PRELIMINARY ASSESSMENT REPORT
BALLFIELD PARCEL
FORMER GM DELPHI INTERIOR & LIGHTING SYSTEMS SITE
TRENTON, NEW JERSEY
ISRA CASE NO. E97070

by

Haley & Aldrich of New York
Rochester, New York

for

General Motors Corporation
Trenton, New Jersey

File No. 70613-014
February 2001

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of N.J.S.A. 13:1K-6 et seq., I am personally liable for the penalties set forth at N.J.S.A. 13:1K-13.

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(Signature)

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(Print Name)

_____

(Title)

12 February 2001
File No. 70613-014

General Motors Corporation
1445 Parkway Avenue
Trenton, New Jersey 08628

Attention: Mr. David W. Worrell, P.E.

Subject: Preliminary Assessment Report
Ballfield Parcel
Former GM Delphi Interior & Lighting Systems Site
Trenton, New Jersey
ISRA Case No. E97070

Gentlemen:

This report has been prepared at the request of General Motors Corporation (GM). It presents an assessment of environmental conditions on the Ballfield Parcel at GM's former Delphi Interior & Lighting Systems facility in Trenton, New Jersey.

INTRODUCTION

The Ballfield Parcel is a vacant, undeveloped portion of the property that is the site of the former GM facility. GM intends to convey ownership of the Ballfield Parcel to others while retaining, for the present, ownership of the remainder of the site.

The site is located at 1445 Parkway Avenue in Mercer County. The Ballfield Parcel comprises the northeast corner of the site and covers approximately 4 acres. A map showing the location of the site is presented on Figure 1. A plan showing the location and proposed boundaries of the Ballfield Parcel is presented on Figure 2.

The GM site, including the Ballfield Parcel, is subject to the requirements of the State of New Jersey's Industrial Site Recovery Act (ISRA). In accordance with ISRA, GM is currently conducting a remedial investigation of the site. That investigation is being overseen by the New Jersey Department of Environmental Protection (NJDEP) under ISRA Case No. E97070.

The prerequisites for NJDEP's approval of the sale of the Ballfield Parcel by GM had been discussed at a June 2000 meeting of NJDEP's ISRA case management representatives and representatives of GM. This report documents that environmental conditions on the Ballfield Parcel meet the prerequisites for NJDEP's approval of the limited conveyance of a portion of an ISRA site. This report updates previous Preliminary Assessments of the site and reaffirms the

conclusion of those previous assessments that no areas of concern, as defined in the NJDEP's Technical Requirements for Site Remediation (the Technical Requirements), are present on the parcel. This report also documents soil sampling completed in October 2000 in the area of the site that abuts the Ballfield Parcel. That sampling confirmed that contamination previously identified in the one area of concern located in the abutting area does not extend to the Ballfield Parcel.

SITE HISTORY

GM acquired the site, including the Ballfield Parcel, in 1937. The site was an undeveloped agricultural property at the time it was acquired.

The site is bisected by Gold Run, a creek which runs south across the eastern third of the site. The manufacturing facility at the site was developed on the portion of the site located on the west side of Gold Run.

GM constructed its manufacturing building and related structures, roadways, and parking lots on the site beginning in 1937 and began manufacturing automotive components there in 1938. During World War II the facility was temporarily converted to production of military aircraft; automotive manufacturing operations were resumed after the war.

Several building expansions were added to the facility over time. Manufacturing operations at the facility were discontinued in 1998. Decommissioning of facility buildings in preparation for demolition was then performed, and demolition of buildings at the site is currently underway.

The portion of the site located east of Gold Run, which includes the Ballfield Parcel, has remained vacant as an undeveloped parkland area since 1937. Since GM acquired the site, the Ballfield Parcel has been maintained as an open field. From the 1940s into the 1960s, a baseball field with a dirt infield was maintained in the northeast corner of the parcel for the private recreational use of the employees of the facility. The previous assessments and investigations of the site have identified no other uses of the Ballfield Parcel and no history of structures or commercial or industrial activities.

SUMMARY OF PREVIOUS PRELIMINARY ASSESSMENT, SITE INVESTIGATION, AND REMEDIAL INVESTIGATION ACTIVITIES

The ongoing remedial investigation of the site is an investigative phase that has, in accordance with the NJDEP's Technical Requirements, been preceded by Preliminary Assessment and Site Investigation activities. The previous Preliminary Assessment activities, which have addressed the entire site, most recently included submittal of a Preliminary Assessment report to the NJDEP in May 1997 (*).

* A list of references is presented at the end of this report.

As documented in the May 1997 report, three independent preliminary assessments of the site have been performed. The assessments were performed in accordance and compliance with New Jersey laws and regulations concerning the cleanup of industrial sites. The first assessment was triggered by GM's announcement in 1992 of plans to close or sell the facility. The second assessment complied with a 1996 Memorandum of Agreement entered into by GM and the state after GM dropped its plans to close or sell the facility. The third assessment was triggered in 1997 when GM again announced plans to close the facility. Each assessment was performed by a different environmental consulting firm. Each assessment has been followed by site and remedial investigation activities in the areas of concern identified at the site.

Subsequent to the submittal of the May 1997 Preliminary Assessment, the following additional Preliminary Assessment activities have been performed.

A re-evaluation of available aerial photographs of the site was performed, and results were presented to the NJDEP in the July 1997 Remedial Investigation (RI) Work Plan for the site. Photographs from 1940, 1947, 1951, 1953, 1954, 1957, 1961, 1962, 1965, 1974, 1975, 1977, 1984, 1991, and 1993 were reviewed. As documented in the July 1997 RI Work Plan, no areas of concern on the Ballfield Parcel were evident on those photographs.

In June 2000, a meeting of NJDEP's ISRA case representatives and representatives of GM was held to discuss the limited conveyance of the Ballfield Parcel. At the meeting, the NJDEP's ISRA case representatives reported that they had identified no areas of concern on the Ballfield Parcel in their June 2000 review of aerial photographs available in the NJDEP's library.

The previous assessments, evaluations, and investigations of the site have indicated that no use, handling, or releases of hazardous substances, hazardous waste, or pollutants are known to have occurred on the parcel. Facility personnel report that no new uses, activities, or maintenance practices have occurred on or been applied to the parcel since the May 1997 Preliminary Assessment report was issued, and observable current conditions on the parcel are unchanged from previous conditions, indicating that no new areas of concern are present. Furthermore, the site and remedial investigations that have been conducted to date have not identified contamination in other areas of the site for which no source has been identified or for which there is an unknown source that could potentially be located on the Ballfield Parcel.
At the June 2000 meeting between GM and the NJDEP's case management team, it was agreed that in order to determine whether the Ballfield Parcel was eligible for limited conveyance there was one previously-investigated area of concern that required further investigation. The area in question is the area along the banks of Gold Run that abuts the Ballfield Parcel. PAHs, PCBs, and several metals had previously been detected in sediment and surface water from Gold Run Pond and the Gold Run creek. At several locations upstream, in, and downstream of the pond, the concentrations of some analytes were above either the applicable Ontario Lowest Effects Level currently used by the NJDEP as screening criteria for sediment or the applicable NJDEP surface water quality criteria. The extent of contaminants in Gold Run had been delineated by the previous ISRA investigations. However, soil sampling in areas adjacent to the pond and creek had not previously been performed to determine whether, and to what extent, past

flooding of the pond and creek may have resulted in deposition of contaminants in soil along the banks.

To address this issue, a Work Plan was prepared and submitted for NJDEP approval. Soil sampling in accordance with the approved Work Plan was performed in September and October 2000. The area sampled was located along the east bank of Gold Run between Gold Run and the south and east boundaries of the Ballfield Parcel. The results of that sampling, described on the next page, indicate that soil contamination does not extend onto the Ballfield Parcel.

No other potential for migration of contaminants from other areas of concern at the site onto the Ballfield Parcel has been identified or evident in the results of previous site and remedial investigations. Shallow groundwater flow in the area of the Ballfield Parcel is to the southwest towards Gold Run. The Ballfield Parcel is therefore on the upgradient edge of the site, and shallow groundwater flow on the Parcel is towards the property to be retained by GM. Deeper groundwater flow in the bedrock beneath the Ballfield Parcel is expected to be towards the south or southeast. These interpretations are based on site groundwater-monitoring data collected since the 1980s and available groundwater-monitoring data reported for the adjacent, upgradient U.S. Navy site.

The parcel to be sold is therefore not expected to be affected by or be downgradient of groundwater contamination from areas of concern located elsewhere on the GM site. Nor is it indicated that conditions on the Ballfield Parcel would either adversely affect, or be adversely affected by, any future groundwater remediation activities that may be conducted at the site.

FALL 2000 SOIL SAMPLING ACTIVITIES

A work plan for determining whether and to what extent contamination is present in soil along the banks on the east side of Gold Run was approved by the NJDEP on 18 September 2000. The two purposes of the sampling were:

- to delineate beyond the limits of the creek and pond the extent of the contamination previously detected in the sediment and surface water, and

- to confirm that the past flooding of the creek and pond had not contaminated soil on the Ballfield Parcel with compounds of concern from the site.

In accordance with the approved work plan, four surface soil samples (S1 through S4) were collected on 25 September along the east side of Gold Run and Gold Run Pond. The samples were collected 10 to 25 feet from the shore of the creek or pond within the zone of flooding that had been observed by facility personnel during recent high water events. Sample locations are shown on Figure 2.

At each of the initial four locations, a sample was collected from a depth of 0 to 6 inches below ground surface for analysis of the following:

- semi-volatile polynuclear aromatic hydrocarbons (PAHs),
- polychlorinated biphenyls (PCBs),
- arsenic, beryllium, cadmium, total chromium, copper, lead, mercury, nickel, silver, and zinc, and
- hexavalent chromium.

Also at each location, a sample was collected from 18 to 24 inches below ground surface for analysis of:

- the volatile organic compound trichloroethylene (TCE).

Concentrations of several of the PAHs analyzed exceeded NJDEP's direct contact soil-cleanup criteria for residential and/or non-residential sites at each of the four initial sampling locations. PCB Aroclor 1260 was detected at concentrations above residential and/or non-residential criteria at three locations. Hexavalent chromium was detected in one of the samples at a concentration above the non-residential criterion but below the residential criterion. NJDEP's impact-to-groundwater clean-up criteria were not exceeded by any of the four samples. Neither TCE nor any of the metals other than hexavalent chromium were detected at concentrations that exceeded any NJDEP criteria.

To delineate the lateral and vertical extent of the exceedances of criteria for PAHs, PCBs, and hexavalent chromium, additional sampling was performed on 6 October and 23 October. Surface soil was sampled at a total of 18 additional locations to delineate the lateral extent of contamination. Vertical delineation of the contamination was performed by collection of deeper samples (depths to 24 inches) at 4 locations. Sample locations and depths are shown on Figure 2.

As shown on Figure 2, many of the additional delineation samples were collected in the area northwest of Gold Run pond, north of the northernmost of the four initial samples (S1) and well beyond the immediate vicinity of the Ballfield Parcel. These sample locations did not bear directly on the investigation of conditions on the parcel, but did serve to define the extent of contamination initially identified at S1.

All soil samples were collected in accordance with NJDEP's Technical Requirements, the Field Analysis Manual (July 1994), and the Field Sampling Procedures Manual (May 1992). Sample collection was accompanied by appropriate QA/QC sampling in accordance with the applicable requirements.

Each soil sample was submitted to Severn Trent Laboratories, Inc. of Edison, New Jersey, a state-certified laboratory. Sample analysis was performed using methods and procedures specified in the Technical Requirements. Sample analysis results were reported in the New Jersey reduced-deliverables format, and Haley & Aldrich validated the results in accordance with standard data validation procedures. A laboratory data validation summary is presented in

Appendix A. Laboratory analysis reports for the soil samples collected are presented in a separately-bound three-volume attachment.

RESULTS

Observations of soil types made during the sampling indicate that surface soil in the area sampled is soil fill generally consisting of red-brown poorly-graded sand with silt and gravel. The gravel content of the surface soil layer generally was observed to increase with depth. At the three locations where sampling below a depth of 2 feet was performed (locations S1, S5, and S6, all located north of the pond and west of the Ballfield Parcel), a few-inch-thick fill layer of rock pieces was observed at a depth of 2 feet. Brown silty sand was observed to underlie the rock fill layer at these three locations.

A summary of soil-sample analysis results is presented in Table I and also on Figure 2. Table I and Figure 2 include a comparison of the results to NJDEP's generic soil-cleanup criteria.

Table I is separated into parts A and B. Part A presents results for the samples collected along Gold Run creek in the area that is adjacent to the boundary of the Ballfield Parcel. Part B presents results for samples collected beyond the immediate vicinity of the Parcel.

As shown on Figure 2, the sampling performed delineated the vertical and lateral limits of contamination of soil along the east bank of Gold Run. The sampling and analytical results indicate that hexavalent chromium, three to five individual PAH compounds, and PCB compounds are present at concentrations exceeding NJDEP's applicable generic clean-up criteria in the area. The contaminants are limited to a 10- to 25-foot-wide corridor along the shore of the pond and a downstream section of the creek. The lateral limit of contamination identified by the results is shown on Figure 2, and, as shown on Figure 2, the results indicate that the contamination does not extend onto the Ballfield Parcel. Where contamination was detected above applicable criteria, it was found to be limited vertically to the top 6 to 18 inches of soil.

The laboratory identified the PCBs detected in some samples as Aroclor 1260 and those detected in other samples as Aroclor 1262. However, review of the raw laboratory data indicates that the PCBs detected in each sample are a consistent admixture of individual PCB congeners rather than one or the other of two distinct admixtures. In spite of the laboratory's identification of both Aroclors, the evident similarity in the raw PCB data for all samples indicates a consistency in the source or sources of the contamination. The identity and relative abundance of the PCB congeners detected in site samples are similar to those typically found in both of the two very similar Aroclors.

CONCLUSIONS

Environmental conditions on the Ballfield Parcel meet the prerequisites for NJDEP's approval of the limited conveyance of a portion of an ISRA site. No areas of concern, as defined in the

NJDEP's Technical Requirements, are present on the Ballfield Parcel, and areas of concern located elsewhere on the GM site have not caused and are not expected to cause contaminants to migrate on to the Parcel.

CLOSING

We appreciate the opportunity to provide environmental consulting services on this project. Please do not hesitate to call if you have any questions or comments.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Thomas D. Wells, CHMM
Sr. Environmental Geologist

Jeffrey E. Loney, P.G., CHMM
Vice President

Attachments:

References
Table I – Summary of Laboratory Analysis Results
Figure 1 – Site Location
Figure 2 – Plan Showing Fall 2000 Sample Locations in Area on East Side of Gold Run
Appendix A – Laboratory Data Validation Summary
Laboratory Analysis Reports (a three-volume attachment)

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REFERENCES

1. McLaren/Hart Environmental Engineering Corporation, "Site Evaluation Submission (SES), for Inland-Fisher Guide Division of General Motors Corporation, Trenton, New Jersey Facility, ECRA Case No. 92713," March 9, 1993.
2. McLaren/Hart Environmental Engineering Corporation, "ISRA Remedial Investigation Plan, Inland-Fisher Guide Division, General Motors Corporation, 1445 Parkway Avenue, Trenton, New Jersey, 08650-1019, ISRA Case No. 92713," September 3, 1993.
3. URS Consultants, Inc., "Preliminary Assessment/Site Investigation Report, Proposed Remedial Investigation Work Plan, Delphi Interior & Lighting Systems Division, General Motors Corporation, 1445 Parkway Avenue, Trenton, New Jersey, 08650-1019, Case No. 95-2-22-1407-48," May 1996.
4. Haley & Aldrich of New York, "Preliminary Assessment Report, Delphi Interior & Lighting Systems Division, General Motors Corporation, Trenton, New Jersey, ISRA Case No. 97070," May 1997.
5. Haley & Aldrich of New York, "Remedial Investigation Report, MOA Case No. 95-2-22-1407-48, Delphi Interior & Lighting Systems Division, General Motors Corporation, Trenton, New Jersey," July 1997.
6. Haley & Aldrich of New York, "Remedial Investigation Work Plan, Delphi Interior & Lighting Systems Division, General Motors Corporation, Trenton, New Jersey, ISRA Case No. 97070" July 1997.
7. URS Greiner, Inc., "1994 Remedial Investigation Data Summary Report, Delphi Interior & Lighting Systems Division, General Motors Corporation, Trenton, New Jersey," July 1997.
8. Haley & Aldrich of New York, "Interim Remedial Investigation Report, Former Delphi Interior & Lighting Systems Division, General Motors Corporation, Trenton, New Jersey, ISRA Case No. 97070" February 1999.
9. New Jersey Department of Environmental Protection (NJDEP), "Soil Cleanup Criteria" from Tables 3-2 and 7-1 from the DEP's 3 February 1992 proposed rules entitled Cleanup Standards for Contaminated Sites, N.J.A.C. 7:26, revised 5/12/99.
10. General Motors Corporation (GM), 10 July 2000 letter to Jacqueline A. Bobko, NJDEP, concerning: Summary of Site Meeting of 28 June 2000, General Motors Corporation Site, 1445 Parkway Avenue, Trenton, New Jersey, ISRA Case No. E97070.
11. Haley & Aldrich of New York, “Supplemental Remedial Investigation Work Plan, Sampling Of Shallow Soil Along East Bank Of Gold Run, Former GM Delphi Interior & Lighting Systems Site, 1445 Parkway Avenue, Trenton, New Jersey, ISRA Case No. 97070,” 10 July 2000, Revised 18 September 2000.
12. NJDEP, 8 September 2000 Letter to David Worrell, GM, Re: Delphi Interior & Lighting Co. (Delphi, Trenton, Mercer County, ISRA Case #E97070, Remedial Investigation Workplan dated: July 10, 2000.
13. Haley & Aldrich of New York, 22 September 2000 Facsimile letter to Jacqueline A. Bobko, NJDEP, concerning: General Motors Corporation Site, 1445 Parkway Avenue, Trenton, New Jersey, ISRA Case No. E97070.

Table 1
Summary of Laboratory Analysis Results for
Fall 2000 Soil Samples Along East Bank of Gold Run
Former GM Delphi Facility, Trenton, New Jersey

PART A - AREA ADJACENT TO BALLFIELD PARCEL BOUNDARY

	Sample number, date, and depth:			S3	S4	S10	S11	S12	S20	S20 dup.	S21	S22
	NJDEP Soil Cleanup Criteria			9/25/00	9/25/00	10/6/00	10/6/00	10/6/00	10/23/00	10/23/00	10/23/00	10/23/00
Detected Compounds	Residential	Non-resid.	*Imp. to GW*	0-6" *	0-6" *	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"
Metals (mg/kg dry wt)												
Antimony	14	340	NCE	1.2 U	0.98 U	NA	NA	NA	NA	NA	NA	NA
Arsenic	20	20	NCE	9.8	16.1	NA	NA	NA	NA	NA	5	4.1
Beryllium	2	2	NCE	1	0.49	NA	NA	NA	NA	NA	0.52	0.9
Cadmium	39	100	NCE	0.58 B	0.088 U	NA	NA	NA	NA	NA	0.099 U	0.1 U
Total Chromium	NA	NA	NCE	141	21.3	NA	NA	NA	NA	NA	15.6	16.5
Hexavalent Chromium	240	20	NCE	12.2	2 U	NA	NA	NA	2 U	2 U	2 U	2 U
Copper	600	600	NCE	89.6	34	NA	NA	NA	NA	NA	NA	NA
Lead	400	600	NCE	262	41	NA	NA	NA	NA	NA	52.2	44.5
Mercury	14	270	NCE	0.39	0.03	NA	NA	NA	NA	NA	0.1	0.09
Nickel	250	2,400	NCE	30.2	10.1	NA	NA	NA	NA	NA	8.9 B	11.1
Selenium	63	3,100	NCE	1.2 U	0.98 U	NA	NA	NA	NA	NA	NA	NA
Silver	110	4,100	NCE	0.3 U	0.24 U	NA	NA	NA	NA	NA	0.34 U	0.36 U
Thallium	2	2	NCE	1.1 U	0.9 U	NA	NA	NA	NA	NA	NA	NA
Zinc	1,500	1,500	NCE	417	141	NA	NA	NA	NA	NA	45.6	51.3
VOCs (mg/kg dry wt)				* Note: VOC sample depth = 18-24"								
Trichloroethene	23	54	1	0.12 U	0.094 U	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg dry wt)												
Aroclor-1260	0.49	2	50	**1.8**	0.13	0.21	0.086 U	0.089 U	0.091 U	0.09 U	0.082 U	0.086 U
Aroclor-1262	0.49	2	50	0.092 U	0.073 U	0.091 U	0.086 U	**0.57**	0.091 U	0.09 U	0.082 U	0.086 U
Other Aroclors	0.49	2	50	0.092 U	0.073 U	0.091 U	0.086 U	0.089 U	0.091 U	0.09 U	0.082 U	0.086 U
PAHs (mg/kg dry wt)												
Napthalene	230	4,200	100	0.052 J	0.010 J	0.015 J	0.009 J	0.030 J	0.450 U	0.45 U	0.41 U	0.43 U
Acenapthylene	NCE	NCE	NCE	0.280 J	0.120 J	0.074 J	0.014 J	0.120 J	0.450 U	0.018 J	0.026 J	0.43 U
Acenapthene	3,400	10,000	100	0.240 J	0.095 J	0.02 J	0.009 J	0.065 J	0.450 U	0.45 U	0.41 U	0.43 U
Fluorene	2,300	10,000	100	0.240 J	0.099 J	0.028 J	0.009 J	0.076 J	0.450 U	0.45 U	0.41 U	0.43 U
Phenanthrene	NCE	NCE	NCE	3.700	1.700	0.35 J	0.081 J	1.100	0.083 J	0.098 J	0.12 J	0.062 J
Anthracene	10,000	10,000	100	0.690	0.420	0.076 J	0.017 J	0.210 J	0.014 J	0.018 J	0.021 J	0.0093 J
Fluoranthene	2,300	10,000	100	6.200	3.100	0.83	0.140 J	2.600	0.170 J	0.21 J	0.21 J	0.12 J
Pyrene	1,700	10,000	100	8.200	2.700	0.82	0.140 J	2.400	0.160 J	0.19 J	0.2 J	0.12 J
Benzo[a]anthracene	0.9	4	500	**3.000**	**1.300**	0.4	0.070	**1.100**	0.072	0.085	0.086	0.052
Chrysene	9	40	500	4.500	1.500	0.54	0.093 J	1.600	0.110 J	0.120 J	0.120 J	0.073 J
Benzo[b]fluoranthene	0.9	4	50	**4.900**	**1.300**	0.68	0.099	**2.100**	0.110	0.140	0.140	0.079
Benzo[k]fluoranthene	0.9	4	500	**2.400**	0.620	0.24	0.038 J	0.710	0.045 U	0.055	0.048	0.043 U
Benzo[a]pyrene	0.66	0.66	100	**3.400**	**1.000**	0.41	0.063	**1.200**	0.075	0.095	0.096	0.059
Indeno[1,2,3-cd]pyrene	0.9	4	500	**1.700**	0.570	0.17	0.041 J	0.500	0.040 J	0.046	0.058	0.030 J
Dibenz[a,h]anthracene	0.66	0.66	100	0.330	0.110	0.043 J	0.011 J	0.110	0.045 U	0.045 U	0.014 J	0.043 U
Benzo[g,h,i]perylene	NCE	NCE	NCE	1.400	0.440	0.14 J	0.052 J	0.420	0.032 J	0.038 J	0.053 J	0.030 J

Notes:

1. All values are in parts per million (ppm, = mg/kg).
2. Flags and Abbreviations:
   B = Estimated value less than the MDL but greater than the IDL.
   J = Estimated value less than the quantitation limit.
   U = Compound was not detected at the indicated concentration.
   * - Sample depth noted along third row of table applies to all parameters except VOCs. For all VOC samples, depth = 18-24"
   Dup. = duplicate sample
   NCE = No criterion established
   NA = Not analyzed
3. Results that represent exceedances of NJDEP soil cleanup criteria are indicated as follows:
   Bold indicates an exceedance of the Residential direct-contact criterion for that compound.
   Underlined indicates an exceedance of the Non-residential direct-contact criterion for that compound.
   Bold and underlined indicates exceedance of the Residential and Non-residential direct-contact criteria for that compound.

Table I
Summary of Laboratory Analysis Results for
Fall 2000 Soil Samples Along East Bank of Gold Run
Former GM Delphi Facility, Trenton, New Jersey

PART B - AREA NORTHWEST OF BALLFIELD PARCEL - Page 1 of 2

	Sample number, date, and depth:			S1	S1A	S1B	S2	S2 dup.	S2A	S5	S5A	S6	S6A
	NJDEP Soil Cleanup Criteria			9/25/00	10/6/00	10/23/00	9/25/00	9/25/00	10/6/00	10/6/00	10/23/00	10/6/00	10/23/00
Detected Compounds	Residential	Non-resid.	*Imp. to GW*	0-6" *	12-18"	24-30"	0-6" *	0-6" *	12-18"	0-6"	24-30"	0-6"	24-30"
Metals (mg/kg dry wt)													
Antimony	14	340	NCE	1.1 U	NA	NA	1.3 U	1.2 U	NA	NA	NA	NA	NA
Arsenic	20	20	NCE	7.8	NA	NA	11.4	12.2	NA	NA	NA	NA	NA
Beryllium	2	2	NCE	1.1	NA	NA	1.1	1.1	NA	NA	NA	NA	NA
Cadmium	39	100	NCE	0.54 B	NA	NA	0.33 B	0.47 B	NA	NA	NA	NA	NA
Total Chromium	NA	NA	NCE	279	NA	NA	91.7	115	NA	NA	NA	NA	NA
Hexavalent Chromium	240	20	NCE	31.9	8.6	NA	7.3	7	2 U	21.4	2 U	13.9	NA
Copper	600	600	NCE	130	NA	NA	66	78.2	NA	NA	NA	NA	NA
Lead	400	600	NCE	162	NA	NA	178	222	NA	NA	NA	NA	NA
Mercury	14	270	NCE	0.35	NA	NA	0.26	0.45	NA	NA	NA	NA	NA
Nickel	250	2,400	NCE	34.8	NA	NA	24	28.7	NA	NA	NA	NA	NA
Selenium	63	3,100	NCE	1.1 U	NA	NA	1.3 U	1.2 U	NA	NA	NA	NA	NA
Silver	110	4,100	NCE	1.3 B	NA	NA	0.31 U	0.29 B	NA	NA	NA	NA	NA
Thallium	2	2	NCE	1 U	NA	NA	1.2 U	1.1 U	NA	NA	NA	NA	NA
Zinc	1,500	1,500	NCE	396	NA	NA	296	348	NA	NA	NA	NA	NA
VOCs (mg/kg dry wt)				*** Note: VOC sample depth = 18-24"**									
Trichloroethene	23	54	1	0.12 U	NA	NA	0.13 U	0.14 U	NA	NA	NA	NA	NA
PCBs (mg/kg dry wt)													
Aroclor-1260	0.49	2	50	**20**	0.4 U	0.076 U	**1.4**	**1.7**	0.082 U	1.7 U	0.077 U	0.82 U	0.094 U
Aroclor-1262	0.49	2	50	2.1 U	**5.7**	0.44	0.096 U	0.089 U	0.082 U	**27**	0.2	**15**	0.39
Other Aroclors	0.49	2	50	2.1 U	0.4 U	0.076 U	0.096 U	0.089 U	0.082 U	1.7 U	0.077 U	0.82 U	0.094 U
PAHs (mg/kg dry wt)													
Napthalene	230	4,200	100	0.250 J	0.062 J	NA	0.045 J	0.054 J	0.410 U	0.300 J	0.38 U	0.350 J	0.46 U
Acenapthylene	NCE	NCE	NCE	0.970	0.280 J	NA	0.240 J	0.250 J	0.410 U	1.000	0.089 J	1.200	0.033 J
Acenapthene	3,400	10,000	100	0.140 J	0.028 J	NA	0.110 J	0.140 J	0.410 U	0.240 J	0.018 J	0.230 J	0.46 U
Fluorene	2,300	10,000	100	0.240 J	0.054 J	NA	0.120 J	0.140 J	0.410 U	0.440	0.037 J	0.390 J	0.46 U
Phenanthrene	NCE	NCE	NCE	3.400	0.610	NA	1.700	2.200	0.025 J	5.500	0.42	5.100	0.077 J
Anthracene	10,000	10,000	100	0.840	0.230 J	NA	0.300 J	0.440 J	0.410 U	1.300	0.078 J	1.400	0.016 J
Fluoranthene	2,300	10,000	100	5.100	1.100	NA	3.400	4.000	0.043 J	7.200	0.71	6.800	0.12 J
Pyrene	1,700	10,000	100	7.800	1.400	NA	4.100	5.600	0.042 J	9.400	0.73	9.400	0.14 J
Benzo[a]anthracene	0.9	4	500	**2.800**	0.640	NA	**1.600**	**2.000**	0.032 J	**3.900**	0.330	**3.600**	0.063
Chrysene	9	40	500	4.300	0.960	NA	2.300	2.900	0.025 J	5.700	0.46	5.400	0.100 J
Benzo[b]fluoranthene	0.9	4	50	**4.200**	0.870	NA	**2.400**	**3.100**	0.026 J	**6.000**	0.390	**4.700**	0.087
Benzo[k]fluoranthene	0.9	4	500	**1.500**	0.360	NA	**1.200**	**1.400**	0.010 J	**2.300**	0.170	**2.000**	0.040 J
Benzo[a]pyrene	0.66	0.66	100	**3.200**	0.660	NA	**1.700**	**2.100**	0.016 J	**4.100**	0.300	**3.800**	0.069
Indeno[1,2,3-cd]pyrene	0.9	4	500	**2.000**	0.340	NA	**1.200**	**1.100**	0.015 J	**1.200**	0.180	**1.800**	0.032 J
Dibenz[a,h]anthracene	0.66	0.66	100	0.420	0.086	NA	0.210	0.240	0.041 U	0.330	0.052	0.460	0.046 U
Benzo[g,h,i]perylene	NCE	NCE	NCE	2.000	0.340 J	NA	1.000	0.940	0.017 J	1.000	0.210 J	1.900	0.028 J

Notes:

1. All values are in parts per million (ppm, = mg/kg).
2. Flags and Abbreviations:
   B = Estimated value less than the MDL but greater than the IDL.
   J = Estimated value less than the quantitation limit.
   U = Compound was not detected at the indicated concentration.
   * - Sample depth noted along third row of table applies to all parameters except VOCs. For all VOC samples, depth = 18-24"
   Dup. = duplicate sample
   NCE = No criterion established
   NA = Not analyzed
3. Results that represent exceedances of NJDEP soil cleanup criteria are indicated as follows:
   Bold indicates an exceedance of the Residential direct-contact criterion for that compound.
   Underlined indicates an exceedance of the Non-residential direct-contact criterion for that compound.
   Bold and underlined indicates exceedance of the Residential and Non-residential direct-contact criteria for that compound.

Table I
Summary of Laboratory Analysis Results for
Fall 2000 Soil Samples Along East Bank of Gold Run
Former GM Delphi Facility, Trenton, New Jersey

PART B - AREA NORTHWEST OF BALLFIELD PARCEL - Page 2 of 2

	Sample number, date, and depth:			S7	S8	S9	S13	S14	S15	S16	S17	S18	S19
	NJDEP Soil Cleanup Criteria			10/6/00	10/6/00	10/6/00	10/23/00	10/23/00	10/23/00	10/23/00	10/23/00	10/23/00	10/23/00
Detected Compounds	Residential	Non-resid.	*Imp. to GW*	0-6"	0-6"	0-6"	0-6" *	0-6" *	0-6"	0-6"	0-6"	0-6"	0-6"
Metals (mg/kg dry wt)													
Antimony	14	340	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	20	20	NCE	NA	NA	NA	3.7	4.3	NA	NA	NA	NA	NA
Beryllium	2	2	NCE	NA	NA	NA	1.9	1.1	NA	NA	NA	NA	NA
Cadmium	39	100	NCE	NA	NA	NA	0.21 B	0.37 B	NA	NA	NA	NA	NA
Total Chromium	NA	NA	NCE	NA	NA	NA	22.7	169	NA	NA	NA	NA	NA
Hexavalent Chromium	240	20	NCE	2 U	8.6	NA	2 U	2 U	2 U	2 U	2 U	2 U	NA
Copper	600	600	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	400	600	NCE	NA	NA	NA	92.8	98.9	NA	NA	NA	NA	NA
Mercury	14	270	NCE	NA	NA	NA	0.02 B	0.15	NA	NA	NA	NA	NA
Nickel	250	2,400	NCE	NA	NA	NA	23.4	23.8	NA	NA	NA	NA	NA
Selenium	63	3,100	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	110	4,100	NCE	NA	NA	NA	0.31 U	0.3 U	NA	NA	NA	NA	NA
Thallium	2	2	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	1,500	1,500	NCE	NA	NA	NA	104	255	NA	NA	NA	NA	NA
VOCs (mg/kg dry wt)				* Note: VOC sample depth = 18-24"									
				NA	NA	NA	0.14 U	0.14 U	NA	NA	NA	NA	NA
PCBs (mg/kg dry wt)													
Aroclor-1260	0.49	2	50	0.097 U	0.42 U	0.082 U	0.081 U	7.0	0.3	0.076 U	0.087 U	0.085 U	0.095 U
Aroclor-1262	0.49	2	50	0.29	3.8	0.082 U	0.15	0.78 U	0.087 U	0.076 U	0.17	0.085 U	0.095 U
Other Aroclors	0.49	2	50	0.097 U	0.42 U	0.082 U	0.081 U	0.78 U	0.087 U	0.076 U	0.087 U	0.085 U	0.095 U
PAHs (mg/kg dry wt)													
Napthalene	230	4,200	100	0.020 J	0.039 J	0.400 U	0.027 J	0.11 J	0.05 J	0.021 J	0.072 J	0.04 J	NA
Acenapthylene	NCE	NCE	NCE	0.062 J	0.180 J	0.016 J	0.14 J	0.43	0.3 J	0.14 J	0.27 J	0.16 J	NA
Acenapthene	3,400	10,000	100	0.016 J	0.029 J	0.400 U	0.04 J	0.15 J	0.084 J	0.04 J	0.15 J	0.057 J	NA
Fluorene	2,300	10,000	100	0.020 J	0.450 J	0.400 U	0.051 J	0.2 J	0.11 J	0.066 J	0.17 J	0.068 J	NA
Phenanthrene	NCE	NCE	NCE	0.260 J	0.390 J	0.058 J	0.55	2.2	1.2	0.79	1.9	0.78	NA
Anthracene	10,000	10,000	100	0.055 J	0.130 J	0.012 J	0.12 J	0.64	0.27 J	0.14 J	0.4 J	0.15 J	NA
Fluoranthene	2,300	10,000	100	0.470 J	0.700	0.100 J	1.0	4.1	2.3	1.1	3.1	1.3	NA
Pyrene	1,700	10,000	100	0.500	0.830	0.110 J	1.0	4.2	2.4	1.2	3.3	1.4	NA
Benzo[a]anthracene	0.9	4	500	0.230	0.350	0.065	0.470	**2.200**	**1.100**	0.540	**1.500**	0.560	NA
Chrysene	9	40	500	0.340 J	0.560	0.069 J	0.680	2.600	1.500	0.730	2.200	0.860	NA
Benzo[b]fluoranthene	0.9	4	50	0.300	0.480	0.064	0.680	**3.300**	**1.900**	0.690	**2.600**	0.900	NA
Benzo[k]fluoranthene	0.9	4	500	0.120	0.220	0.022 J	0.330	**1.500**	**0.940**	0.340	0.043 U	0.410	NA
Benzo[a]pyrene	0.66	0.66	100	0.220	0.410	0.046	0.490	**2.200**	**1.200**	0.500	**1.700**	0.610	NA
Indeno[1,2,3-cd]pyrene	0.9	4	500	0.140	0.230	0.028 J	0.200	0.420	0.360	0.220	0.540	0.240	NA
Dibenz[a,h]anthracene	0.66	0.66	100	0.035 J	0.057	0.040 U	0.078	0.140	0.120	0.068	0.150	0.068	NA
Benzo[g,h,i]perylene	NCE	NCE	NCE	0.140 J	0.260 J	0.036 J	0.210 J	0.320 J	0.300 J	0.230 J	0.410 J	0.210 J	NA

Notes:

1. All values are in parts per million (ppm, = mg/kg).
2. Flags and Abbreviations:
   B = Estimated value less than the MDL but greater than the IDL.
   J = Estimated value less than the quantitation limit.
   U = Compound was not detected at the indicated concentration.
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   Bold indicates an exceedance of the Residential direct-contact criterion for that compound.
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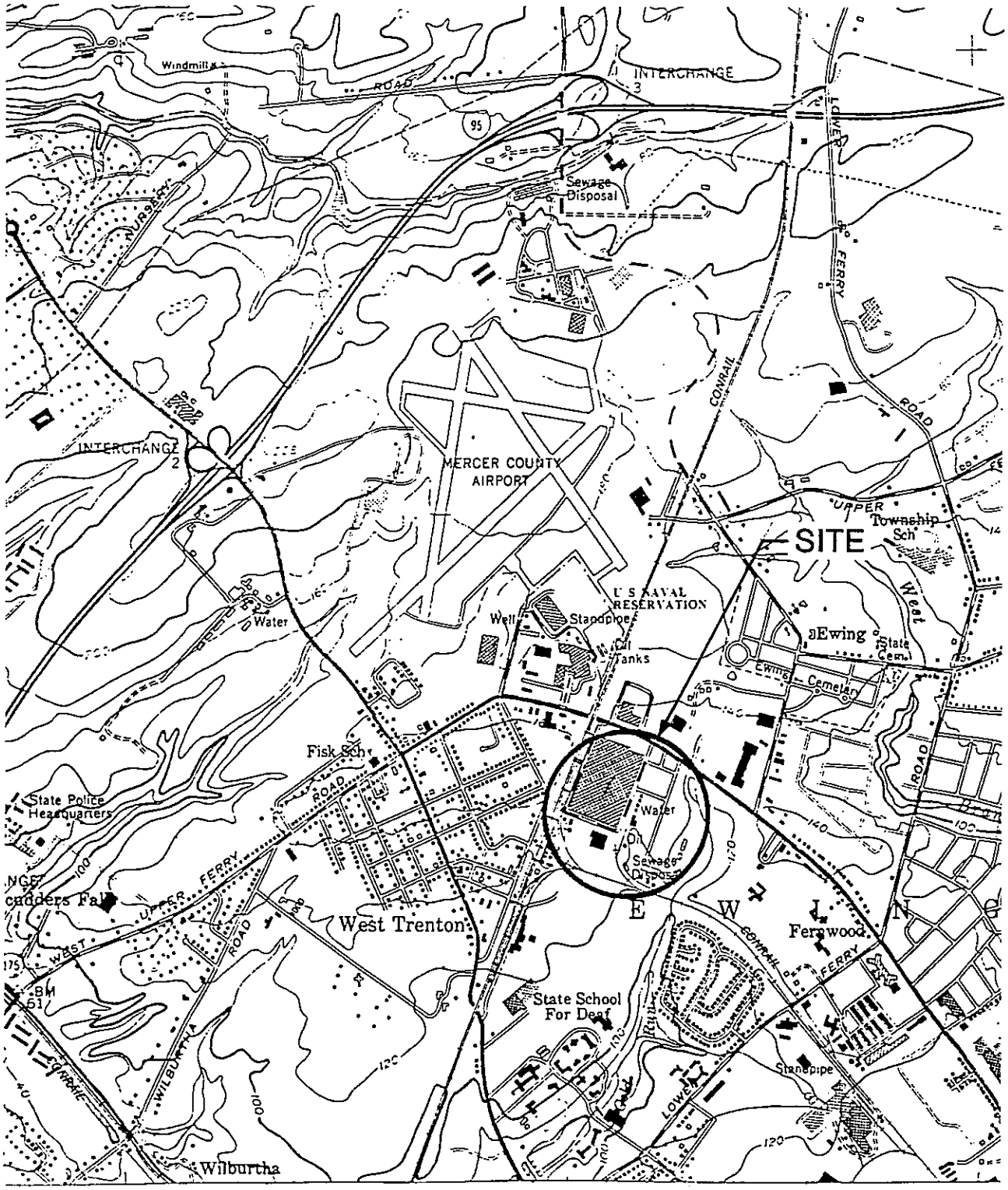


HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

PRELIMINARY ASSESSMENT REPORT
GENERAL MOTORS CORPORATION
TRENTON, NEW JERSEY

PROJECT LOCUS

SCALE: 1" = 2000'

FIGURE 1

70613-001 \ LOCUS

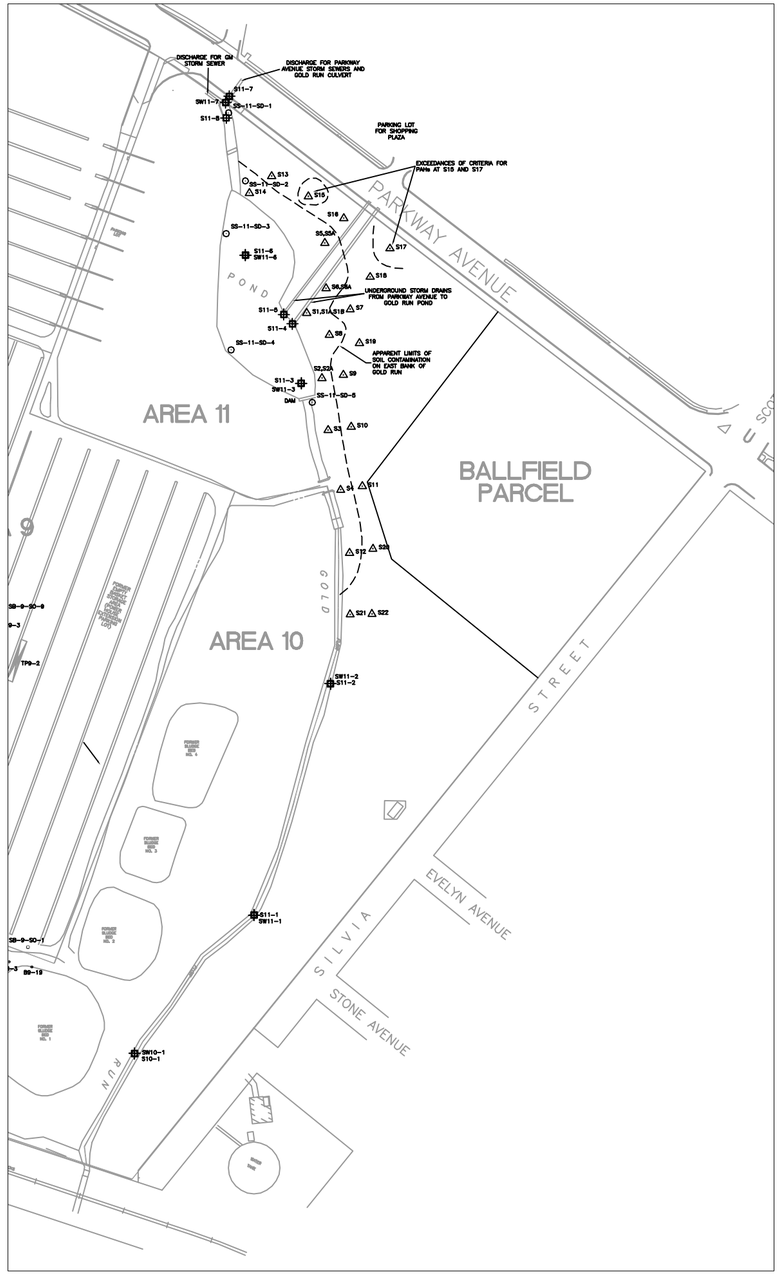
Detected Compounds	Sample number, date, and depth: NJDEP Soil Cleanup Criteria Residential	Non-resid.	Imp. to GW	S1 9/25/00 0-6" *	S1A 10/6/00 12-18"	S1B 10/23/00 24-30"	S2 9/25/00 0-6" *	S2 dup. 9/25/00 0-6" *	S2A 10/6/00 12-18"	S3 9/25/00 0-6" *	S4 9/25/00 0-6" *	S5 10/6/00 0-6"	S5A 10/23/00 24-30"
Metals (mg/kg dry wt)													
Antimony	14	340	NCE	1.1 U	NA	NA	1.3 U	1.2 U	NA	1.2 U	0.98 U	NA	NA
Arsenic	20	20	NCE	7.8	NA	NA	11.4	12.2	NA	9.8	16.1	NA	NA
Beryllium	2	2	NCE	1.1	NA	NA	1.1	1.1	NA	1	0.49	NA	NA
Cadmium	39	100	NCE	0.54 B	NA	NA	0.33 B	0.47 B	NA	0.58 B	0.088 U	NA	NA
Total Chromium	NA	NA	NCE	279	NA	NA	91.7	115	NA	141	21.3	NA	NA
Hexavalent Chromium	240	20	NCE	31.8	8.6	NA	7.3	7	2 U	12.2	2 U	21.4	2 U
Copper	600	600	NCE	130	NA	NA	66	78.2	NA	89.6	34	NA	NA
Lead	400	600	NCE	182	NA	NA	178	222	NA	282	41	NA	NA
Mercury	14	270	NCE	0.35	NA	NA	0.26	0.45	NA	0.39	0.03	NA	NA
Nickel	250	2,400	NCE	34.8	NA	NA	24	28.7	NA	30.2	10.1	NA	NA
Selenium	63	3,100	NCE	1.1 U	NA	NA	1.3 U	1.2 U	NA	1.2 U	0.98 U	NA	NA
Silver	110	4,100	NCE	1.3 B	NA	NA	0.31 U	0.29 B	NA	0.3 U	0.24 U	NA	NA
Thallium	2	2	NCE	1 U	NA	NA	1.2 U	1.1 U	NA	1.1 U	0.9 U	NA	NA
Zinc	1,500	1,500	NCE	398	NA	NA	296	348	NA	417	141	NA	NA
VOCs (mg/kg dry wt)				* Note: VOC sample depth = 18-24"									
Trichloroethene	33	54	1	0.12 U	NA	NA	0.13 U	0.14 U	NA	0.12 U	0.094 U	NA	NA
PCBs (mg/kg dry wt)													
Aroclor-1260	0.49	2	50	20	0.4 U	0.078 U	1.4	1.7	0.082 U	1.8	0.13	1.7 U	0.077 U
Aroclor-1262	0.49	2	50	2.1 U	5.7	0.44	0.26 U	0.099 U	0.082 U	0.092 U	0.073 U	27	0.3
Other Aroclors	0.49	2	50	2.1 U	0.4 U	0.078 U	0.096 U	0.099 U	0.082 U	0.092 U	0.073 U	1.7 U	0.077 U
PAHs (mg/kg dry wt)													
Naphthalene	230	4,200	100	0.250 J	0.082 J	NA	0.045 J	0.054 J	0.410 U	0.052 J	0.010 J	0.300 J	0.38 U
Acenaphthylene	NCE	NCE	NCE	0.970	0.280 J	NA	0.240 J	0.250 J	0.410 U	0.280 J	0.120 J	1.000	0.089 J
Acenaphthene	3,400	10,000	100	0.140 J	0.028 J	NA	0.110 J	0.140 J	0.410 U	0.240 J	0.095 J	0.240 J	0.018 J
Fluorene	2,300	10,000	100	0.240 J	0.054 J	NA	0.120 J	0.140 J	0.410 U	0.340 J	0.089 J	0.440	0.037 J
Phenanthrene	NCE	NCE	NCE	3.400	0.610	NA	1.700	2.200	0.025 J	3.700	1.700	5.500	0.42
Anthracene	10,000	10,000	100	0.840	0.230 J	NA	0.370 J	0.440 J	0.410 U	0.890	0.420	1.300	0.078 J
Fluoranthene	2,300	10,000	100	5.100	1.100	NA	3.400	4.000	0.043 J	6.200	3.100	7.200	0.71
Pyrene	1,700	10,000	100	7.800	1.400	NA	4.100	5.600	0.042 J	8.200	2.700	9.400	0.73
Benzo(a)anthracene	0.9	4	500	2.800	0.640	NA	1.600	2.000	0.032 J	3.000	1.300	3.800	0.330
Chrysene	9	40	500	4.300	0.960	NA	2.300	2.900	0.025 J	4.500	1.500	5.700	0.46
Benzo(b)fluoranthene	0.9	4	50	4.200	0.870	NA	2.400	3.100	0.026 J	4.900	1.200	6.000	0.390
Benzo(k)fluoranthene	0.9	4	500	1.500	0.360	NA	1.200	1.400	0.010 J	2.400	0.620	2.300	0.170
Benzo(a)pyrene	0.66	0.66	100	3.200	0.680	NA	1.700	2.100	0.018 J	3.400	1.000	4.100	0.300
Indeno(1,2,3-cd)pyrene	0.9	4	500	2.000	0.340	NA	1.200	1.100	0.015 J	1.700	0.570	1.200	0.190
Dibenz(a,h)anthracene	0.66	0.66	100	0.420	0.086	NA	0.210	0.240	0.041 U	0.330	0.110	0.330	0.052
Benzo(g,h,i)perylene	NCE	NCE	NCE	2.000	0.340 J	NA	1.000	0.940	0.017 J	1.400	0.440	1.000	0.210 J

Detected Compounds	Sample number, date, and depth: NJDEP Soil Cleanup Criteria Residential	Non-resid.	Imp. to GW	S6 10/6/00 0-6"	S6A 10/23/00 24-30"	S7 10/6/00 0-6"	S8 10/6/00 0-6"	S9 10/6/00 0-6"	S10 10/6/00 0-6"	S11 10/6/00 0-6"	S12 10/6/00 0-6"	S13 10/23/00 0-6" *	S14 10/23/00 0-6" *
Metals (mg/kg dry wt)													
Antimony	14	340	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	20	20	NCE	NA	NA	NA	NA	NA	NA	NA	NA	3.7	4.3
Beryllium	2	2	NCE	NA	NA	NA	NA	NA	NA	NA	NA	1.9	1.1
Cadmium	39	100	NCE	NA	NA	NA	NA	NA	NA	NA	NA	0.21 B	0.37 B
Total Chromium	NA	NA	NCE	NA	NA	NA	NA	NA	NA	NA	NA	22.7	169
Hexavalent Chromium	240	20	NCE	13.9	NA	2 U	8.6	NA	NA	NA	NA	2 U	2 U
Copper	600	600	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	400	600	NCE	NA	NA	NA	NA	NA	NA	NA	NA	92.8	98.9
Mercury	14	270	NCE	NA	NA	NA	NA	NA	NA	NA	NA	0.02 B	0.15
Nickel	250	2,400	NCE	NA	NA	NA	NA	NA	NA	NA	NA	23.4	23.8
Selenium	63	3,100	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	110	4,100	NCE	NA	NA	NA	NA	NA	NA	NA	NA	0.31 U	0.3 U
Thallium	2	2	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	1,500	1,500	NCE	NA	NA	NA	NA	NA	NA	NA	NA	104	255
VOCs (mg/kg dry wt)												* Note: VOC sample depth = 18-24"	
Trichloroethene	33	54	1	NA	NA	NA	NA	NA	NA	NA	NA	0.14 U	0.14 U
PCBs (mg/kg dry wt)													
Aroclor-1260	0.49	2	50	0.82 U	0.094 U	0.097 U	0.42 U	0.082 U	0.21	0.086 U	0.089 U	0.081 U	7.0
Aroclor-1262	0.49	2	50	15	0.39	0.29	3.8	0.082 U	0.091 U	0.086 U	0.57	0.15	0.76 U
Other Aroclors	0.49	2	50	0.82 U	0.094 U	0.097 U	0.42 U	0.082 U	0.091 U	0.086 U	0.089 U	0.081 U	0.76 U
PAHs (mg/kg dry wt)													
Naphthalene	230	4,200	100	0.350 J	0.46 U	0.020 J	0.039 J	0.400 U	0.015 J	0.009 J	0.030 J	0.077 J	0.11 J
Acenaphthylene	NCE	NCE	NCE	1.200	0.033 J	0.062 J	0.180 J	0.016 J	0.074 J	0.014 J	0.120 J	0.14 J	0.43
Acenaphthene	3,400	10,000	100	0.230 J	0.46 U	0.016 J	0.029 J	0.400 U	0.022 J	0.009 J	0.065 J	0.04 J	0.15 J
Fluorene	2,300	10,000	100	0.280 J	0.46 U	0.020 J	0.400 U	0.400 U	0.028 J	0.009 J	0.078 J	0.051 J	0.2 J
Phenanthrene	NCE	NCE	NCE	5.100	0.077 J	0.260 J	0.390 J	0.058 J	0.35 J	0.081 J	1.100	0.55	2.2
Anthracene	10,000	10,000	100	1.400	0.016 J	0.055 J	0.130 J	0.012 J	0.076 J	0.017 J	0.210 J	0.12 J	0.64
Fluoranthene	2,300	10,000	100	6.800	0.12 J	0.470 J	0.700	0.100 J	0.83	0.140 J	2.600	1.0	4.1
Pyrene	1,700	10,000	100	9.400	0.14 J	0.500	0.830	0.110 J	0.82	0.140 J	2.400	1.0	4.2
Benzo(a)anthracene	0.9	4	500	3.600	0.063	0.230	0.350	0.065	0.4	0.070	1.100	0.470	2.200
Chrysene	9	40	500	5.400	0.100 J	0.340 J	0.560	0.089 J	0.54	0.093 J	1.800	0.680	2.600
Benzo(b)fluoranthene	0.9	4	50	4.700	0.087	0.300	0.480	0.064	0.68	0.099	2.100	0.680	3.300
Benzo(k)fluoranthene	0.9	4	500	2.000	0.040 J	0.120	0.220	0.022 J	0.24	0.038 J	0.710	0.330	1.500
Benzo(a)pyrene	0.66	0.66	100	3.800	0.089	0.220	0.410	0.048	0.41	0.063	1.200	0.490	2.200
Indeno(1,2,3-cd)pyrene	0.9	4	500	1.800	0.032 J	0.140	0.230	0.028 J	0.17	0.041 J	0.500	0.200	0.420
Dibenz(a,h)anthracene	0.66	0.66	100	0.480	0.046 U	0.035 J	0.057	0.040 U	0.043 J	0.011 J	0.110	0.076	0.140
Benzo(g,h,i)perylene	NCE	NCE	NCE	1.800	0.028 J	0.140 J	0.280 J	0.038 J	0.14 J	0.052 J	0.420	0.210 J	0.330 J

Detected Compounds	Sample number, date, and depth: NJDEP Soil Cleanup Criteria Residential	Non-resid.	Imp. to GW	S15 10/23/00 0-6"	S16 10/23/00 0-6"	S17 10/23/00 0-6"	S18 10/23/00 0-6"	S19 10/23/00 0-6"	S20 10/23/00 0-6"	S20 dup. 10/23/00 0-6"	S21 10/23/00 0-6"	S22 10/23/00 0-6"
Metals (mg/kg dry wt)												
Antimony	14	340	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	20	20	NCE	NA	NA	NA	NA	NA	NA	NA	5	4.1
Beryllium	2	2	NCE	NA	NA	NA	NA	NA	NA	NA	0.52	0.8
Cadmium	39	100	NCE	NA	NA	NA	NA	NA	NA	NA	0.099 U	0.1 U
Total Chromium	NA	NA	NCE	NA	NA	NA	NA	NA	NA	NA	15.6	16.5
Hexavalent Chromium	240	20	NCE	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U	2 U
Copper	600	600	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	400	600	NCE	NA	NA	NA	NA	NA	NA	NA	52.2	44.5
Mercury	14	270	NCE	NA	NA	NA	NA	NA	NA	NA	0.1	0.09
Nickel	250	2,400	NCE	NA	NA	NA	NA	NA	NA	NA	8.9 B	11.1
Selenium	63	3,100	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	110	4,100	NCE	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.36 U
Thallium	2	2	NCE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	1,500	1,500	NCE	NA	NA	NA	NA	NA	NA	NA	45.6	51.3
VOCs (mg/kg dry wt)				NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg dry wt)												
Aroclor-1260	0.49	2	50	0.3	0.076 U	0.087 U	0.085 U	0.095 U	0.091 U	0.09 U	0.082 U	0.086 U
Aroclor-1262	0.49	2	50	0.087 U	0.076 U	0.17	0.085 U	0.095 U	0.091 U	0.09 U	0.082 U	0.086 U
Other Aroclors	0.49	2	50	0.087 U	0.076 U	0.087 U	0.085 U	0.095 U	0.091 U	0.09 U	0.082 U	0.086 U
PAHs (mg/kg dry wt)												
Naphthalene	230	4,200	100	0.05 J	0.021 J	0.072 J	0.04 J	NA	0.450 U	0.45 U	0.41 U	0.43 U
Acenaphthylene	NCE	NCE	NCE	0.3 J	0.14 J	0.27 J	0.16 J	NA	0.450 U	0.018 J	0.028 J	0.43 U
Acenaphthene	3,400	10,000	100	0.094 J	0.04 J	0.15 J	0.057 J	NA	0.450 U	0.45 U	0.41 U	0.43 U
Fluorene	2,300	10,000	100	0.11 J	0.066 J	0.17 J	0.088 J	NA	0.450 U	0.45 U	0.41 U	0.43 U
Phenanthrene	NCE	NCE	NCE	1.2	0.79	1.9	0.78	NA	0.063 J	0.098 J	0.12 J	0.062 J
Anthracene	10,000	10,000	100	0.27 J	0.14 J	0.4 J	0.15 J	NA	0.014 J	0.018 J	0.021 J	0.0083 J
Fluoranthene	2,300	10,000	100	2.3	1.1	3.1	1.3	NA	0.170 J	0.21 J	0.21 J	0.12 J
Pyrene	1,700	10,000	100	2.4	1.2	3.3	1.4	NA	0.160 J	0.19 J	0.2 J	0.12 J
Benzo(a)anthracene	0.9	4	500	1.100	0.540	1.500	0.560	NA	0.072 J	0.085	0.066	0.052
Chrysene	9	40	500	1.500	0.730	2.200	0.860	NA	0.110 J	0.120 J	0.120 J	0.073 J
Benzo(b)fluoranthene	0.9	4	50	1.900	0.850	2.800	0.900	NA	0.110 J	0.140 J	0.140 J	0.079
Benzo(k)fluoranthene	0.9	4	500	0.940	0.340	0.043 U	0.410	NA	0.045 U	0.055	0.048	0.043 U
Benzo(a)pyrene	0.66	0.66	100	1.200	0.500	1.700	0.810	NA	0.075	0.095	0.096	0.059
Indeno(1,2,3-cd)pyrene	0.9	4	500	0.380	0.220	0.640	0.240	NA	0.045 U	0.045	0.058	0.030 J
Dibenz(a,h)anthracene	0.66	0.66	100	0.120	0.068	0.150	0.068	NA	0.045 U	0.045 U	0.014 J	0.043 U
Benzo(g,h,i)perylene	NCE	NCE	NCE	0.300 J	0.230 J	0.410 J	0.210 J	NA	0.032 J	0.038 J	0.053 J	0.030 J

Notes:
1. All values are in parts per million (ppm, = mg/kg).
2. Flags and Abbreviations:
   U = Compound was not detected at the indicated concentration.
   B = Estimated value less than the MDL, but greater than the RL.
   J = Estimated value less than the quantitation limit.

NCE = No criteria established
NA = Not analyzed
* - Sample depth noted along third row of each table applies to all parameters except VOCs.
For all VOC samples, depth = 18-24"



LEGEND:

△S18 FALL 2000 SOIL SAMPLE LOCATION AND NUMBER

S11-4 ⊕ PREVIOUS RI SAMPLE LOCATIONS IN GOLD RUN

SS-11-SD-4 ○

NOTES:

1. SAMPLE LOCATIONS SHOWN ARE APPROXIMATE, BASED ON TAPE MEASUREMENTS MADE BY HALEY & ALDRICH PERSONNEL.
2. REFER TO TEXT FOR ADDITIONAL INFORMATION.

0 200 400
SCALE IN FEET

HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

ISRA CASE NO. 97070
GENERAL MOTORS CORPORATION
TRENTON, NEW JERSEY

PLAN SHOWING FALL 2000 SAMPLE LOCATIONS IN AREA ON EAST SIDE OF GOLD RUN

SCALE: AS SHOWN

FEBRUARY 2001

70613-014 SOILSAMP.DWG

FIGURE 2

APPENDIX A

Laboratory Data Validation Summary

Data Validation Summary

A summary of samples collected and analyses performed during the investigation is presented in Table I. Sample analysis results are also summarized on Table I, and a summary of compounds detected is presented on Figure 2. Laboratory analysis reports in NJDEP Reduced-Deliverables format are attached in three separate volumes.

Analyses were performed as specified in the “Supplemental Remedial Investigation Work Plan, Sampling Of Shallow Soil Along East Bank Of Gold Run, Former GM Delphi Interior & Lighting Systems Site, 1445 Parkway Avenue, Trenton, New Jersey, ISRA Case No. 97070,” 10 July 2000, Revised 18 September 2000. Each analytical procedure was performed in accordance with USEPA protocols as prescribed by "Test Methods for Evaluating Solid Waste", SW-846 3rd Ed., Office of Solid Waste, revised 12/87 with updates. Each data package contains chain of custody documents, analytical report forms, site-specific quality assurance/quality control and sample preparation chronologies, and analysis raw data in accordance with N.J.A.C. 7:26E, Reduced Deliverables format requirements.

Each sample analysis was reviewed for compliance with method-specific and project-specific QA/QC requirements concerning the following:

- Holding Times
- Instrument Tuning and Calibration
- Surrogate Recoveries (where applicable)
- Internal Standard Recoveries (where applicable)
- Laboratory Control Sample Results
- Matrix Spike/Matrix Spike Duplicate Analyses
- Method Blank Sample Analyses
- Field QA/QC Sample Analyses (i.e. Equip. and Trip Blanks)

Guidance for the evaluation of the laboratory results was provided from the "National Functional Guidelines for Organic and Inorganic Data Review", USEPA, Office of Solid Waste and Emergency Response (OSWER), EPA 540-r-94/012 and 013, 1994. The analytical laboratory data reports include several precision and accuracy QA/QC analyses of laboratory and field procedures. Generally, the QA/QC analyses performed met method-specific and project-specific data quality objectives (DQOs) as defined by "Test Methods for Evaluating Solid Waste", (SW-846), USEPA, 1987 with updates, and the 18 September 2000 Revised Supplemental RI Work Plan.

Based on a review of the items listed above, the analytical data appears to be accurate and representative of site conditions at the time that the samples were collected with the few exceptions noted in Sections 1 and 2 on the following pages. Each non-compliant QA/QC result was evaluated for the affect of the anomaly on the analytical data reported. The reviewer's opinion concerning usability of the affected data is provided at the end of each summary section.

1. Organic Compound Analyses

A. Holding Time Compliance

Project samples analyzed for trichloroethene (TCE) by EPA Method 8260B were analyzed within fourteen (14) days of sample collection without exception which is within the accepted USEPA method specific holding time requirements.

Project samples analyzed by EPA Method 8270C for Poly-nuclear Aromatic Hydrocarbons (PAHs) were prepared within the 7 day holding time and analyzed within 40 days of sample collection without exception as recommended by USEPA.

Project samples analyzed for polychlorinated biphenyl (PCB) compounds by EPA Method 8082 were extracted within 7 days and analyzed within 40 days without exception as recommended by USEPA.

B. Instrument Tuning and Calibration

Prior to the analysis of project samples, the combined gas chromatograph/mass spectrometers (GC/MS) were tuned and calibrated in accordance with procedures prescribed by EPA Method 8260B (TCE), and EPA 8270C (PAHs). GC/MS tuning criteria were met prior to the analysis of each project sample without exception.

Initial instrument calibrations were performed prior to the analysis of project samples following the procedures prescribed by EPA 8260B (TCE), EPA 8270C (PAHs) and EPA 8082 (PCBs). Continuing calibration verification (CCV) samples were analyzed concurrent with the project samples to confirm the initial calibration. The calibration criteria of <25 percent relative standard deviation (%RSD) and <20% absolute difference (%D) were met for all target compounds with one exception.

In SDG E958 on 27 October 2000 at 0845, the CCV standard for compounds indeno (1,2,3-cd) pyrene, dibenz(a,h)anthracene, and benzo(g,h,i)perylene exhibited a %D of >20% from the initial calibration relative response factor (RRF). Since the RRF is used in the quantification of the target compound concentration detected in the corresponding project samples, the project samples S-13 through S-18 were re-analyzed after a compliant CCV was analyzed on 27 Oct 2000 at 1954. No project data was affected and no further corrective action is necessary.

C. Surrogate Compound Recoveries

Surrogate compounds were added to project sample aliquots as per the analytical protocols for the analysis of trichloroethene by EPA Method 8260B, PCBs by EPA Method 8082, and polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270C. The calculated recovery of each surrogate compound was within laboratory QA/QC requirements without exception. The satisfactory recovery of surrogate compounds indicate that non-target compound did not inhibit the extraction of target analytes from the project sample matrices. However, in limited instances, surrogate compounds were diluted out in order to quantify elevated levels of target analytes detected. In each case, the surrogate compound recovery was appropriately flagged "D" indicating the dilution. No further corrective action is recommended.

D. Internal Standard Recoveries

Internal standard (IS) compounds were used in the quantitation of target compounds detected within project samples using EPA Method 8260B and 8270C. The recovery of each IS was within method specific QA/QC requirements without exception.

E. Laboratory Control Sample Analyses

Laboratory control samples (LCS) were analyzed concurrently with each batch of project samples. LCS target compounds included each parameter requested by the Chain of Custody Record (COCR). The calculated recovery of each LCS parameter fell within laboratory specified QA/QC acceptance criteria without exception. Acceptable LCS analyses indicate that the analytical system was under control at the time project samples were analyzed by the laboratory.

F. Matrix Spike and Matrix Spike Duplicate Analyses

Matrix spike and matrix spike duplicate (MS/MSD) analyses were performed for each analytical method and sample matrix. MS/MSD target analytes and acceptance limits were prescribed by the respective analytical protocols (i.e. EPA Method 8260B).

Generally, the calculated recovery for MS/MSD target analytes for EPA Method 8260B analyses was within 80 to 120 percent (%) of true value, while calculated recovery for EPA Method 8270C and 8082 ranged from 20 to 110 % of true value. These ranges are acceptable based on QA/QC requirements prescribed by the respective USEPA methodologies, therefore the reported data are useable without qualification.

Replicate percent difference (RPD) of MS analyte recoveries was performed to establish the precision of the reported results. The calculated RPD fell within generally accepted precision QA/QC limits of <35 % RPD with one exception. The calculated RPD for pyrene in MS/MSD analysis for EPA 8270C analyses in sample delivery group (SDG) E100 was 71%. The non-compliant result was due to a higher concentration of pyrene present in the sample relative to the amount added by the matrix spike. The non-compliant MS/MSD results were noted in the non-conformance summary, and no further corrective action is recommended. The results of the EPA 8270C analyses for this SDG can be used without further qualification.

G. Method Blank Sample Analyses

Method blank samples were analyzed concurrently with each batch of project samples analyzed for each target analyte as prescribed by the analytical method and COCR. Target analytes were not detected in method blank samples with the exception of bis(2-ethylhexyl) phthalate in method blank SB271 from SDG E100 during EPA 8270C analysis.

Since bis(2-ethylhexyl)phthalate was not a target compound of this analysis, no qualification of the reported results is recommended.

H. Field Quality Assurance Sample Analyses

Trip blank samples consisting of 40 milliliter (mL) vials filled with ASTM Type II lab pure water were included with each batch of sample containers provided by the laboratory which included containers intended for samples to be analyzed by EPA Method 8260B. Each trip blank sample was analyzed for TCE.

TCE was not detected in trip blank samples prepared and accompanying project samples to the laboratory.

2. Inorganic Analyses

Solid and aqueous environmental samples were submitted to the laboratories for inorganics analysis of Priority Pollutant (PP) metals using atomic absorption and atomic emission spectroscopy, cold vapor atomic absorption (CVAA) mercury analysis, and hexavalent chromium (Hex Cr) analysis using wet chemistry methods.

A. Holding Time Compliance

Each sample digestion and analysis was performed within 28 days for mercury and 180 days of sampling for remaining metals without exception as required by SW-846 methodology. Hex Cr analysis was performed within 14 days of sample collection without exception as specified by EPA Method 9010.

B. Instrument Calibration/Laboratory Control Sample (LCS)

The analytical system calibration was verified by the use of standard reference materials (SRM) obtained from an independent manufacturer and analyzed concurrently with project samples. The recovery of each SRM fell within the laboratory-specific acceptance-criteria true value without exception.

C. Method Blank Samples

Inorganic analytes were not detected above the contract required quantitation limit (CRQL) within method blanks analyzed concurrently with project samples for metals analysis without exception.

D. Matrix Spike Analysis

The calculated percent recovery of matrix spike (MS) sample analyses performed for each target analyte fell within laboratory specific acceptance criteria with a few exceptions. This variability was noted during the Hex Cr analysis, and is most likely due to the heterogeneity in the soil sample matrix. The non-compliant results were reported in the ‘non-conformance summary’ as required by the NJDEP. Since the LCS sample analyses performed concurrent with the project samples and MS/MSD samples were within QC limits, the analytical system appears to have been in control, therefore, the reported results should be used without further qualification.

E. Matrix Duplicate Sample Analysis

The calculated relative percent difference (RPD) for each PP analysis was within the laboratory specific criteria of <20 % or +/- CRDL for analyte concentrations below 5 times the CRDL without exception.