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Golder Associates Inc.
CONSULTING ENGINEERS

INTERIM REPORT

HAZARDOUS SUBSTANCES IN SOIL
PRE-DESIGN INVESTIGATION TASK S-1
INDUSTRI-PLEX SITE
WOBURN, MASSACHUSETTS

Prepared for:

Industri-Plex Site Remedial Trust
800 North Linbergh Boulevard
St. Louis, Missouri

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June 1990 Project No.: 893-6255

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Golder Associates Inc.
CONSULTING ENGINEERS

June 26, 1990 Project No. 893-6255.3

United States Environmental Protection Agency
Region I
J.F.K. Federal Building, HRS-CAN-3
Boston, MA 02203-2211

Attn: Marilyn M. Wade, P.E.
Remedial Project Manager

RE: INDUSTRI-PLEX SITE, HAZARDOUS SUBSTANCES IN SOIL
INTERIM REPORT

Dear Ms. Wade:

On behalf of the Industri-Plex Site Remedial Trust, we are submitting the attached Interim Report for Pre-Design Investigation Task S-1, Hazardous Substances in Soil. This report was intended to include the results of the Target Compound List/Target Analyte List (TCL/TAL) analyses. However, due to field delays in the planned sampling dates for the TCL/TAL boreholes, those results are not available at this time. Therefore, this Interim Report presents the results for arsenic, lead, and chromium analyses which are currently available and which have been assessed per Section 12 of the Pre-Design Quality Assurance Project Plan. Also included with this report is a listing of the data assessed per the control limits given in USEPA Region I Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses (February 1989). A proposed addendum to the Pre-Design Quality Assurance Project Plan, which incorporates the control limits given in this document, is being submitted under separate cover. These data will be used in conjunction with additional metals and TCL/TAL data to define the limits of the permeable cap. The remaining data will be included in the Interim Final Report for Task S-1.

If you have any questions, please contact us.

Very truly yours,

GOLDER ASSOCIATES INC.

J. Edmund Baker, P.E.
Principal

cc: Jay Naparstek, MDEP
Arnie Ostrofsky, NUS
K.P. Winkler, ISRT
W.L. Smull, ISRT

RMG/JEB/bjt C:INTERIM

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1.0 INTRODUCTION

This report is submitted in fulfillment of the Interim Report deliverable for Pre-Design Investigation Task S-1, Hazardous Substances in Soil. This report was intended to include the results of the Target Compound List/Target Analyte List (TCL/TAL) analyses. However, due to field delays in the planned sampling dates for the TCL/TAL boreholes, those results are not available at this time. Therefore, this Interim Report presents the results for arsenic, lead, and chromium analyses which are currently available and which have been assessed per Section 12 of the Pre-Design Investigation Quality Assurance Project Plan (QAPjP). Also included as Attachment 1 to this report is a listing of the data assessed per the control limits given in USEPA Region I Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses (February 1989). A proposed addendum to the QAPjP, which incorporates the control limits given in these guidelines, is being submitted under separate cover.

These data will be used in conjunction with additional metals and TCL/TAL data to define the limits of the permeable cap. The remaining data, including validated TCL/TAL results, will be included in the Interim Final Report for Task S-1.

2.0 DATA WHICH HAVE BEEN ASSESSED

The analytical results which have been assessed to date are summarized in Table 1. The sample results presented in this report are for 110 boreholes (out of a planned total of 122 for Task S-1). Results for 16 equipment rinsate blanks and 16 field duplicates are also included in Table 1. Assessment of associated matrix spike/matrix spike duplicate (MS/MSD), duplicate control samples (DCS), and laboratory duplicate samples are summarized in Appendix A. These samples were collected between April 2 and April 20, 1990, and were analyzed by Enseco-East (Somerset, NJ).

3.0 DATA ASSESSMENT

The discussion below presents the rationale for assigning data assessment codes to each result. The code provides a guide as to the quality of the data with respect to PARCC parameters (precision, accuracy, representativeness, comparability, completeness) and other Data Quality Objectives outlined in the Pre-Design Work Plan and QAPjP.

Enseco-East assigns a separate project number to each set of samples delivered from the Industri-Plex Site on a given day. The laboratory data reports present results by project number. Therefore, data quality was assessed in groups by Enseco-East project number in accordance with the guidelines provided in Section 12 of the QAPjP and documented on the forms shown in Appendix B.

Data assessment qualifiers were assigned to each result given in Table 1. These include acceptable quantitative data (A), estimated (semiquantitative) data (J), acceptable and not detected (U-quantitative, Y-semiquantitative), and unusable (R). The results of data assessment are summarized in Table 2.

Data are assessed as acceptable quantitative data (A) if all associated QC samples are within the specified control limits. They are also assessed as acceptable quantitative data if only a small fraction of the associated QC samples are not in control.

Data are estimated, or semiquantitative (J) if any one of the following occur:

1. The holding time specified in the QAPjP has been exceeded,
2. Precision of lab duplicate is outside control limits,

3. Precision of field duplicate is outside control limits, or

4. MS/MSD percent recoveries or relative percent difference (RPD) are outside control limits.

Whether or not the qualifier (J) is assigned to other samples collected along with the above QC samples depends upon the frequency of the out-of-control condition. For example, if over 80 percent of the lab and field duplicates are in control, then only the specific samples which are not in control would be assessed as semiquantitative (J). However, if less than 60 percent of the duplicate samples were in control, it is likely that precision for all associated samples is similar and they should be assessed as semiquantitative (J).

Samples are considered not detected and quantitative (U) if the precision and MS/MSD recoveries are in control. They are considered not detected and semiquantitative (Y) if either precision or spike recoveries are poor.

None of the data were found to be unusable. The criteria chosen for data to be assessed as unusable (R) are:

1. Large concentrations of the analyte are detected in method or equipment rinsate blanks, or

2. The analyte is not detected but the matrix spike/matrix spike duplicate (MS/MSD) recovery is very low.

The overall current (interim) assessment of the data is documented in Appendix A. Only 67 percent of the lab duplicates and 56 percent of the field duplicates were within the control limits for precision. Therefore, the data as a whole are not considered to be within the precision control limits given in the QAPjP. All data, except equipment rinsate blanks, have been assessed as

estimated (semiquantitative). All DCS samples were within control limits, and over 93 percent of the MS/MSD samples were within control limits. Therefore, the data set as a whole is considered to be sufficiently accurate to support design. The data are also considered to be representative, comparable, and complete (see Appendix A).

Field procedures/documentation were complete, acceptable and sufficient to support design. Overall, the data are considered to be useable and consistent with the objectives of the task. However, there is a larger degree of uncertainty associated with the results than was expected. Therefore, concentration data near the Action Levels must be used with caution.

As stated on page 3 of the Field Sampling Plan (FSP), no particular sample is considered critical to the successful completion of the task. However, background samples are now considered to be critical. Because background sample results for Task S-1 are not yet available, no critical data have been assessed as unusable at this time.

TABLE 1

SUMMARY OF ARSENIC, LEAD, AND CHROMIUM ANALYSES

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA

Matrix: AQUEOUS

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/L)			Lead (mg/L)			Chromium (mg/L)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/EB1/000/2/1/1	000	900403	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB2/000/2/1/1	000	900404	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB3/000/2/1/1	000	900404	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB4/000/2/1/1	000	900404	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB5/000/2/1/1	000	900405	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB6/000/2/1/1	000	900405	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB7/000/2/1/1	000	900406	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB8/000/2/1/1	000	900406	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB9/000/2/1/1	000	900406	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB10/000/2/1/1	000	900407	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB11/000/2/1/1	000	900407	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB12/000/2/1/1	000	900408	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB13/000/2/1/1	000	900408	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB14/000/2/1/1	000	900409	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB15/000/2/1/1	000	900409	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB16/000/2/1/1	000	900411	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	

NOTES: * - Duplicate Sample
RL - Reporting Limit
NA - Not Applicable

AC - Assessment Codes.....
A - Quantitative Data
J - Estimated (Semiquantitative) Data
Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

QAPP

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/001/006/1/1/1	006	900406	35.66	J	6.58	290.79	J	6.58	40.13	J	1.32	24.	0.10
IP/S-1/001/018/1/1/1	018	900406	52.08	J	5.34	156.88	J	5.34	8.96	J	1.07	6.3	0.10
IP/S-1/001/030/1/1/1	030	900406	23.16	J	3.29	6.84	J	6.58	7.50	J	1.32	24.	0.10
IP/S-1/006/006/1/1/1	006	900417	40.07	J	5.52	245.03	J	5.52	9.93	J	1.10	9.4	0.10
IP/S-1/006/018/1/1/1	018	900417	74.56	J	12.66	487.34	J	12.66	6.20	J	2.53	21.	0.10
IP/S-1/006/026/1/1/1	026	900417	113.05	J	12.20	608.54	J	12.20	11.46	J	2.44	18.	0.10
IP/S-1/007/006/1/1/1	006	900406	9.77	J	2.87	254.02	J	11.49	125.29	J	2.30	13.	0.10
IP/S-1/007/018/1/1/1	018	900406	12.27	J	1.14	63.98	J	5.68	26.02	J	1.14	12.	0.10
IP/S-1/007/029/1/1/1	029	900406	6.36	J	0.57	202.27	J	5.68	10.00	J	1.14	12.	0.10
IP/S-1/008/006/1/1/1	006	900417	12.73	J	2.65	1155.89	J	5.30	50.05	J	1.06	5.7	0.10
IP/S-1/008/018/1/1/1	018	900417	42.76	J	5.44	12840.04	J	10.88	12.19	J	2.18	8.1	0.10
IP/S-1/008/027/1/1/1	027	900417	266.67	J	30.86	1641.98	J	12.35	9.51	J	2.47	19.	0.10
IP/S-1/009/006/1/1/1	006	900407	11.45	J	1.20	42.17	J	6.02	29.64	J	1.20	17.	0.10
IP/S-1/009/018/1/1/1	018	900407	5.09	J	0.55	17.70	J	5.53	47.79	J	1.11	9.6	0.10
IP/S-1/009/018/1/D/1*	018	900407	4.97	J	0.54	25.38	J	5.40	32.51	J	1.08	7.4	0.10
IP/S-1/009/021/1/1/1	021	900407	5.11	J	0.57	11.48	J	5.68	24.32	J	1.14	12.	0.10
IP/S-1/010/006/1/1/1	006	900406	831.46	J	280.90	11146.07	J	5.62	195.51	J	1.12	11.	0.10
IP/S-1/010/018/1/1/1	018	900406	878.48	J	126.58	13924.05	J	12.66	291.14	J	2.53	21.	0.10
IP/S-1/010/024/1/1/1	024	900406	8.58	J	1.10	215.62	J	5.50	10.67	J	1.10	9.1	0.10
IP/S-1/011/008/1/1/1	008	900406	170.79	J	11.24	37.64	J	5.62	7.64	J	1.12	11.	0.10
IP/S-1/011/010/1/1/1	010	900406	44.94	J	5.44	823.72	J	5.44	49.40	J	1.09	8.1	0.10
IP/S-1/011/013/1/1/1	013	900406	140.23	J	11.49	2977.01	J	11.49	12.87	J	2.30	13.	0.10
IP/S-1/011/013/1/D/1*	013	900406	164.71	J	58.82	3000.00	J	11.76	12.24	J	2.35	15.	0.10
IP/S-1/011/015/1/1/1	015	900406	153.85	J	12.82	289.74	J	12.82	5.77	J	2.56	22.	0.10
IP/S-1/011/020/1/1/1	020	900406	80.76	J	12.66	441.77	J	6.33	2.91	J	1.27	21.	0.10
IP/S-1/012/006/1/1/1	006	900407	4.20	J	0.55	8.74	J	5.53	19.47	J	1.11	9.6	0.10
IP/S-1/013/006/1/1/1	006	900417	7.53	J	1.12	37.53	J	5.62	17.64	J	1.12	11.	0.10
IP/S-1/013/018/1/1/1	018	900417	16.42	J	3.09	112.10	J	6.17	14.44	J	1.23	19.	0.10
IP/S-1/013/025/1/1/1	025	900417	10.38	J	1.27	45.06	J	6.33	12.15	J	1.27	21.	0.10
IP/S-1/014/006/1/1/1	006	900407	88.07	J	5.68	413.64	J	5.68	25.45	J	1.14	12.	0.10
IP/S-1/014/018/1/1/1	018	900407	127.91	J	11.63	169.77	J	5.81	10.93	J	1.16	14.	0.10
IP/S-1/014/026/1/1/1	026	900407	1144.74	J	65.79	6473.68	J	13.16	10.13	J	2.63	24.	0.10
IP/S-1/015/006/1/1/1	006	900406	45.75	J	5.38	107.53	J	5.38	12.49	J	1.08	7.1	0.10
IP/S-1/015/018/1/1/1	018	900406	21.15	J	2.87	90.46	J	5.75	5.98	J	1.15	13.	0.10
IP/S-1/015/036/1/1/1	036	900406	18.23	J	3.16	331.65	J	6.33	8.61	J	1.27	21.	0.10

NOTES: * - Duplicate Sample
RL - Reporting Limit
NA - Not Applicable

AC - Assessment Codes.....
A - Quantitative Data
J - Estimated (Semiquantitative) Data
Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/016/006/1/1/1	006	900406	8.93	J	0.53	52.92	J	5.31	6.70	J	1.06	5.9	0.10
IP/S-1/016/018/1/1/1	018	900406	2.88	J	0.55	ND	Y	5.53	4.76	J	1.11	9.6	0.10
IP/S-1/016/024/1/1/1	024	900406	2.56	J	0.58	ND	Y	5.81	4.88	J	1.16	14.	0.10
IP/S-1/016/024/1/D/1*	024	900406	3.18	J	1.18	ND	Y	5.88	5.53	J	1.18	15.	0.10
IP/S-1/017/006/1/1/1	006	900406	11.29	J	2.94	32.47	J	5.88	24.24	J	1.18	15.	0.10
IP/S-1/017/018/1/1/1	018	900406	3.18	J	0.57	ND	Y	5.68	4.43	J	1.14	12.	0.10
IP/S-1/017/026/1/1/1	026	900406	3.58	J	0.54	ND	Y	5.42	5.20	J	1.08	7.7	0.10
IP/S-1/018/006/1/1/1	006	900406	4.94	J	0.56	25.39	J	5.62	12.25	J	1.12	11.	0.10
IP/S-1/018/018/1/1/1	018	900406	3.21	J	1.07	16.56	J	5.34	8.33	J	1.07	6.4	0.10
IP/S-1/018/026/1/1/1	026	900406	6.46	J	1.09	51.53	J	5.47	10.50	J	1.09	8.6	0.10
IP/S-1/019/006/1/1/1	006	900417	13.81	J	2.98	59.88	J	5.95	16.19	J	1.19	16.	0.10
IP/S-1/019/018/1/1/1	018	900417	25.84	J	5.62	15.62	J	5.62	11.91	J	1.12	11.	0.10
IP/S-1/019/018/1/D/1*	018	900417	28.31	J	5.62	25.17	J	5.62	12.47	J	1.12	11.	0.10
IP/S-1/019/032/1/1/1	032	900417	1109.41	J	117.65	1101.18	J	5.88	27.29	J	1.18	15.	0.10
IP/S-1/020/006/1/1/1	006	900406	7.38	J	0.60	114.76	J	5.95	26.79	J	1.19	16.	0.10
IP/S-1/020/018/1/1/1	018	900406	11.05	J	1.16	124.42	J	5.81	13.49	J	1.16	14.	0.10
IP/S-1/020/028/1/1/1	028	900406	10.36	J	1.20	209.64	J	6.02	9.64	J	1.20	17.	0.10
IP/S-1/020/030/1/1/1	030	900406	129.76	J	11.90	1392.86	J	5.95	7.86	J	1.19	16.	0.10
IP/S-1/023/006/1/1/1	006	900417	256.07	J	27.59	645.70	J	5.52	76.60	J	1.10	9.4	0.10
IP/S-1/023/018/1/1/1	018	900417	1681.16	J	144.93	2855.07	J	7.25	65.36	J	1.45	31.	0.10
IP/S-1/023/022/1/1/1	022	900417	3468.35	J	316.46	1721.52	J	6.33	74.56	J	1.27	21.	0.10
IP/S-1/024/006/1/1/1	006	900406	370.67	J	66.67	628.00	J	6.67	28.80	J	1.33	25.	0.10
IP/S-1/024/018/1/1/1	018	900406	18356.16	J	3424.66	18767.12	J	13.70	19.45	J	2.74	27.	0.10
IP/S-1/025/006/1/1/1	006	900417	167.95	J	32.05	412.82	J	6.41	541.03	J	1.28	22.	0.10
IP/S-1/025/018/1/1/1	018	900417	46.87	J	6.02	196.39	J	6.02	265.06	J	1.20	17.	0.10
IP/S-1/025/020/1/1/1	020	900417	37.25	J	6.25	293.75	J	6.25	257.50	J	1.25	20.	0.10
IP/S-1/026/004/1/1/1	004	900405	179.76	J	29.76	194.05	J	5.95	2095.24	J	1.19	16.	0.10
IP/S-1/027/006/1/1/1	006	900405	23.75	J	3.13	60.13	J	6.25	886.25	J	1.25	20.	0.10
IP/S-1/027/018/1/1/1	018	900405	6.40	J	1.12	9.66	J	5.62	12.36	J	1.12	11.	0.10
IP/S-1/027/022/1/1/1	022	900405	1.19	J	0.54	ND	Y	5.42	8.99	J	1.08	7.7	0.10
IP/S-1/028/006/1/1/1	006	900407	8.27	J	0.54	29.86	J	5.37	183.67	J	1.07	6.9	0.10
IP/S-1/028/018/1/1/1	018	900407	2.67	J	0.53	ND	Y	5.35	6.31	J	1.07	6.5	0.10
IP/S-1/028/019/1/1/1	019	900407	2.27	J	0.57	ND	Y	5.68	5.80	J	1.14	12.	0.10
IP/S-1/029/006/1/1/1	006	900416	234.57	J	30.86	4160.49	J	6.17	185.19	J	1.23	19.	0.10
IP/S-1/029/018/1/1/1	018	900416	398.78	J	60.98	1157.32	J	6.10	2182.93	J	1.22	18.	0.10

NOTES: * - Duplicate Sample
RL - Reporting Limit
NA - Not Applicable

AC - Assessment Codes.....
A - Quantitative Data
J - Estimated (Semiquantitative) Data
Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/029/025/1/1/1	025	900416	143.66	J	14.08	800.00	J	7.04	1025.35	J	1.41	29.	0.10
IP/S-1/029/035/1/1/1	035	900416	327.78	J	55.56	946.67	J	5.56	17.67	J	1.11	10.	0.10
IP/S-1/030/006/1/1/1	006	900404	90.49	J	12.20	204.88	J	6.10	467.07	J	1.22	18.	0.10
IP/S-1/030/018/1/1/1	018	900404	15.20	J	2.75	18.83	J	5.51	93.72	J	1.10	9.2	0.10
IP/S-1/030/027/1/1/1	027	900404	3.20	J	0.55	ND	Y	5.51	7.72	J	1.10	9.3	0.10
IP/S-1/031/006/1/1/1	006	900416	13.34	J	2.71	21.80	J	5.42	48.37	J	1.08	7.8	0.10
IP/S-1/031/018/1/1/1	018	900416	10.00	J	1.12	25.84	J	5.62	29.44	J	1.12	11.	0.10
IP/S-1/031/025/1/1/1	025	900416	3.17	J	0.55	6.99	J	5.46	20.31	J	1.09	8.4	0.10
IP/S-1/032/006/1/1/1	006	900404	42.98	J	5.95	82.38	J	5.95	234.52	J	1.19	16.	0.10
IP/S-1/032/011/1/1/1	011	900404	88.74	J	11.49	120.69	J	5.75	274.71	J	1.15	13.	0.10
IP/S-1/033/006/1/1/1	006	900404	7.56	J	0.61	121.34	J	6.10	110.85	J	1.22	18.	0.10
IP/S-1/033/018/1/1/1	018	900404	10.30	J	1.08	28.20	J	5.42	50.76	J	1.08	7.8	0.10
IP/S-1/033/024/1/1/1	024	900404	9.58	J	1.06	87.43	J	5.32	57.93	J	1.06	6.1	0.10
IP/S-1/034/006/1/1/1	006	900416	5.39	J	0.53	11.51	J	5.28	36.75	J	1.06	5.3	0.10
IP/S-1/034/018/1/1/1	018	900416	18.80	J	2.73	76.94	J	5.46	148.63	J	1.09	8.5	0.10
IP/S-1/034/024/1/1/1	024	900416	11.63	J	1.11	29.90	J	5.54	128.46	J	1.11	9.7	0.10
IP/S-1/035/006/1/1/1	006	900416	24.55	J	5.68	76.82	J	5.68	89.32	J	1.14	12.	0.10
IP/S-1/035/018/1/1/1	018	900416	40.00	J	11.76	131.76	J	5.88	218.82	J	1.18	15.	0.10
IP/S-1/035/032/1/1/1	032	900416	8.09	J	0.56	24.27	J	5.62	57.19	J	1.12	11.	0.10
IP/S-1/036/006/1/1/1	006	900405	43.45	J	5.75	131.03	J	5.75	250.57	J	1.15	13.	0.10
IP/S-1/036/018/1/1/1	018	900405	18.82	J	2.94	95.76	J	5.88	281.18	J	1.18	15.	0.10
IP/S-1/036/024/1/1/1	024	900405	24.71	J	2.94	94.82	J	5.88	268.24	J	1.18	15.	0.10
IP/S-1/037/006/1/1/1	006	900404	40.00	J	5.88	114.35	J	5.88	123.53	J	1.18	15.	0.10
IP/S-1/037/006/1/D/1*	006	900404	45.93	J	29.07	159.30	J	5.81	138.37	J	1.16	14.	0.10
IP/S-1/038/006/1/1/1	006	900405	69.25	J	12.50	95.00	J	6.25	116.50	J	1.25	20.	0.10
IP/S-1/038/018/1/1/1	018	900405	17.39	J	2.72	191.30	J	5.43	213.04	J	1.09	8.0	0.10
IP/S-1/038/019/1/1/1	019	900405	6.42	J	0.52	ND	Y	5.18	10.16	J	1.04	3.5	0.10
IP/S-1/039/006/1/1/1	006	900405	7.16	J	0.62	11.36	J	6.17	274.07	J	1.23	19.	0.10
IP/S-1/039/018/1/1/1	018	900405	9.66	J	1.14	ND	Y	5.68	275.00	J	1.14	12.	0.10
IP/S-1/039/030/1/1/1	030	900405	3.87	J	0.54	ND	Y	5.38	34.84	J	1.08	7.0	0.10
IP/S-1/040/006/1/1/1	006	900405	11.69	J	1.20	29.04	J	6.02	702.41	J	1.20	17.	0.10
IP/S-1/040/018/1/1/1	018	900405	11.82	J	1.14	21.14	J	5.68	473.86	J	1.14	12.	0.10
IP/S-1/040/024/1/1/1	024	900405	17.73	J	2.84	69.32	J	5.68	140.91	J	1.14	12.	0.10
IP/S-1/041/006/1/1/1	006	900416	10.72	J	1.20	7.35	J	6.02	249.40	J	1.20	17.	0.10

NOTES: * - Duplicate Sample
RL - Reporting Limit
NA - Not Applicable

AC - Assessment Codes.....
A - Quantitative Data
J - Estimated (Semiquantitative) Data
Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/041/018/1/1/1	018	900416	11.32	J	1.07	ND	Y	5.34	22.97	J	1.07	6.4	0.10
IP/S-1/041/033/1/1/1	033	900416	4.15	J	0.61	ND	Y	6.10	10.49	J	1.22	18.	0.10
IP/S-1/042/006/1/1/1	006	900405	6.47	J	0.59	11.88	J	5.88	277.65	J	1.18	15.	0.10
IP/S-1/042/018/1/1/1	018	900405	1.83	J	0.54	ND	Y	5.38	71.72	J	1.08	7.0	0.10
IP/S-1/043/006/1/1/1	006	900405	7.37	J	0.66	19.74	J	6.58	357.89	J	1.32	24.	0.10
IP/S-1/043/018/1/1/1	018	900405	7.73	J	0.57	7.95	J	5.68	850.00	J	1.14	12.	0.10
IP/S-1/043/022/1/1/1	022	900405	5.73	J	0.56	9.21	J	5.62	362.92	J	1.12	11.	0.10
IP/S-1/044/006/1/1/1	006	900407	25.68	J	6.76	100.41	J	6.76	125.95	J	1.35	26.	0.10
IP/S-1/044/018/1/1/1	018	900407	116.28	J	29.07	453.49	J	5.81	122.09	J	1.16	14.	0.10
IP/S-1/044/020/1/1/1	020	900407	133.71	J	11.24	239.33	J	5.62	242.70	J	1.12	11.	0.10
IP/S-1/045/006/1/1/1	006	900405	5.00	J	1.52	25.61	J	7.58	15.45	J	1.52	34.	0.10
IP/S-1/045/006/1/D/1*	006	900405	7.10	J	1.45	29.57	J	7.25	12.75	J	1.45	31.	0.10
IP/S-1/045/018/1/1/1	018	900405	6.97	J	1.12	7.75	J	5.62	103.71	J	1.12	11.	0.10
IP/S-1/045/027/1/1/1	027	900405	5.91	J	1.14	ND	Y	5.68	22.27	J	1.14	12.	0.10
IP/S-1/046/006/1/1/1	006	900405	11.46	J	1.12	55.96	J	5.62	36.74	J	1.12	11.	0.10
IP/S-1/046/018/1/1/1	018	900405	9.74	J	1.30	16.62	J	6.49	142.86	J	1.30	23.	0.10
IP/S-1/047/006/1/1/1	006	900405	10.77	J	0.77	169.23	J	7.69	119.08	J	1.54	35.	0.10
IP/S-1/047/018/1/1/1	018	900405	57.71	J	5.51	231.28	J	5.51	196.04	J	1.10	9.2	0.10
IP/S-1/047/023/1/1/1	023	900405	54.14	J	5.75	304.60	J	5.75	706.90	J	1.15	13.	0.10
IP/S-1/048/006/1/1/1	006	900405	8.55	J	0.60	92.05	J	6.02	74.70	J	1.20	17.	0.10
IP/S-1/048/018/1/1/1	018	900405	10.56	J	1.11	76.22	J	5.56	76.00	J	1.11	10.	0.10
IP/S-1/048/018/1/D/1*	018	900405	6.67	J	0.56	61.56	J	5.56	84.22	J	1.11	10.	0.10
IP/S-1/048/024/1/1/1	024	900405	5.55	J	0.54	7.40	J	5.44	4.24	J	1.09	8.1	0.10
IP/S-1/049/006/1/1/1	006	900416	11.15	J	0.96	36.15	J	9.62	15.77	J	1.92	48.	0.10
IP/S-1/049/018/1/1/1	018	900416	2.53	J	0.55	ND	Y	5.51	10.57	J	1.10	9.2	0.10
IP/S-1/049/032/1/1/1	032	900416	11.61	J	1.08	12.58	J	5.38	131.18	J	1.08	7.0	0.10
IP/S-1/050/006/1/1/1	006	900416	7.41	J	2.94	104.94	J	5.88	122.35	J	1.18	15.	0.10
IP/S-1/050/018/1/1/1	018	900416	8.07	J	0.57	85.45	J	5.68	110.00	J	1.14	12.	0.10
IP/S-1/050/034/1/1/1	034	900416	1.22	J	0.55	ND	Y	5.54	9.65	J	1.11	9.8	0.10
IP/S-1/051/006/1/1/1	006	900409	143.53	J	29.41	1084.71	J	5.88	17.76	J	1.18	15.	0.10
IP/S-1/051/018/1/1/1	018	900409	167.50	J	31.25	3775.00	J	6.25	84.00	J	1.25	20.	0.10
IP/S-1/051/018/1/D/1*	018	900409	424.69	J	30.86	503.70	J	6.17	20.37	J	1.23	19.	0.10
IP/S-1/051/020/1/1/1	020	900409	254.43	J	31.65	1936.71	J	6.33	263.29	J	1.27	21.	0.10
IP/S-1/052/006/1/1/1	006	900409	40.25	J	6.33	255.70	J	6.33	62.78	J	1.27	21.	0.10
IP/S-1/052/018/1/1/1	018	900409	205.95	J	29.76	322.62	J	5.95	11.19	J	1.19	16.	0.10

NOTES: * - Duplicate Sample
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AC - Assessment Codes.....
A - Quantitative Data
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Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

QAPP

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/052/025/1/1/1	025	900409	118.60	J	11.63	240.70	J	5.81	10.70	J	1.16	14.	0.10
IP/S-1/053/006/1/1/1	006	900409	137.66	J	12.99	218.18	J	6.49	62.73	J	1.30	23.	0.10
IP/S-1/053/018/1/1/1	018	900409	16.44	J	5.75	72.41	J	5.75	36.90	J	1.15	13.	0.10
IP/S-1/053/024/1/1/1	024	900409	1.97	J	0.55	7.02	J	5.48	47.37	J	1.10	8.8	0.10
IP/S-1/054/018/1/1/1	018	900407	36.05	J	12.35	135.80	J	6.17	26.54	J	1.23	19.	0.10
IP/S-1/055B/006/1/1/1	006	900408	12.07	J	1.15	43.56	J	5.75	30.34	J	1.15	13.	0.10
IP/S-1/055B/006/1/D/1*	006	900408	14.63	J	6.10	68.05	J	6.10	34.39	J	1.22	18.	0.10
IP/S-1/056/006/1/1/1	006	900409	104.51	J	14.08	102.82	J	7.04	30.70	J	1.41	29.	0.10
IP/S-1/056/018/1/1/1	018	900409	8.29	J	0.61	120.98	J	6.10	25.37	J	1.22	18.	0.10
IP/S-1/056/029/1/1/1	029	900409	7.36	J	0.57	ND	Y	5.75	18.39	J	1.15	13.	0.10
IP/S-1/057/006/1/1/1	006	900409	26.82	J	5.68	134.09	J	5.68	377.27	J	1.14	12.	0.10
IP/S-1/057/012/1/1/1	012	900409	12.56	J	5.56	69.44	J	5.56	276.67	J	1.11	10.	0.10
IP/S-1/058/006/1/1/1	006	900409	41.03	J	6.41	233.33	J	64.10	1035.90	J	12.82	22.	0.10
IP/S-1/058/018/1/1/1	018	900409	47.24	J	13.16	397.37	J	6.58	1219.74	J	1.32	24.	0.10
IP/S-1/058/031/1/1/1	031	900409	104.29	J	11.90	469.05	J	59.52	301.19	J	11.90	16.	0.10
IP/S-1/058/031/1/D/1*	031	900409	106.98	J	29.07	333.72	J	29.07	131.40	J	5.81	14.	0.10
IP/S-1/059/006/1/1/1	006	900410	119.50	J	12.50	411.25	J	6.25	33.63	J	1.25	20.	0.10
IP/S-1/059/006/1/D/1*	006	900410	113.92	J	12.66	683.54	J	6.33	31.90	J	1.27	21.	0.10
IP/S-1/059/010/1/1/1	010	900410	9.43	J	0.57	26.82	J	5.68	33.86	J	1.14	12.	0.10
IP/S-1/060/006/1/1/1	006	900410	102.82	J	12.82	573.08	J	6.41	13.85	J	1.28	22.	0.10
IP/S-1/060/018/1/1/1	018	900410	2.35	J	0.62	8.40	J	6.17	7.78	J	1.23	19.	0.10
IP/S-1/060/036/1/1/1	036	900410	3.05	J	0.61	ND	Y	6.10	13.05	J	1.22	18.	0.10
IP/S-1/061/006/1/1/1	006	900410	3.68	J	0.66	136.84	J	6.58	50.00	J	1.32	24.	0.10
IP/S-1/061/018/1/1/1	018	900410	12.56	J	1.16	59.77	J	5.81	42.09	J	1.16	14.	0.10
IP/S-1/061/023/1/1/1	023	900410	2.29	J	0.52	ND	Y	5.20	18.21	J	1.04	3.9	0.10
IP/S-1/062/006/1/1/1	006	900410	20.00	J	1.27	105.70	J	6.33	48.35	J	1.27	21.	0.10
IP/S-1/062/018/1/1/1	018	900410	5.23	J	0.57	13.52	J	5.68	22.39	J	1.14	12.	0.10
IP/S-1/062/025/1/1/1	025	900410	15.45	J	1.09	ND	Y	5.44	13.38	J	1.09	8.1	0.10
IP/S-1/063/006/1/1/1	006	900418	20.99	J	3.09	238.27	J	6.17	670.37	J	1.23	19.	0.10
IP/S-1/063/018/1/1/1	018	900418	47.06	J	11.76	1882.35	J	5.88	8.59	J	1.18	15.	0.10
IP/S-1/063/036/1/1/1	036	900418	3.15	J	0.56	11.69	J	5.62	6.63	J	1.12	11.	0.10
IP/S-1/064/006/1/1/1	006	900408	114.43	J	12.66	1367.09	J	12.66	8443.04	J	2.53	21.	0.10
IP/S-1/064/018/1/1/1	018	900408	6.58	J	0.66	26.32	J	6.58	21.05	J	1.32	24.	0.10
IP/S-1/064/024/1/1/1	024	900408	6.35	J	0.79	12.38	J	7.94	4.76	J	1.59	37.	0.10

NOTES: * - Duplicate Sample
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A - Quantitative Data
J - Estimated (Semiquantitative) Data
Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/065/006/1/1/1	006	900408	388.33	J	41.67	3350.00	J	8.33	2900.00	J	1.67	40.	0.10
IP/S-1/065/014/1/1/1	014	900408	20.14	J	3.42	3013.70	J	68.49	187.67	J	13.70	27.	0.10
IP/S-1/065/015/1/1/1	015	900408	154.17	J	13.89	3625.00	J	69.44	191.67	J	13.89	28.	0.10
IP/S-1/065/018/1/1/1	018	900408	510.26	J	64.10	2128.21	J	64.10	69.74	J	12.82	22.	0.10
IP/S-1/065/025/1/1/1	025	900408	88.48	J	12.66	36.33	J	6.33	9.37	J	1.27	21.	0.10
IP/S-1/066/006/1/1/1	006	900418	12.21	J	3.25	53.90	J	6.49	88.70	J	1.30	23.	0.10
IP/S-1/066/018/1/1/1	018	900418	7.67	J	0.68	14.25	J	6.85	18.08	J	1.37	27.	0.10
IP/S-1/066/026/1/1/1	026	900418	3.80	J	0.63	9.24	J	6.33	6.84	J	1.27	21.	0.10
IP/S-1/069/006/1/1/1	006	900411	76.58	J	31.65	893.67	J	12.66	170.89	J	2.53	21.	0.10
IP/S-1/069/018/1/1/1	018	900411	55.06	J	31.65	211.39	J	12.66	830.38	J	2.53	21.	0.10
IP/S-1/069/031/1/1/1	031	900411	119.77	J	58.14	2325.58	J	5.81	369.77	J	1.16	14.	0.10
IP/S-1/070/006/1/1/1	006	900409	209.59	J	34.25	695.89	J	6.85	32.88	J	1.37	27.	0.10
IP/S-1/070/018/1/1/1	018	900409	4.71	J	0.57	17.93	J	5.75	15.06	J	1.15	13.	0.10
IP/S-1/072/006/1/1/1	006	900408	24.35	J	7.25	78.12	J	7.25	17.83	J	1.45	31.	0.10
IP/S-1/072/018/1/1/1	018	900408	147.01	J	37.31	356.72	J	7.46	31.19	J	1.49	33.	0.10
IP/S-1/072/020/1/1/1	020	900408	521.21	J	37.88	6272.73	J	15.15	7.73	J	3.03	34.	0.10
IP/S-1/073/006/1/1/1	006	900408	1240.00	J	76.92	8030.77	J	7.69	5.69	J	1.54	35.	0.10
IP/S-1/074/006/1/1/1	006	900408	182.08	J	47.17	4547.17	J	18.87	258.49	J	3.77	47.	0.10
IP/S-1/074/018/1/1/1	018	900408	169.23	J	38.46	2415.38	J	38.46	278.46	J	7.69	35.	0.10
IP/S-1/074/036/1/1/1	036	900408	48.64	J	3.79	1006.06	J	37.88	290.91	J	7.58	34.	0.10
IP/S-1/074/036/1/D/1*	036	900408	23.79	J	7.58	925.76	J	15.15	154.55	J	3.03	34.	0.10
IP/S-1/075/006/1/1/1	006	900408	328.07	J	43.86	1824.56	J	8.77	72.11	J	1.75	43.	0.10
IP/S-1/075/015/1/1/1	015	900408	145.95	J	33.78	236.49	J	6.76	8.38	J	1.35	26.	0.10
IP/S-1/076/006/1/1/1	006	900417	38.17	J	8.33	1063.33	J	8.33	43.17	J	1.67	40.	0.10
IP/S-1/076/018/1/1/1	018	900417	89.82	J	18.18	818.18	J	9.09	44.00	J	1.82	45.	0.10
IP/S-1/076/022/1/1/1	022	900417	71.13	J	7.04	243.66	J	7.04	31.41	J	1.41	29.	0.10
IP/S-1/077/006/1/1/1	006	900408	40.68	J	11.36	445.45	J	11.36	112.73	J	2.27	56.	0.10
IP/S-1/078/006/1/1/1	006	900408	60.77	J	6.41	396.15	J	6.41	1030.77	J	1.28	22.	0.10
IP/S-1/078/018/1/1/1	018	900408	6.94	J	1.07	8.96	J	5.34	13.23	J	1.07	6.3	0.10
IP/S-1/078/022/1/1/1	022	900408	6.78	J	0.55	5.68	J	5.46	12.35	J	1.09	8.5	0.10
IP/S-1/079/006/1/1/1	006	900409	48.40	J	6.17	414.81	J	6.17	432.10	J	1.23	19.	0.10
IP/S-1/079/018/1/1/1	018	900409	24.77	J	2.91	424.42	J	5.81	176.74	J	1.16	14.	0.10
IP/S-1/080/006/1/1/1	006	900409	18.81	J	2.98	89.17	J	5.95	167.86	J	1.19	16.	0.10

NOTES: * - Duplicate Sample
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A - Quantitative Data
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Y - Not Detected/Semiquantitative Data
R - Unusable Data
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ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/080/012/1/1/1	012	900409	13.76	J	2.94	64.00	J	5.88	72.47	J	1.18	15.	0.10
IP/S-1/081/006/1/1/1	006	900409	70.40	J	13.33	217.33	J	6.67	1050.67	J	1.33	25.	0.10
IP/S-1/081/018/1/1/1	018	900409	26.22	J	3.05	151.22	J	6.10	797.56	J	1.22	18.	0.10
IP/S-1/081/025/1/1/1	025	900409	36.63	J	6.25	100.50	J	6.25	203.75	J	1.25	20.	0.10
IP/S-1/082/006/1/1/1	006	900404	66.15	J	12.82	111.03	J	6.41	520.51	J	1.28	22.	0.10
IP/S-1/082/018/1/1/1	018	900404	21.73	J	3.09	36.05	J	6.17	2037.04	J	1.23	19.	0.10
IP/S-1/082/034/1/1/1	034	900404	14.35	J	2.94	105.65	J	5.88	1200.00	J	1.18	15.	0.10
IP/S-1/083/006/1/1/1	006	900404	9.63	J	1.22	ND	Y	6.10	9.51	J	1.22	18.	0.10
IP/S-1/083/018/1/1/1	018	900404	8.11	J	0.68	ND	Y	6.76	12.03	J	1.35	26.	0.10
IP/S-1/083/018/1/D/1*	018	900404	6.99	J	1.20	19.04	J	6.02	11.81	J	1.20	17.	0.10
IP/S-1/083/032/1/1/1	032	900404	4.32	J	0.57	ND	Y	5.68	7.61	J	1.14	12.	0.10
IP/S-1/084/006/1/1/1	006	900403	6.31	J	0.60	11.19	J	5.95	7.50	J	1.19	16.	0.10
IP/S-1/084/018/1/1/1	018	900403	7.42	J	0.56	ND	Y	5.62	6.29	J	1.12	11.	0.10
IP/S-1/084/033/1/1/1	033	900403	4.27	J	0.61	6.34	J	6.10	5.98	J	1.22	18.	0.10
IP/S-1/085/006/1/1/1	006	900403	7.97	J	1.11	ND	Y	5.54	12.51	J	1.11	9.7	0.10
IP/S-1/085/018/1/1/1	018	900403	7.30	J	0.56	8.76	J	5.62	8.54	J	1.12	11.	0.10
IP/S-1/085/024/1/1/1	024	900403	10.24	J	1.22	12.93	J	6.10	6.83	J	1.22	18.	0.10
IP/S-1/086/006/1/1/1	006	900403	11.13	J	1.41	11.97	J	7.04	10.28	J	1.41	29.	0.10
IP/S-1/086/012/1/1/1	012	900403	8.19	J	0.60	7.35	J	6.02	9.40	J	1.20	17.	0.10
IP/S-1/087/006/1/1/1	006	900403	8.43	J	1.43	ND	Y	7.14	22.57	J	1.43	30.	0.10
IP/S-1/087/010/1/1/1	010	900403	6.88	J	0.65	9.87	J	6.49	24.29	J	1.30	23.	0.10
IP/S-1/088/006/1/1/1	006	900403	10.39	J	1.30	10.39	J	6.49	253.25	J	1.30	23.	0.10
IP/S-1/088/006/1/D/1*	006	900403	24.00	J	5.88	13.41	J	5.88	274.12	J	1.18	15.	0.10
IP/S-1/088/018/1/1/1	018	900403	26.09	J	3.62	99.57	J	7.25	934.78	J	1.45	31.	0.10
IP/S-1/089/006/1/1/1	006	900402	37.14	J	6.49	124.55	J	6.49	444.16	J	1.30	23.	0.10
IP/S-1/089/018/1/1/1	018	900402	35.32	J	6.33	236.71	J	6.33	750.63	J	1.27	21.	0.10
IP/S-1/089/019/1/1/1	019	900402	36.83	J	6.10	131.71	J	6.10	610.98	J	1.22	18.	0.10
IP/S-1/090/006/1/1/1	006	900402	9.87	J	0.65	29.35	J	6.49	459.74	J	1.30	23.	0.10
IP/S-1/090/018/1/1/1	018	900402	6.71	J	0.59	14.47	J	5.88	498.82	J	1.18	15.	0.10
IP/S-1/090/019/1/1/1	019	900402	8.47	J	0.59	8.35	J	5.88	596.47	J	1.18	15.	0.10
IP/S-1/091/006/1/1/1	006	900404	788.41	J	144.93	2739.13	J	7.25	2144.93	J	1.45	31.	0.10
IP/S-1/091/018/1/1/1	018	900404	779.75	J	126.58	2822.78	J	6.33	2797.47	J	1.27	21.	0.10
IP/S-1/091/034/1/1/1	034	900404	940.00	J	125.00	1862.50	J	6.25	1700.00	J	1.25	20.	0.10
IP/S-1/092/006/1/1/1	006	900404	137.33	J	13.33	810.67	J	6.67	1586.67	J	1.33	25.	0.10

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ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/092/018/1/1/1	018	900404	127.85	J	12.66	741.77	J	6.33	1481.01	J	1.27	21.	0.10
IP/S-1/092/032/1/1/1	032	900404	100.48	J	11.90	398.81	J	5.95	461.90	J	1.19	16.	0.10
IP/S-1/093/006/1/1/1	006	900404	78.00	J	12.50	128.75	J	6.25	43.50	J	1.25	20.	0.10
IP/S-1/093/018/1/1/1	018	900404	110.89	J	12.66	33.04	J	6.33	96.84	J	1.27	21.	0.10
IP/S-1/093/032/1/1/1	032	900404	6.59	J	0.59	6.94	J	5.88	9.06	J	1.18	15.	0.10
IP/S-1/094/006/1/1/1	006	900403	67.46	J	7.94	177.78	J	7.94	501.59	J	1.59	37.	0.10
IP/S-1/094/016/1/1/1	016	900403	33.64	J	6.49	55.84	J	6.49	610.39	J	1.30	23.	0.10
IP/S-1/095/006/1/1/1	006	900403	6.34	J	0.70	12.82	J	7.04	6.34	J	1.41	29.	0.10
IP/S-1/095/018/1/1/1	018	900403	12.78	J	0.93	ND	Y	9.26	10.93	J	1.85	46.	0.10
IP/S-1/095/020/1/1/1	020	900403	5.38	J	0.64	18.72	J	6.41	9.36	J	1.28	22.	0.10
IP/S-1/096/006/1/1/1	006	900403	9.87	J	1.33	21.33	J	6.67	11.33	J	1.33	25.	0.10
IP/S-1/096/018/1/1/1	018	900403	7.53	J	0.62	9.01	J	6.17	8.77	J	1.23	19.	0.10
IP/S-1/097/006/1/1/1	006	900402	3.56	J	0.85	9.49	J	8.47	62.20	J	1.69	41.	0.10
IP/S-1/098/006/1/1/1	006	900402	14.43	J	1.27	82.91	J	6.33	1417.72	J	1.27	21.	0.10
IP/S-1/098/018/1/1/1	018	900402	15.38	J	1.25	65.38	J	6.25	315.00	J	1.25	20.	0.10
IP/S-1/098/020/1/1/1	020	900402	24.94	J	3.09	49.26	J	6.17	824.69	J	1.23	19.	0.10
IP/S-1/099/006/1/1/1	006	900402	7.32	J	0.61	14.88	J	6.10	141.46	J	1.22	18.	0.10
IP/S-1/099/015/1/1/1	015	900402	10.24	J	1.22	28.78	J	6.10	386.59	J	1.22	18.	0.10
IP/S-1/101/006/1/1/1	006	900408	10.92	J	0.77	144.62	J	7.69	10.15	J	1.54	35.	0.10
IP/S-1/101/018/1/1/1	018	900408	2.47	J	0.62	ND	Y	6.17	6.30	J	1.23	19.	0.10
IP/S-1/101/027/1/1/1	027	900408	2.68	J	0.61	ND	Y	6.10	5.61	J	1.22	18.	0.10
IP/S-1/103/006/1/1/1	006	900408	6.13	J	0.67	15.87	J	6.67	5.60	J	1.33	25.	0.10
IP/S-1/103/018/1/1/1	018	900408	1.75	J	0.63	ND	Y	6.25	5.75	J	1.25	20.	0.10
IP/S-1/103/023/1/1/1	023	900408	3.83	J	0.62	ND	Y	6.17	5.43	J	1.23	19.	0.10
IP/S-1/104/006/1/1/1	006	900410	6.40	J	0.58	28.72	J	5.81	6.05	J	1.16	14.	0.10
IP/S-1/104/018/1/1/1	018	900410	2.60	J	0.54	ND	Y	5.41	6.28	J	1.08	7.6	0.10
IP/S-1/104/036/1/1/1	036	900410	2.39	J	0.52	ND	Y	5.20	5.41	J	1.04	3.9	0.10
IP/S-1/105/006/1/1/1	006	900407	20.12	J	2.98	54.29	J	5.95	265.48	J	1.19	16.	0.10
IP/S-1/105/018/1/1/1	018	900407	21.01	J	2.81	64.27	J	5.62	240.45	J	1.12	11.	0.10
IP/S-1/105/024/1/1/1	024	900407	17.67	J	2.78	54.22	J	5.56	69.44	J	1.11	10.	0.10
IP/S-1/106/006/1/1/1	006	900420	7.32	J	1.22	ND	Y	6.10	9.76	J	1.22	18.	0.10
IP/S-1/106/015/1/1/1	015	900420	4.97	J	0.55	5.52	J	5.52	11.26	J	1.10	9.4	0.10
IP/S-1/107/006/1/1/1	006	900407	6.66	J	1.09	39.52	J	5.46	18.23	J	1.09	8.4	0.10

NOTES: * - Duplicate Sample
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ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/107/013/1/1/1	013	900407	15.23	J	2.84	13.75	J	5.68	10.80	J	1.14	12.	0.10
IP/S-1/108/006/1/1/1	006	900407	11.91	J	0.56	21.01	J	5.62	36.40	J	1.12	11.	0.10
IP/S-1/108/018/1/1/1	018	900407	4.25	J	0.54	8.50	J	5.45	23.97	J	1.09	8.2	0.10
IP/S-1/108/025/1/1/1	025	900407	3.30	J	0.55	ND	Y	5.50	17.49	J	1.10	9.1	0.10
IP/S-1/109/006/1/1/1	006	900407	5.00	J	0.60	7.50	J	5.95	12.50	J	1.19	16.	0.10
IP/S-1/109/006/1/D/1*	006	900407	4.35	J	0.59	15.06	J	5.88	12.82	J	1.18	15.	0.10
IP/S-1/109/018/1/1/1	018	900407	3.69	J	0.60	ND	Y	5.95	8.69	J	1.19	16.	0.10
IP/S-1/109/025/1/1/1	025	900407	8.12	J	0.59	6.47	J	5.88	13.18	J	1.18	15.	0.10
IP/S-1/110/006/1/1/1	006	900409	9.40	J	1.19	33.57	J	5.95	6.19	J	1.19	16.	0.10
IP/S-1/110/018/1/1/1	018	900409	10.12	J	2.91	28.37	J	5.81	9.65	J	1.16	14.	0.10
IP/S-1/110/036/1/1/1	036	900409	3.10	J	0.57	ND	Y	5.75	9.20	J	1.15	13.	0.10
IP/S-1/111/006/1/1/1	006	900410	ND	Y	0.63	628.75	J	6.25	105.88	J	1.25	20.	0.10
IP/S-1/111/018/1/1/1	018	900410	7.11	J	0.60	153.01	J	6.02	156.63	J	1.20	17.	0.10
IP/S-1/111/034/1/1/1	034	900410	3.41	J	0.59	7.53	J	5.88	10.71	J	1.18	15.	0.10
IP/S-1/112/006/1/1/1	006	900410	4.12	J	0.54	11.05	J	5.42	29.90	J	1.08	7.7	0.10
IP/S-1/112/018/1/1/1	018	900410	2.61	J	0.54	ND	Y	5.44	6.09	J	1.09	8.1	0.10
IP/S-1/112/030/1/1/1	030	900410	7.51	J	0.55	21.10	J	5.52	7.51	J	1.10	9.5	0.10
IP/S-1/113/006/1/1/1	006	900410	5.51	J	0.54	13.93	J	5.40	38.66	J	1.08	7.4	0.10
IP/S-1/113/017/1/1/1	017	900410	4.88	J	0.53	23.67	J	5.31	80.68	J	1.06	5.8	0.10
IP/S-1/114/006/1/1/1	006	900406	79.40	J	11.90	315.48	J	5.95	1017.86	J	1.19	16.	0.10
IP/S-1/115/006/1/1/1	006	900406	5.71	J	0.71	36.71	J	7.14	32.00	J	1.43	30.	0.10
IP/S-1/115/018/1/1/1	018	900406	ND	Y	0.68	ND	Y	6.85	2.33	J	1.37	27.	0.10
IP/S-1/115/020/1/1/1	020	900406	ND	Y	0.65	ND	Y	6.49	6.49	J	1.30	23.	0.10
IP/S-1/116/006/1/1/1	006	900406	2.85	J	0.55	9.09	J	5.48	13.69	J	1.10	8.7	0.10
IP/S-1/116/018/1/1/1	018	900406	3.05	J	0.54	ND	Y	5.44	11.64	J	1.09	8.1	0.10
IP/S-1/116/026/1/1/1	026	900406	6.82	J	0.57	29.66	J	5.68	9.20	J	1.14	12.	0.10
IP/S-1/117/006/1/1/1	006	900406	3.22	J	0.57	ND	Y	5.75	15.06	J	1.15	13.	0.10
IP/S-1/117/018/1/1/1	018	900406	5.22	J	0.56	ND	Y	5.56	9.78	J	1.11	10.	0.10
IP/S-1/117/022/1/1/1	022	900406	5.91	J	0.53	6.34	J	5.28	21.33	J	1.06	5.3	0.10
IP/S-1/118/006/1/1/1	006	900406	7.63	J	0.66	66.84	J	6.58	115.13	J	1.32	24.	0.10
IP/S-1/118/018/1/1/1	018	900406	2.05	J	0.60	19.28	J	6.02	13.73	J	1.20	17.	0.10
IP/S-1/118/024/1/1/1	024	900406	7.14	J	0.65	49.61	J	6.49	135.06	J	1.30	23.	0.10
IP/S-1/119/006/1/1/1	006	900406	126.98	J	15.87	226.98	J	7.94	877.78	J	1.59	37.	0.10
IP/S-1/119/006/1/D/1*	006	900406	218.18	J	75.76	198.48	J	7.58	700.00	J	1.52	34.	0.10

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ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/119/018/1/1/1	018	900406	2.75	J	0.63	ND	Y	6.25	33.25	J	1.25	20.	0.10
IP/S-1/119/024/1/1/1	024	900406	1.67	J	0.60	7.98	J	5.95	23.33	J	1.19	16.	0.10
IP/S-1/120/005/1/1/1	005	900406	15.06	J	1.23	41.48	J	6.17	81.11	J	1.23	19.	0.10
IP/S-1/120/006/1/1/1	006	900406	46.31	J	5.95	225.00	J	5.95	23.57	J	1.19	16.	0.10
IP/S-1/120/016/1/1/1	016	900406	28.24	J	2.94	134.12	J	5.88	89.06	J	1.18	15.	0.10
IP/S-1/121/006/1/1/1	006	900404	494.52	J	68.49	1767.12	J	6.85	3287.67	J	1.37	27.	0.10
IP/S-1/121/018/1/1/1	018	900404	817.95	J	128.21	4076.92	J	6.41	63.59	J	1.28	22.	0.10
IP/S-1/121/022/1/1/1	022	900404	1412.50	J	125.00	9075.00	J	6.25	21.38	J	1.25	20.	0.10

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TABLE 2

SUMMARY OF DATA ASSESSMENT RESULTS

Assessment Code	Applicable Samples	Comments
R	None	Not Applicable
Y	Arsenic: 111/006 115/018, 115/020 Lead: 016/018, 016/024, 017/018, 017/026, 027/022 028/018, 028/019 030/027, 038/019 039/018, 039/030 041/018, 041/033 042/018, 045/027 049/018, 050/034 056/029, 060/036 061/023, 062/025 083/006, 083/018 083/032, 084/018 085/006, 087/006 095/018, 101/018 101/027, 103/018 103/023, 104/018 104/036, 106/006 108/025, 109/018 110/036, 112/018 115/018, 115/020 116/018, 117/006 117/018, 119/018	Poor replicate precision
U	All 16 equipment rinsate blanks	No cross contamination due to sampling equipment evident, data acceptable.
J	All other soil samples	Field and lab duplicates not within control limits
A	None	Not Applicable

TABLE 2 (continued)

SUMMARY OF DATA ASSESSMENT RESULTS

Notes: A=acceptable quantitative data; J=estimated (semiquantitative) data; U=not detected, quantitative; Y=not detected, semiquantitative; and R=unuseable.

Applicable sample column lists abbreviated sample ID as xxx/yyy where xxx=Task S-1 borehole number and yyy=depth of bottom of sample interval.

APPENDIX A

ASSESSMENT OF OVERALL DATA QUALITY

TASK S-1 (Interim)

INDUSTRI-PLEX PRE-DESIGN INVESTIGATION

ASSESSMENT OF OVERALL DATA QUALITY
FOR TASK S-1 (interim)

PERFORMED BY: Bob Glazier/Golder Associates DATE: 6-25-90

	YES/NO/NA
1. Were the QAPjP, laboratory reports, and field documentation available to support data assessment procedures?	yes
2. Precision:	
Are DCS RPD within control limits?	yes
Are lab duplicate RPD within control limits?	no (67% in-control)
Are field duplicate RPD within control limits?	no (56% in-control)
Are MS/MSD RPD within control limits?	yes (93% in-control)

Overall assessment of precision Precision for both lab and field are not within control limits specified in the QAPjP. All data are estimated (semiquantitative). Results near Action Levels should be used with caution.

3. Accuracy:	
Is absolute recovery within control limits for DCS?	yes
Is relative recovery within control limits for MS/MSD?	yes (93% in-control)

Overall assessment of accuracy Accuracy is in-control, acceptable, and sufficient to support Remedial Design.

4. Representativeness:	
Were procedures in the FSP followed?	yes
If not, were procedural variations approved and documented?	NA
Were sample preservation procedures given in the FSP followed?	yes
Were data reported in the proper units?	yes
Was blank contamination not evident or well documented at low levels?	yes
Were field duplicates within control limits?	no

Overall assessment of representativeness The data set as a whole is representative of site conditions, but the soil is apparently very inhomogeneous such that a larger degree of uncertainty is associated with any given piece of data than was anticipated.

INDUSTRI-PLEX PRE-DESIGN INVESTIGATION

ASSESSMENT OF OVERALL DATA QUALITY
FOR TASK S-1 (interim)

(continued)

YES/NO/NA

5. **Comparability:**

Are data traceable to a standard method? yes
Are methods approved/accepted as giving valid results? yes
Are data reported in proper units? yes
Overall assessment of comparability The data are comparable to data collected during the RI/FS.

6. **Completeness:**

Is the fraction of valid data within control limits? yes
If not, are the data sufficient to meet the task objectives? NA
Are critical (background) samples sufficient and valid? Data not yet reported
Overall assessment of completeness Sufficient valid data are available to support remedial design, although a large fraction are estimated values which must be used with caution when results are near Action Levels.

7. Are the data useable and consistent with the objectives of the study? yes

8. **Comments:** 35% of the MS/MSD results were not calculated because the initial sample concentration was much greater than the spike concentration. 60% of all MS/MSDs were in-control, and 5% were not in-control. Neglecting the MS/MSDs which were not calculated, 93% were in-control and 7% were not in-control.

C:6255:ODQFORM

APPENDIX B

CRITERIA USED TO ASSESS DATA USEABILITY

INDUSTRI-PLEX PRE-DESIGN INVESTIGATION

ASSESSMENT OF LABORATORY PERFORMANCE
FOR TASK _____

LABORATORY: _____ REPORT # _____

VALIDATED BY: _____ DATE: _____

		YES/NO/NA
1.	Release authorization with signature present?	_____
2.	Sample identification summary/description present?	_____
3.	Analytical results present, including:	
	correct units?	_____
	detection limits?	_____
	method used?	_____
	date sampled?	_____
	date received?	_____
	date prepared?	_____
	date analyzed?	_____
	dilutions noted?	_____
4.	Holding times met?	_____
5.	Lab duplicate RPDs within control limits (20%)?	_____
	Field duplicate RPDs within control limits (20%)?	_____
6.	MS/MSD % recoveries within control limits (80-120%)?	_____
7.	MS/MSD RPDs within control limits (20%)?	_____
8.	Duplicate control sample (DCS) accuracy within given control limits (80-120%)?	_____
9.	DCS precision within given control limits (20%)?	_____
10.	Method blanks "clean"?	_____
11.	Chain-of-Custody present and complete with signatures and dates?	_____
12.	Name of analyst/supervisor given?	_____
13.	Procedural deviations noted?	_____
14.	QC procedures given?	_____

INDUSTRI-PLEX PRE-DESIGN INVESTIGATION

ASSESSMENT OF LABORATORY PERFORMANCE
FOR TASK _____

(continued)

Note any violations to the assessment criteria listed above:

_____

_____

_____

_____

_____

_____

_____

C:6255:ALPFORM

INDUSTRI-PLEX PRE-DESIGN INVESTIGATION

ASSESSMENT OF FIELD PERFORMANCE
FOR TASK _____

SAMPLER/ORGANIZATION:_____ REPORT #_____

VALIDATED BY:_____ DATE:_____

	YES/NO/NA
1. Does field documentation include:	
date/time samples collected?	_____
sample location?	_____
name of sampler?	_____
field measurements?	_____
sampling method?	_____
instruments/methods for field measurements?	_____
calibration/maintenance of field instruments?	_____
sampling containers used (COC*)?	_____
sample preservation procedures (see COC*)?	_____
Chain-of-Custody procedures?	_____
field quality control procedures?	_____
2. Were procedures in the Field Sampling Plan followed?	_____
If not, were procedural variances approved and documented?	_____
3. Was contamination of field blank samples not evident, or well documented at low levels?	_____
4. Are field duplicates within control limits?	_____

5. Comments:_____

_____

_____

_____

_____

* Chain-of-Custody Form

C:6255:FPFORM

ATTACHMENT 1

ASSESSMENT OF DATA USING USEPA REGION I CONTROL LIMITS

ATTACHMENT 1

The listing of data included in this attachment has been assessed per the control limits given in USEPA Region I Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses (February 1989). The analytical results which have been assessed are given in Table A-1. Data assessment qualifiers were assigned to each result given in Table A-1. These include acceptable quantitative data (A), estimated (semiquantitative) data (J), acceptable and not detected (u-quantitative, y-semiquantitative), and unusable (R). The results of data assessment are summarized in Table A-2.

The overall current (interim) assessment of the data using the control limits in the guidance is documented in Attachment 2. The sheets used to assess each data package are given in Attachment 3. Over 86 percent of the lab duplicates and 88 percent of the field duplicates were within the Region I control limits for precision. Therefore, the precision of the data as a whole are considered to be in control, and only specific samples which are not in control are assessed as estimated (J). All equipment rinsate blanks are assessed as acceptable and not detected (U). All DCS samples were within control limits, and over 89 percent of the MS/MSD samples were within control limits. Therefore, the data set as a whole is considered to be sufficiently accurate to support design. The data are also considered to be representative, comparable, and complete (see Attachment 2).

Field procedures/documentation were complete, acceptable and sufficient to support design. Overall, the data are considered to be useable and consistent with the objectives of the task.

As stated on page 3 of the Field Sampling Plan (FSP), no particular sample is considered critical to the successful completion of the task. However, background samples are now considered to be critical. Because background sample results for Task S-1 are not yet available, no critical data have been assessed as unusable at this time.

TABLE A-1

SUMMARY OF ARSENIC, LEAD, AND CHROMIUM ANALYSES

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: AQUEOUS

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/L)			Lead (mg/L)			Chromium (mg/L)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/EB1/000/2/1/1	000	900403	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB2/000/2/1/1	000	900404	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB3/000/2/1/1	000	900404	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB4/000/2/1/1	000	900404	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB5/000/2/1/1	000	900405	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB6/000/2/1/1	000	900405	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB7/000/2/1/1	000	900406	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB8/000/2/1/1	000	900406	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB9/000/2/1/1	000	900406	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB10/000/2/1/1	000	900407	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB11/000/2/1/1	000	900407	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB12/000/2/1/1	000	900408	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB13/000/2/1/1	000	900408	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB14/000/2/1/1	000	900409	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB15/000/2/1/1	000	900409	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	
IP/S-1/EB16/000/2/1/1	000	900411	ND	U	0.0050	ND	U	0.0050	ND	U	0.010	NA	

NOTES: * - Duplicate Sample
RL - Reporting Limit
NA - Not Applicable

AC - Assessment Codes.....
A - Quantitative Data
J - Estimated (Semiquantitative) Data
Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/001/006/1/1/1	006	900406	35.66	A	6.58	290.79	A	6.58	40.13	A	1.32	24.	0.10
IP/S-1/001/018/1/1/1	018	900406	52.08	A	5.34	156.88	A	5.34	8.96	A	1.07	6.3	0.10
IP/S-1/001/030/1/1/1	030	900406	23.16	A	3.29	6.84	A	6.58	7.50	A	1.32	24.	0.10
IP/S-1/006/006/1/1/1	006	900417	40.07	A	5.52	245.03	A	5.52	9.93	A	1.10	9.4	0.10
IP/S-1/006/018/1/1/1	018	900417	74.56	A	12.66	487.34	A	12.66	6.20	A	2.53	21.	0.10
IP/S-1/006/026/1/1/1	026	900417	113.05	A	12.20	608.54	A	12.20	11.46	A	2.44	18.	0.10
IP/S-1/007/006/1/1/1	006	900406	9.77	A	2.87	254.02	A	11.49	125.29	A	2.30	13.	0.10
IP/S-1/007/018/1/1/1	018	900406	12.27	A	1.14	63.98	A	5.68	26.02	A	1.14	12.	0.10
IP/S-1/007/029/1/1/1	029	900406	6.36	A	0.57	202.27	A	5.68	10.00	A	1.14	12.	0.10
IP/S-1/008/006/1/1/1	006	900417	12.73	A	2.65	1155.89	A	5.30	50.05	A	1.06	5.7	0.10
IP/S-1/008/018/1/1/1	018	900417	42.76	A	5.44	12840.04	A	10.88	12.19	A	2.18	8.1	0.10
IP/S-1/008/027/1/1/1	027	900417	266.67	A	30.86	1641.98	A	12.35	9.51	A	2.47	19.	0.10
IP/S-1/009/006/1/1/1	006	900407	11.45	A	1.20	42.17	A	6.02	29.64	A	1.20	17.	0.10
IP/S-1/009/018/1/1/1	018	900407	5.09	J	0.55	17.70	A	5.53	47.79	A	1.11	9.6	0.10
IP/S-1/009/018/1/D/1*	018	900407	4.97	J	0.54	25.38	A	5.40	32.51	A	1.08	7.4	0.10
IP/S-1/009/021/1/1/1	021	900407	5.11	A	0.57	11.48	A	5.68	24.32	A	1.14	12.	0.10
IP/S-1/010/006/1/1/1	006	900406	831.46	A	280.90	11146.07	A	5.62	195.51	A	1.12	11.	0.10
IP/S-1/010/018/1/1/1	018	900406	878.48	A	126.58	13924.05	A	12.66	291.14	A	2.53	21.	0.10
IP/S-1/010/024/1/1/1	024	900406	8.58	A	1.10	215.62	A	5.50	10.67	A	1.10	9.1	0.10
IP/S-1/011/008/1/1/1	008	900406	170.79	A	11.24	37.64	A	5.62	7.64	A	1.12	11.	0.10
IP/S-1/011/010/1/1/1	010	900406	44.96	A	5.44	823.72	A	5.44	49.40	A	1.09	8.1	0.10
IP/S-1/011/013/1/1/1	013	900406	140.23	A	11.49	2977.01	A	11.49	12.87	A	2.30	13.	0.10
IP/S-1/011/013/1/D/1*	013	900406	164.71	A	58.82	3000.00	A	11.76	12.24	A	2.35	15.	0.10
IP/S-1/011/015/1/1/1	015	900406	153.85	A	12.82	289.74	A	12.82	5.77	A	2.56	22.	0.10
IP/S-1/011/020/1/1/1	020	900406	80.76	A	12.66	441.77	A	6.33	2.91	A	1.27	21.	0.10
IP/S-1/012/006/1/1/1	006	900407	4.20	A	0.55	8.74	A	5.53	19.47	A	1.11	9.6	0.10
IP/S-1/013/006/1/1/1	006	900417	7.53	A	1.12	37.53	A	5.62	17.64	A	1.12	11.	0.10
IP/S-1/013/018/1/1/1	018	900417	16.42	A	3.09	112.10	A	6.17	14.44	A	1.23	19.	0.10
IP/S-1/013/025/1/1/1	025	900417	10.38	A	1.27	45.06	A	6.33	12.15	A	1.27	21.	0.10
IP/S-1/014/006/1/1/1	006	900407	88.07	A	5.68	413.64	A	5.68	25.45	A	1.14	12.	0.10
IP/S-1/014/018/1/1/1	018	900407	127.91	A	11.63	169.77	A	5.81	10.93	A	1.16	14.	0.10
IP/S-1/014/026/1/1/1	026	900407	1144.74	A	65.79	6473.68	A	13.16	10.13	A	2.63	24.	0.10
IP/S-1/015/006/1/1/1	006	900406	45.75	A	5.38	107.53	A	5.38	12.49	A	1.08	7.1	0.10
IP/S-1/015/018/1/1/1	018	900406	21.15	A	2.87	90.46	A	5.75	5.98	A	1.15	13.	0.10
IP/S-1/015/036/1/1/1	036	900406	18.23	A	3.16	331.65	A	6.33	8.61	A	1.27	21.	0.10

NOTES: * - Duplicate Sample
RL - Reporting Limit
NA - Not Applicable

AC - Assessment Codes.....
A - Quantitative Data
J - Estimated (Semiquantitative) Data
Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/016/006/1/1/1	006	900406	8.93	A	0.53	52.92	A	5.31	6.70	A	1.06	5.9	0.10
IP/S-1/016/018/1/1/1	018	900406	2.88	A	0.55	ND	U	5.53	4.76	A	1.11	9.6	0.10
IP/S-1/016/024/1/1/1	024	900406	2.56	A	0.58	ND	U	5.81	4.88	A	1.16	14.	0.10
IP/S-1/016/024/1/D/1*	024	900406	3.18	A	1.18	ND	U	5.88	5.53	A	1.18	15.	0.10
IP/S-1/017/006/1/1/1	006	900406	11.29	A	2.94	32.47	A	5.88	24.24	A	1.18	15.	0.10
IP/S-1/017/018/1/1/1	018	900406	3.18	A	0.57	ND	U	5.68	4.43	A	1.14	12.	0.10
IP/S-1/017/026/1/1/1	026	900406	3.58	A	0.54	ND	U	5.42	5.20	A	1.08	7.7	0.10
IP/S-1/018/006/1/1/1	006	900406	4.94	A	0.56	25.39	A	5.62	12.25	A	1.12	11.	0.10
IP/S-1/018/018/1/1/1	018	900406	3.21	A	1.07	16.56	A	5.34	8.33	A	1.07	6.4	0.10
IP/S-1/018/026/1/1/1	026	900406	6.46	A	1.09	51.53	A	5.47	10.50	A	1.09	8.6	0.10
IP/S-1/019/006/1/1/1	006	900417	13.81	A	2.98	59.88	A	5.95	16.19	A	1.19	16.	0.10
IP/S-1/019/018/1/1/1	018	900417	25.84	A	5.62	15.62	A	5.62	11.91	A	1.12	11.	0.10
IP/S-1/019/018/1/D/1*	018	900417	28.31	A	5.62	25.17	A	5.62	12.47	A	1.12	11.	0.10
IP/S-1/019/032/1/1/1	032	900417	1109.41	A	117.65	1101.18	A	5.88	27.29	A	1.18	15.	0.10
IP/S-1/020/006/1/1/1	006	900406	7.38	A	0.60	114.76	A	5.95	26.79	A	1.19	16.	0.10
IP/S-1/020/018/1/1/1	018	900406	11.05	A	1.16	124.42	A	5.81	13.49	A	1.16	14.	0.10
IP/S-1/020/028/1/1/1	028	900406	10.36	A	1.20	209.64	A	6.02	9.64	A	1.20	17.	0.10
IP/S-1/020/030/1/1/1	030	900406	129.76	A	11.90	1392.86	A	5.95	7.86	A	1.19	16.	0.10
IP/S-1/023/006/1/1/1	006	900417	256.07	A	27.59	645.70	A	5.52	76.60	A	1.10	9.4	0.10
IP/S-1/023/018/1/1/1	018	900417	1681.16	A	144.93	2855.07	A	7.25	65.36	A	1.45	31.	0.10
IP/S-1/023/022/1/1/1	022	900417	3468.35	A	316.46	1721.52	A	6.33	74.56	A	1.27	21.	0.10
IP/S-1/024/006/1/1/1	006	900406	370.67	A	66.67	628.00	A	6.67	28.80	A	1.33	25.	0.10
IP/S-1/024/018/1/1/1	018	900406	18356.16	A	3424.66	18767.12	A	13.70	19.45	A	2.74	27.	0.10
IP/S-1/025/006/1/1/1	006	900417	167.95	A	32.05	412.82	A	6.41	541.03	A	1.28	22.	0.10
IP/S-1/025/018/1/1/1	018	900417	46.87	A	6.02	196.39	A	6.02	265.06	A	1.20	17.	0.10
IP/S-1/025/020/1/1/1	020	900417	37.25	A	6.25	293.75	A	6.25	257.50	A	1.25	20.	0.10
IP/S-1/026/004/1/1/1	004	900405	179.76	A	29.76	194.05	A	5.95	2095.24	A	1.19	16.	0.10
IP/S-1/027/006/1/1/1	006	900405	23.75	A	3.13	60.13	A	6.25	886.25	A	1.25	20.	0.10
IP/S-1/027/018/1/1/1	018	900405	6.40	A	1.12	9.66	A	5.62	12.36	A	1.12	11.	0.10
IP/S-1/027/022/1/1/1	022	900405	1.19	A	0.54	ND	U	5.42	8.99	A	1.08	7.7	0.10
IP/S-1/028/006/1/1/1	006	900407	8.27	A	0.54	29.86	A	5.37	183.67	A	1.07	6.9	0.10
IP/S-1/028/018/1/1/1	018	900407	2.67	A	0.53	ND	U	5.35	6.31	A	1.07	6.5	0.10
IP/S-1/028/019/1/1/1	019	900407	2.27	A	0.57	ND	U	5.68	5.80	A	1.14	12.	0.10
IP/S-1/029/006/1/1/1	006	900416	234.57	A	30.86	4160.49	A	6.17	185.19	A	1.23	19.	0.10
IP/S-1/029/018/1/1/1	018	900416	398.78	A	60.98	1157.32	A	6.10	2182.93	A	1.22	18.	0.10

NOTES: * - Duplicate Sample
RL - Reporting Limit
NA - Not Applicable

AC - Assessment Codes.....
A - Quantitative Data
J - Estimated (Semiquantitative) Data
Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/029/025/1/1/1	025	900416	143.66	A	14.08	800.00	A	7.04	1025.35	A	1.41	29.	0.10
IP/S-1/029/035/1/1/1	035	900416	327.78	A	55.56	946.67	A	5.56	17.67	A	1.11	10.	0.10
IP/S-1/030/006/1/1/1	006	900404	90.49	A	12.20	204.88	A	6.10	467.07	A	1.22	18.	0.10
IP/S-1/030/018/1/1/1	018	900404	15.20	A	2.75	18.83	A	5.51	93.72	A	1.10	9.2	0.10
IP/S-1/030/027/1/1/1	027	900404	3.20	A	0.55	ND	U	5.51	7.72	A	1.10	9.3	0.10
IP/S-1/031/006/1/1/1	006	900416	13.34	A	2.71	21.80	A	5.42	48.37	A	1.08	7.8	0.10
IP/S-1/031/018/1/1/1	018	900416	10.00	A	1.12	25.84	A	5.62	29.44	A	1.12	11.	0.10
IP/S-1/031/025/1/1/1	025	900416	3.17	A	0.55	6.99	A	5.46	20.31	A	1.09	8.4	0.10
IP/S-1/032/006/1/1/1	006	900404	42.98	A	5.95	82.38	A	5.95	234.52	A	1.19	16.	0.10
IP/S-1/032/011/1/1/1	011	900404	88.74	A	11.49	120.69	A	5.75	274.71	A	1.15	13.	0.10
IP/S-1/033/006/1/1/1	006	900404	7.56	A	0.61	121.34	A	6.10	110.85	A	1.22	18.	0.10
IP/S-1/033/018/1/1/1	018	900404	10.30	A	1.08	28.20	A	5.42	50.76	A	1.08	7.8	0.10
IP/S-1/033/024/1/1/1	024	900404	9.58	A	1.06	87.43	A	5.32	57.93	A	1.06	6.1	0.10
IP/S-1/034/006/1/1/1	006	900416	5.39	A	0.53	11.51	A	5.28	36.75	A	1.06	5.3	0.10
IP/S-1/034/018/1/1/1	018	900416	18.80	A	2.73	76.94	A	5.46	148.63	A	1.09	8.5	0.10
IP/S-1/034/024/1/1/1	024	900416	11.63	A	1.11	29.90	A	5.54	128.46	A	1.11	9.7	0.10
IP/S-1/035/006/1/1/1	006	900416	24.55	A	5.68	76.82	A	5.68	89.32	A	1.14	12.	0.10
IP/S-1/035/018/1/1/1	018	900416	40.00	A	11.76	131.76	A	5.88	218.82	A	1.18	15.	0.10
IP/S-1/035/032/1/1/1	032	900416	8.09	A	0.56	24.27	A	5.62	57.19	A	1.12	11.	0.10
IP/S-1/036/006/1/1/1	006	900405	43.45	A	5.75	131.03	A	5.75	250.57	A	1.15	13.	0.10
IP/S-1/036/018/1/1/1	018	900405	18.82	A	2.94	95.76	A	5.88	281.18	A	1.18	15.	0.10
IP/S-1/036/024/1/1/1	024	900405	24.71	A	2.94	94.82	A	5.88	268.24	A	1.18	15.	0.10
IP/S-1/037/006/1/1/1	006	900404	40.00	A	5.88	114.35	A	5.88	123.53	A	1.18	15.	0.10
IP/S-1/037/006/1/D/1*	006	900404	45.93	A	29.07	159.30	A	5.81	138.37	A	1.16	14.	0.10
IP/S-1/038/006/1/1/1	006	900405	69.25	A	12.50	95.00	J	6.25	116.50	A	1.25	20.	0.10
IP/S-1/038/018/1/1/1	018	900405	17.39	A	2.72	191.30	A	5.43	213.04	A	1.09	8.0	0.10
IP/S-1/038/019/1/1/1	019	900405	6.42	A	0.52	ND	U	5.18	10.16	A	1.04	3.5	0.10
IP/S-1/039/006/1/1/1	006	900405	7.16	A	0.62	11.36	A	6.17	274.07	A	1.23	19.	0.10
IP/S-1/039/018/1/1/1	018	900405	9.66	A	1.14	ND	U	5.68	275.00	A	1.14	12.	0.10
IP/S-1/039/030/1/1/1	030	900405	3.87	A	0.54	ND	U	5.38	34.84	A	1.08	7.0	0.10
IP/S-1/040/006/1/1/1	006	900405	11.69	A	1.20	29.04	A	6.02	702.41	A	1.20	17.	0.10
IP/S-1/040/018/1/1/1	018	900405	11.82	A	1.14	21.14	A	5.68	473.86	A	1.14	12.	0.10
IP/S-1/040/024/1/1/1	024	900405	17.73	A	2.84	69.32	A	5.68	140.91	A	1.14	12.	0.10
IP/S-1/041/006/1/1/1	006	900416	10.72	A	1.20	7.35	A	6.02	249.40	A	1.20	17.	0.10

NOTES: * - Duplicate Sample
RL - Reporting Limit
NA - Not Applicable

AC - Assessment Codes.....
A - Quantitative Data
J - Estimated (Semiquantitative) Data
Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/041/018/1/1/1	018	900416	11.32	A	1.07	ND	U	5.34	22.97	A	1.07	6.4	0.10
IP/S-1/041/033/1/1/1	033	900416	4.15	A	0.61	ND	U	6.10	10.49	A	1.22	18.	0.10
IP/S-1/042/006/1/1/1	006	900405	6.47	A	0.59	11.88	A	5.88	277.65	A	1.18	15.	0.10
IP/S-1/042/018/1/1/1	018	900405	1.83	A	0.54	ND	U	5.38	71.72	A	1.08	7.0	0.10
IP/S-1/043/006/1/1/1	006	900405	7.37	A	0.66	19.74	A	6.58	357.89	A	1.32	24.	0.10
IP/S-1/043/018/1/1/1	018	900405	7.73	A	0.57	7.95	A	5.68	850.00	A	1.14	12.	0.10
IP/S-1/043/022/1/1/1	022	900405	5.73	A	0.56	9.21	A	5.62	362.92	A	1.12	11.	0.10
IP/S-1/044/006/1/1/1	006	900407	25.68	A	6.76	100.41	A	6.76	125.95	A	1.35	26.	0.10
IP/S-1/044/018/1/1/1	018	900407	116.28	A	29.07	453.49	A	5.81	122.09	A	1.16	14.	0.10
IP/S-1/044/020/1/1/1	020	900407	133.71	A	11.24	239.33	A	5.62	242.70	A	1.12	11.	0.10
IP/S-1/045/006/1/1/1	006	900405	5.00	A	1.52	25.61	A	7.58	15.45	A	1.52	34.	0.10
IP/S-1/045/006/1/D/1*	006	900405	7.10	A	1.45	29.57	A	7.25	12.75	A	1.45	31.	0.10
IP/S-1/045/018/1/1/1	018	900405	6.97	A	1.12	7.75	A	5.62	103.71	A	1.12	11.	0.10
IP/S-1/045/027/1/1/1	027	900405	5.91	A	1.14	ND	U	5.68	22.27	A	1.14	12.	0.10
IP/S-1/046/006/1/1/1	006	900405	11.46	A	1.12	55.96	A	5.62	36.74	A	1.12	11.	0.10
IP/S-1/046/018/1/1/1	018	900405	9.74	A	1.30	16.62	A	6.49	142.86	A	1.30	23.	0.10
IP/S-1/047/006/1/1/1	006	900405	10.77	A	0.77	169.23	A	7.69	119.08	A	1.54	35.	0.10
IP/S-1/047/018/1/1/1	018	900405	57.71	A	5.51	231.28	A	5.51	196.04	A	1.10	9.2	0.10
IP/S-1/047/023/1/1/1	023	900405	54.14	A	5.75	304.60	A	5.75	706.90	A	1.15	13.	0.10
IP/S-1/048/006/1/1/1	006	900405	8.55	A	0.60	92.05	A	6.02	74.70	A	1.20	17.	0.10
IP/S-1/048/018/1/1/1	018	900405	10.56	A	1.11	76.22	A	5.56	76.00	A	1.11	10.	0.10
IP/S-1/048/018/1/D/1*	018	900405	6.67	A	0.56	61.56	A	5.56	84.22	A	1.11	10.	0.10
IP/S-1/048/024/1/1/1	024	900405	5.55	A	0.54	7.40	A	5.44	4.24	A	1.09	8.1	0.10
IP/S-1/049/006/1/1/1	006	900416	11.15	A	0.96	36.15	A	9.62	15.77	A	1.92	48.	0.10
IP/S-1/049/018/1/1/1	018	900416	2.53	A	0.55	ND	U	5.51	10.57	A	1.10	9.2	0.10
IP/S-1/049/032/1/1/1	032	900416	11.61	A	1.08	12.58	A	5.38	131.18	A	1.08	7.0	0.10
IP/S-1/050/006/1/1/1	006	900416	7.41	A	2.94	104.94	A	5.88	122.35	A	1.18	15.	0.10
IP/S-1/050/018/1/1/1	018	900416	8.07	A	0.57	85.45	A	5.68	110.00	A	1.14	12.	0.10
IP/S-1/050/034/1/1/1	034	900416	1.22	A	0.55	ND	U	5.54	9.65	A	1.11	9.8	0.10
IP/S-1/051/006/1/1/1	006	900409	143.53	A	29.41	1084.71	A	5.88	17.76	A	1.18	15.	0.10
IP/S-1/051/018/1/1/1	018	900409	167.50	J	31.25	3775.00	J	6.25	84.00	A	1.25	20.	0.10
IP/S-1/051/018/1/D/1*	018	900409	424.69	J	30.86	503.70	J	6.17	20.37	A	1.23	19.	0.10
IP/S-1/051/020/1/1/1	020	900409	254.43	A	31.65	1936.71	A	6.33	263.29	A	1.27	21.	0.10
IP/S-1/052/006/1/1/1	006	900409	40.25	A	6.33	255.70	A	6.33	62.78	A	1.27	21.	0.10
IP/S-1/052/018/1/1/1	018	900409	205.95	A	29.76	322.62	A	5.95	11.19	A	1.19	16.	0.10

NOTES: * - Duplicate Sample
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ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg) Result	AC	RL	Lead (mg/kg) Result	AC	RL	Chromium (mg/kg) Result	AC	RL	% Moisture Result	RL
IP/S-1/052/025/1/1/1	025	900409	118.60	A	11.63	240.70	A	5.81	10.70	A	1.16	14.	0.10
IP/S-1/053/006/1/1/1	006	900409	137.66	A	12.99	218.18	A	6.49	62.73	A	1.30	23.	0.10
IP/S-1/053/018/1/1/1	018	900409	16.44	A	5.75	72.41	A	5.75	36.90	A	1.15	13.	0.10
IP/S-1/053/024/1/1/1	024	900409	1.97	A	0.55	7.02	A	5.48	47.37	A	1.10	8.8	0.10
IP/S-1/054/018/1/1/1	018	900407	36.05	A	12.35	135.80	A	6.17	26.54	A	1.23	19.	0.10
IP/S-1/055B/006/1/1/1	006	900408	12.07	A	1.15	43.56	A	5.75	30.34	A	1.15	13.	0.10
IP/S-1/055B/006/1/D/1*	006	900408	14.63	A	6.10	68.05	A	6.10	34.39	A	1.22	18.	0.10
IP/S-1/056/006/1/1/1	006	900409	104.51	A	14.08	102.82	A	7.04	30.70	A	1.41	29.	0.10
IP/S-1/056/018/1/1/1	018	900409	8.29	A	0.61	120.98	A	6.10	25.37	A	1.22	18.	0.10
IP/S-1/056/029/1/1/1	029	900409	7.36	A	0.57	ND	U	5.75	18.39	A	1.15	13.	0.10
IP/S-1/057/006/1/1/1	006	900409	26.82	A	5.68	134.09	A	5.68	377.27	A	1.14	12.	0.10
IP/S-1/057/012/1/1/1	012	900409	12.56	A	5.56	69.44	A	5.56	276.67	A	1.11	10.	0.10
IP/S-1/058/006/1/1/1	006	900409	41.03	A	6.41	233.33	A	64.10	1035.90	A	12.82	22.	0.10
IP/S-1/058/018/1/1/1	018	900409	47.24	A	13.16	397.37	A	6.58	1219.74	A	1.32	24.	0.10
IP/S-1/058/031/1/1/1	031	900409	104.29	A	11.90	469.05	A	59.52	301.19	J	11.90	16.	0.10
IP/S-1/058/031/1/D/1*	031	900409	106.98	A	29.07	333.72	A	29.07	131.40	J	5.81	14.	0.10
IP/S-1/059/006/1/1/1	006	900410	119.50	A	12.50	411.25	J	6.25	33.63	A	1.25	20.	0.10
IP/S-1/059/006/1/D/1*	006	900410	113.92	A	12.66	683.54	J	6.33	31.90	A	1.27	21.	0.10
IP/S-1/059/010/1/1/1	010	900410	9.43	A	0.57	26.82	A	5.68	33.86	A	1.14	12.	0.10
IP/S-1/060/006/1/1/1	006	900410	102.82	A	12.82	573.08	A	6.41	13.85	A	1.28	22.	0.10
IP/S-1/060/018/1/1/1	018	900410	2.35	A	0.62	8.40	A	6.17	7.78	A	1.23	19.	0.10
IP/S-1/060/036/1/1/1	036	900410	3.05	A	0.61	ND	U	6.10	13.05	A	1.22	18.	0.10
IP/S-1/061/006/1/1/1	006	900410	3.68	A	0.66	136.84	A	6.58	50.00	A	1.32	24.	0.10
IP/S-1/061/018/1/1/1	018	900410	12.56	A	1.16	59.77	A	5.81	42.09	A	1.16	14.	0.10
IP/S-1/061/023/1/1/1	023	900410	2.29	A	0.52	ND	U	5.20	18.21	A	1.04	3.9	0.10
IP/S-1/062/006/1/1/1	006	900410	20.00	A	1.27	105.70	A	6.33	48.35	A	1.27	21.	0.10
IP/S-1/062/018/1/1/1	018	900410	5.23	A	0.57	13.52	A	5.68	22.39	A	1.14	12.	0.10
IP/S-1/062/025/1/1/1	025	900410	15.45	A	1.09	ND	U	5.44	13.38	A	1.09	8.1	0.10
IP/S-1/063/006/1/1/1	006	900418	20.99	A	3.09	238.27	A	6.17	670.37	A	1.23	19.	0.10
IP/S-1/063/018/1/1/1	018	900418	47.06	A	11.76	1882.35	A	5.88	8.59	A	1.18	15.	0.10
IP/S-1/063/036/1/1/1	036	900418	3.15	A	0.56	11.69	A	5.62	6.63	A	1.12	11.	0.10
IP/S-1/064/006/1/1/1	006	900408	114.43	A	12.66	1367.09	A	12.66	8443.04	A	2.53	21.	0.10
IP/S-1/064/018/1/1/1	018	900408	6.58	A	0.66	26.32	A	6.58	21.05	A	1.32	24.	0.10
IP/S-1/064/024/1/1/1	024	900408	6.35	A	0.79	12.38	A	7.94	4.76	A	1.59	37.	0.10

NOTES: * - Duplicate Sample
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ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg) Result	AC	RL	Lead (mg/kg) Result	AC	RL	Chromium (mg/kg) Result	AC	RL	% Moisture Result	RL
IP/S-1/065/006/1/1/1	006	900408	388.33	A	41.67	3350.00	A	8.33	2900.00	A	1.67	40.	0.10
IP/S-1/065/014/1/1/1	014	900408	20.14	A	3.42	3013.70	A	68.49	187.67	A	13.70	27.	0.10
IP/S-1/065/015/1/1/1	015	900408	154.17	A	13.89	3625.00	A	69.44	191.67	A	13.89	28.	0.10
IP/S-1/065/018/1/1/1	018	900408	510.26	A	64.10	2128.21	A	64.10	69.74	A	12.82	22.	0.10
IP/S-1/065/025/1/1/1	025	900408	88.48	A	12.66	36.33	A	6.33	9.37	A	1.27	21.	0.10
IP/S-1/066/006/1/1/1	006	900418	12.21	A	3.25	53.90	A	6.49	88.70	A	1.30	23.	0.10
IP/S-1/066/018/1/1/1	018	900418	7.67	A	0.68	14.25	A	6.85	18.08	A	1.37	27.	0.10
IP/S-1/066/026/1/1/1	026	900418	3.80	A	0.63	9.24	A	6.33	6.84	A	1.27	21.	0.10
IP/S-1/069/006/1/1/1	006	900411	76.58	A	31.65	893.67	A	12.66	170.89	A	2.53	21.	0.10
IP/S-1/069/018/1/1/1	018	900411	55.06	A	31.65	211.39	A	12.66	830.38	A	2.53	21.	0.10
IP/S-1/069/031/1/1/1	031	900411	119.77	A	58.14	2325.58	J	5.81	369.77	J	1.16	14.	0.10
IP/S-1/070/006/1/1/1	006	900409	209.59	A	34.25	695.89	A	6.85	32.88	A	1.37	27.	0.10
IP/S-1/070/018/1/1/1	018	900409	4.71	A	0.57	17.93	A	5.75	15.06	A	1.15	13.	0.10
IP/S-1/072/006/1/1/1	006	900408	24.35	A	7.25	78.12	A	7.25	17.83	A	1.45	31.	0.10
IP/S-1/072/018/1/1/1	018	900408	147.01	A	37.31	356.72	A	7.46	31.19	A	1.49	33.	0.10
IP/S-1/072/020/1/1/1	020	900408	521.21	A	37.88	6272.73	A	15.15	7.73	A	3.03	34.	0.10
IP/S-1/073/006/1/1/1	006	900408	1240.00	A	76.92	8030.77	A	7.69	5.69	A	1.54	35.	0.10
IP/S-1/074/006/1/1/1	006	900408	182.08	A	47.17	4547.17	A	18.87	258.49	A	3.77	47.	0.10
IP/S-1/074/018/1/1/1	018	900408	169.23	A	38.46	2415.38	A	38.46	278.46	A	7.69	35.	0.10
IP/S-1/074/036/1/1/1	036	900408	48.64	J	3.79	1006.06	A	37.88	290.91	J	7.58	34.	0.10
IP/S-1/074/036/1/D/1*	036	900408	23.79	J	7.58	925.76	A	15.15	154.55	J	3.03	34.	0.10
IP/S-1/075/006/1/1/1	006	900408	328.07	A	43.86	1824.56	A	8.77	72.11	A	1.75	43.	0.10
IP/S-1/075/015/1/1/1	015	900408	145.95	A	33.78	236.49	A	6.76	8.38	A	1.35	26.	0.10
IP/S-1/076/006/1/1/1	006	900417	38.17	A	8.33	1063.33	A	8.33	43.17	A	1.67	40.	0.10
IP/S-1/076/018/1/1/1	018	900417	89.82	A	18.18	818.18	A	9.09	44.00	A	1.82	45.	0.10
IP/S-1/076/022/1/1/1	022	900417	71.13	A	7.04	243.66	A	7.04	31.41	A	1.41	29.	0.10
IP/S-1/077/006/1/1/1	006	900408	40.68	A	11.36	445.45	A	11.36	112.73	A	2.27	56.	0.10
IP/S-1/078/006/1/1/1	006	900408	60.77	A	6.41	396.15	A	6.41	1030.77	A	1.28	22.	0.10
IP/S-1/078/018/1/1/1	018	900408	6.94	J	1.07	8.96	A	5.34	13.23	J	1.07	6.3	0.10
IP/S-1/078/022/1/1/1	022	900408	6.78	A	0.55	5.68	A	5.46	12.35	A	1.09	8.5	0.10
IP/S-1/079/006/1/1/1	006	900409	48.40	A	6.17	414.81	A	6.17	432.10	A	1.23	19.	0.10
IP/S-1/079/018/1/1/1	018	900409	24.77	A	2.91	424.42	A	5.81	176.74	A	1.16	14.	0.10
IP/S-1/080/006/1/1/1	006	900409	18.81	A	2.98	89.17	A	5.95	167.86	A	1.19	16.	0.10

NOTES: * - Duplicate Sample
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NA - Not Applicable

AC - Assessment Codes.....
A - Quantitative Data
J - Estimated (Semiquantitative) Data
Y - Not Detected/Semiquantitative Data
R - Unusable Data
U - Not Detected/Quantitative

ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/080/012/1/1/1	012	900409	13.76	A	2.94	64.00	A	5.88	72.47	A	1.18	15.	0.10
IP/S-1/081/006/1/1/1	006	900409	70.40	A	13.33	217.33	A	6.67	1050.67	A	1.33	25.	0.10
IP/S-1/081/018/1/1/1	018	900409	26.22	A	3.05	151.22	A	6.10	797.56	A	1.22	18.	0.10
IP/S-1/081/025/1/1/1	025	900409	36.63	A	6.25	100.50	A	6.25	203.75	A	1.25	20.	0.10
IP/S-1/082/006/1/1/1	006	900404	66.15	A	12.82	111.03	A	6.41	520.51	A	1.28	22.	0.10
IP/S-1/082/018/1/1/1	018	900404	21.73	A	3.09	36.05	A	6.17	2037.04	A	1.23	19.	0.10
IP/S-1/082/034/1/1/1	034	900404	14.35	A	2.94	105.65	A	5.88	1200.00	A	1.18	15.	0.10
IP/S-1/083/006/1/1/1	006	900404	9.63	A	1.22	ND	U	6.10	9.51	A	1.22	18.	0.10
IP/S-1/083/018/1/1/1	018	900404	8.11	A	0.68	ND	U	6.76	12.03	A	1.35	26.	0.10
IP/S-1/083/018/1/D/1*	018	900404	6.99	A	1.20	19.04	A	6.02	11.81	A	1.20	17.	0.10
IP/S-1/083/032/1/1/1	032	900404	4.32	A	0.57	ND	U	5.68	7.61	A	1.14	12.	0.10
IP/S-1/084/006/1/1/1	006	900403	6.31	A	0.60	11.19	A	5.95	7.50	A	1.19	16.	0.10
IP/S-1/084/018/1/1/1	018	900403	7.42	A	0.56	ND	U	5.62	6.29	A	1.12	11.	0.10
IP/S-1/084/033/1/1/1	033	900403	4.27	A	0.61	6.34	A	6.10	5.98	A	1.22	18.	0.10
IP/S-1/085/006/1/1/1	006	900403	7.97	A	1.11	ND	U	5.54	12.51	A	1.11	9.7	0.10
IP/S-1/085/018/1/1/1	018	900403	7.30	A	0.56	8.76	A	5.62	8.54	A	1.12	11.	0.10
IP/S-1/085/024/1/1/1	024	900403	10.24	A	1.22	12.93	A	6.10	6.83	A	1.22	18.	0.10
IP/S-1/086/006/1/1/1	006	900403	11.13	A	1.41	11.97	A	7.04	10.28	A	1.41	29.	0.10
IP/S-1/086/012/1/1/1	012	900403	8.19	A	0.60	7.35	A	6.02	9.40	A	1.20	17.	0.10
IP/S-1/087/006/1/1/1	006	900403	8.43	A	1.43	ND	A	7.14	22.57	A	1.43	30.	0.10
IP/S-1/087/010/1/1/1	010	900403	6.88	A	0.65	9.87	A	6.49	24.29	A	1.30	23.	0.10
IP/S-1/088/006/1/1/1	006	900403	10.39	J	1.30	10.39	A	6.49	253.25	A	1.30	23.	0.10
IP/S-1/088/006/1/D/1*	006	900403	24.00	J	5.88	13.41	A	5.88	274.12	A	1.18	15.	0.10
IP/S-1/088/018/1/1/1	018	900403	26.09	A	3.62	99.57	A	7.25	934.78	A	1.45	31.	0.10
IP/S-1/089/006/1/1/1	006	900402	37.14	A	6.49	124.55	A	6.49	444.16	A	1.30	23.	0.10
IP/S-1/089/018/1/1/1	018	900402	35.32	A	6.33	236.71	A	6.33	750.63	A	1.27	21.	0.10
IP/S-1/089/019/1/1/1	019	900402	36.83	A	6.10	131.71	A	6.10	610.98	A	1.22	18.	0.10
IP/S-1/090/006/1/1/1	006	900402	9.87	A	0.65	29.35	A	6.49	459.74	A	1.30	23.	0.10
IP/S-1/090/018/1/1/1	018	900402	6.71	A	0.59	14.47	A	5.88	498.82	A	1.18	15.	0.10
IP/S-1/090/019/1/1/1	019	900402	8.47	A	0.59	8.35	A	5.88	596.47	A	1.18	15.	0.10
IP/S-1/091/006/1/1/1	006	900404	788.41	A	144.93	2739.13	A	7.25	2144.93	A	1.45	31.	0.10
IP/S-1/091/018/1/1/1	018	900404	779.75	A	126.58	2822.78	A	6.33	2797.47	A	1.27	21.	0.10
IP/S-1/091/034/1/1/1	034	900404	940.00	A	125.00	1862.50	A	6.25	1700.00	A	1.25	20.	0.10
IP/S-1/092/006/1/1/1	006	900404	137.33	A	13.33	810.67	A	6.67	1586.67	A	1.33	25.	0.10

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ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/092/018/1/1/1	018	900404	127.85	A	12.66	741.77	A	6.33	1481.01	A	1.27	21.	0.10
IP/S-1/092/032/1/1/1	032	900404	100.48	A	11.90	398.81	A	5.95	461.90	A	1.19	16.	0.10
IP/S-1/093/006/1/1/1	006	900404	78.00	A	12.50	128.75	A	6.25	43.50	A	1.25	20.	0.10
IP/S-1/093/018/1/1/1	018	900404	110.89	A	12.66	33.04	A	6.33	96.84	A	1.27	21.	0.10
IP/S-1/093/032/1/1/1	032	900404	6.59	A	0.59	6.94	A	5.88	9.06	A	1.18	15.	0.10
IP/S-1/094/006/1/1/1	006	900403	67.46	A	7.94	177.78	A	7.94	501.59	A	1.59	37.	0.10
IP/S-1/094/016/1/1/1	016	900403	33.64	A	6.49	55.84	A	6.49	610.39	A	1.30	23.	0.10
IP/S-1/095/006/1/1/1	006	900403	6.34	A	0.70	12.82	A	7.04	6.34	A	1.41	29.	0.10
IP/S-1/095/018/1/1/1	018	900403	12.78	A	0.93	ND	U	9.26	10.93	A	1.85	46.	0.10
IP/S-1/095/020/1/1/1	020	900403	5.38	A	0.64	18.72	A	6.41	9.36	A	1.28	22.	0.10
IP/S-1/096/006/1/1/1	006	900403	9.87	A	1.33	21.33	A	6.67	11.33	A	1.33	25.	0.10
IP/S-1/096/018/1/1/1	018	900403	7.53	A	0.62	9.01	A	6.17	8.77	A	1.23	19.	0.10
IP/S-1/097/006/1/1/1	006	900402	3.56	A	0.85	9.49	A	8.47	62.20	A	1.69	41.	0.10
IP/S-1/098/006/1/1/1	006	900402	14.43	A	1.27	82.91	A	6.33	1417.72	A	1.27	21.	0.10
IP/S-1/098/018/1/1/1	018	900402	15.38	A	1.25	65.38	A	6.25	315.00	A	1.25	20.	0.10
IP/S-1/098/020/1/1/1	020	900402	24.94	A	3.09	49.26	A	6.17	824.69	A	1.23	19.	0.10
IP/S-1/099/006/1/1/1	006	900402	7.32	A	0.61	14.88	A	6.10	141.46	A	1.22	18.	0.10
IP/S-1/099/015/1/1/1	015	900402	10.24	A	1.22	28.78	A	6.10	386.59	A	1.22	18.	0.10
IP/S-1/101/006/1/1/1	006	900408	10.92	A	0.77	144.62	A	7.69	10.15	A	1.54	35.	0.10
IP/S-1/101/018/1/1/1	018	900408	2.47	A	0.62	ND	U	6.17	6.30	A	1.23	19.	0.10
IP/S-1/101/027/1/1/1	027	900408	2.68	A	0.61	ND	U	6.10	5.61	A	1.22	18.	0.10
IP/S-1/103/006/1/1/1	006	900408	6.13	A	0.67	15.87	A	6.67	5.60	A	1.33	25.	0.10
IP/S-1/103/018/1/1/1	018	900408	1.75	A	0.63	ND	U	6.25	5.75	A	1.25	20.	0.10
IP/S-1/103/023/1/1/1	023	900408	3.83	A	0.62	ND	U	6.17	5.43	A	1.23	19.	0.10
IP/S-1/104/006/1/1/1	006	900410	6.40	A	0.58	28.72	A	5.81	6.05	A	1.16	14.	0.10
IP/S-1/104/018/1/1/1	018	900410	2.60	A	0.54	ND	U	5.41	6.28	A	1.08	7.6	0.10
IP/S-1/104/036/1/1/1	036	900410	2.39	A	0.52	ND	U	5.20	5.41	A	1.04	3.9	0.10
IP/S-1/105/006/1/1/1	006	900407	20.12	A	2.98	54.29	A	5.95	265.48	A	1.19	16.	0.10
IP/S-1/105/018/1/1/1	018	900407	21.01	A	2.81	64.27	A	5.62	240.45	A	1.12	11.	0.10
IP/S-1/105/024/1/1/1	024	900407	17.67	A	2.78	54.22	A	5.56	69.44	A	1.11	10.	0.10
IP/S-1/106/006/1/1/1	006	900420	7.32	A	1.22	ND	U	6.10	9.76	A	1.22	18.	0.10
IP/S-1/106/015/1/1/1	015	900420	4.97	A	0.55	5.52	A	5.52	11.26	A	1.10	9.4	0.10
IP/S-1/107/006/1/1/1	006	900407	6.66	A	1.09	39.52	A	5.46	18.23	A	1.09	8.4	0.10

NOTES: * - Duplicate Sample
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ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg) Result	AC	RL	Lead (mg/kg) Result	AC	RL	Chromium (mg/kg) Result	AC	RL	% Moisture Result	RL
IP/S-1/107/013/1/1/1	013	900407	15.23	A	2.84	13.75	A	5.68	10.80	A	1.14	12.	0.10
IP/S-1/108/006/1/1/1	006	900407	11.91	A	0.56	21.01	A	5.62	36.40	A	1.12	11.	0.10
IP/S-1/108/018/1/1/1	018	900407	4.25	A	0.54	8.50	A	5.45	23.97	A	1.09	8.2	0.10
IP/S-1/108/025/1/1/1	025	900407	3.30	A	0.55	ND	U	5.50	17.49	A	1.10	9.1	0.10
IP/S-1/109/006/1/1/1	006	900407	5.00	A	0.60	7.50	A	5.95	12.50	A	1.19	16.	0.10
IP/S-1/109/006/1/D/1*	006	900407	4.35	A	0.59	15.06	A	5.88	12.82	A	1.18	15.	0.10
IP/S-1/109/018/1/1/1	018	900407	3.69	A	0.60	ND	U	5.95	8.69	A	1.19	16.	0.10
IP/S-1/109/025/1/1/1	025	900407	8.12	A	0.59	6.47	A	5.88	13.18	A	1.18	15.	0.10
IP/S-1/110/006/1/1/1	006	900409	9.40	A	1.19	33.57	A	5.95	6.19	A	1.19	16.	0.10
IP/S-1/110/018/1/1/1	018	900409	10.12	A	2.91	28.37	A	5.81	9.65	A	1.16	14.	0.10
IP/S-1/110/036/1/1/1	036	900409	3.10	A	0.57	ND	U	5.75	9.20	A	1.15	13.	0.10
IP/S-1/111/006/1/1/1	006	900410	ND	U	0.63	628.75	A	6.25	105.88	A	1.25	20.	0.10
IP/S-1/111/018/1/1/1	018	900410	7.11	A	0.60	153.01	A	6.02	156.63	A	1.20	17.	0.10
IP/S-1/111/034/1/1/1	034	900410	3.41	A	0.59	7.53	A	5.88	10.71	A	1.18	15.	0.10
IP/S-1/112/006/1/1/1	006	900410	4.12	A	0.54	11.05	A	5.42	29.90	A	1.08	7.7	0.10
IP/S-1/112/018/1/1/1	018	900410	2.61	A	0.54	ND	U	5.44	6.09	A	1.09	8.1	0.10
IP/S-1/112/030/1/1/1	030	900410	7.51	A	0.55	21.10	A	5.52	7.51	A	1.10	9.5	0.10
IP/S-1/113/006/1/1/1	006	900410	5.51	A	0.54	13.93	A	5.40	38.66	A	1.08	7.4	0.10
IP/S-1/113/017/1/1/1	017	900410	4.88	A	0.53	23.67	A	5.31	80.68	A	1.06	5.8	0.10
IP/S-1/114/006/1/1/1	006	900406	79.40	A	11.90	315.48	A	5.95	1017.86	A	1.19	16.	0.10
IP/S-1/115/006/1/1/1	006	900406	5.71	A	0.71	36.71	A	7.14	32.00	A	1.43	30.	0.10
IP/S-1/115/018/1/1/1	018	900406	ND	U	0.68	ND	U	6.85	2.33	A	1.37	27.	0.10
IP/S-1/115/020/1/1/1	020	900406	ND	U	0.65	ND	U	6.49	6.49	A	1.30	23.	0.10
IP/S-1/116/006/1/1/1	006	900406	2.85	A	0.55	9.09	A	5.48	13.69	A	1.10	8.7	0.10
IP/S-1/116/018/1/1/1	018	900406	3.05	A	0.54	ND	U	5.44	11.64	A	1.09	8.1	0.10
IP/S-1/116/026/1/1/1	026	900406	6.82	A	0.57	29.66	A	5.68	9.20	A	1.14	12.	0.10
IP/S-1/117/006/1/1/1	006	900406	3.22	A	0.57	ND	U	5.75	15.06	A	1.15	13.	0.10
IP/S-1/117/018/1/1/1	018	900406	5.22	A	0.56	ND	U	5.56	9.78	A	1.11	10.	0.10
IP/S-1/117/022/1/1/1	022	900406	5.91	A	0.53	6.34	A	5.28	21.33	A	1.06	5.3	0.10
IP/S-1/118/006/1/1/1	006	900406	7.63	A	0.66	66.84	A	6.58	115.13	A	1.32	24.	0.10
IP/S-1/118/018/1/1/1	018	900406	2.05	A	0.60	19.28	A	6.02	13.73	A	1.20	17.	0.10
IP/S-1/118/024/1/1/1	024	900406	7.14	A	0.65	49.61	A	6.49	135.06	A	1.30	23.	0.10
IP/S-1/119/006/1/1/1	006	900406	126.98	A	15.87	226.98	A	7.94	877.78	A	1.59	37.	0.10
IP/S-1/119/006/1/D/1*	006	900406	218.18	A	75.76	198.48	A	7.58	700.00	A	1.52	34.	0.10

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ARSENIC, LEAD, AND CHROMIUM ANALYSES

Site Name: INDUSTRI-PLEX SITE WOBURN, MA Matrix: SOIL

SampleID	Depth (in.)	Date Sampled (yymmdd)	Arsenic (mg/kg)			Lead (mg/kg)			Chromium (mg/kg)			% Moisture	
			Result	AC	RL	Result	AC	RL	Result	AC	RL	Result	RL
IP/S-1/119/018/1/1/1	018	900406	2.75	A	0.63	ND	U	6.25	33.25	A	1.25	20.	0.10
IP/S-1/119/024/1/1/1	024	900406	1.67	A	0.60	7.98	A	5.95	23.33	A	1.19	16.	0.10
IP/S-1/120/005/1/1/1	005	900406	15.06	A	1.23	41.48	A	6.17	81.11	A	1.23	19.	0.10
IP/S-1/120/006/1/1/1	006	900406	46.31	A	5.95	225.00	A	5.95	23.57	A	1.19	16.	0.10
IP/S-1/120/016/1/1/1	016	900406	28.24	A	2.94	134.12	A	5.88	89.06	A	1.18	15.	0.10
IP/S-1/121/006/1/1/1	006	900404	494.52	A	68.49	1767.12	A	6.85	3287.67	A	1.37	27.	0.10
IP/S-1/121/018/1/1/1	018	900404	817.95	A	128.21	4076.92	A	6.41	63.59	A	1.28	22.	0.10
IP/S-1/121/022/1/1/1	022	900404	1412.50	A	125.00	9075.00	A	6.25	21.38	A	1.25	20.	0.10

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J - Estimated (Semiquantitative) Data
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TABLE A-2

SUMMARY OF DATA ASSESSMENT RESULTS

Assessment Code	Applicable Samples	Comments
R	None	Not Applicable
Y	None	Not Applicable
U	Arsenic: 111/006 115/018, 115/020 Lead: 016/018, 016/024, 017/018, 017/026, 027/022 028/018, 028/019 030/027, 038/019 039/018, 039/030 041/018, 041/033 042/018, 045/027 049/018, 050/034 056/029, 060/036 061/023, 062/025 083/006, 083/018 083/032, 084/018 085/006, 087/006 095/018, 101/018 101/027, 103/018 103/023, 104/018 104/036, 106/006 108/025, 109/018 110/036, 112/018 115/018, 115/020 116/018, 117/006 117/018, 119/018	Data assessed as acceptable quality.
	All 16 equipment rinsate blanks	No cross contamination due to sampling equipment evident, data acceptable.
J	Arsenic: 009/018 051/018, 074/036 078/018, 088/006 Lead: 038/006 051/018, 059/006 069/031 Chromium: 058/031 069/031, 074/036 078/018	MS/MSD or field/lab duplicates not within control limits
A	All other data	Data assessed as acceptable quality.

TABLE A-2 (continued)

SUMMARY OF DATA ASSESSMENT RESULTS

Notes: A=acceptable quantitative data; J=estimated (semiquantitative) data; U=not detected, quantitative; Y=not detected, semiquantitative; and R=unuseable.

Applicable sample column lists abbreviated sample ID as xxx/yyy where xxx=Task S-1 borehole number and yyy=depth of bottom of sample interval.

ATTACHMENT 2

ASSESSMENT OF OVERALL DATA QUALITY

TASK S-1 (Interim)

INDUSTRI-PLEX PRE-DESIGN INVESTIGATION

ASSESSMENT OF OVERALL DATA QUALITY
FOR TASK S-1 (interim)

PERFORMED BY: Bob Glazier/Golder Associates DATE: 6-24-90

	YES/NO/NA
1. Were the QAPjP, laboratory reports, and field documentation available to support data assessment procedures?	yes
2. Precision:	
Are DCS RPD within control limits?	yes
Are lab duplicate RPD within control limits?	yes (86% in-control)
Are field duplicate RPD within control limits?	yes (88% in-control)
Are MS/MSD RPD within control limits?	yes (89% in-control)
Overall assessment of precision	Although some duplicates are not in-control, over 86% of the duplicates are in-control and the data are of sufficient precision to support remedial design. Specific samples which are not in-control are flagged as estimated.
3. Accuracy:	
Is absolute recovery within control limits for DCS?	yes
Is relative recovery within control limits for MS/MSD?	yes (89% in-control)
Overall assessment of accuracy	Although a small fraction of the samples are not in-control, the overall data set is accurate and sufficient to support remedial design. Specific samples which are not in-control are flagged as estimated.
4. Representativeness:	
Were procedures in the FSP followed?	yes
If not, were procedural variations approved and documented?	NA
Were sample preservation procedures given in the FSP followed?	yes
Were data reported in the proper units?	yes
Was blank contamination not evident or well documented at low levels?	yes
Were field duplicates within control limits?	yes (88% in-control)
Overall assessment of representativeness	The overall data set is representative of site conditions.

INDUSTRI-PLEX PRE-DESIGN INVESTIGATION

ASSESSMENT OF OVERALL DATA QUALITY
FOR TASK S-1 (interim)

(continued)

YES/NO/NA

5. Comparability:

Are data traceable to a standard method? yes
Are methods approved/accepted as giving valid results? yes
Are data reported in proper units? yes
Overall assessment of comparability Data are comparable to data collected during the RI/FS.

6. Completeness:

Is the fraction of valid data within control limits? yes
If not, are the data sufficient to meet the task objectives? NA
Are critical (background) samples sufficient and valid? Data not yet reported
Overall assessment of completeness Sufficient useable data have been collected to support remedial design.

7. Are the data useable and consistent with the objectives of the study? yes

8. Comments: 40% of the MS/MSD results were not calculated because the initial sample concentration was much greater than the spike concentration. 53% of all MS/MSDs were in-control, and 7% were not in-control. Neglecting the MS/MSDs which were not calculated, 89% were in-control and 11% were not in-control.

C:6255:ODQFORM

ATTACHMENT 3

CRITERIA USED TO ASSESS DATA USEABILITY

INDUSTRI-PLEX PRE-DESIGN INVESTIGATION

ASSESSMENT OF LABORATORY PERFORMANCE
FOR TASK _____

LABORATORY: _____ REPORT # _____

VALIDATED BY: _____ DATE: _____

		YES/NO/NA
1.	Release authorization with signature present?	_____
2.	Sample identification summary/description present?	_____
3.	Analytical results present, including:	
	correct units?	_____
	detection limits?	_____
	method used?	_____
	date sampled?	_____
	date received?	_____
	date prepared?	_____
	date analyzed?	_____
	dilutions noted?	_____
4.	Holding times met?	_____
5.	Lab duplicate RPDs within control limits (35%)?	_____
	Field duplicate RPDs within control limits (50%)?	_____
6.	MS/MSD % recoveries within control limits (75-125%)?	_____
7.	MS/MSD RPDs within control limits (50%)?	_____
8.	Duplicate control sample (DCS) accuracy within given control limits (80-120%)?	_____
9.	DCS precision within given control limits (20%)?	_____
10.	Method blanks "clean"?	_____
11.	Chain-of-Custody present and complete with signatures and dates?	_____
12.	Name of analyst/supervisor given?	_____
13.	Procedural deviations noted?	_____
14.	QC procedures given?	_____

INDUSTRI-PLEX PRE-DESIGN INVESTIGATION

ASSESSMENT OF LABORATORY PERFORMANCE
FOR TASK _____

(continued)

Note any violations to the assessment criteria listed above:

_____

_____

_____

_____

_____

_____

_____

C:6255:ALP1FORM

INDUSTRI-PLEX PRE-DESIGN INVESTIGATION

ASSESSMENT OF FIELD PERFORMANCE
FOR TASK _____

SAMPLER/ORGANIZATION: _____ REPORT # _____

VALIDATED BY: _____ DATE: _____

	YES/NO/NA
1. Does field documentation include:	
date/time samples collected?	_____
sample location?	_____
name of sampler?	_____
field measurements?	_____
sampling method?	_____
instruments/methods for field measurements?	_____
calibration/maintenance of field instruments?	_____
sampling containers used (COC*)?	_____
sample preservation procedures (see COC*)?	_____
Chain-of-Custody procedures?	_____
field quality control procedures?	_____
2. Were procedures in the Field Sampling Plan followed?	_____
If not, were procedural variances approved and documented?	_____
3. Was contamination of field blank samples not evident, or well documented at low levels?	_____
4. Are field duplicates within control limits?	_____

5. Comments: _____

_____

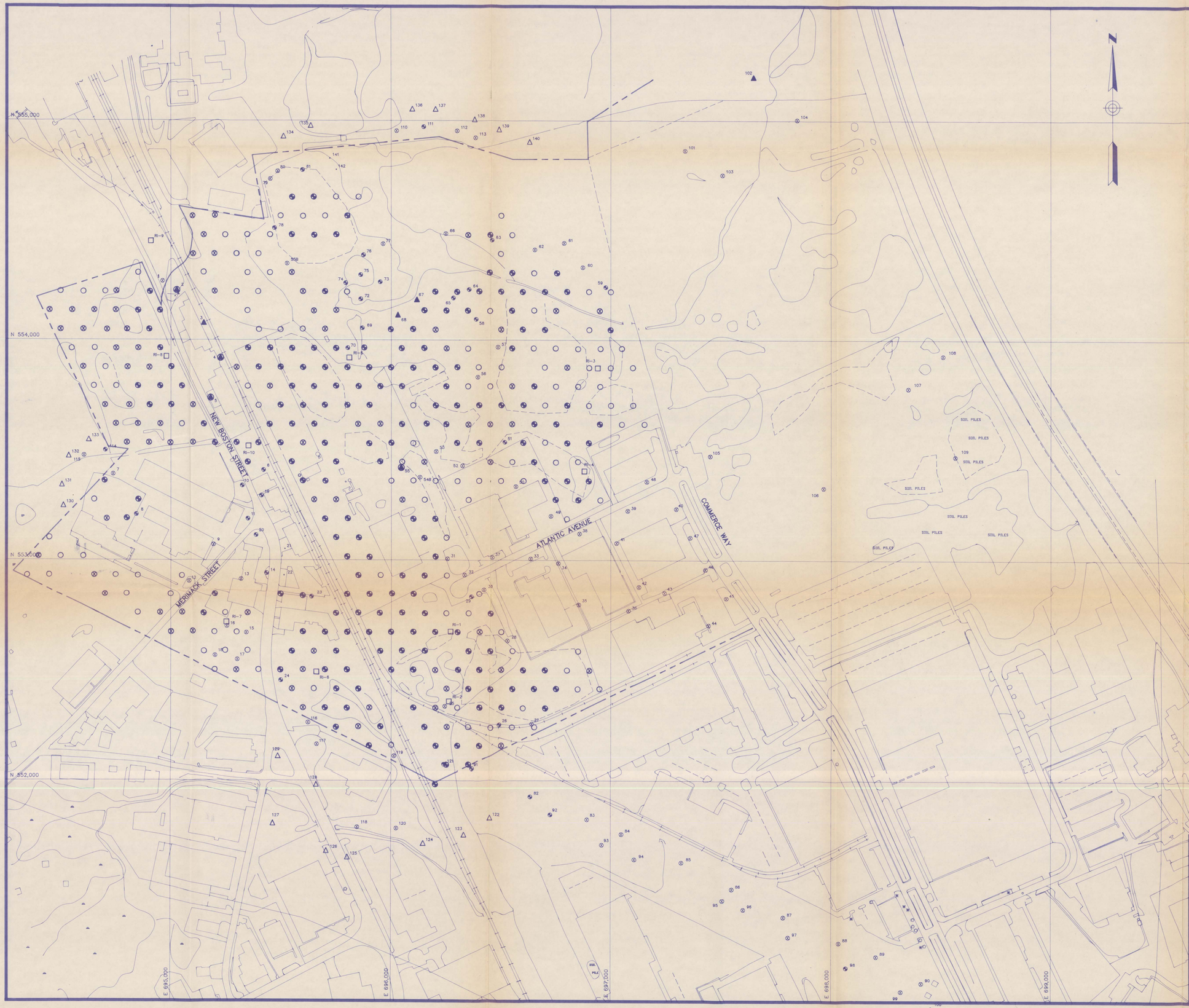
_____

_____

_____

* Chain-of-Custody Form

C:6255:FPFORM



LEGEND

- ○ METAL CONCENTRATIONS BELOW ACTION LEVELS, RI DATA AVAILABLE FOR 6–12 INCH SOIL HORIZON ONLY
- ⊗ METAL CONCENTRATIONS BELOW ACTION LEVELS, RI DATA AVAILABLE FOR MULTIPLE SOIL HORIZONS WITHIN 36 INCHES OF GROUND SURFACE
- ⊕ METALS AT OR ABOVE ACTION LEVELS AT ANY HORIZON WITHIN 36 INCHES OF GROUND SURFACE
- □ RI SOIL BORING FOR PRIORITY POLLUTANT ANALYSIS
- ▲ PRE–DESIGN BORING FOR METAL ANALYSIS
- ◉ PRE–DESIGN BORING FOR FULL TARGET COMPOUND LIST/TARGET ANALYTE LIST ANALYSIS
- △ SECONDARY OFF SITE BORING TO BE USED FOR METALS ANALYSIS IF NECESSARY
- .142 PRE–DESIGN INVESTIGATION BORING NUMBER

DRAFT

JUN 20 1990

200 0 200 400
scale feet

REV	DATE	DESCRIPTION	DR BY	RVW BY

SCALE: AS SHOWN		PROJECT: INDUSTRI-PLEX SITE REMEDIAL TRUST WOBURN, MASSACHUSETTS
PROJECT No. 893–6255		
DES BY	RAC	07/13/90
DR BY	MRM	07/20/90
CHK BY	RAM	7/20/90
RVW BY		
SHEET TITLE: SUMMARY OF RI AND PDI TASK S-1 As, Pb, and Cr DATA		
Golder Associates, Mt. Laurel, New Jersey		SHEET 1 OF 1
		DRAWING No. MA01–100
		FIGURE 1