quality Control and Data Validation

All work in both investigation phases was conducted in accordance with sample collection procedures, holding times, quality assurance/quality control samples, sample shipping, and other requirements as specified in the approved SAP included as part of the Remedial Investigation/Feasibility Study Work Plan (July 2002). Soil samples were analyzed by the approved laboratory for TCL/TAL analytes in accordance with the USEPA CLP SOWs, OLM04.3 and ILM05.4 and TIC data was evaluated.

The laboratory produced Contract Laboratory Program (CLP)-type data packages that contained all information needed for formal validation of the data. Data validation was performed in accordance with Region II Standard Operating Procedure (SOP) No. HW-6, Revision 12 – CLP Organics Data Review (March 2001) and Region II SOP No. HW-2, Revision 11 – Evaluation of

Inorganic Data for the Contract Laboratory Program (January 1992) and included evaluation of specific quality control criteria for holding times, calibration, blank results, spike results, surrogates, and field duplicates.

Data validation narratives are provided in Attachment A. The complete set of analytical data is included in Attachment B.

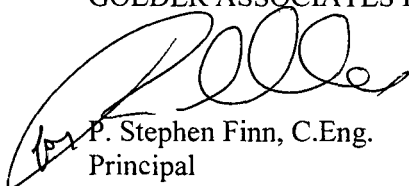
Conclusions

Unnaturally colored surface soils are present in portions of the former drum storage and handling areas of the Lightman Yard. Lead is the primary contaminant of concern, which exceeded New Jersey screening criteria in seven of nine samples. Arsenic and pesticides were each present in one sample above screening criteria and hexavalent chromium detected in two samples above the preliminary inhalation criteria. The horizontal extent of impacted areas has been delineated, as shown in Figure 1, and encompasses approximately 2,250 square yards (less than 0.5 acre). Vertical delineation sampling confirms that impacts do not extend below the visually identifiable colored zone, which does not extend below 6-inches, and generally does not extend below 4-inches from the ground surface. Based on the horizontal and vertical delineation, approximately 250 cubic yards of soil is impacted. Purple soils present in the vicinity of the former Waste Storage Tanks did not exceed New Jersey screening criteria, and were partially removed as part of the recent soil source removal project. Remaining purple soils do not exceed New Jersey screening criteria and based on evaluation of TICs are not expected to pose any risk to human health or the environment.

If any questions arise during your review of this report, please contact us at (856) 793-2005.

Very truly yours,

GOLDER ASSOCIATES INC.



P. Stephen Finn, C.Eng.
Principal

JPR/RJI/PSF/bjb
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Attachments

- Table 1 – Summary of Analytical Results – Detections Only
- Table 2 – Tentatively Identified Compounds
- Table 3 – Grid Evaluation Log
- Figure 1 – Un-Naturally Colored Soil Delineation
- Attachment A – Data Validation Narrative
- Attachment B – Analytical Data
- Attachment C – Survey Data

TABLE 1
Lightman Drum Colored Soil Sampling
Summary of Detect Soil Results

Sample ID: Sample Depth: Color: Sample Date:		SS-10 Purple 11/06/2007			SC-11 0 - 3" Red 01/17/2008			SC-11A 3" - 6" NA 03/26/2008			SC-12 0 - 4" Green 01/17/2008			SC-13 0 - 4" Blue/Green 01/17/2008			SC-13A 4" - 8" NA 03/26/2008			SC-13A (Dup) 4" - 8" NA 03/26/2008			SC-14 1 - 4" Yellow 01/17/2008			SC-14A 4" - 8" NA 03/26/2008							
Parameter	NJ NRDESCC	NJ IGWSSC	Unit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit			
Volatile Organic Compounds																																	
Acetone	1000	100	mg/kg	0.009	J	0.01																											
Trichloroethene	54	1	mg/kg	0.017		0.01																											
Tetrachloroethene	6	1	mg/kg	0.16		0.01																											
Xylenes, Total	1000	67	mg/kg	0.004	J	0.01																											
1,2,4-Trichlorobenzene	1200	100	mg/kg	0.003	J	0.01																											
Semivolatile Organic Compounds																																	
Dimethyl Phthalate	10000	50	mg/kg													1.4	J	1.9															
Diethyl Phthalate	10000	50	mg/kg										0.92		0.73	0.75	J	1.9															
Di-n-Butyl Phthalate	10000	100	mg/kg				4.3		3.2				1.9		0.73	2.6		1.9										20		4.4			
Butylbenzyl Phthalate	10000	100	mg/kg				1.5	J	3.2				0.89		0.73	3.7		1.9															
Bis(2-ethylhexyl) Phthalate	210	100	mg/kg	0.16	J	0.35	19		3.2				3.6		0.73	9.7		1.9										29		4.4			
Di-n-octyl Phthalate	10000	100	mg/kg													1.4	J	1.9															
Pesticides																																	
beta-BHC	NS	NS	mg/kg	0.0033	J	0.0018													0.0068	J	0.0018	0.00054	J	0.0018				0.0038	J	0.0019			
Heptachlor	0.65	50	mg/kg				0.23	J	0.041				0.0032		0.0019	0.003	JN	0.0019															
Aldrin	0.17	50	mg/kg										0.0019		JN	0.0019																	
Heptachlor Epoxide	NS	NS	mg/kg				0.025	J	0.0041							0.0043	J	0.002											0.0037	J	0.0019		
alpha-Endosulfan	NS	NS	mg/kg													0.0078		0.002											0.0023	J	0.0019		
Dieldrin	0.18	50	mg/kg				0.024	JN	0.008				0.016		0.0036	0.02	JN	0.0038											0.0072	JN	0.0036		
4,4-DDD	9	50	mg/kg				0.012		0.008				0.0043		0.0036							0.0015	J	0.0035	0.0012	J	0.0035	0.002	J	0.0036	0.0015	J	0.0036
Endrin	310	50	mg/kg				0.017	JN	0.008				0.12		0.0037	0.013	J	0.0036											0.004		0.0036		
beta-Endosulfan	NS	NS	mg/kg	0.0047		0.0035							0.0053	JN	0.0037																		
4,4-DDD	12	50	mg/kg													0.0067		0.0036															
Endosulfan Sulfate	NS	NS	mg/kg													0.01	J	0.0038															
4,4-DDT	9	500	mg/kg				0.042	JN	0.008				0.32		0.0037	0.026	J	0.0036	0.014	J	0.0038	0.0013	JN	0.0035	0.0012	JN	0.0035	0.0065	0.0036	0.0027	J	0.0036	
Methoxychlor	5200	50	mg/kg										0.047	J	0.019																		
Endrin Ketone	NS	NS	mg/kg				0.012	J	0.008				0.0036	J	0.0036	0.0094	JN	0.0038															
Endrin Aldehyde	NS	NS	mg/kg				0.093		0.008				0.63	JN	0.0037	0.03	J	0.0036															
alpha-Chlordane	NS	NS	mg/kg	0.021		0.0018	0.12		0.041				0.0019		0.038	0.0093	0.058	0.0098	0.0044	J	0.0018	0.0034		0.0018	0.043	J	0.0093			0.0019	0.0018		
gamma-Chlordane	NS	NS	mg/kg	0.024		0.0018	0.46		0.041				0.0019		0.049	0.0093	0.069	0.0098	0.0051	J	0.0018	0.0047		0.0018	0.051		0.0093			0.0019	0.0018		
Polychlorinated Biphenyls																																	
Aroclor 1254	2	50	mg/kg	0.19	J	0.035																											
Metals																																	
Aluminum	NS	NS	mg/kg	7450		43.1	5800		48.5		3240		22.2		6100	44.1	5900		44.4		2970		21.2		2990		21.3		7110		44.1		
Antimony	340	NS	mg/kg	0.99	J	12.9	5.5	J	14.5				1.4	J	13.2	17.1		13.3	0.94	J	6.4	0.77	J	6.4	1.2	J	13.2						
Arsenic	20	NS	mg/kg	3.9		2.2	31.6		2.4		1.2	J	1.1		2.4	2.2													1.2	J	1.1		
Barium	47000	NS	mg/kg	24.5	J	43.1	241		48.5		10.9	J	22.2		86.6	44.1	119		44.4		16.8	J	21.2	14.6	J	21.3			15.8	J	21.2		
Beryllium	2	NS	mg/kg	0.14	J	1.1					0.063	J	0.56									0.052	J	0.53	0.1	J	0.53			0.077	J	0.53	
Cadmium	100	NS	mg/kg				19.7		1.2				0.78	J	1.1	1.2		1.1										0.48	J	1.1			
Calcium	NS	NS	mg/kg	121	J	1080					77.4	J	556									65.6	J	529	58.5	J	532			57.6	J	531	
Chromium	NS	NS	mg/kg	12	J	2.2	517		2.4		8.7	J	1.1		539		2.2	2020		2.2		550	J	1.1	563	J	1.1	1450		2.2	21.6	J	1.1
Chromium, hexavalent	6100; 20*	NS	mg/kg				NS									146		4.57											161		4.1		
Cobalt	NS	NS	mg/kg	0.54	J	10.8	8.6	J	12.1				1.1	J	11	2.2	J	11.1										1.5	J	11			
Copper	600	NS	mg/kg	6		5.4	246		6.1		9.3		2.8		230	5.5	252		5.6		10.2		2.6	12.6		2.7	140		5.5	11		2.7	
Iron	NS	NS	mg/kg	8360		21.6	104000		24.2		4100		11.1		13100	22.1	17300		22.2		4130		10.6	4970		10.6	10400		22	4020		10.6	
Lead	600	NS	mg/kg	17.5		0.65	2060		0.73		36.7		1.1		336	0.66	1090		0.67		24.6		1.1	26.7		1.1	5460		0.66	244		1.1	
Magnesium	NS	NS	mg/kg	395	J	1080					89.7	J	556									120	J	529	120	J	529			154	J	531	
Manganese	NS	NS	mg/kg	23.6		3.2	458		3.6		5.1		1.7		21.4	3.3	39.9		3.3		7.3		1.6	6.8		1.6	16.3		3.3	11.2		1.6	
Mercury	270	NS	mg/kg				2.6		0.12				0.75		0.1	2		0.11											0.13		0.11		
Nickel	2400	NS	mg/kg	3.5	J	8.6	86.2	J	9.7		1.6	J	4.4		19.1	8.8	75.2	J	8.9		2.8	J	4.2	2.3	J	4.2		8.5	J	8.8	1.6	J	4.2
Potassium	NS	NS	mg/kg	145	J	1080					54.2	J	556									83.9	J	529	80.9	J	532			46.6	J	531	
Selenium	3100	NS	mg/kg								0.33	J	3.9									0.39	J	3.7	0.54	J	3.7			0.38	J	3.7	
Silver	4100	NS	mg/kg				3.2		2.4				0.47	J	2.2	0.8	J	2.2										0.41	J	2.2			
Sodium	NS	NS	mg/kg	79.3	J	1080																											
Vanadium	7100	NS	mg/kg	15		10.8	13.1		12.1		9.6		5.6		19.7	11	17.6		11.1		9.7		5.3	10.9		5.3	42.9		11	7.2		5.3	
Zinc	1500	NS	mg/kg	20.7		4.3	549		4.8		8.5		6.7		55.8	4.4	117		4.4		10.9		6.4	14		6.4	30.9		4.4	6.5		6.4	
Cyanide	21000	NS	mg/kg	0.24	J	0.53	6.1		0.61						1.9	0.55	2.8		0.57									1.6		0.55			

Notes:
* 6100 mg/kg Cr^{VI} is the ingestion exposure pathway,
with 20 mg/kg being the preliminary inhalation exposure pathway.
NJ NRDSCC = NJ Nonresidential Direct Contact Soil Cleanup Criteria
NJ IGWSSC = NJ Impact to Groundwater Soil Cleanup Criteria
Site specific NJ IGWSSC for metals not available
Bold = Greater than the NRDSCC
Grey shaded = Greater than the IGWSSC

Definitions:
J = Estimated Concentration
JN = Tentatively Identified, Estimated Concentration
NST = No Sample Taken
NS = No Standard
NA = Not Applicable
Blank = Analyzed but not detected

TABLE 1
Lightman Drum Colored Soil Sampling
Summary of Detected Soil Results

Sample ID: Sample Depth: Color:			SC-15 1' - 4'	SC-15 (NAP) 1' - 4'			SC-16 0' - 3'	SC-16A 3' - 4'			SC-17 0' - 4'	SC-18 0' - 3'	SC-18A 3' - 6'			SC-19 0' - 3'	SC-19A 3' - 6'														
Sample Date:			01/17/2008	01/17/2008			01/17/2008	01/17/2008			01/17/2008	01/17/2008	03/26/2008			01/17/2008	03/26/2008														
Parameter	NI NRDSCC	NI IGWSSC	Unit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit	Result	Qualifier	Reporting Limit										
Volatile Organic Compounds																															
Acetone	1000	100	mg/kg																												
Trichloroethene	54	1	mg/kg																												
Tetrachloroethene	6	1	mg/kg																												
Xylenes, Total	1000	67	mg/kg									0.004	J	0.012																	
1,2,4-Trichlorobenzene	1200	100	mg/kg																												
Semivolatile Organic Compounds																															
Dimethyl Phthalate	10000	50	mg/kg																												
Diethyl Phthalate	10000	50	mg/kg	3.3	J	11	5.3		1.8	0.66	J	0.74							0.87	J	1.8										
Di-n-Butyl Phthalate	10000	100	mg/kg	57	J	11	6.9	J	1.8	1.9		0.74				42		11			4.9	1.8									
Butylbenzyl Phthalate	10000	100	mg/kg							0.71	J	0.74									0.52	J	1.8								
Bis(2-ethylhexyl) Phthalate	210	100	mg/kg	5.2	J	11	9.3	J	1.8	3.4		0.74									12	1.8									
Di-n-octyl Phthalate	10000	100	mg/kg																												
Pesticides																															
beta-BHC	NS	NS	mg/kg																												
Heptachlor	0.65	50	mg/kg	0.027		0.0037	0.023		0.0037	0.046		0.0096				340		98	0.11		0.018	0.047	0.0094	0.00083	J	0.0018					
Aldrin	0.17	50	mg/kg										0.001	J	0.0019				0.0096	JN	0.018										
Heptachlor Epoxide	NS	NS	mg/kg										0.004		0.0019	26	JN	9.8	0.086	J	0.018										
alpha-Endosulfan	NS	NS	mg/kg	0.0097	J	0.0037	0.0054	J	0.0037	0.019		0.0096							0.077		0.018	0.012	0.0094	0.00042	J	0.0018					
Dieldrin	0.18	50	mg/kg	0.025	JN	0.0073	0.025	JN	0.0072	0.038	JN	0.019	0.0024	J	0.0035	0.012	J	0.0037	0.13		0.035	0.034	J	0.018	0.00088	J	0.0035				
4,4-DDE	9	50	mg/kg	0.016	J	0.0073	0.0088	JN	0.0072	0.033		0.019	0.0027	J	0.0035	0.0051	J	0.0037	0.051	JN	0.035	0.025	J	0.018	0.0039		0.0035				
Endrin	310	50	mg/kg																												
beta-Endosulfan	NS	NS	mg/kg	0.01	JN	0.0073				0.016	J	0.019						19	J	19	0.079		0.035								
4,4-DDD	12	50	mg/kg																												
Endosulfan Sulfate	NS	NS	mg/kg				0.004	J	0.0072	0.0083	J	0.019										0.01	J	0.018							
4,4-DDT	9	500	mg/kg	0.016	JN	0.0073	0.013	J	0.0072	0.03	J	0.019	0.0027	J	0.0035	0.0049	JN	0.0037	9.9	J	19	0.039	J	0.035	0.022	J	0.018	0.0042		0.0035	
Methoxychlor	5200	50	mg/kg	0.023	J	0.037				0.0099		0.0072										0.042	J	0.18							
Endrin Ketone	NS	NS	mg/kg																												
Endrin Aldehyde	NS	NS	mg/kg	0.013	J	0.0073																0.013	J	0.018							
alpha-Chlordane	NS	NS	mg/kg	0.44		0.037	0.44		0.037	0.62		0.096	0.0059		0.0018	0.019		0.0019	900		98	1.5		0.018	0.66	0.094	0.0078		0.0018		
gamma-Chlordane	NS	NS	mg/kg	0.52		0.037	0.51		0.037	0.69		0.096	0.0075		0.0018	0.024		0.0019	980		98	1.5		0.018	0.76	0.094	0.011		0.0018		
Polychlorinated Biphenyls																															
Aroclor 1254	2	50	mg/kg																												
Metals																															
Aluminum	NS	NS	mg/kg	7480		42.5	7280		42.8	5300		43.1	3320		21.3	3130		44.4	7550		45.7	2320		21.5	5910		44.5	2920		21.2	
Antimony	340	NS	mg/kg				0.94	J	12.8	6.7	J	12.9																			
Arsenic	20	NS	mg/kg	1.8	J	2.1	1.8	J	2.1				1.1	J	1.1	1.3	J	2.2	8.1		2.3	1.5	J	1.1	11		2.2	1.3	J	1.1	
Barium	47000	NS	mg/kg	763		42.5	717		42.8	116		43.1	17.6	J	21.3				1940		45.7	32.6	J	21.5	172		44.5	14.9	J	21.2	
Beryllium	2	NS	mg/kg										0.09	J	0.53						0.058	J	0.54				0.052	J	0.53		
Cadmium	100	NS	mg/kg	2.8		1.1	3.3		1.1	10.3		1.1	4.6		0.53	0.46	J	1.1	2.5		1.1	0.12	J	0.54	1.4		1.1	0.21	J	0.53	
Calcium	NS	NS	mg/kg							1340	J	1080	155	J	531						233	J	536			68.8	J	529			
Chromium	NS	NS	mg/kg	499		2.1	511		2.1	5240		6.6	14.3	J	1.1	17.1	J	2.2	267		2.3	6.8	J	1.1	201		2.2	7	J	1.1	
Chromium, hexavalent	5100; 20*	NS	mg/kg																												
Cobalt	NS	NS	mg/kg	1.3	J	10.6	1.5	J	10.7	1.6	J	10.8				0.56	J	11.1	1.4	J	11.4						1	J	11.1		
Copper	600	NS	mg/kg	173		5.3	183		5.3	118		5.4	13.7		2.7	4.9	J	5.6	112		5.7	5.5		2.7	121		5.6	12.3		2.6	
Iron	NS	NS	mg/kg	16100		21.3	14100		21.4	13200		21.6	3340		10.6	4470		22.2	21700		22.9	2630		10.7	11900		22.3	3390		10.6	
Lead	600	NS	mg/kg	1630		0.64	1740		0.64	23800		2	38.8		1.1	64.1		0.67	850		0.69	9.3	J	1.1	714		0.67	11.3		1.1	
Magnesium	NS	NS	mg/kg										134	J	531						79.7	J	536			1.6	22.7	3.3	61	J	529
Manganese	NS	NS	mg/kg	27.9		3.2	25.4		3.2	183		3.2	15.8		1.6	16.8		3.3	48.5		3.4	11.8		1.6						1.6	
Mercury	270	NS	mg/kg	0.32		0.11	0.35		0.11	0.52		0.11	0.13		0.11			0.095	J	0.11				0.31		0.11					
Nickel	2400	NS	mg/kg	19.5	J	8.5	22	J	8.6	34.1	J	8.6	5.9		4.3	3.1	J	8.9	35.1	J	9.1	2.5	J	4.3	20.4	J	8.9	5.3		4.2	
Potassium	NS	NS	mg/kg										60.3	J	531						38	J	536					47.8	J	529	
Selenium	3100	NS	mg/kg																												
Silver	4100	NS	mg/kg	0.94	J	2.1	0.87	J	2.1	1	J	2.2													0.59	J	2.2			3.7	
Sodium	NS	NS	mg/kg																												
Vanadium	7100	NS	mg/kg	23.7		10.6	22.5		10.7	19		10.8	6.3		5.3	6.6	J	11.1	24.8		11.4	5.2	J	5.4	20.8		11.1	8.9		5.3	
Zinc	1500	NS	mg/kg	72.6		4.3	79.2		4.3	608		4.3	24.6		6.4	17.7	J	4.4	70.9		4.6	8		6.4	84.9		4.5	13.2		6.3	
Cyanide	21000	NS	mg/kg	4.6		0.55	3		0.55	4.1		0.56															2.3		0.56		

Notes:
* 5100 mg/kg Cr⁶⁺ is the ingestion exposure pathway,
with 20 mg/kg being the preliminary inhalation exposure pathway. JN = Tentatively Identified, Estimated Concentration
NI NRDSCC = NI Nonresidential Direct Contact Soil Cleanup Criteria NST = No Sample Taken
NI IGWSSC = NI Impact to Groundwater Soil Cleanup Criteria NS = No Standard
Site specific NI IGWSSC for metals not available NA = Not Applicable
Bold = Greater than the NRDSCC Blank = Analyzed but not detected
Grey shaded = Greater than the IGWSSC

Definitions:
J = Estimated Concentration
JN = Tentatively Identified, Estimated Concentration
NST = No Sample Taken
NS = No Standard
NA = Not Applicable
Blank = Analyzed but not detected

Table 2
Lightman Drum Colored Soil Samples
Summary of Tentatively Identified Compounds (TICs)

Sample	CAS #	Chemical Name	Estimated Concentration	Qualifier	Units	Retention Time
SS-10	7785-70-8	(1R)-2,6,6-Trimethylbicyclo[3.1.1]hept-2	0.01	NJ	mg/Kg	13.92
SS-10		Laboratory Artifact	0.006	J	mg/Kg	15.4
SS-10		Benzene, 1,2,4,5-tetrachloro-	0.89	NJ	mg/Kg	14.95
SS-10	55880-77-8	1,3-Butadiene, pentachloro-	0.005	NJ	mg/Kg	16.49
SS-10	87-44-5	Caryophyllene	1	NJ	mg/Kg	16.78
SS-10		Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-	0.43	NJ	mg/Kg	18.79
SS-10	3856-25-5	Copaene	0.48	NJ	mg/Kg	20.77
SS-10	122-69-0	Cinnamyl cinnamate	9.5	NJ	mg/Kg	28.2
SS-10		Phosphoric acid, tris(3-methylphenyl) ester	0.72	NJ	mg/Kg	29.74
SS-10		Phosphoric acid, tris(3-methylphenyl) ester	0.57	NJ	mg/Kg	29.94
SS-10	25419-33-4	Naphthalene, 1,2,3,4-tetrahydro-1,8-dime	1.1	NJ	mg/Kg	30.78
SS-10	90-94-8	Methanone, bis[4-(dimethylamino)phenyl]-	0.48	NJ	mg/Kg	31.43
SS-10	4175-54-6	Naphthalene, 1,2,3,4-tetrahydro-1,4-dime	0.56	NJ	mg/Kg	31.56
SC-12		Laboratory Artifact	0.009	J	mg/Kg	13.85
SC-12		Laboratory Artifact	0.013	J	mg/Kg	15.41
SC-12		Laboratory Artifact	0.006	J	mg/Kg	17.29
SC-12	146-50-9	1,2-Benzenedicarboxylic acid, bis(4-meth	0.49	NJ	mg/Kg	25.29
SC-12		Unknown Carboxylic Acid	0.88	J	mg/Kg	25.52
SC-12		Unknown Carboxylic Acid	0.36	J	mg/Kg	25.81
SC-12		1,2-Benzenedicarboxylic acid, bis(4-meth	1.9	NJ	mg/Kg	25.98
SC-13		Laboratory Artifact	0.006	J	mg/Kg	13.85
SC-13	629-73-2	1-Hexadecene	1.5	NJ	mg/Kg	21.94
SC-13		E-15-Heptadecenal	1.8	NJ	mg/Kg	23.94
SC-13		Unknown Carboxylic Acid	0.48	J	mg/Kg	27.59
SC-13		Unknown Carboxylic Acid	0.86	J	mg/Kg	30.50
SC-13		Unknown Carboxylic Acid	1.2	J	mg/Kg	32.50
SC-14	3622-84-2	Benzenesulfonamide, N-butyl-	1.3	NJ	mg/Kg	22.55
SC-14	115-86-6	Triphenyl phosphate	0.96	NJ	mg/Kg	26.78
SC-15		Laboratory Artifact	0.005	J	mg/Kg	15.41
SC-15DUP		Laboratory Artifact	0.006	J	mg/Kg	15.41
SC-15DUP		1,2-Benzenedicarboxylic acid	0.88	NJ	mg/Kg	21.92
SC-16		Unknown Carboxylic Acid	0.19	J	mg/Kg	21.91
SC-16	92-94-4	P-Terphenyl	0.24	NJ	mg/Kg	24.82
SC-16	92-06-8	M-Terphenyl	0.2	NJ	mg/Kg	25.18
SC-16	124-26-5	Octadecanamide	0.65	NJ	mg/Kg	26.50
SC-16	115-86-6	Triphenyl phosphate	0.47	NJ	mg/Kg	26.78
SC-16		Cresyl Diphenylphosphate	0.27	NJ	mg/Kg	27.39
SC-16		Unknown Alkane	0.44	J	mg/Kg	30.47

Lightman Drum Colored Soil Samples
Summary of Tentatively Identified Compounds (TICs)

Sample	CAS #	Chemical Name	Estimated Concentration	Qualifier	Units	Retention Time
SC-17		Benzene, 3,5-dimethyl-1-(phenylmethyl)-	0.21	NJ	mg/Kg	18.93
SC-17		Unknown Alkyl Substituted Biphenyl	0.21	J	mg/Kg	21.43
SC-17		Unknown Alkyl Substituted Biphenyl	0.4	J	mg/Kg	21.83
SC-17		Unknown Alkyl Substituted Biphenyl	0.59	J	mg/Kg	22.36
SC-17		Unknown Alkyl Substituted Biphenyl	0.33	J	mg/Kg	22.74
SC-17	80-05-7	Phenol, 4,4'-(1-methylethylidene)bis-	1.6	NJ	mg/Kg	25.00
SC-17	115-86-6	Triphenyl phosphate	0.36	NJ	mg/Kg	26.77
SC-17	26444-49-5	Cresyl Diphenylphosphate	0.27	NJ	mg/Kg	27.37
SC-17	1330-78-5	Phosphoric acid, tris(methylphenyl) este	0.2	NJ	mg/Kg	28.47
SC-17	563-04-2	Phosphoric acid, tris(3-methylphenyl) es	0.25	NJ	mg/Kg	28.69
SC-17	78-30-8	Phosphoric acid, tris(2-methylphenyl) es	0.38	NJ	mg/Kg	28.90
SC-17	25419-33-4	Naphthalene, 1,2,3,4-tetrahydro-1,8-dime	0.29	NJ	mg/Kg	29.61
SC-17	90-94-8	Methanone, bis[4-(dimethylamino)phenyl]-	0.96	NJ	mg/Kg	30.30
SC-17	21564-91-0	Naphthalene, 1,2,3,4-tetrahydro-1,5-dime	0.38	NJ	mg/Kg	31.05
SC-17	14021-23-9	D-Friedoolean-14-ene, 3-methoxy-, (3.bet	0.49	NJ	mg/Kg	34.70
SC-17	83-47-6	.gamma.-Sitosterol	0.21	NJ	mg/Kg	35.76
SC-18		Laboratory Artifact	0.025	J	mg/Kg	15.4
SC-18	76-44-8	Heptachlor	93	NJ	mg/Kg	22.51
SC-18	56534-02-2	Unknown Chlordene Isomer	13	J	mg/Kg	22.63
SC-18	56641-38-4	Unknown Chlordene Isomer	81	J	mg/Kg	23.27
SC-18		Unknown Chlordene Isomer	64	J	mg/Kg	23.32
SC-18		Unknown Chlordene Isomer	12	J	mg/Kg	24.07
SC-18	57-74-9	Chlordane	230	NJ	mg/Kg	24.53
SC-18	57-74-9	Chlordane	230	NJ	mg/Kg	24.81
SC-18	5103-73-1	Cis-Nonachlor	130	NJ	mg/Kg	24.88
SC-18	5103-71-9	cis-Chlordane	40	NJ	mg/Kg	25.44
SC-18		4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8	39	NJ	mg/Kg	26.01
SC-19		Laboratory Artifact	0.006	J	mg/Kg	17.30
SC-19		Phenol, 4,4'-(1-methylethylidene)bis-	0.99	NJ	mg/Kg	24.02
SC-19	92-94-4	P-Terphenyl	1.7	NJ	mg/Kg	25.18
SC-19		Unknown Carboxylic Acid	1	J	mg/Kg	30.60

Notes:

All identifications are tentative and should only be used as suggestions to focus future analytical work
Estimated concentrations based on a response factor of 1. Actual response factors range from 0.001 to 5.

J = Estimated concentration

N = Indicates presumptive evidence of a compound.

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
"Y"		"X"			
A		2		NO UN-NATURAL COLOR	
A	+20	2		NO UN-NATURAL COLOR	
A		2	+20	NO UN-NATURAL COLOR	
A	+20	2	+20	NO UN-NATURAL COLOR	
A		3		0 - 1" Dark brown topsoil w/ red stained sand in matrix 1" - 6" Tan sand & gravel - No Un-natural Color	6" - 7" Tan sand & gravel - No Un-natural Color 7" - 12" Dark brown silt and sand - No Un-natural Color
A	+20	3		0 - 2" Dark brown sand and gravel with trace red staining 2" - 6" Dark brown silt and sand - No Un-natural Color	6" - 12" Light brown silt and sand - No Un-natural Color
A		3	+20	NO UN-NATURAL COLOR	
A	+20	3	+20	0 - 3" Dark Brown sand and gravel with red & green staining 3" - 6" orange/tan sand and gravel - No Un-natural Color	6" - 7" orange/tan sand and gravel - No Un-natural Color 7" - 12" Light brown silt and sand - No Un-natural Color
A		4		NO UN-NATURAL COLOR	
A	+20	4		NO UN-NATURAL COLOR	
A		4	+20	NO UN-NATURAL COLOR	
A	+20	4	+20	0 - 4" Dark brown sand and gravel w/ red & green staining 4" - 6" Orange/tan sand and gravel - No Un-natural Color	6" - 8" Orange/tan sand and gravel - No Un-natural Color 8" - 12" Orange/tan sand and gravel - No Un-natural Color
A		5		0 - 2" Brown silt sand and gravel with green staining 2" - 6" Dark brown silt and sand - No Un-natural Color	6" - 12" Brown silt and sand - No Un-natural Color
A	+20	5		NA	
A		5	+20	0 - 2" Dark Brown sand and gravel with green staining 2" - 4" Tan sand and gravel - No Un-natural Color 4" - 6" Light brown silt and sand - No Un-natural Color	6" - 12" Light brown silt and sand - No Un-natural Color
A	+20	5	+20	NA	
A		6		0 - 3" Dark brown silt and sand w/ green staining 3" - 6" Tan silt and sand - No Un-natural Color	6" - 12" Tan silt and sand - No Un-natural Color
A	+20	6		NA	
A		6	+20	NO UN-NATURAL COLOR	
A	+20	6	+20	0 - 4" Dark brown sand and gravel w/ traces of red/green/yellow staining 4" - 6" Orange/tan sand and gravel - No Un-natural Color	6" - 12" Orange/tan sand and gravel - No Un-natural Color

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
A		7		NO UN-NATURAL COLOR	
A	+20	7		NO UN-NATURAL COLOR	
A		7	+20	0 - 3" Dark brown silt, sand, gravel w/ blue-green staining and traces of red 3" - 6" Tan silt and sand - No Un-natural color	6" - 12" Tan silt and sand - No Un-natural Color
A	+20	7	+20	NO UN-NATURAL COLOR	
A		8		NO UN-NATURAL COLOR	
A	+20	8		0 - 3" Dark brown sand and gravel w/ green staining 3" - 6" Dark brown sand and gravel - No Un-natural Color	6" - 7" Dark brown sand and gravel - No unnatural color 7" - 12" Orange/tan sand and gravel - No Un-natural Color
A		8	+20	NO UN-NATURAL COLOR	
A	+20	8	+20	NO UN-NATURAL COLOR	
A		9		NO UN-NATURAL COLOR	
A	+20	9		NO UN-NATURAL COLOR	
A		9	+20	NO UN-NATURAL COLOR	
A	+20	9	+20	0 - 2" Dark brown sand and gravel w/ yellow staining 2" - 6" Brown sand and gravel - No Un-natural Color	6" - 12" Brown sand and gravel - No Un-natural Color
A		10		NO UN-NATURAL COLOR	
A	+20	10		NO UN-NATURAL COLOR	
A		10	+20	NO UN-NATURAL COLOR	
A	+20	10	+20	NO UN-NATURAL COLOR	
A		11		NO UN-NATURAL COLOR	
A	+20	11		NO UN-NATURAL COLOR	
A		11	+20	NO UN-NATURAL COLOR	
A	+20	11	+20	NO UN-NATURAL COLOR	
A		12		NO UN-NATURAL COLOR	
A	+20	12		NO UN-NATURAL COLOR	
A		12	+20	NO UN-NATURAL COLOR	

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Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

013-6054

GRID NODE (I)				0 - 0.5'	0.5 - 1.0'
A	+20	12	+20	NO UN-NATURAL COLOR	
A		13		NO UN-NATURAL COLOR	
A	+20	13		NO UN-NATURAL COLOR	
A		13	+20	NO UN-NATURAL COLOR	
A	+20	13	+20	NO UN-NATURAL COLOR	
A		14		NO UN-NATURAL COLOR	
A	+20	14		NO UN-NATURAL COLOR	
A		14	+20	NO UN-NATURAL COLOR	
A	+20	14	+20	NO UN-NATURAL COLOR	
A		15		NO UN-NATURAL COLOR	
A	+20	15		NO UN-NATURAL COLOR	
A		15	+20	NO UN-NATURAL COLOR	
A	+20	15	+20	NO UN-NATURAL COLOR	
A		16		NO UN-NATURAL COLOR	
A	+20	16		NO UN-NATURAL COLOR	
A		16	+20	NO UN-NATURAL COLOR	
A	+20	16	+20	Gravel access road - not evaluated	
A		17		NO UN-NATURAL COLOR	
A	+20	17		Gravel access road - not evaluated	
A		17	+20	NO UN-NATURAL COLOR	
A	+20	17	+20	Gravel access road - not evaluated	
A		18		NO UN-NATURAL COLOR	
A	+20	18		Gravel access road - not evaluated	
A		18	+20	NO UN-NATURAL COLOR	
A	+20	18	+20	Gravel access road - not evaluated	

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
B		1		Woods	
B	+20	1		Woods	
B		1	+20	NO UN-NATURAL COLOR	
B	+20	1	+20	NO UN-NATURAL COLOR	
B		2		NO UN-NATURAL COLOR	
B	+20	2		0 - 2" Dark brown silt and sand w/ purple and green staining 2" - 6" Tan sand and gravel - No Un-natural Color	6" - 12" Tan sand and gravel - No Un-natural Color
B		2	+20	NO UN-NATURAL COLOR	
B	+20	2	+20	NO UN-NATURAL COLOR	
B		3		NO UN-NATURAL COLOR	
B	+20	3		NO UN-NATURAL COLOR	
B		3	+20	0 - 2" Dark brown sand and gravel w/ traces of red-orange staining 2" - 3" Orange/tan sand and gravel - No Un-natural Color 3" - 6" Light brown silt and sand - No Un-natural Color	6" - 12" Light brown silt and sand - No Un-natural Color
B	+20	3	+20	NO UN-NATURAL COLOR	
B		4		0 - 2" Dark brown sand and gravel w/ red staining 2" - 4" Light brown sand and gravel - No Un-natural Color 4" - 6" Light brown silt and sand - No Un-natural Color	6" - 12" Light brown silt and sand - No Un-natural Color
B	+20	4		NO UN-NATURAL COLOR	
B		4	+20	0 - 2" Crushed gravel - No Un-natural Color 2" - 4" Dark brown sand and gravel w/ yellow, red, green staining 4" - 6" Orange/tan sand and gravel - No Un-natural Color	6" - 12" Dark brown silt and sand - No Un-natural Color
B	+20	4	+20	0 - 2" Dark brown silt, sand, gravel w/ green and yellow staining 2" - 4" Orange/tan sand and gravel - No Un-natural Color 4" - 6" Tan silt and sand - No Un-natural Color	6" - 12" Tan silt and sand - No Un-natural Color
B		5		0 - 5" Dark brown sand and gravel w/ yellow, red, blue, green, light red staining 5" - 7" Orange/tan sand and gravel - No Un-natural Color	7" - 12" Dark brown silt and sand - No Un-natural Color
B	+20	5		NO UN-NATURAL COLOR	
B		5	+20	NA	
B	+20	5	+20	NO UN-NATURAL COLOR	

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
B		6		0" - 2" Dark brown sand and gravel w/ red and green staining 2" - 6" Orange/tan sand and gravel - No Un-natural Color	6" - 8" Orange/tan sand and gravel - No Un-natural Color 8" - 12" Brown silt and sand - No Un-natural Color
B	+20	6		NO UN-NATURAL COLOR	
B		6	+20	NO UN-NATURAL COLOR	
B	+20	6	+20	NO UN-NATURAL COLOR	
B		7		NO UN-NATURAL COLOR	
B	+20	7		NO UN-NATURAL COLOR	
B		7	+20	NO UN-NATURAL COLOR	
B	+20	7	+20	NO UN-NATURAL COLOR	
B		8		NO UN-NATURAL COLOR	
B	+20	8		NO UN-NATURAL COLOR	
B		8	+20	NO UN-NATURAL COLOR	
B	+20	8	+20	NO UN-NATURAL COLOR	
B		9		NO UN-NATURAL COLOR	
B	+20	9		NO UN-NATURAL COLOR	
B		9	+20	NO UN-NATURAL COLOR	
B	+20	9	+20	NO UN-NATURAL COLOR	
B		10		NO UN-NATURAL COLOR	
B	+20	10		NO UN-NATURAL COLOR	
B		10	+20	NO UN-NATURAL COLOR	
B	+20	10	+20	NO UN-NATURAL COLOR	
B		11		NO UN-NATURAL COLOR	
B	+20	11		NO UN-NATURAL COLOR	
B		11	+20	NO UN-NATURAL COLOR	
B	+20	11	+20	NO UN-NATURAL COLOR	

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
B		12		NO UN-NATURAL COLOR	
B	+20	12		NO UN-NATURAL COLOR	
B		12	+20	NO UN-NATURAL COLOR	
B	+20	12	+20	NO UN-NATURAL COLOR	
B		13		NO UN-NATURAL COLOR	
B	+20	13		NO UN-NATURAL COLOR	
B		13	+20	Asphalt cover - refusal	
B	+20	13	+20	NO UN-NATURAL COLOR	
B		14		NO UN-NATURAL COLOR	
B	+20	14		NO UN-NATURAL COLOR	
B		14	+20	NO UN-NATURAL COLOR	
B	+20	14	+20	NO UN-NATURAL COLOR	
B		15		NO UN-NATURAL COLOR	
B	+20	15		NO UN-NATURAL COLOR	
B		15	+20	NO UN-NATURAL COLOR	
B	+20	15	+20	NO UN-NATURAL COLOR	
B		16		NO UN-NATURAL COLOR	
B	+20	16		NO UN-NATURAL COLOR	
B		16	+20	NO UN-NATURAL COLOR	
B	+20	16	+20	NO UN-NATURAL COLOR	
B		17		NO UN-NATURAL COLOR	
B	+20	17		NO UN-NATURAL COLOR	
B		17	+20	NO UN-NATURAL COLOR	
B	+20	17	+20	NO UN-NATURAL COLOR	
B		18		NO UN-NATURAL COLOR	

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
B	+20	18		NO UN-NATURAL COLOR	
B		18	+20	NO UN-NATURAL COLOR	
B	+20	18	+20	Concrete slab	
C		1		NO UN-NATURAL COLOR	
C	+20	1		Woods	
C		1	+20	NO UN-NATURAL COLOR	
C	+20	1	+20	Woods	
C		2		NO UN-NATURAL COLOR	
C	+20	2		Woods	
C		2	+20	0 - 3" Dark brown silt and sand w/ trace purple and green staining 3" - 6" Tan sand and gravel - No Un-natural Color	6" - 8" Tan sand and gravel - No Un-natural Color 8" - 12" Dark brown silt and sand - No Un-natural Color
C	+20	2	+20	Woods	
C		3		NO UN-NATURAL COLOR	
C	+20	3		NO UN-NATURAL COLOR	
C		3	+20	NO UN-NATURAL COLOR	
C	+20	3	+20	NO UN-NATURAL COLOR	
C		4		0 - 2" Tan sand and gravel w/ red-orange staining 2" - 6" Orange/tan sand and gravel - No Un-natural Color	6" - 12" Dark brown silt and sand - No Un-natural Color
C	+20	4		NO UN-NATURAL COLOR	
C		4	+20	0 - 3" Dark brown sand and gravel w/ trace green staining 3" - 6" Light brown sand and gravel - No Un-natural Color	6" - 12" Light brown silt and sand - No Un-natural Color
C	+20	4	+20	NO UN-NATURAL COLOR	
C		5		NO UN-NATURAL COLOR	
C	+20	5		NO UN-NATURAL COLOR	
C		5	+20	NO UN-NATURAL COLOR	
C	+20	5	+20	NO UN-NATURAL COLOR	
C		6		NO UN-NATURAL COLOR	

Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
C	+20	6		NO UN-NATURAL COLOR	
C		6	+20	NO UN-NATURAL COLOR	
C	+20	6	+20	NO UN-NATURAL COLOR	
C		7		0" - 1" Crushed gravel - No Un-natural Color 1" - 4" Black sand and gravel (asphalt) w/ purple staining 4" - 6" Tan sand - No Un-natural Color	6" - 12" Tan sand - No Un-natural Color
C	+20	7		NO UN-NATURAL COLOR	
C		7	+20	NA	
C	+20	7	+20	NO UN-NATURAL COLOR	
C		8		0" - 3" Dark brown sand and gravel w/ red, green, blue staining 3" - 5" Orange/tan sand and gravel - No Un-natural Color 5" - 6" Dark brown silt and sand - No Un-natural Color	6" - 12" Light brown silt and sand - No Un-natural Color
C	+20	8		NO UN-NATURAL COLOR	
C		8	+20	NO UN-NATURAL COLOR	
C	+20	8	+20	NO UN-NATURAL COLOR	
C		9		NO UN-NATURAL COLOR	
C	+20	9		NO UN-NATURAL COLOR	
C		9	+20	NO UN-NATURAL COLOR	
C	+20	9	+20	0" - 2" Dark brown sand and gravel w/ traces of red and green staining 2" - 4" Tan sand and gravel - No Un-natural Color 4" - 6" Dark brown sand and gravel - No Un-natural Color	6" - 12" Tan silt and sand - No Un-natural Color
C		10		NO UN-NATURAL COLOR	
C	+20	10		NO UN-NATURAL COLOR	
C		10	+20	NO UN-NATURAL COLOR	
C	+20	10	+20	NO UN-NATURAL COLOR	
C		11		NO UN-NATURAL COLOR	
C	+20	11		NO UN-NATURAL COLOR	
C		11	+20	NO UN-NATURAL COLOR	

June 2008

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

013-6054

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
C	+20	11	+20	NO UN-NATURAL COLOR	
C		12		NO UN-NATURAL COLOR	
C	+20	12		NO UN-NATURAL COLOR	
C		12	+20	NO UN-NATURAL COLOR	
C	+20	12	+20	NO UN-NATURAL COLOR	
C		13		NO UN-NATURAL COLOR	
C	+20	13		NO UN-NATURAL COLOR	
C		13	+20	NO UN-NATURAL COLOR	
C	+20	13	+20	NO UN-NATURAL COLOR	
C		14		NO UN-NATURAL COLOR	
C	+20	14		NO UN-NATURAL COLOR	
C		14	+20	NO UN-NATURAL COLOR	
C	+20	14	+20	NO UN-NATURAL COLOR	
C		15		NO UN-NATURAL COLOR	
C	+20	15		NO UN-NATURAL COLOR	
C		15	+20	NO UN-NATURAL COLOR	
C	+20	15	+20	NO UN-NATURAL COLOR	
C		16		NO UN-NATURAL COLOR	
C	+20	16		NO UN-NATURAL COLOR	
C		16	+20	NO UN-NATURAL COLOR	
C	+20	16	+20	NO UN-NATURAL COLOR	
C		17		NO UN-NATURAL COLOR	
C	+20	17		NO UN-NATURAL COLOR	
C		17	+20	NO UN-NATURAL COLOR	

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
C	+20	17	+20	0 - 6" Brown/tan sand and gravel w/ red-orange and yellow staining	6" - 12" Tan sand and gravel - No Un-natural Color
C		18		NO UN-NATURAL COLOR	
C	+20	18		NO UN-NATURAL COLOR	
C		18	+20	Concrete slab	
C	+20	18	+20	Concrete slab	
D		2	+20	Woods	
D	+20	2	+20	Woods	
D		3		NO UN-NATURAL COLOR	
D	+20	3		Woods	
D		3	+20	NO UN-NATURAL COLOR	
D	+20	3	+20	NO UN-NATURAL COLOR	
D		4		NO UN-NATURAL COLOR	
D	+20	4		NO UN-NATURAL COLOR	
D		4	+20	NO UN-NATURAL COLOR	
D	+20	4	+20	Location in source removal excavation	
D		5		NO UN-NATURAL COLOR	
D	+20	5		Location in purple stained soil area covered with textile and crushed stone	
D		5	+20	NO UN-NATURAL COLOR	
D	+20	5	+20	Woods	
D		6		NO UN-NATURAL COLOR	
D	+20	6		Woods	
D		6	+20	NO UN-NATURAL COLOR	
D	+20	6	+20	Woods	

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
D		7		NO UN-NATURAL COLOR	
D	+20	7		Woods	
D		7	+20	0" - 2" Dark brown sand and gravel w/ trace red staining 2" - 6" Orange/tan sand and gravel - No Un-natural Color	6" - 12" Dark brown silt and sand - No Un-natural Color
D	+20	7	+20	Woods	
D		8		0" - 3" Dark brown silt, sand, gravel w/ trace green and red staining 3" - 6" Dark brown sil and sand - No Un-natural Color	6" - 8" Dark brown sil and sand - No Un-natural Color 8" - 12" Tan silt and sand - No Un-natural Color
D	+15	8		NO UN-NATURAL COLOR	
D		8	+20	NO UN-NATURAL COLOR	
D	+15	8	+20	NO UN-NATURAL COLOR	
D		9		NO UN-NATURAL COLOR	
D	+20	9		NO UN-NATURAL COLOR	
D		9	+20	NO UN-NATURAL COLOR	
D	+20	9	+20	NO UN-NATURAL COLOR	
D		10		NO UN-NATURAL COLOR	
D	+10	10		NO UN-NATURAL COLOR	
D		10	+20	NO UN-NATURAL COLOR	
D	+10	10	+20	NO UN-NATURAL COLOR	
D		11		NO UN-NATURAL COLOR	
D	+20	11		NO UN-NATURAL COLOR	
D		11	+20	NO UN-NATURAL COLOR	
D	+20	11	+20	NO UN-NATURAL COLOR	
D		12		NO UN-NATURAL COLOR	
D	+20	12		NO UN-NATURAL COLOR	
D		12	+20	NO UN-NATURAL COLOR	
D	+20	12	+20	Not accessible - Under wood pile	

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
D		13		NO UN-NATURAL COLOR	
D	+20	13		Not accessible - Under wood pile	
D		13	+20	NO UN-NATURAL COLOR	
D	+20	13	+20	NO UN-NATURAL COLOR	
D		14		NO UN-NATURAL COLOR	
D	+20	14		NO UN-NATURAL COLOR	
D		14	+20	NO UN-NATURAL COLOR	
D	+20	14	+20	NO UN-NATURAL COLOR	
D		15		NO UN-NATURAL COLOR	
D	+20	15		NO UN-NATURAL COLOR	
D		15	+20	NO UN-NATURAL COLOR	
D	+20	15	+20	NO UN-NATURAL COLOR	
D		16		NO UN-NATURAL COLOR	
D	+20	16		NO UN-NATURAL COLOR	
D		16	+20	NO UN-NATURAL COLOR	
D	+20	16	+20	NO UN-NATURAL COLOR	
D		17		NO UN-NATURAL COLOR	
D	+20	17		NO UN-NATURAL COLOR	
D		17	+20	NO UN-NATURAL COLOR	
D	+20	17	+20	NO UN-NATURAL COLOR	
D		18		NO UN-NATURAL COLOR	
D	+20	18		NO UN-NATURAL COLOR	
D		18	+20	Concrete slab	
D	+20	18	+20	Concrete slab	
E		3		Woods	

200125

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

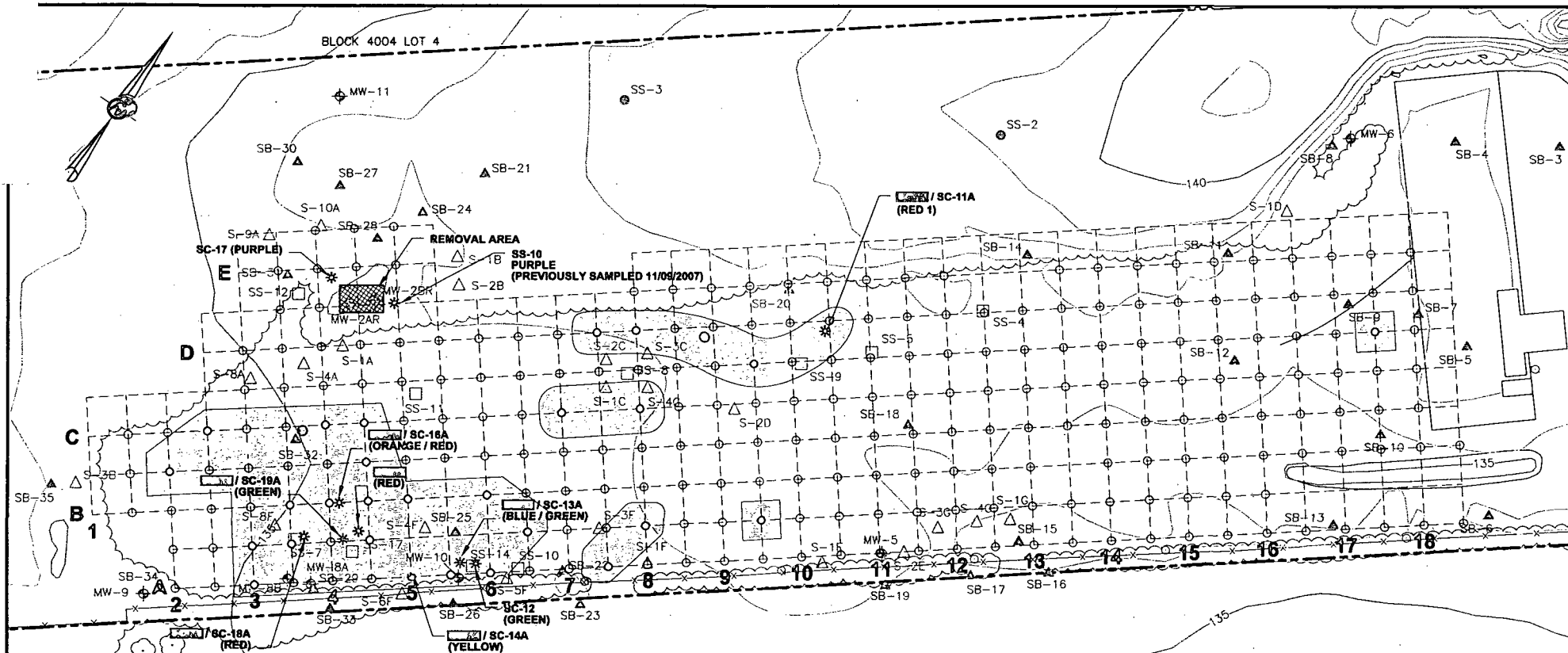
GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
E	+20	3		Woods	
E		3	+20	NO UN-NATURAL COLOR	
E	+20	3	+20	Woods	
E		4		NO UN-NATURAL COLOR	
E	+20	4		NO UN-NATURAL COLOR	
E		4	+20	NO UN-NATURAL COLOR	
E	+20	4	+20	NO UN-NATURAL COLOR	
E		5		NO UN-NATURAL COLOR	
E	+20	5		NO UN-NATURAL COLOR	
E		5	+20	Woods	
E	+20	5	+20	Woods	
E		8		Woods	
E		8	+20	Woods	
E		9		Woods	
E		9	+20	Woods	
E		10		Woods	
E		10	+20	Woods	
E		11		Woods	
E		11	+20	Woods	
E		12		Woods	
E		12	+20	Woods	
E		13		Woods	
E		13	+20	Woods	
E		14		Woods	
E		14	+20	Woods	

Table 3
Grid Evaluation Log
Unnaturally Colored Soil Investigation
Lightman Drum Superfund Site
Winslow, New Jersey

GRID NODE (1)				0 - 0.5'	0.5 - 1.0'
E		15		Woods	
E		15	+20	Woods	
E		16		Woods	
E		16	+20	Woods	
E		17		Woods	
E		17	+20	Woods	
E		18		Concrete slab	
E		18	+20	Concrete slab	

Notes:

- (1) = +20 in the column after the letter or number grid line designation indicates that the grid node is plus 20 feet in the "Y" or "X" direction, respectively.
- NO UN-NATURAL COLOR = No Un-natural Color visually observed at the grid assessment location from 0 to 6 inches below ground surface and soil excavation at the grid node deeper than 6 inches was not performed.
- NA = Not assessed. Between two grids nodes with unnaturally colored soil.
- Woods = Grid node located in woods and not assessed.



LEGEND

- ▲ SOIL BORING LOCATION (UNSATURATED SOIL)
- SHALLOW SOIL SAMPLING LOCATION (UNSATURATED SOIL)
- ⊕ MONITORING WELL
- △ PHASE II REMEDIAL INVESTIGATION SOIL SAMPLE LOCATION
- PHASE I REMEDIAL INVESTIGATION SOIL SAMPLE LOCATION
- *** * UN-NATURALLY COLORED SOIL SAMPLE LOCATION (SEE NOTE 5)
- UN-NATURALLY COLORED SOIL DELINEATION LOCATION
- UN-NATURALLY COLORED SOIL FOUND AT DELINEATION LOCATION
- ⊙ UN-NATURALLY COLORED SOIL FOUND BETWEEN DELINEATION LOCATIONS
- HORIZONTAL EXTENT OF UN-NATURALLY COLORED SOIL (SEE NOTE 6)

NOTES

- 1.) SOIL SAMPLES SC-11 THROUGH SC-19 COLLECTED JANUARY 17, 2008 AND SOIL SAMPLES SC-11A, SC-13A, SC-14A, SC-16A, SC-18A, AND SC-19A COLLECTED MARCH 26, 2008.
- 2.) UN-NATURALLY COLORED SOIL DELINEATION PERFORMED MARCH 26, 2008 THROUGH MARCH 28, 2008.
- 3.) COLORED SOIL SAMPLE LOCATIONS SC-11, SC-13, SC-14, SC-16, SC-18, SC-19, AND SELECT DELINEATION LOCATIONS WITH UN-NATURALLY COLORED SOIL WERE SURVEYED APRIL 10, 2008 BY JAMES M. STEWART, INC. SURVEY DATA PROVIDED IN APPENDIX C OF ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT, DATED JUNE 6, 2008.
- 4.) NON-SURVEYED LOCATIONS ARE APPROXIMATE.
- 5.) SOIL SAMPLE LOCATIONS WHERE ANALYTES WERE DETECTED ABOVE NEW JERSEY NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA AND/OR IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA (NJSCC) ARE SHADED GRAY.
- 6.) THE HORIZONTAL EXTENT OF UN-NATURALLY COLORED SOIL SHOWN ON THE FIGURE IS THE INTERPRETED EXTENT OF SOIL WITH DETECTIONS ABOVE NJSCC.

REFERENCE

- 1.) BASE MAP TAKEN FROM FILE 2702-01.DWG, TITLED "PLAN OF SURVEY", PROVIDED BY JAMES M. STEWART, INC.



 Golder Associates Philadelphia, USA		SCALE	AS SHOWN	TITLE
		DATE	06/06/08	
FILE No.	0136054L009	DESIGN	JPR	
PROJECT No.	013-6054	CADD	RG	
	REV. 0	CHECK	JPR	
		REVIEW	RJI	
UN-NATURALLY COLORED SOIL DELINEATION			LIGHTMAN DRUM SITE	
			FIGURE 1	

ATTACHMENT A
DATA VALIDATION NARRATIVE
UN-NATURALLY COLORED SOIL INVESTIGATION

**Data Quality Assessment
Lightman Drum Company Superfund Site
Winslow Township, New Jersey
November 2007 and January, March 2008 Soil Investigation**

This report presents the findings of the data evaluation performed on the analyses of sixteen (16) soil samples, two (2) duplicate samples, and two (2) trip blanks collected at the Lightman Drum Company Superfund Site (Site). Samples were collected on November 5th, 2007, January 17th and March 26th, 2008. The chemical data for samples collected at the Site were assessed to identify quality issues which could affect the use of the data for decision making purposes.

The samples taken in November, 2007 and January, 2008 were analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), Pesticides, and Polychlorinated Biphenyls (PCBs), and Target Analyte List (TAL) Metals, Mercury and Cyanide. The samples taken in March, 2008 were analyzed for TCL Pesticides and TAL Metals. CompuChem Laboratories of Cary, North Carolina, performed the chemical analyses. The laboratory performed the analyses following United States Environmental Protection Agency (USEPA) method guidelines:

- VOCs, SVOCs, Pesticides and PCBs following Contract Laboratory Program (CLP)¹ Statement of Work (SOW) OLM04.3;
- Metals, Mercury and Cyanide following Contract Laboratory Program (CLP) Statement of Work (SOW) ILM05.4.

Information regarding the sample point identifications, analytical parameters, QC samples, sampling dates, and contract laboratory sample delivery group (SDG) designations are summarized in Table A-1.

Data for VOCs, SVOCs, Pesticides, and PCBs were validated following USEPA Region II Standard Operating Procedures (SOPs) No. HW-6, Revision 14, CLP Organics Data Review and Preliminary Review, (September 2006). Metals, mercury and cyanide data were validated following SOP No. HW-2, Revision 13, Evaluation of Metals Data for the Contract Laboratory Program (CLP), (September, 2005).

¹ <http://www.epa.gov/Region2/qa/documents.htm>

In general, chemical results for the samples collected at the Site were qualified on the basis of outlying precision or accuracy parameters, or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data during the data validation process.

J	The analyte was reported above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample.
R	The sample result was rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria.
JN	The analyte was analyzed for and has been tentatively identified in the sample. Not all criteria for analytical identification were met. The associated numerical value is the approximate concentration of the analyte that may be present in the sample.
U	The analyte was analyzed for, but was not detected above the method detection limit.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Overall, the data generated as part of this sampling event met the QC criteria established in the respective USEPA methodology and Region II guidelines. Where quality control criteria were met, positive results were not qualified and the laboratory qualified non-detect results with a "U" flag signifying that the analyte was not detected at or above the specified reporting limit. The following bulleted items highlight Golder's qualifications applied to specific parameters. Although these qualifications were applied to some of the samples collected at the site, the qualifications may not have been required or applied to all samples collected. Table A-2 summarizes all qualifications applied to the data, with applicable qualifier codes.

- Sample results for acetone, methyl acetate, hexachlorobutadiene, hexachlorocyclopentadiene, 4-nitroaniline, and pentachlorophenol were qualified as estimated (J for detected results or UJ for non detected results) due to either the initial calibration relative standard deviation being above quality control (QC) limits (30%) or due to the continuing calibration percent difference being above QC limits (25%).
- Sample results for di-n-butylphthalate, bis(2-ethylhexyl) phthalate, 4,4'-DDE, alpha-endosulfan, beta-endosulfan and endrin aldehyde were qualified as estimated (J for detected results or UJ for non detected results) when the field duplicate relative percent difference was greater than 50%.

Golder Associates

- Sample results for 2,4-dinitrophenol were qualified as estimated (UJ for non detected results) when the continuing calibration percent difference was greater than the QC limits (25%).
- Sample results for tentatively identified compounds (TICs) were rejected (R) because the TIC was either an artifact of a common lab contaminant or because the TIC compounds were TCL pesticide compounds reported in the pesticide fraction, per Region II guidelines.
- Sample results for several metals and pesticides were qualified as non-detect (U) due to laboratory method or preparation blank contamination.
- Sample results for several metals were qualified as estimated (UJ) due to negative preparation blank contamination.
- Sample results for calcium, chromium, copper and zinc were qualified as estimated (J) due to rinsate blank contamination.
- Sample results for several pesticides were qualified as rejected (R) when the percent difference between the two analytical columns was greater than 200%.
- Sample results for several pesticides were qualified as non detect (U) when the percent difference between the two analytical columns was greater than 50%, and the result was less than the reporting limit.
- Sample results for several pesticides were qualified as estimated (J) when the percent difference between the two analytical columns was between 26-70% and estimated (JN) when the percent difference between the two analytical columns was 71-200%.
- Select sample results for antimony, arsenic and selenium were qualified as estimated (J) when the matrix spike recovery was between 10-74%.
- Select sample results for calcium and nickel were qualified as estimated (J) when the serial dilution was greater than the QC criteria (10%).
- Select sample results for chromium and lead were qualified as estimated (J) when the laboratory duplicate precision was greater than the QC criteria (20%).

Samples that were analyzed for lead during the March, 2008 sampling event were rerun because the original samples had a spike recovery less than the Region II acceptable QC limits. The post digestion spike recovery was within acceptable QC limits for this analysis, however Region II has no stipulation in their guidelines for this additional QC analysis and the original samples would have been rejected (R). The rerun was within hold times and within all other acceptable Region II guidelines.

Based on the data validation, the analytical data for samples collected were determined to be acceptable (including estimated data) for their intended use, with the exception of select data qualified as rejected (R). Acceptable levels of accuracy and precision, based on Laboratory Control Samples (LCS)/Laboratory Control Sample Duplicates, laboratory blanks and surrogate recoveries, were achieved for a majority of the data. The analytical completeness, defined as the percentage of analytical results which are judged to be valid, including estimated (J/UJ) data, was 98.8% for the Lightman Drum Company Superfund Site.

June 2008

Table A-1
Sample Point Identifications
Lightman Drum Company Superfund Site
Winslow Township, New Jersey

013-6054

Lab/SDG	Field ID	Matrix	Sample Date	VOCs	SVOCs	PCBs	Pesticides	Metals: Mercury	Cyanide	Hexavalent Chromium	MS/MSD	Duplicate
14141	SS-10	Soil	11/5/2007	x	x	x	x	x	x			
14600	SC-11	Soil	1/17/2008	x	x	x	x	x	x			
14600	SC-12	Soil	1/17/2008	x	x	x	x	x	x			
14600	SC-13	Soil	1/17/2008	x	x	x	x	x	x	x		
14600	SC-14	Soil	1/17/2008	x	x	x	x	x	x	x		
14600	SC-15	Soil	1/17/2008	x	x	x	x	x	x			
14600	SC-15Dup	Soil	1/17/2008	x	x	x	x	x	x			x
14600	SC-16	Soil	1/17/2008	x	x	x	x	x	x	x		
14600	SC-17	Soil	1/17/2008	x	x	x	x	x	x		x	
14600	SC-18	Soil	1/17/2008	x	x	x	x	x	x			
14600	SC-19	Soil	1/17/2008	x	x	x	x	x	x			
14601	TB01011708	Water	1/17/2008	x								
14601	TB02011708	Water	1/17/2008	x								
14601	RB011708	Water	1/17/2008	x	x	x	x	x	x			
15005/15221	SC-11A	Soil	3/26/2008				x	x				
15005/15221	SC-13A	Soil	3/26/2008				x	x				
15005/15221	SC-13ADUP	Soil	3/26/2008				x	x				x
15005/15221	SC-14A	Soil	3/26/2008				x	x				
15005/15221	SC-16A	Soil	3/26/2008				x	x				
15005/15221	SC-18A	Soil	3/26/2008				x	x			x	
15005/15221	SC-19A	Soil	3/26/2008				x	x				
15004	RB-032608	Water	3/26/2008				x	x				

Abbreviations:

MS/MSD - Matrix Spike/Matrix Spike Duplicate

SDG - Sample Delivery Group

VOCs - Volatile Organic Compounds

SVOCs - Semivolatile Organic Compounds

PCBs - Polychlorinated Biphenyls

Data Qualifications
Lightman Drum Company Superfund Site
Winslow Township, New Jersey

SDG	Field ID	Matrix	Analysis	Analyte	New Result	New Reporting Limit	QUAL	Comments
14141	SS-10	Soil	Semivolatile	Hexachlorobutadiene	-	-	UJ	Continuing calibration %D > ±25%.
14141	SS-10	Soil	Semivolatile	Hexachlorocyclopentadiene	-	-	UJ	Continuing calibration %D > ±25%.
14141	SS-10	Soil	Semivolatile	4-Nitroaniline	-	-	UJ	Continuing calibration %D > ±25%.
14141	SS-10	Soil	Semivolatile	Pentachlorophenol	-	-	UJ	Continuing calibration %D > ±25%.
14141	SS-10	Soil	Inorganics	Antimony	12.9	-	U	Prep blank contamination.
14141	SS-10	Soil	Inorganics	Calcium	1080	-	U	Prep blank contamination.
14141	SS-10	Soil	Inorganics	Silver	-	-	UJ	Negative prep blank contamination.
14141	SS-10	Soil	Inorganics	Sodium	1080	-	U	Prep blank contamination.
14141	SS-10	Soil	Inorganics	Thallium	-	-	UJ	Negative prep blank contamination.
14141	SS-10	Soil	Inorganics	Cyanide	0.53	-	U	Prep blank contamination.
14141	SS-10	Soil	Inorganics	Barium	43.1	-	U	Prep blank contamination.
14141	SS-10	Soil	Inorganics	Magnesium	1080	-	U	Prep blank contamination.
14600	SC-11	Soil	Inorganics	Calcium	1000	-	U	Prep blank contamination.
14600	SC-11	Soil	Inorganics	Magnesium	1000	-	U	Prep blank contamination.
14600	SC-11	Soil	Inorganics	Nickel	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-11	Soil	Inorganics	Potassium	1000	-	U	Prep blank contamination.
14600	SC-11	Soil	Pesticides	4,4'-DDD	-	-	R	%D between columns > 200%.
14600	SC-11	Soil	Pesticides	4,4'-DDT	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-11	Soil	Pesticides	Alpha-BHC	-	-	U	%D between columns > 50%, Result < RL.
14600	SC-11	Soil	Pesticides	Delta-BHC	4.1	-	U	Method blank contamination.
14600	SC-11	Soil	Pesticides	Dieldrin	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-11	Soil	Pesticides	Endosulfan sulfate	-	-	R	%D between columns > 200%.
14600	SC-11	Soil	Pesticides	Endrin	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-11	Soil	Pesticides	Endrin ketone	-	-	J	%D between columns > 25%.
14600	SC-11	Soil	Pesticides	Heptachlor Epoxide	-	-	J	%D between columns > 25%.
14600	SC-11	Soil	Semivolatile	2,4-dinitrophenol	-	-	UJ	CCV %D > 25%.
14600	SC-11	Soil	Volatile	Acetone	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-11	Soil	Volatile	Methyl Acetate	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-11DL	Soil	Pesticides	4,4'-DDT	-	-	R	%D between columns > 200%.
14600	SC-11DL	Soil	Pesticides	Endrin	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-11DL	Soil	Pesticides	Endrin Aldehyde	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-11DL	Soil	Pesticides	Heptachlor	-	-	J	%D between columns > 25%.
14600	SC-11DL	Soil	Pesticides	Heptachlor epoxide	-	-	J	%D between columns > 25%.
14600	SC-12	Soil	Inorganics	Beryllium	1	-	U	Prep blank contamination.
14600	SC-12	Soil	Inorganics	Calcium	1000	-	U	Prep blank contamination.
14600	SC-12	Soil	Inorganics	Magnesium	1000	-	U	Prep blank contamination.
14600	SC-12	Soil	Inorganics	Nickel	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-12	Soil	Inorganics	Potassium	1000	-	U	Prep blank contamination.
14600	SC-12	Soil	Inorganics	Sodium	1000	-	U	Prep blank contamination.
14600	SC-12	Soil	Pesticides	4,4'-DDT	-	-	J	%D between columns > 25%.
14600	SC-12	Soil	Pesticides	Endrin	-	-	J	%D between columns > 25%.
14600	SC-12	Soil	Pesticides	Endrin aldehyde	-	-	J	%D between columns > 25%.
14600	SC-12	Soil	Pesticides	Heptachlor	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-12	Soil	Pesticides	Methoxychlor	19	-	U	%D between columns > 50%, Result < RL.
14600	SC-12	Soil	Semivolatile	2,4-dinitrophenol	-	-	UJ	CCV %D > 25%.
14600	SC-12	Soil	Semivolatile	cyclohexasiloxane, dodecamethyl	-	-	R	Common column bleed contaminant
14600	SC-12	Soil	Semivolatile	cyclopentasiloxane, decamethyl	-	-	R	Common column bleed contaminant
14600	SC-12	Soil	Semivolatile	cyclotetrasiloxane, octamethyl	-	-	R	Common column bleed contaminant
14600	SC-12	Soil	Volatile	Acetone	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-12	Soil	Volatile	Methyl Acetate	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-12DL	Soil	Pesticides	4,4'-DDT	-	-	J	%D between columns > 25%.
14600	SC-12DL	Soil	Pesticides	Dieldrin	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-12DL	Soil	Pesticides	Endrin aldehyde	-	-	R	%D between columns > 200%.
14600	SC-13	Soil	Inorganics	Beryllium	1	-	U	Prep blank contamination.
14600	SC-13	Soil	Inorganics	Calcium	1000	-	U	Prep blank contamination.
14600	SC-13	Soil	Inorganics	Magnesium	1000	-	U	Prep blank contamination.
14600	SC-13	Soil	Inorganics	Nickel	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-13	Soil	Inorganics	Potassium	1000	-	U	Prep blank contamination.
14600	SC-13	Soil	Pesticides	4,4'-DDD	3.8	-	U	%D between columns > 50%, Result < RL.
14600	SC-13	Soil	Pesticides	4,4'-DDE	3.8	-	U	%D between columns > 50%, Result < RL.
14600	SC-13	Soil	Pesticides	4,4'-DDT	-	-	J	%D between columns > 25%.
14600	SC-13	Soil	Pesticides	Aldrin	-	-	R	%D between columns > 200%.
14600	SC-13	Soil	Pesticides	Beta-BHC	-	2.6	U	Method blank contamination.
14600	SC-13	Soil	Pesticides	Dieldrin	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-13	Soil	Pesticides	Endosulfan II	3.8	-	U	%D between columns > 50%, Result < RL.
14600	SC-13	Soil	Pesticides	Endosulfan sulfate	-	-	J	%D between columns > 25%.
14600	SC-13	Soil	Pesticides	Endrin	-	-	R	%D between columns > 200%.
14600	SC-13	Soil	Pesticides	Endrin aldehyde	-	-	R	%D between columns > 200%.
14600	SC-13	Soil	Pesticides	Endrin ketone	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-13	Soil	Pesticides	Heptachlor	2	-	U	%D between columns > 50%, Result < RL.
14600	SC-13	Soil	Pesticides	Heptachlor epoxide	-	-	J	%D between columns > 25%.
14600	SC-13	Soil	Semivolatile	2,4-dinitrophenol	-	-	UJ	CCV %D > 25%.
14600	SC-13	Soil	Semivolatile	cyclotetrasiloxane, octamethyl	-	-	R	Common column bleed contaminant
14600	SC-13	Soil	Volatile	Acetone	10	-	U	Method blank contamination.

Table A-2
Data Qualifications
Lightman Drum Company Superfund Site
Winslow Township, New Jersey

SDG	Field ID	Matrix	Analysis	Analyte	New Result	New Reporting Limit	QUAL	Comments
14600	SC-13	Soil	Volatile	Methyl Acetate	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-13DL	Soil	Pesticides	4,4'-DDT	19	-	U	%D between columns > 50%, Result < RL.
14600	SC-13DL	Soil	Pesticides	Aldrin	9.8	-	U	%D between columns > 50%, Result < RL.
14600	SC-13DL	Soil	Pesticides	Dieldrin	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-13DL	Soil	Pesticides	Endrin aldehyde	-	-	J	%D between columns > 25%.
14600	SC-13DL	Soil	Pesticides	Heptachlor epoxide	-	-	J	%D between columns > 25%.
14600	SC-14	Soil	Inorganics	Barium	40	-	U	Prep blank contamination.
14600	SC-14	Soil	Inorganics	Beryllium	1	-	U	Prep blank contamination.
14600	SC-14	Soil	Inorganics	Calcium	1000	-	U	Prep blank contamination.
14600	SC-14	Soil	Inorganics	Magnesium	1000	-	U	Prep blank contamination.
14600	SC-14	Soil	Inorganics	Nickel	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-14	Soil	Inorganics	Potassium	1000	-	U	Prep blank contamination.
14600	SC-14	Soil	Pesticides	4,4'-DDE	-	-	J	%D between columns > 25%.
14600	SC-14	Soil	Pesticides	Alpha-Chlordane	-	-	J	%D between columns > 25%.
14600	SC-14	Soil	Pesticides	Dieldrin	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-14	Soil	Pesticides	Endosulfan I	-	-	J	%D between columns > 25%.
14600	SC-14	Soil	Pesticides	Endosulfan sulfate	3.6	-	U	%D between columns > 50%, Result < RL.
14600	SC-14	Soil	Pesticides	Endrin aldehyde	3.6	-	U	%D between columns > 50%, Result < RL.
14600	SC-14	Soil	Pesticides	Endrin ketone	3.6	-	U	%D between columns > 50%, Result < RL.
14600	SC-14	Soil	Pesticides	Heptachlor	-	-	J	%D between columns > 25%.
14600	SC-14	Soil	Pesticides	Heptachlor epoxide	-	-	J	%D between columns > 25%.
14600	SC-14	Soil	Pesticides	alpha-BHC	1.9	-	U	%D between columns > 25%.
14600	SC-14	Soil	Pesticides	Methoxychlor	19	-	U	%D between columns > 50%, Result < RL.
14600	SC-14	Soil	Semivolatile	2,4-dinitrophenol	-	-	UJ	CCV %D > 25%.
14600	SC-14	Soil	Volatile	Acetone	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-14	Soil	Volatile	Methyl Acetate	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-14DL	Soil	Pesticides	Alpha-Chlordane	-	-	J	%D between columns > 25%.
14600	SC-14DL	Soil	Pesticides	Dieldrin	-	-	J	%D between columns > 25%.
14600	SC-14DL	Soil	Pesticides	Heptachlor Epoxide	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-15	Soil	Inorganics	Beryllium	1	-	U	Prep blank contamination.
14600	SC-15	Soil	Inorganics	Calcium	1000	-	U	Prep blank contamination.
14600	SC-15	Soil	Inorganics	Magnesium	1000	-	U	Prep blank contamination.
14600	SC-15	Soil	Inorganics	Nickel	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-15	Soil	Inorganics	Potassium	1000	-	U	Prep blank contamination.
14600	SC-15	Soil	Inorganics	Sodium	1000	-	U	Prep blank contamination.
14600	SC-15	Soil	Pesticides	4,4'-DDE	-	-	J	Field duplicate RPD > 50%.
14600	SC-15	Soil	Pesticides	4,4'-DDT	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-15	Soil	Pesticides	Aldrin	3.7	-	U	%D between columns > 50%, Result < RL.
14600	SC-15	Soil	Pesticides	Beta-BHC	3.7	-	U	Method blank contamination.
14600	SC-15	Soil	Pesticides	Dieldrin	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-15	Soil	Pesticides	Endosulfan I	-	-	J	Field duplicate RPD > 50%.
14600	SC-15	Soil	Pesticides	Endosulfan II	-	-	J	Field duplicate RPD > 50%.
14600	SC-15	Soil	Pesticides	Endosulfan II	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-15	Soil	Pesticides	Endosulfan sulfate	7.3	-	U	%D between columns > 50%, Result < RL.
14600	SC-15	Soil	Pesticides	Endrin aldehyde	-	-	J	Field duplicate RPD > 50%.
14600	SC-15	Soil	Pesticides	Heptachlor epoxide	-	-	R	%D between columns > 200%.
14600	SC-15	Soil	Semivolatile	2,4-dinitrophenol	-	-	UJ	CCV %D > 25%.
14600	SC-15	Soil	Semivolatile	bis(2-ethylhexyl)phthalate	-	-	J	Field duplicate RPD > 50%.
14600	SC-15	Soil	Semivolatile	di-n-butylphthalate	-	-	J	Field duplicate RPD > 50%.
14600	SC-15	Soil	Volatile	Acetone	10	-	U	Method blank contamination.
14600	SC-15	Soil	Volatile	Methyl Acetate	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-15 DUP	Soil	Inorganics	Beryllium	1	-	U	Prep blank contamination.
14600	SC-15 DUP	Soil	Inorganics	Calcium	1000	-	U	Prep blank contamination.
14600	SC-15 DUP	Soil	Inorganics	Magnesium	1000	-	U	Prep blank contamination.
14600	SC-15 DUP	Soil	Inorganics	Potassium	1000	-	U	Prep blank contamination.
14600	SC-15 DUP	Soil	Volatile	Acetone	10	-	U	Method blank contamination.
14600	SC-15 DUP	Soil	Volatile	Methyl Acetate	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-15DL	Soil	Pesticides	Dieldrin	73	-	U	%D between columns > 50%, Result < RL.
14600	SC-15DL	Soil	Pesticides	Endrin aldehyde	73	-	U	%D between columns > 50%, Result < RL.
14600	SC-15DL	Soil	Pesticides	Heptachlor epoxide	37	-	U	%D between columns > 50%, Result < RL.
14600	SC-15DUP	Soil	Inorganics	Nickel	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-15DUP	Soil	Inorganics	Sodium	1000	-	U	Prep blank contamination.
14600	SC-15DUP	Soil	Pesticides	4,4'-DDE	-	-	J	Field duplicate RPD > 50%.
14600	SC-15DUP	Soil	Pesticides	4,4'-DDE	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-15DUP	Soil	Pesticides	4,4'-DDT	-	-	J	%D between columns > 25%.
14600	SC-15DUP	Soil	Pesticides	Aldrin	3.7	-	U	%D between columns > 50%, Result < RL.
14600	SC-15DUP	Soil	Pesticides	Beta-BHC	3.7	-	U	Method blank contamination.
14600	SC-15DUP	Soil	Pesticides	Dieldrin	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-15DUP	Soil	Pesticides	Endosulfan I	-	-	J	Field duplicate RPD > 50%.
14600	SC-15DUP	Soil	Pesticides	Endosulfan I	-	-	J	%D between columns > 25%.
14600	SC-15DUP	Soil	Pesticides	Endosulfan II	-	-	UJ	Field duplicate RPD > 50%.
14600	SC-15DUP	Soil	Pesticides	Endosulfan II	7.2	-	U	%D between columns > 50%, Result < RL.
14600	SC-15DUP	Soil	Pesticides	Endosulfan sulfate	-	-	J	%D between columns > 25%.
14600	SC-15DUP	Soil	Pesticides	Endrin aldehyde	-	-	UJ	Field duplicate RPD > 50%.

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SDG	Field ID	Matrix	Analysis	Analyte	New Result	New Reporting Limit	QUAL	Comments
14600	SC-15DUP	Soil	Pesticides	Endrin aldehyde	7.2	-	U	%D between columns > 50%, Result < RL.
14600	SC-15DUP	Soil	Pesticides	Heptachlor epoxide	-	-	R	%D between columns > 200%.
14600	SC-15DUP	Soil	Semivolatile	2,4-dinitrophenol	-	-	UJ	CCV %D > 25%.
14600	SC-15DUP	Soil	Semivolatile	bis(2-ethylhexyl)phthalate	-	-	J	Field duplicate RPD > 50%.
14600	SC-15DUP	Soil	Semivolatile	di-n-butylphthalate	-	-	J	Field duplicate RPD > 50%.
14600	SC-15DUPDL	Soil	Pesticides	4,4'-DDE	72	-	U	%D between columns > 50%, Result < RL.
14600	SC-15DUPDL	Soil	Pesticides	Dieldrin	72	-	U	%D between columns > 50%, Result < RL.
14600	SC-15DUPDL	Soil	Pesticides	Endosulfan I	37	-	U	%D between columns > 50%, Result < RL.
14600	SC-15DUPDL	Soil	Pesticides	Heptachlor epoxide	37	-	U	%D between columns > 50%, Result < RL.
14600	SC-16	Soil	Inorganics	Calcium	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-16	Soil	Inorganics	Magnesium	1000	-	U	Prep blank contamination.
14600	SC-16	Soil	Inorganics	Nickel	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-16	Soil	Inorganics	Potassium	1000	-	U	Prep blank contamination.
14600	SC-16	Soil	Pesticides	4,4'-DDT	-	-	J	%D between columns > 25%.
14600	SC-16	Soil	Pesticides	Aldrin	9.6	-	U	%D between columns > 50%, Result < RL.
14600	SC-16	Soil	Pesticides	Beta-BHC	9.6	-	U	Method blank contamination.
14600	SC-16	Soil	Pesticides	Dieldrin	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-16	Soil	Pesticides	Endosulfan II	-	-	J	%D between columns > 25%.
14600	SC-16	Soil	Pesticides	Endosulfan sulfate	-	-	J	%D between columns > 25%.
14600	SC-16	Soil	Pesticides	Endrin	19	-	U	%D between columns > 50%, Result < RL.
14600	SC-16	Soil	Pesticides	Endrin aldehyde	19	-	U	%D between columns > 50%, Result < RL.
14600	SC-16	Soil	Pesticides	Heptachlor epoxide	-	-	R	%D between columns > 200%.
14600	SC-16	Soil	Semivolatile	2,4-dinitrophenol	-	-	UJ	CCV %D > 25%.
14600	SC-16	Soil	Volatile	Acetone	10	-	U	Method blank contamination.
14600	SC-16	Soil	Volatile	Methyl Acetate	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-16DL	Soil	Pesticides	Dieldrin	-	-	J	%D between columns > 25%.
14600	SC-17	Soil	Inorganics	Barium	40	-	U	Prep blank contamination.
14600	SC-17	Soil	Inorganics	Beryllium	1	-	U	Prep blank contamination.
14600	SC-17	Soil	Inorganics	Calcium	1000	-	U	Prep blank contamination.
14600	SC-17	Soil	Inorganics	Chromium	NC	-	J	Lab duplicate precision greater than QC criteria.
14600	SC-17	Soil	Inorganics	Copper	NC	-	J	Rinsate blank contamination.
14600	SC-17	Soil	Inorganics	Magnesium	1000	-	U	Prep blank contamination.
14600	SC-17	Soil	Inorganics	Nickel	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-17	Soil	Inorganics	Potassium	1000	-	U	Prep blank contamination.
14600	SC-17	Soil	Inorganics	Sodium	1000	-	U	Prep blank contamination.
14600	SC-17	Soil	Inorganics	Zinc	NC	-	J	Rinsate blank contamination.
14600	SC-17	Soil	Pesticides	4,4'-DDE	-	-	J	%D between columns > 25%.
14600	SC-17	Soil	Pesticides	4,4'-DDT	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-17	Soil	Pesticides	Beta-BHC	1.9	-	U	Method blank contamination.
14600	SC-17	Soil	Pesticides	Dieldrin	-	-	J	%D between columns > 25%.
14600	SC-17	Soil	Pesticides	Endosulfan II	3.7	-	U	%D between columns > 50%, Result < RL.
14600	SC-17	Soil	Pesticides	Endrin	3.7	-	U	%D between columns > 50%, Result < RL.
14600	SC-17	Soil	Pesticides	Endrin aldehyde	-	-	R	%D between columns > 200%.
14600	SC-17	Soil	Pesticides	Heptachlor	1.9	-	U	%D between columns > 50%, Result < RL.
14600	SC-17	Soil	Semivolatile	2,4-dinitrophenol	-	-	UJ	CCV %D > 25%.
14600	SC-17	Soil	Semivolatile	TIC 21.432 min	-	-	J	Change TIC identification to "unknown alkyl substituted biphenyl"
14600	SC-17	Soil	Semivolatile	TIC 21.834 min	-	-	J	Change TIC identification to "unknown alkyl substituted biphenyl"
14600	SC-17	Soil	Semivolatile	TIC 22.363 min	-	-	J	Change TIC identification to "unknown alkyl substituted biphenyl"
14600	SC-17	Soil	Semivolatile	TIC 22.742 min	-	-	J	Change TIC identification to "unknown alkyl substituted biphenyl"
14600	SC-17	Soil	Volatile	Acetone	10	-	U	Method blank contamination.
14600	SC-17	Soil	Volatile	Methyl Acetate	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-18	Soil	Inorganics	Beryllium	1	-	U	Prep blank contamination.
14600	SC-18	Soil	Inorganics	Calcium	1000	-	U	Prep blank contamination.
14600	SC-18	Soil	Inorganics	Magnesium	1000	-	U	Prep blank contamination.
14600	SC-18	Soil	Inorganics	Nickel	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-18	Soil	Inorganics	Potassium	1000	-	U	Prep blank contamination.
14600	SC-18	Soil	Inorganics	Sodium	1000	-	U	Prep blank contamination.
14600	SC-18	Soil	Pesticides	4,4'-DDE	19000	-	U	%D between columns > 50%, Result < RL.
14600	SC-18	Soil	Pesticides	4,4'-DDT	-	-	J	%D between columns > 25%.
14600	SC-18	Soil	Pesticides	Aldrin	9800	-	U	%D between columns > 50%, Result < RL.
14600	SC-18	Soil	Pesticides	Beta-BHC	9800	-	U	Method blank contamination.
14600	SC-18	Soil	Pesticides	Dieldrin	-	-	R	%D between columns > 200%.
14600	SC-18	Soil	Pesticides	Endosulfan I	19000	-	U	%D between columns > 50%, Result < RL.
14600	SC-18	Soil	Pesticides	Endosulfan II	-	-	J	%D between columns > 25%.
14600	SC-18	Soil	Pesticides	Endrin aldehyde	19000	-	U	%D between columns > 50%, Result < RL.
14600	SC-18	Soil	Pesticides	Heptachlor epoxide	-	-	JN	%D between columns > 71% and less than 200%.
14600	SC-18	Soil	Semivolatile	2,4-dinitrophenol	-	-	UJ	CCV %D > 25%.
14600	SC-18	Soil	Semivolatile	chlordane	-	-	R	Pesticide Target Compound identified as SVOC TIC
14600	SC-18	Soil	Semivolatile	cis-chlordane	-	-	R	Pesticide Target Compound identified as SVOC TIC
14600	SC-18	Soil	Semivolatile	heptachlor	-	-	R	Pesticide Target Compound identified as SVOC TIC
14600	SC-18	Soil	Semivolatile	TIC 22.63 min	-	-	J	Change TIC identification to "unknown chlordene isomer"
14600	SC-18	Soil	Semivolatile	TIC 23.27 min	-	-	J	Change TIC identification to "unknown chlordene isomer"
14600	SC-18	Soil	Semivolatile	TIC 23.32 min	-	-	J	Change TIC identification to "unknown chlordene isomer"
14600	SC-18	Soil	Semivolatile	TIC 24.07 min	-	-	J	Change TIC identification to "unknown chlordene isomer"

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Lightman Drum Company Superfund Site
Winslow Township, New Jersey

SDG	Field ID	Matrix	Analysis	Analyte	New Result	New Reporting Limit	QUAL	Comments
14600	SC-18	Soil	Volatile	Acetone	10	-	U	Method blank contamination.
14600	SC-18	Soil	Volatile	Methyl Acetate	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-18DL	Soil	Pesticides	Dieldrin	98000	-	U	%D between columns > 50%, Result < RL.
14600	SC-18DL	Soil	Pesticides	Endosulfan II	190000	-	U	%D between columns > 50%, Result < RL.
14600	SC-18DL	Soil	Pesticides	Heptachlor epoxide	98000	-	U	%D between columns > 50%, Result < RL.
14600	SC-19	Soil	Inorganics	Beryllium	1	-	U	Prep blank contamination.
14600	SC-19	Soil	Inorganics	Calcium	1000	-	U	Prep blank contamination.
14600	SC-19	Soil	Inorganics	Magnesium	1000	-	U	Prep blank contamination.
14600	SC-19	Soil	Inorganics	Nickel	NC	-	J	ICP serial dilution greater than QC criteria.
14600	SC-19	Soil	Inorganics	Potassium	1000	-	U	Prep blank contamination.
14600	SC-19	Soil	Pesticides	4,4'-DDE	-	-	J	%D between columns > 25%.
14600	SC-19	Soil	Pesticides	4,4'-DDT	-	-	J	%D between columns > 25%.
14600	SC-19	Soil	Pesticides	Aldrin	9.4	-	U	%D between columns > 50%, Result < RL.
14600	SC-19	Soil	Pesticides	Dieldrin	-	-	J	%D between columns > 25%.
14600	SC-19	Soil	Pesticides	Endosulfan II	18	-	U	%D between columns > 50%, Result < RL.
14600	SC-19	Soil	Pesticides	Endosulfan sulfate	-	-	J	%D between columns > 25%.
14600	SC-19	Soil	Pesticides	Endrin aldehyde	-	-	J	%D between columns > 25%.
14600	SC-19	Soil	Pesticides	Heptachlor epoxide	-	-	R	%D between columns > 200%.
14600	SC-19	Soil	Semivolatile	2,4-dinitrophenol	-	-	UJ	CCV %D > 25%.
14600	SC-19	Soil	Volatile	Acetone	-	-	UJ	Continuing calibration %D < ±25%.
14600	SC-19	Soil	Volatile	Methyl Acetate	-	-	UJ	Continuing calibration %D < ±25%.
15005	SC-11A	Soil	Inorganics	Arsenic	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-11A	Soil	Inorganics	Calcium	-	-	J	Rinse blank contamination.
15005	SC-11A	Soil	Inorganics	Chromium	-	-	J	Rinse blank contamination.
15005	SC-11A	Soil	Inorganics	Cobalt	-	0.11	U	Preparation blank contamination.
15005	SC-11A	Soil	Inorganics	Magnesium	-	89.7	U	Preparation blank contamination.
15005	SC-11A	Soil	Inorganics	Mercury	-	0.048	U	Preparation blank contamination.
15005	SC-11A	Soil	Inorganics	Selenium	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-11A	Soil	Pesticides	4,4-DDD	-	-	R	%D between columns greater than 25%.
15005	SC-11A	Soil	Pesticides	4,4-DDE	-	-	R	%D between columns greater than 25%.
15005	SC-11A	Soil	Pesticides	Aldrin	-	-	JN	%D between columns greater than 25%.
15005	SC-11A	Soil	Pesticides	Dieldrin	-	-	R	%D between columns greater than 25%.
15005	SC-11A	Soil	Pesticides	Endosulfan I	-	-	R	%D between columns greater than 25%.
15005	SC-11A	Soil	Pesticides	Endosulfan II	-	-	JN	%D between columns greater than 25%.
15005	SC-11A	Soil	Pesticides	Endosulfan Sulfate	-	-	R	%D between columns greater than 25%.
15005	SC-11A	Soil	Pesticides	Endrin Aldehyde	-	-	JN	%D between columns greater than 25%.
15005	SC-11A	Soil	Pesticides	Endrin Ketone	-	-	R	%D between columns greater than 25%.
15005	SC-11A	Soil	Pesticides	Methoxychlor	-	-	J	%D between columns greater than 25%.
15005	SC-11ADL	Soil	Pesticides	Dieldrin	-	-	R	%D between columns greater than 25%.
15005	SC-11ADL	Soil	Pesticides	Endrin Aldehyde	-	-	JN	%D between columns greater than 25%.
15005	SC-11ADL	Soil	Pesticides	Methoxychlor	-	-	J	%D between columns greater than 25%.
15005	SC-13A	Soil	Inorganics	Antimony	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-13A	Soil	Inorganics	Calcium	-	-	J	Rinse blank contamination.
15005	SC-13A	Soil	Inorganics	Chromium	-	-	J	Rinse blank contamination.
15005	SC-13A	Soil	Inorganics	Cobalt	-	0.34	U	Preparation blank contamination.
15005	SC-13A	Soil	Inorganics	Magnesium	-	120	U	Preparation blank contamination.
15005	SC-13A	Soil	Inorganics	Mercury	-	0.091	U	Preparation blank contamination.
15005	SC-13A	Soil	Inorganics	Selenium	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-13A	Soil	Pesticides	4,4-DDT	-	-	JN	%D between columns greater than 25%.
15005	SC-13A	Soil	Pesticides	Alpha-Chlordane	-	-	J	%D between columns greater than 25%.
15005	SC-13A	Soil	Pesticides	Gamma-Chlordane	-	-	J	%D between columns greater than 25%.
15005	SC-13ADUP	Soil	Inorganics	Antimony	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-13ADUP	Soil	Inorganics	Calcium	-	-	J	Rinse blank contamination.
15005	SC-13ADUP	Soil	Inorganics	Chromium	-	-	J	Rinse blank contamination.
15005	SC-13ADUP	Soil	Inorganics	Cobalt	-	0.46	U	Preparation blank contamination.
15005	SC-13ADUP	Soil	Inorganics	Magnesium	-	108	U	Preparation blank contamination.
15005	SC-13ADUP	Soil	Inorganics	Mercury	-	0.06	U	Preparation blank contamination.
15005	SC-13ADUP	Soil	Inorganics	Selenium	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-13ADUP	Soil	Pesticides	4,4-DDT	-	-	JN	%D between columns greater than 25%.
15005	SC-13ADUP	Soil	Pesticides	Beta-BHC	-	-	J	%D between columns greater than 25%.
15005	SC-14	Soil	Inorganics	Arsenic	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-14A	Soil	Inorganics	Calcium	-	-	J	Rinse blank contamination.
15005	SC-14A	Soil	Inorganics	Chromium	-	-	J	Rinse blank contamination.
15005	SC-14A	Soil	Inorganics	Cobalt	-	0.22	U	Preparation blank contamination.
15005	SC-14A	Soil	Inorganics	Magnesium	-	154	U	Preparation blank contamination.
15005	SC-14A	Soil	Inorganics	Selenium	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-14A	Soil	Pesticides	4,4-DDT	-	-	J	%D between columns greater than 25%.
15005	SC-14A	Soil	Pesticides	gamma-Chlordane	-	-	U	Method blank contamination.
15005	SC-16A	Soil	Inorganics	Arsenic	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-16A	Soil	Inorganics	Calcium	-	-	J	Rinse blank contamination.
15005	SC-16A	Soil	Inorganics	Chromium	-	-	J	Rinse blank contamination.
15005	SC-16A	Soil	Inorganics	Cobalt	-	0.21	U	Preparation blank contamination.
15005	SC-16A	Soil	Inorganics	Magnesium	-	134	U	Preparation blank contamination.
15005	SC-16A	Soil	Pesticides	4,4-DDT	-	-	J	%D between columns greater than 25%.

Table A-2
Data Qualifications
Lightman Drum Company Superfund Site
Winslow Township, New Jersey

SDG	Field ID	Matrix	Analysis	Analyte	New Result	New Reporting Limit	QUAL	Comments
15005	SC-18A	Soil	Inorganics	Arsenic	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-18A	Soil	Inorganics	Calcium	-	-	J	Rinse blank contamination.
15005	SC-18A	Soil	Inorganics	Chromium	-	-	J	Rinse blank contamination.
15005	SC-18A	Soil	Inorganics	Cobalt	-	0.11	U	Preparation blank contamination.
15005	SC-18A	Soil	Inorganics	Lead	-	-	J	Lab duplicate precision greater than QC criteria.
15005	SC-18A	Soil	Inorganics	Magnesium	-	79.7	U	Preparation blank contamination.
15005	SC-18A	Soil	Pesticides	4,4-DDE	-	-	JN	%D between columns greater than 25%.
15005	SC-18A	Soil	Pesticides	4,4-DDT	-	-	J	%D between columns greater than 25%.
15005	SC-18A	Soil	Pesticides	Aldrin	-	-	JN	%D between columns greater than 25%.
15005	SC-18A	Soil	Pesticides	Endosulfan Sulfate	-	-	R	%D between columns greater than 25%.
15005	SC-18A	Soil	Pesticides	Endrin	-	-	R	%D between columns greater than 25%.
15005	SC-18A	Soil	Pesticides	Endrin Aldehyde	-	-	R	%D between columns greater than 25%.
15005	SC-18A	Soil	Pesticides	Gamma-Chlordane	-	-	J	%D between columns greater than 25%.
15005	SC-18A	Soil	Pesticides	Heptachlor Epoxide	-	-	J	%D between columns greater than 25%.
15005	SC-18A	Soil	Pesticides	Methoxychlor	-	-	J	%D between columns greater than 25%.
15005	SC-18ADL	Soil	Pesticides	Dieldrin	-	-	JN	%D between columns greater than 25%.
15005	SC-18ADL	Soil	Pesticides	Heptachlor Epoxide	-	-	J	%D between columns greater than 25%.
15005	SC-19A	Soil	Inorganics	Arsenic	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-19A	Soil	Inorganics	Calcium	-	-	J	Rinse blank contamination.
15005	SC-19A	Soil	Inorganics	Chromium	-	-	J	Rinse blank contamination.
15005	SC-19A	Soil	Inorganics	Cobalt	-	0.15	U	Preparation blank contamination.
15005	SC-19A	Soil	Inorganics	Magnesium	-	61	U	Preparation blank contamination.
15005	SC-19A	Soil	Inorganics	Selenium	-	-	J	Matrix spike below acceptable limits (75-125%).
15005	SC-19A	Soil	Pesticides	Endosulfan I	-	-	J	%D between columns greater than 25%.
15005	SC-19A	Soil	Pesticides	Heptachlor	-	-	J	%D between columns greater than 25%.

Notes:

% D = Percent Difference
 CCV = Continuing Calibration Verification
 ICP = Inductively coupled plasma
 J = Estimated detect
 JN = Tentatively Identified, Estimated Concentration
 QC = Quality control
 Qual = Qualifier
 R = Rejected value
 RL = Reporting Limit
 RPD = Relative Percent Difference
 RSD = Relative Standard Deviation
 SDG = Sample Delivery Group
 SVOC = Semivolatile Organic Compounds
 TIC = Tentatively Identified Compound
 U = Non-detect
 UJ = Non-detect, estimated reporting limit

ATTACHMENT B
ANALYTICAL DATA
UN-NATURALLY COLORED SOIL INVESTIGATION

June 2008

Lightman Drum Colored Soil Sampling
Summary of Validated Soil Results

013-6054

Sample ID: Sample Depth: N = Normal, FD = Field Duplicate: Sample Date:	SS-10		SC-11 0 - 3"		SC-11A 3" - 6"		SC-12 0 - 4"		SC-13 0 - 4"		SC-13A 4" - 8"		SC-13A 4" - 8" FD		SC-14 1 - 4"		SC-14A 4" - 8"		SC-15 1 - 4"		SC-15 1 - 4" FD		
	N		N		N		N		N		N		N		N		N		N		N		
	11/05/2007		01/17/2008		03/26/2008		01/17/2008		01/17/2008		03/26/2008		03/26/2008		01/17/2008		03/26/2008		01/17/2008		01/17/2008		
	Parameter	Unit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit
Volatile Organic Compounds																							
Acetone	mg/kg	0.009	J	0.01	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Benzene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Bromodichloromethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Bromoform	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Bromomethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
2-Butanone	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Carbon Disulfide	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Carbon Tetrachloride	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Chlorobenzene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Chloroethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Chloroform	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Chloromethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
cis-1,2-Dichloroethene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
cis-1,3-Dichloropropene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Cyclohexane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,2-Dibromo-3-chloropropane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Dibromochloromethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,2-Dibromoethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,2-Dichlorobenzene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,3-Dichlorobenzene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,4-Dichlorobenzene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Dichlorodifluoromethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,1-Dichloroethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,2-Dichloroethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,1-Dichloroethene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,2-Dichloropropane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Ethylbenzene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Freon 113	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
2-Hexanone	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Isopropylbenzene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Methyl Acetate	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Methyl Cyclohexane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Methyl tert-Butyl Ether	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
4-Methyl-2-pentanone	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Methylene Chloride	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Styrene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,1,2,2-Tetrachloroethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Tetrachloroethene	mg/kg	0.16		0.0100	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Toluene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
trans-1,2-Dichloroethene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
trans-1,3-Dichloropropene	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,2,4-Trichlorobenzene	mg/kg	0.003	J	0.01	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,1,1-Trichloroethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
1,1,2-Trichloroethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Trichloroethene	mg/kg	0.017		0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Trichlorofluoromethane	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Vinyl Chloride	mg/kg	0.01	U	0.010	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010
Xylenes, Total	mg/kg	0.004	J	0.01	0.013	U	0.013	NST	0.01	U	0.010	0.01	U	0.010	NST	NST	0.011	U	0.011	NST	0.01	U	0.010

200141

June 2008

Lightman Drum Colored Soil Sampling
Summary of Validated Soil Results

013-6054

Sample ID: Sample Depth: N = Normal, FD = Field Duplicate: Sample Date:	SS-10		SC-11 0 - 3"		SC-11A 3" - 6"		SC-12 0 - 4"		SC-13 0 - 4"		SC-13A 4" - 8"		SC-13A 4" - 8" FD		SC-14 1 - 4"		SC-14A 4" - 8"		SC-15 1 - 4"		SC-15 1 - 4" FD						
	N		N		N		N		N		N		N		N		N		N		N						
	11/05/2007	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008						
Parameter	Unit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit		
Semivolatile Organic Compounds																											
Acenaphthene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Acenaphthylene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Acetophenone	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Anthracene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Atrazine	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Benzaldehyde	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Benzo[a]anthracene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Benzo[a]pyrene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Benzo[b]fluoranthene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Benzo[k]fluoranthene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Biphenyl	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Bis(2-chloroethoxy)methane	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Bis(2-chloroethyl) Ether	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Bis(2-chloroisopropyl) Ether	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Bis(2-ethylhexyl) Phthalate	mg/kg	0.16	J	0.350	19		3.2	NST	3.6		0.7300	9.7		1.900	NST		NST	29.00		4.4000	NST	5.2	J	11.00	9.3	J	1.800
4-Bromophenyl Phenyl Ether	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Butylbenzyl Phthalate	mg/kg	0.35	U	0.350	1.5	J	3.200	NST	0.89		0.730	3.7		1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Caprolactum	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Carbazole	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
4-Chloro-3-methylphenol	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
4-Chloroaniline	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
2-Chloronaphthalene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
2-Chlorophenol	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
4-Chlorophenyl-phenylether	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Chrysene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Dibenz[a,h]anthracene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Dibenzofuran	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
3,3'-Dichlorobenzidine	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
2,4-Dichlorophenol	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Diethyl Phthalate	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.92		0.730	0.75	J	1.90	NST		NST	4.4	U	4.400	NST	3.3	J	11.00	5.3		1.800
Dimethyl Phthalate	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.4	J	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
2,4-Dimethylphenol	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Di-n-Butyl Phthalate	mg/kg	0.35	U	0.350	4.3		3.200	NST	1.9		0.7300	2.6		1.900	NST		NST	20.00		4.4000	NST	57.00	J	11.000	6.9	J	1.800
4,6-Dinitro-2-methylphenol	mg/kg	0.89	U	0.890	8.1	U	8.100	NST	1.8	U	1.800	4.8	U	4.800	NST		NST	11.00	U	11.000	NST	27.00	U	27.000	4.5	U	4.500
2,4-Dinitrophenol	mg/kg	0.89	U	0.890	8.1	U	8.100	NST	1.8	U	1.800	4.8	U	4.800	NST		NST	11.00	U	11.000	NST	27.00	U	27.000	4.5	U	4.500
2,4-Dinitrotoluene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
2,6-Dinitrotoluene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Di-n-octyl Phthalate	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.4	J	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Fluoranthene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Fluorene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Hexachlorobenzene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Hexachlorobutadiene	mg/kg	0.35	U	0.350	3.2	U	3.200	NST	0.73	U	0.730	1.9	U	1.900	NST		NST	4.4	U	4.400	NST	11.00	U	11.000	1.8	U	1.800
Hexachlorocyclopentadiene	mg/kg	0.35	U	0.350	3																						

June 2008

Lightman Drum Colored Soil Sampling
Summary of Validated Soil Results

013-6054

Sample ID: Sample Depth: N = Normal, FD = Field Duplicate: Sample Date:		SS-10 0 - 3" N 11/05/2007			SC-11 0 - 3" N 01/17/2008			SC-11A 3" - 6" N 03/26/2008			SC-12 0 - 4" N 01/17/2008			SC-13 0 - 4" N 01/17/2008			SC-13A 4" - 8" N 03/26/2008			SC-13A 4" - 8" FD 03/26/2008			SC-14 1 - 4" N 01/17/2008			SC-14A 4" - 8" N 03/26/2008			SC-15 1 - 4" N 01/17/2008			SC-15 1 - 4" FD 01/17/2008		
Parameter	Unit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit
Pesticides																																		
Aldrin	mg/kg	0.0018	U	0.0018	0.0041	U	0.0041	0.0019	JN	0.0019	0.0019	U	0.0019	0.002	R	0.002	0.0018	U	0.0018	0.0018	U	0.0018	0.0019	U	0.0019	0.0018	U	0.0018	0.0037	U	0.0037	0.0037	U	0.0037
alpha-BHC	mg/kg	0.0018	U	0.0018	0.0041	U	0.0041	0.0019	U	0.0019	0.0019	U	0.0019	0.002	U	0.002	0.0018	U	0.0018	0.0018	U	0.0018	0.0019	U	0.0019	0.0018	U	0.0018	0.0037	U	0.0037	0.0037	U	0.0037
alpha-Chlordane	mg/kg	0.021		0.0018	0.12		0.0410	0.38		0.00190	0.038		0.0093	0.058		0.0098	0.0044	J	0.0018	0.0034		0.0018	0.043	J	0.0093	0.0019		0.0018	0.44		0.0370	0.44		0.0370
alpha-Endosulfan	mg/kg	0.0018	U	0.0018	0.0041	U	0.0041	0.002	R	0.002	0.0019	U	0.0019	0.0078		0.0020	0.0018	U	0.0018	0.0018	U	0.0018	0.0023	J	0.0019	0.0018	U	0.0018	0.0097	J	0.0037	0.0054	J	0.0037
beta-BHC	mg/kg	0.0033	J	0.0018	0.0041	U	0.0041	0.0019	U	0.0019	0.0019	U	0.0019	0.0026	U	0.0026	0.00068	J	0.0018	0.00054	J	0.0018	0.0019	U	0.0019	0.0018	U	0.0018	0.0037	U	0.0037	0.0037	U	0.0037
gamma-Chlordane	mg/kg	0.024		0.0018	0.46		0.0410	0.46		0.0019	0.049		0.0093	0.069		0.0098	0.0051	J	0.0018	0.0047		0.0018	0.051		0.0093	0.0024	U	0.0018	0.52		0.0370	0.51		0.0370
beta-Endosulfan	mg/kg	0.0047		0.0035	0.008	U	0.008	0.0053	JN	0.0037	0.0036	U	0.0036	0.0038	U	0.0038	0.0035	U	0.0035	0.0035	U	0.0035	0.0036	U	0.0036	0.0036	U	0.0036	0.01	JN	0.0073	0.0072	U	0.0072
4,4-DDD	mg/kg	0.0035	U	0.0035	0.008	R	0.008	0.0025	R	0.0037	0.0067		0.0036	0.0038	U	0.0038	0.0035	U	0.0035	0.0035	U	0.0035	0.0036	U	0.0036	0.0036	U	0.0036	0.0073	U	0.0073	0.0072	U	0.0072
4,4-DDE	mg/kg	0.0035	U	0.0035	0.012		0.0080	0.011	R	0.0037	0.0043		0.0036	0.0038	U	0.0038	0.0015	J	0.0035	0.0012	J	0.0035	0.002	J	0.004	0.0015	J	0.0036	0.016	J	0.0073	0.0088	JN	0.0072
4,4-DDT	mg/kg	0.0035	U	0.0035	0.042	JN	0.0080	0.32		0.00370	0.026	J	0.0036	0.014	J	0.0038	0.0013	JN	0.0035	0.0012	JN	0.0035	0.0065		0.0036	0.0027	J	0.0036	0.016	JN	0.0073	0.013	J	0.0072
delta-BHC	mg/kg	0.0018	U	0.0018	0.0041	U	0.0041	0.0019	U	0.0019	0.0019	U	0.0019	0.002	U	0.002	0.0018	U	0.0018	0.0018	U	0.0018	0.0019	U	0.0019	0.0018	U	0.0018	0.0037	U	0.0037	0.0037	U	0.0037
Dieldrin	mg/kg	0.0035	U	0.0035	0.024	JN	0.0080	0.029	R	0.0037	0.016		0.0036	0.02	JN	0.0038	0.0035	U	0.0035	0.0035	U	0.0035	0.0072	JN	0.0036	0.0036	U	0.0036	0.025	JN	0.0073	0.025	JN	0.0072
Endosulfan Sulfate	mg/kg	0.0035	U	0.0035	0.008	R	0.008	0.003	R	0.004	0.0036	U	0.0036	0.01	J	0.0038	0.0035	U	0.0035	0.0035	U	0.0035	0.0036	U	0.0036	0.0036	U	0.0036	0.0073	U	0.0073	0.004	J	0.0072
Endrin	mg/kg	0.0035	U	0.0035	0.017	JN	0.0080	0.12		0.00370	0.013	J	0.0036	0.0038	R	0.0038	0.0035	U	0.0035	0.0035	U	0.0035	0.004		0.004	0.0036	U	0.0036	0.0073	U	0.0073	0.0072	U	0.0072
Endrin Aldehyde	mg/kg	0.0035	U	0.0035	0.093		0.0080	0.63	JN	0.0037	0.03	J	0.0036	0.0038	R	0.0038	0.0035	U	0.0035	0.0035	U	0.0035	0.0036	U	0.0036	0.0036	U	0.0036	0.013	J	0.0073	0.0072	U	0.0072
Endrin Ketone	mg/kg	0.0035	U	0.0035	0.012	J	0.0080	0.043	R	0.0037	0.0036	U	0.0036	0.0094	JN	0.0038	0.0035	U	0.0035	0.0035	U	0.0035	0.0036	U	0.0036	0.0036	U	0.0036	0.0073	U	0.0073	0.0099		0.0072
gamma-BHC	mg/kg	0.0018	U	0.0018	0.0041	U	0.0041	0.0019	U	0.0019	0.0019	U	0.0019	0.002	U	0.002	0.0018	U	0.0018	0.0018	U	0.0018	0.0019	U	0.0019	0.0018	U	0.0018	0.0037	U	0.0037	0.0037	U	0.0037
Heptachlor	mg/kg	0.0018	R	0.0018	0.23	J	0.0410	0.0032		0.0019	0.003	JN	0.0019	0.002	U	0.002	0.0018	U	0.0018	0.0018	U	0.0018	0.0038	J	0.0019	0.0018	U	0.0018	0.027		0.0037	0.023		0.0037
Heptachlor Epoxide	mg/kg	0.0018	U	0.0018	0.025	J	0.0041	0.028		0.0019	0.0019	U	0.0019	0.0043	J	0.0020	0.0018	U	0.0018	0.0018	U	0.0018	0.0037	J	0.0019	0.0018	U	0.0018	0.0037	R	0.0037	0.0037	R	0.0037
Methoxychlor	mg/kg	0.018	U	0.018	0.041	U	0.041	0.047	J	0.019	0.019	U	0.019	0.02	U	0.020	0.018	U	0.018	0.018	U	0.018	0.019	U	0.019	0.018	U	0.018	0.023	J	0.037	0.037	U	0.037
Toxaphene	mg/kg	0.18	U	0.180	0.41	U	0.410	0.19	U	0.190	0.19	U	0.190	0.2	U	0.200	0.18	U	0.180	0.18	U	0.180	0.19	U	0.190	0.18	U	0.180	0.37	U	0.370	0.37	U	0.370
Polychlorinated Biphenyls																																		
Aroclor 1016	mg/kg	0.035	U	0.035	0.08	U	0.080		NST		0.036	U	0.036	0.038	U	0.038		NST		NST		0.036	U	0.036		NST			0.073	U	0.073	0.072	U	0.072
Aroclor 1221	mg/kg	0.072	U	0.072	0.16	U	0.160		NST		0.074	U	0.074	0.077	U	0.077		NST		NST		0.074	U	0.074		NST			0.15	U	0.150	0.15	U	0.150
Aroclor 1232	mg/kg	0.035	U	0.035	0.08	U	0.080		NST		0.036	U	0.036	0.038	U	0.038		NST		NST		0.036	U	0.036		NST			0.073	U	0.073	0.072	U	0.072
Aroclor 1242	mg/kg	0.035	U	0.035	0.08	U	0.080		NST		0.036	U	0.036	0.038	U	0.038		NST		NST		0.036	U	0.036		NST			0.073	U	0.073	0.072	U	0.072
Aroclor 1248	mg/kg	0.035	U	0.035	0.08	U	0.080		NST		0.036	U	0.036	0.038	U	0.038		NST		NST		0.036	U	0.036		NST			0.073	U	0.073	0.072	U	0.072
Aroclor 1254	mg/kg	0.19	J	0.0350	0.08	U	0.080		NST		0.036	U	0.036	0.038	U	0.038		NST		NST		0.036	U	0.036		NST			0.073	U	0.073	0.072	U	0.072
Aroclor 1260	mg/kg	0.035	U	0.035	0.08	U	0.080		NST		0.036	U	0.036	0.038	U	0.038		NST		NST		0.036	U	0.036		NST			0.073	U	0.073	0.072	U	0.072

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Summary of Validated Soil Results

013-6054

Sample ID: Sample Depth: N = Normal, FD = Field Duplicate: Sample Date:		SS-10		SC-11 0 - 3"		SC-11A 3" - 6"		SC-12 0 - 4"		SC-13 0 - 4"		SC-13A 4" - 8"		SC-13A 4" - 8" FD		SC-14 1 - 4"		SC-14A 4" - 8"		SC-15 1 - 4"		SC-15 1 - 4" FD												
		N		N		N		N		N		N		N		N		N		N		N												
		11/05/2007	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008												
Parameter	Unit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit									
Metals																																		
Aluminum	mg/Kg	7450		43.10	5800		48.50	3240		22.20	6100		44.10	5900		44.40	2970		21.20	2990		21.30	7110		44.10	3810		21.20	7480		42.50	7280		42.80
Antimony	mg/Kg	12.9	U	12.9	5.5	J	14.5	6.7	U	6.7	1.4	J	13.2	17.1		13.3	0.94	J	6.4	0.77	J	6.4	1.2	J	13.2	6.4	U	6.4	12.8	U	12.8	0.94	J	12.8
Arsenic	mg/Kg	3.9		2.2	31.6		2.40	1.2	J	1.1	2.4		2.2	2.2	U	2.2	1.1	U	1.1	1.1	U	1.1	2.2	U	2.2	1.2		1.1	1.8	J	2.1	1.8	J	2.1
Barium	mg/Kg	43.1	U	43.1	241		48.5	10.9	J	22.2	86.6		44.1	119		44.4	16.8	J	21.2	14.6	J	21.3	44.10	U	44.1	15.8	J	21.2	763		42.5	717		42.8
Beryllium	mg/Kg	0.14	J	1.1	1.2	U	1.2	0.063	J	0.56	1.1	U	1.1	1.1	U	1.1	0.052	J	0.53	0.1	J	0.53	1.1	U	1.1	0.077	J	0.53	1.1	U	1.1	1.1	U	1.1
Cadmium	mg/Kg	1.1	U	1.1	19.7		1.20	0.56	U	0.56	0.78	J	1.1	1.2		1.1	0.53	U	0.53	0.53	U	0.53	0.48	J	1.1	0.53	U	0.53	2.8		1.1	3.3		1.1
Calcium	mg/Kg	1080	U	1080	1210	U	1210	77.4	J	556	1100	U	1100	1110	U	1110	65.6	J	529	58.5	J	532	1100	U	1100	57.6	J	531	1060	U	1060	1070	U	1070
Chromium	mg/Kg	12		2.2	517		2.40	8.7	J	1.1	539		2.20	2020		2.200	550	J	1.10	563	J	1.10	1450		2.200	21.6	J	1.10	499		2.10	511		2.10
Chromium, Hexavalent	mg/Kg		NST			NST			NST			NST		146		4.57		NST			NST		161		4.41		NST			NST			NST	
Cobalt	mg/Kg	0.54	J	10.8	8.6	J	12.1	0.11	U	5.6	1.1	J	11	2.2	J	11	0.34	U	5.3	0.46	U	5.3	1.5	J	11	0.22	U	5.3	1.3	J	10.6	1.5	J	11
Copper	mg/Kg	6		5.4	246		6.10	9.3		2.8	230		5.50	252		5.60	10.2		2.60	12.6		2.70	140		5.50	11		2.7	173		5.30	183		5.30
Cyanide	mg/Kg	0.53	U	0.53	6.1		0.61		NST		1.9		0.55	2.8		0.57		NST			NST		1.6		0.55		NST		4.6		0.55	3		0.55
Iron	mg/Kg	8360		21.60	104000		24.2000	4100		11.10	13100		22.100	17300		22.200	4130		10.60	4970		10.60	10400		22.000	4020		10.60	16100		21.300	14100		21.400
Lead	mg/Kg	17.5		0.650	2060		0.7300	36.7		1.10	336		0.660	1090		0.6700	24.6		1.10	26.7		1.10	5460		0.6600	244		1.10	1630		0.6400	1740		0.6400
Magnesium	mg/Kg	1080	U	1080	1210	U	1210	89.7	J	556	1100	U	1100	1110	U	1110	120	J	529	120	J	529	1100	U	1100	154	J	531	1060	U	1060	1070	U	1070
Manganese	mg/Kg	23.6		3.20	458		3.60	5.1		1.7	21.4		3.30	39.9		3.30	7.3		1.6	6.8		1.6	16.3		3.30	11.2		1.60	27.9		3.20	25.4		3.20
Mercury	mg/Kg	0.1	U	0.1	2.6		0.12	0.048	U	0.11	0.75		0.10	2		0.11	0.091	U	0.10	0.06	U	0.1	0.13		0.11	0.11	U	0.11	0.32		0.11	0.35		0.11
Nickel	mg/Kg	3.5	J	8.6	86.2	J	9.70	1.6	J	4.4	19.1		8.80	75.2	J	8.90	2.8	J	4.2	2.3	J	4.2	8.5	J	8.8	1.6	J	4.2	19.5	J	8.50	22	J	8.6
Potassium	mg/Kg	145	J	1080	1210	U	1210	54.2	J	556	1100	U	1100	1110	U	1110	83.9	J	529	80.9	J	532	1100	U	1100	46.6	J	531	1060	U	1060	1070	U	1070
Selenium	mg/Kg	1.1	U	1.1	1.2	U	1.2	0.33	J	3.9	1.1	U	1.1	1.1	U	1.1	0.39	J	3.7	0.54	J	3.7	1.1	U	1.1	0.38	J	3.7	1.1	U	1.1	1.1	U	1.1
Silver	mg/Kg	2.2	UJ	2.2	3.2		2.4	1.1	U	1.1	0.47	J	2.2	0.8	J	2.2	1.1	U	1.1	1.1	U	1.1	0.41	J	2.2	1.1	U	1.1	0.94	J	2.1	0.87	J	2.1
Sodium	mg/Kg	1080	U	1080	1210	U	1210	556	U	556	1100	U	1100	1110	U	1110	529	U	529	532	U	532	1100	U	1100	531	U	531	1060	U	1060	1070	U	1070
Thallium	mg/Kg	2.2	UJ	2.2	2.4	U	2.4	2.8	U	2.8	2.2	U	2.2	2.2	U	2.2	2.6	U	2.6	2.7	U	2.7	2.2	U	2.2	2.7	U	2.7	2.1	U	2.1	2.1	U	2.1
Vanadium	mg/Kg	15		10.8	13.1		12.1	9.6		5.6	19.7		11.0	17.6		11.1	9.7		5.3	10.9		5.30	42.9		11.0	7.2		5.3	23.7		10.6	22.5		10.7
Zinc	mg/Kg	20.7		4.30	549		4.80	8.5		6.7	55.8		4.40	117		4.40	10.9		6.40	14		6.4	30.9		4.40	6.5		6.4	72.6		4.30	79.2		4.30

Definitions:

U = Not Detected
UJ = Not Detected/Estimated Reporting Limit
J = Estimated
JN = Estimated xx
Blank = Detected
NST = No Sample Taken

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June 2008

Lightman Drum Colored Soil Sampling
Summary of Validated Soil Results

013-6054

Sample ID: Sample Depth: N = Normal, FD = Field Duplicate:	SC-16 0 - 3" N	SC-16A 3" - 6" N	SC-17 0 - 4" N	SC-18 0 - 3" N	SC-18A 3" - 6" N	SC-19 0 - 3" N	SC-19A 3" - 6" N									
Sample Date:	01/17/2008	03/26/2008	01/17/2008	01/17/2008	03/26/2008	01/17/2008	03/26/2008									
Parameter	Unit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit			
Volatile Organic Compounds																
Acetone	mg/kg	0.01	U	0.010	NST	0.021	U	0.021	0.01	U	0.010	NST	0.01	U	0.010	NST
Benzene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Bromodichloromethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Bromoforn	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Bromomethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
2-Butanone	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Carbon Disulfide	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Carbon Tetrachloride	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Chlorobenzene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Chloroethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Chloroform	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Chloromethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
cis-1,2-Dichloroethene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
cis-1,3-Dichloropropene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Cyclohexane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,2-Dibromo-3-chloropropane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Dibromochloromethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,2-Dibromoethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,2-Dichlorobenzene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,3-Dichlorobenzene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,4-Dichlorobenzene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Dichlorodifluoromethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,1-Dichloroethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,2-Dichloroethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,1-Dichloroethene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,2-Dichloropropane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Ethylbenzene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Freon 113	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
2-Hexanone	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Isopropylbenzene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Methyl Acetate	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Methyl Cyclohexane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Methyl tert-Butyl Ether	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
4-Methyl-2-pentanone	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Methylene Chloride	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Styrene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,1,2,2-Tetrachloroethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Tetrachloroethene	mg/kg	0.01	U	0.010	NST	0.004	J	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Toluene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
trans-1,2-Dichloroethene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
trans-1,3-Dichloropropene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,2,4-Trichlorobenzene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,1,1-Trichloroethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
1,1,2-Trichloroethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Trichloroethene	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Trichlorofluoromethane	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Vinyl Chloride	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST
Xylenes, Total	mg/kg	0.01	U	0.010	NST	0.012	U	0.012	0.01	U	0.010	NST	0.01	U	0.010	NST

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Lightman Drum Colored Soil Sampling
Summary of Validated Soil Results

013-6054

Sample ID: Sample Depth: N = Normal, FD = Field Duplicate:		SC-16 0 - 3" N		SC-16A 3" - 6" N		SC-17 0 - 4" N		SC-18 0 - 3" N		SC-18A 3" - 6" N		SC-19 0 - 3" N		SC-19A 3" - 6" N		
Sample Date:		01/17/2008		03/26/2008		01/17/2008		01/17/2008		03/26/2008		01/17/2008		03/26/2008		
Parameter	Unit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit
Pesticides																
Aldrin	mg/kg	0.0096	U	0.0096	0.0018	U	0.0018	0.001	J	0.0019	9.8	U	9.800	0.0096	JN	0.018
alpha-BHC	mg/kg	0.0096	U	0.0096	0.0018	U	0.0018	0.0019	U	0.0019	9.8	U	9.800	0.018	U	0.018
alpha-Chlordane	mg/kg	0.62		0.0960	0.0059		0.0018	0.019		0.0019	900.00		98.0000	1.5		0.01800
alpha-Endosulfan	mg/kg	0.019		0.0096	0.0018	U	0.0018	0.0019	U	0.0019	9.8	U	9.800	0.077		0.018
beta-BHC	mg/kg	0.0096	U	0.0096	0.0018	U	0.0018	0.0019	U	0.0019	9.8	U	9.800	0.018	U	0.018
gamma-Chlordane	mg/kg	0.69		0.0960	0.0075		0.0018	0.024		0.0019	980.00		98.0000	1.5		0.018
beta-Endosulfan	mg/kg	0.016	J	0.019	0.0035	U	0.0035	0.0037	U	0.0037	19.00	J	19.000	0.079		0.035
4,4-DDD	mg/kg	0.019	U	0.019	0.0035	U	0.0035	0.0037	U	0.0037	19.00	U	19.000	0.035	U	0.035
4,4-DDE	mg/kg	0.033		0.019	0.0027	J	0.0035	0.0051	J	0.0037	19.00	U	19.000	0.051	JN	0.035
4,4-DDT	mg/kg	0.03	J	0.019	0.0027	J	0.0035	0.0049	JN	0.0037	9.9	J	19.00	0.039	J	0.035
delta-BHC	mg/kg	0.0096	U	0.0096	0.0018	U	0.0018	0.0019	U	0.0019	9.8	U	9.800	0.018	U	0.018
Dieldrin	mg/kg	0.038	JN	0.019	0.0024	J	0.0035	0.012	J	0.0037	19.00	R	19.000	0.13		0.0350
Endosulfan Sulfate	mg/kg	0.0083	J	0.019	0.0035	U	0.0035	0.0037	U	0.0037	19.00	U	19.000	0.011	R	0.035
Endrin	mg/kg	0.019	U	0.019	0.0035	U	0.0035	0.0037	U	0.0037	19.00	U	19.000	0.12	R	0.0350
Endrin Aldehyde	mg/kg	0.019	U	0.019	0.0035	U	0.0035	0.0037	R	0.0037	19.00	U	19.000	0.009	R	0.04
Endrin Ketone	mg/kg	0.019	U	0.019	0.0035	U	0.0035	0.0037	U	0.0037	19.00	U	19.000	0.035	U	0.035
gamma-BHC	mg/kg	0.0096	U	0.0096	0.0018	U	0.0018	0.0019	U	0.0019	9.8	U	9.800	0.018	U	0.018
Heptachlor	mg/kg	0.046		0.0096	0.0018	U	0.0018	0.0019	U	0.0019	340.00		98.00	0.11		0.0180
Heptachlor Epoxide	mg/kg	0.0096	R	0.0096	0.0018	U	0.0018	0.004		0.0019	26.00	JN	9.8000	0.086	J	0.018
Methoxychlor	mg/kg	0.096	U	0.096	0.018	U	0.018	0.019	U	0.019	98.00	U	98.000	0.042	J	0.18
Toxaphene	mg/kg	0.96	U	0.960	0.18	U	0.180	0.19	U	0.190	980.00	U	980.000	1.8	U	1.800
Polychlorinated Biphenyls																
Aroclor 1016	mg/kg	0.19	U	0.190			NST	0.037	U	0.037	190.00	U	190.00		NST	0.18
Aroclor 1221	mg/kg	0.38	U	0.380			NST	0.074	U	0.074	390.00	U	390.00		NST	0.37
Aroclor 1232	mg/kg	0.19	U	0.190			NST	0.037	U	0.037	190.00	U	190.00		NST	0.18
Aroclor 1242	mg/kg	0.19	U	0.190			NST	0.037	U	0.037	190.00	U	190.00		NST	0.18
Aroclor 1248	mg/kg	0.19	U	0.190			NST	0.037	U	0.037	190.00	U	190.00		NST	0.18
Aroclor 1254	mg/kg	0.19	U	0.190			NST	0.037	U	0.037	190.00	U	190.00		NST	0.18
Aroclor 1260	mg/kg	0.19	U	0.190			NST	0.037	U	0.037	190.00	U	190.00		NST	0.18

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Summary of Validated Soil Results

013-6054

Sample ID:		SC-16			SC-16A			SC-17			SC-18			SC-18A			SC-19			SC-19A			
Sample Depth:		0 - 3"			3" - 6"			0 - 4"			0 - 3"			3" - 6"			0 - 3"			3" - 6"			
N = Normal, FD = Field Duplicate:		N			N			N			N			N			N			N			
Sample Date:		01/17/2008			03/26/2008			01/17/2008			01/17/2008			03/26/2008			01/17/2008			03/26/2008			
Parameter		Unit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit	Result	Qual	ReptLimit			
Metals																							
Aluminum	mg/kg		5300		43.10	3320		21.30	3130		44.40	7550		45.70	2320		21.50	5910		44.50	2920		21.20
Antimony	mg/kg		6.7	J	12.9	6.4	U	6.4	13.3	U	13.3	13.7	U	13.7	6.4	U	6.4	13.4	U	13.4	6.3	U	6.3
Arsenic	mg/kg		2.2	U	2.2	1.1	J	1.1	1.3	J	2.2	8.1		2.3	1.5	J	1.1	11		2.2	1.3	J	1.1
Barium	mg/kg		116		43.1	17.6	J	21.3	44.4	U	44.4	1940		45.70	32.6		21.5	172		44.5	14.9	J	21.2
Beryllium	mg/kg		1.1	U	1.1	0.09	J	0.53	1.1	U	1.1	1.1	U	1.1	0.058	J	0.54	1.1	U	1.1	0.052	J	0.53
Cadmium	mg/kg		10.3		1.10	4.6		0.53	0.46	J	1.1	2.5		1.1	0.12	J	0.54	1.4		1.1	0.21	J	0.53
Calcium	mg/kg		1340	J	1080	155	J	531	1110	U	1110	1140	U	1140	233	J	536	1110	U	1110	68.8	J	529
Chromium	mg/kg		5240		6.600	14.3	J	1.10	17.1	J	2.20	267		2.30	6.8	J	1.1	201		2.20	7	J	1.1
Chromium, Hexavalent	mg/kg		2.24	U	2.24			NST			NST			NST			NST			NST			NST
Cobalt	mg/kg		1.6	J	10.8	0.21	U	5.3	0.56	J	11	1.4	J	11	0.11	U	5.4	1	J	11.1	0.15	U	5.3
Copper	mg/kg		118		5.40	13.7		2.70	4.9	J	5.6	112		5.70	5.5		2.7	121		5.60	12.3		2.60
Cyanide	mg/kg		4.1		0.56			NST	0.56	U	0.56	3.4		0.57			NST	2.3		0.56			NST
Iron	mg/kg		13200		21.600	3340		10.60	4470		22.20	21700		22.900	2630		10.70	11900		22.300	3390		10.60
Lead	mg/kg		23800		2.0000	33.8		1.10	64.1		0.670	850		0.690	9.3	J	1.1	714		0.670	11.3		1.1
Magnesium	mg/kg		1080	U	1080	134	J	531	1110	U	1110	1140	U	1140	79.7	J	536	1110	U	1110	61	J	530
Manganese	mg/kg		183		3.20	15.8		1.60	16.8		3.30	48.5		3.40	11.8		1.60	22.7		3.30	6.3		1.6
Mercury	mg/kg		0.52		0.11	0.13		0.11	0.11	U	0.11	0.095	J	0.11	0.11	U	0.11	0.31		0.11	0.11	U	0.11
Nickel	mg/kg		34.1	J	8.60	5.9		4.3	3.1	J	8.9	35.1	J	9.10	2.5	J	4.3	20.4	J	8.90	5.3		4.2
Potassium	mg/kg		1080	U	1080	60.3	J	531	1110	U	1110	1140	U	1140	38	J	536	1110	U	1110	47.8	J	529
Selenium	mg/kg		1.1	U	1.1	3.7	U	3.7	1.1	U	1.1	1.1	U	1.1	3.8	U	3.8	1.1	U	1.1	0.3	J	3.7
Silver	mg/kg		1	J	2.2	1.1	U	1.1	2.2	U	2.2	2.4		2.3	1.1	U	1.1	0.59	J	2.2	1.1	U	1.1
Sodium	mg/kg		1080	U	1080	531	U	531	1110	U	1110	1140	U	1140	44.5	J	536	1110	U	1110	529	U	529
Thallium	mg/kg		2.2	U	2.2	2.7	U	2.7	2.2	U	2.2	2.3	U	2.3	2.7	U	2.7	2.2	U	2.2	2.6	U	2.6
Vanadium	mg/kg		19		10.8	6.3		5.3	6.6	J	11	24.8		11.4	5.2	J	5.4	20.8		11.1	8.9		5.3
Zinc	mg/kg		608		4.30	24.6		6.40	17.7	J	4.40	70.9		4.60	8		6.4	84.9		4.50	13.2		6.30

Definitions:

U = Not Detected
 UJ = Not Detected/Estimated Reporting
 J = Estimated
 JN = Estimated xx
 Blank = Detected
 NST = No Sample Taken

200148

ATTACHMENT C
SURVEY DATA
UN-NATURALLY COLORED SOIL INVESTIGATION

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Lightman Drum PRP Group Lightman Drum Winslow Township - New Jersey

Project #: 2702
Horizontal Datum: New Jersey State Plane Coordinates - NAD 83
Vertical Datum: NAVD 88

April 10, 2008

	Elevation in Feet	Coordinates in Feet		
Grid-Colored Soil	(1)	Y	X	
Point #	Ground	North	East	Date Of Survey
A3		326128.27	377241.99	April 10, 2008
A3(20)		326144.23	377230.85	April 10, 2008
A4(20)		326163.98	377289.07	April 10, 2008
A5		326176.95	377305.32	April 10, 2008
A6		326200.57	377337.20	April 10, 2008
A(20)6(20)		326232.69	377340.57	April 10, 2008
A7(20)		326238.91	377382.43	April 10, 2008
A8(20)		326265.52	377388.80	April 10, 2008
A(20)9(20)		326302.93	377434.17	April 10, 2008
B2(20)		326152.78	377177.32	April 10, 2008
B3(20)		326174.05	377235.80	April 10, 2008
B4		326186.87	377251.59	April 10, 2008
B5		326210.06	377283.01	April 10, 2008
B6		326234.93	377313.48	April 10, 2008
B9		326311.13	377409.95	April 10, 2008
C2(20)		326181.92	377181.61	April 10, 2008
C4		326218.88	377228.31	April 10, 2008
C4(20)		326230.94	377244.62	April 10, 2008
C7		326293.26	377322.15	April 10, 2008
C8		326317.53	377354.41	April 10, 2008
C(20)9(20)		326372.62	377389.98	April 10, 2008
C(20)17(20)		326568.02	377639.27	April 10, 2008
D7(20)		326338.13	377316.26	April 10, 2008
D8		326348.92	377328.78	April 10, 2008
D6		326302.08	377269.02	April 10, 2008
B2		326137.15	377187.96	April 10, 2008
B3		326160.98	377220.00	April 10, 2008
B8		326286.78	377379.40	April 10, 2008
SC-11		326403.50	377407.25	April 10, 2008
SC-12		326203.09	377329.03	April 10, 2008

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Project #: 2702
Horizontal Datum: New Jersey State Plane Coordinates - NAD 83
Vertical Datum: NAVD 88

April 10, 2008

	Elevation in Feet	Coordinates in Feet		
Grid-Colored Soil	(1)	Y	X	
Point #	Ground	North	East	Date Of Survey
SC-13		326199.24	377322.44	April 10, 2008
SC-14		326181.34	377303.55	April 10, 2008
SC-15		326182.80	377271.09	April 10, 2008
SC-16		326188.84	377254.42	April 10, 2008
SC-18		326164.47	377249.87	April 10, 2008
SC-19		326174.88	377266.71	April 10, 2008

Note:
The ground elevation at each location was not recorded.