FINAL REPORT

SHIELDALLOY METALLURGICAL CORPORATION

Newfield, New Jersey

April 1992

Remedial Investigation Appendix 1

Submitted by:

TRC Environmental Consultants, Inc.

5 Waterside Crossing

Windsor, CT 06095

Project No. 7650-N51

SAMPLE LOG - GROUND WATER ROUND 1
PAGE 1 OF 4

WELL ID	LOCATION	ANALYSIS BATCH No.	RFW #
A-01	ON-SITE	9012L-031	25
AA-01	ON-SITE	9012L-031	26
D-01	ON-SITE	9012L-031	27
DA-01	ON-SITE	9012L-031	28
F-01	ON-SITE	9012L-031	34
FA-01	ON-SITE	9012L-031	35
G1S-01	ON-SITE	9012L-015	27
G1SA-01	ON-SITE	9012L-015	28
G2D-01	ON-SITE	9012L-031	32
G2DA-01	ON-SITE	9012L-031	33
H-01	ON-SITE	9012L-002	16
HA-01	ON-SITE	9012L-002	17
K-01	ON-SITE	9012L-031	23
KA-01	ON-SITE	9012L-031	24
L-01	ON-SITE	9012L-015	29
LA-01	ON-SITE	9012L-015	30
IW1-01	OFF-SITE	9012L-015	11
IW1A-01	OFF-SITE	9012L-015	12
IW2-01	OFF-SITE	9012L-002	5
IW2A-01	OFF-SITE	9012L-002	6
IW3-01	OFF-SITE	*	*
IWC2-01	ON-SITE	9012L-031	10
IWC2A-01	ON-SITE	9012L-031	11
IWC5-01	ON-SITE	9012L-031	7
IWC5A-01	ON-SITE	9012L-031	8
RW6S-01	OFF-SITE	*	*
RW6D-01	OFF-SITE	*	*
RIW2-01	OFF-SITE	9012L-002	30
W2-01	ON-SITE	9012L-031	36
W2A-01	ON-SITE	9012L-031	37
W3S-01	ON-SITE	9012L-015	31
W3SA-01	ON-SITE	9012L-015	32
W3D-01	ON-SITE	9012L-015	22
W3DA-01	ON-SITE	9012L-015	23

SAMPLE LOG - GROUND WATER ROUND 1
PAGE 2 OF 4

WELL ID	LOCATION	ANALYSIS BATCH No.	RFW #
W9-01	ON-SITE	9012L-031	19
W9A-01	ON-SITE	9012L-031	20
SC1S-01	OFF-SITE	9012L-995	9
SC1SA-01	OFF-SITE	9012L-995	28;10
SC1D-01	OFF-SITE	9012L-995	11
SC1DA-01	OFF-SITE	9012L-995	29;12
SC2D-01	OFF-SITE	9012L-002	11
SC2DA-01	OFF-SITE	9012L-002	12
SC3S-01	OFF-SITE	9012L-995	13;31
SC3SA-01	OFF-SITE	9012L-995	32;14
SC3D-01	OFF-SITE	9012L-995	15
SC3DA-01	OFF-SITE	9012L-995	34;16
SC4S-01	OFF-SITE	9012L-015	3
SC4SA-01	OFF-SITE	9012L-015	4
SC4D-01	OFF-SITE	9012L-015	1
SC4DA-01	OFF-SITE	9012L-015	2
SC5S-01	OFF-SITE	9012L-002	1
SC5SA-01	OFF-SITE	9012L-002	2
SC5D-01	OFF-SITE	9012L-002	3
SC5DA-01	OFF-SITE	9012L-002	4
SC6S-01	OFF-SITE	9012L-995	2
SC6SA-01	OFF-SITE	9012L-995	36;3
SC6D-01	OFF-SITE	9012L-995	4
SC6DA-01	OFF-SITE	9012L-995	38;5
SC10S-01	OFF-SITE	9012L-002	20
SC10SA-01	OFF-SITE	9012L-002	21
SC10D-01	OFF-SITE	9012L-002	22
SC10DA-01	OFF-SITE	9012L-002	23
SC11S-01	ON-SITE	9012L-015	17
SC11SA-01	ON-SITE	9012L-015	18
SC12S-01	ON-SITE	9012L-031	40
SC12SA-01	ON-SITE	9012L-031	41
SC12D-01	ON-SITE	9012L-031	38
SC12DA-01	ON-SITE	9012L-031	39

SAMPLE LOG - GROUND WATER ROUND 1

WELL ID	LOCATION	ANALYSIS BATCH No.	RFW #
SC13S-01	ON-SITE	9012L-031	1
SC13SA-01	ON-SITE	9012L-031	2
SC13D-01	ON-SITE	9012L-031	3
SC13DA-01	ON-SITE	9012L-031	4
SC14S-01	ON-SITE	9012L-031	16
SC14SA-01	ON-SITE	9012L-031	17
SC15S-01	ON-SITE	9012L-995	6
SC15SA-01	ON-SITE	9012L-995	26;7
SC16S-01	ON-SITE	9012L-995	17
SC16SA-01	ON-SITE	9012L-995	24;18
SC17S-01	OFF-SITE	9012L-015	19
SC17SA-01	OFF-SITE	9012L-015	20
SC17D-01	OFF-SITE	9012L-015	9
SC17DA-01	OFF-SITE	9012L-015	10
SC18S-01	OFF-SITE	9012L-015	5
SC18SA-01	OFF-SITE	9012L-015	6
SC18D-01	OFF-SITE	9012L-015	7
SC18DA-01	OFF-SITE	9012L-015	8
SC19S-01	OFF-SITE	9012L-031	29
SC19SA-01	OFF-SITE	9012L-031	30
SC19D-01	OFF-SITE	9012L-002	34
SC19DA-01	OFF-SITE	9012L-002	35
SC20S-01	ON-SITE	9012L-015	15
SC20SA-01	ON-SITE	9012L-015	16
SC21S-01	OFF-SITE	9012L-002	26;32
SC21SA-01	OFF-SITE	9012L-002	27
SC21D-01	OFF-SITE	9012L-002	28
SC21DA-01	OFF-SITE	9012L-002	29
SC22S-01	ON-SITE	9012L-031	12
SC22SA-01	ON-SITE	9012L-031	13
SC22D-01	ON-SITE	9012L-031	14
SC22DA-01	ON-SITE	9012L-031	15
SC23S-01	ON-SITE	9012L-995	19
SC23SA-01	ON-SITE	9012L-995	22

SAMPLE LOG – GROUND WATER ROUND 1
PAGE 4 OF 4

WELL ID	LOCATION	ANALYSIS BATCH No.	RFW #
SC24S-01	OFF-SITE	9012L-002	7
SC24SA-01	OFF-SITE	9012L-002	8
SC25S-01	ON-SITE	9012L-002	18
SC25SA-01	ON-SITE	9012L-002	19
SC26S-01	OFF-SITE	9012L-002	9
SC26SA-01	OFF-SITE	9012L-002	10
SC27S-01	ON-SITE	9012L-015	24
SC27SA-01	ON-SITE	9012L-015	25
LAYNE-01	ON-SITE	9012L-031	21
LAYNEA-01	ON-SITE	9012L-031	22
MOHAN-S-01	OFF-SITE	*	*
MOHAN-D-01	OFF-SITE	*	*

Roy F. Weston, Inc. - Lionville Laboratory
VOA ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/06/90 RFW LOT # :9011L494

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB07-03	002	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB13-03	004	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB20-04	006	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB20-04	006 MS	S	90LVX198	11/06/90	N/A	11/13/90
SMC-SB20-04	006 MSD	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB22-05	009	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB24-03	010	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB39-04	012	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB47-04	014	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB01-02	015	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB01-02	015 R1	S	90LVX198	11/06/90	N/A	11/13/90
SMC-SB02-02	016	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB03-02	017	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB04-03	018	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB05-02	019	S	90LVX197	11/06/90	N/A	11/12/90
SMC-SB06-02	020	S	90LVX198	11/06/90	N/A	11/13/90
SMC-FB-1106	021	W	90LVK181	11/06/90	N/A	11/13/90

LAB QC:

VBLK	MB1	S	90LVX197	N/A	N/A	11/12/90
VBLK	MB1	S	90LVX198	N/A	N/A	11/13/90
VBLK	MB1	W	90LVK181	N/A	N/A	11/13/90

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC SHIELD ALLOY **SAMPLES RECEIVED:** 11-06-90
RFW #: 9011L494, GC/MS VOLATILE
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of one (1) water sample and thirteen (13) soil samples collected on 11-06-90.

The samples were analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Volatile target compounds on 11-12,13-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were detected in these samples.

2. Two (2) of sixty (60) surrogate recoveries were outside EPA QC limits. The sample with the surrogate recovery outside EPA QC limits was re-analyzed and reported. Similar results were obtained.

3. All matrix spike recoveries were within EPA QC limits.

4. The laboratory blanks contained the common contaminants methylene chloride and acetone at levels less than 4x the CRQL.

5. All internal standard area and retention time criteria were met for all samples and blanks.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

12-18-90
Date

WESTON

GLOSSARY OF VOA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB07-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-002

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC06

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 4

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	36	B
67-64-1	Acetone	160	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB07-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-002

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC06

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 4

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB13-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-004

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC07

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 14

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	48	B
67-64-1	Acetone	37	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	8	
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB13-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-004

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC07

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 14

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB20-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-006

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC08

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 8

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	32	B
67-64-1	Acetone	56	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB20-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-006

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC08

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 8

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	Est. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB22-05

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 90111L494-009

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC09

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 8

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	36	B
67-64-1	Acetone	65	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB22-05

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-009

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC09

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 8

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	DIETHYL ETHER	2.85	7	J

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB24-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-010

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC10

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 8

Date Analyzed: 11/12/90

0

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	40	B
67-64-1	Acetone	45	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB24-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-010

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC10

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 8

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB39-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-012

Sample wt/vol: 5.10 (g/mL) G Lab File ID: AXBC11

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 5 Date Analyzed: 11/12/90

Column: (pack/cap) CAP Dilution Factor: 0.980

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	30	B
67-64-1	Acetone	150	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB39-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-012

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: AXBC11

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 5

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 0.980

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

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1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB47-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-014

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: AXBC12

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 4

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.02

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	40	B
67-64-1	Acetone	65	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB47-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-014

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: AXBC12

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 4

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.02

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB01-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC13

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 11

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	54	B
67-64-1	Acetone	31	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	24	
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	4	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB01-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC13

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 11

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	DIETHYL ETHER	2.86	8	J

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB01-02RE

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-015

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: AXBD16

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 11

Date Analyzed: 11/13/90

Column: (pack/cap) CAP

Dilution Factor: 1.02

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	36	B
67-64-1	Acetone	49	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	8	
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	1	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB01-02RE

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-015

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: AXBD16

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 11

Date Analyzed: 11/13/90

Column: (pack/cap) CAP

Dilution Factor: 1.02

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB02-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-016

Sample wt/vol: 5.10 (g/mL) G Lab File ID: AXBC14

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 3 Date Analyzed: 11/12/90

Column: (pack/cap) CAP Dilution Factor: 0.980

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	31	B
67-64-1	Acetone	50	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB02-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-016

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: AXBC14

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 3

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 0.980

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB03-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-017

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: AXBC18

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 3

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 0.980

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	38	B
67-64-1	Acetone	70	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB03-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-017

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: AXBC18

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 3

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 0.980

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB04-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-018

Sample wt/vol: 5.00 (g/mL) G Lab File ID: AXBC19

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 2 Date Analyzed: 11/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	46	B
67-64-1	Acetone	57	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB04-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-018

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC19

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 2

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB05-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-019

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC20

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 5

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	48	B
67-64-1	Acetone	79	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB05-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-019

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBC20

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 5

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB06-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-020

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: AXBD08

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 6

Date Analyzed: 11/13/90

Column: (pack/cap) CAP

Dilution Factor: 0.980

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	43	B
67-64-1	Acetone	62	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB06-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-020

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: AXBD08

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 6

Date Analyzed: 11/13/90

Column: (pack/cap) CAP

Dilution Factor: 0.980

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB20-04MS

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-006 MS

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: AXBD06

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 8

Date Analyzed: 11/13/90

Column: (pack/cap) CAP

Dilution Factor: 0.980

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	59	B
67-64-1	Acetone	98	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene		S
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	3	J
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene		S
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene		S
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene		S
108-90-7	Chlorobenzene		S
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

S: SPIKE COMPOUND

FORM 1 V-1

12/88 Rev.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB20-04MSD

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-006 MSD

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: AXBC17

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 8

Date Analyzed: 11/12/90

Column: (pack/cap) CAP

Dilution Factor: 0.980

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	46	B
67-64-1	Acetone	76	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene		S
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	2	J
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene		S
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene		S
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene		S
108-90-7	Chlorobenzene		S
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

S: SPIKE COMPOUND

FORM 1 V-1

12/88 Rev.

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELD ALLOY **SAMPLES RECEIVED:** 11-07-90
RFW #: 9011L518, GC/MS VOLATILE
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of one (1) water sample and seventeen (17) soil samples collected on 11-07-90.

The samples were analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Volatile target compounds on 11-13,14,15,16-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were detected in these samples.

2. Samples SMC-SB44-01 and SMC-SB44-02 required medium level analysis and SMC-SB72-04 DL required a five-fold dilution because they contained high levels of target compounds.

3. One (1) of eight-seven (87) surrogate recoveries were outside EPA QC limits. EPA QC surrogate recovery criteria were not met for sample SMC-SB72-04. The dilution performed on this sample fulfilled the re-analysis requirement.

4. All matrix spike recoveries were within EPA QC limits.

5. The laboratory blanks contained the common contaminants methylene chloride and acetone at levels less than 5x the CRQL. The blanks 90LVW239-MB1 and 90LV236-MB1 also contained the target compounds 4-methyl-2-pentanone and 2-hexanone at levels less than the CRQL.

6. Internal standard area and retention time criteria were outside QC limits for samples SMC-SB73-02 and SMC-SB40-02. These samples were re-analyzed and similar results were obtained.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

12 20 90
Date

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB72-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

0.1

Matrix: SOIL

Lab Sample ID: 9011L518-001

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBD18

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 6

Date Analyzed: 11/13/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	44	B
67-64-1	Acetone	57	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	3	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB72-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-001

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBD18

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 6

Date Analyzed: 11/13/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB72-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-002

Sample wt/vol: 4.90 (g/mL) G Lab File ID: AXBE07

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 Date Analyzed: 11/14/90

Column: (pack/cap) CAP Dilution Factor: 1.02

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	38	B
67-64-1	Acetone		E
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	4	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB72-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-002

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: AXBE07

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 7

Date Analyzed: 11/14/90

Column: (pack/cap) CAP

Dilution Factor: 1.02

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB72-04DL

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-002 DL

Sample wt/vol: 1.10 (g/mL) G Lab File ID: W111606

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 Date Analyzed: 11/16/90

Column: (pack/cap) PACK Dilution Factor: 4.55

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	NA	
74-83-9	Bromomethane	NA	
75-01-4	Vinyl Chloride	NA	
75-00-3	Chloroethane	NA	
75-09-2	Methylene Chloride	NA	
67-64-1	Acetone	160	B
75-15-0	Carbon Disulfide	NA	
75-35-4	1,1-Dichloroethene	NA	
75-34-3	1,1-Dichloroethane	NA	
540-59-0	1,2-Dichloroethene (total)	NA	
67-66-3	Chloroform	NA	
107-06-2	1,2-Dichloroethane	NA	
78-93-3	2-Butanone	NA	
71-55-6	1,1,1-Trichloroethane	NA	
56-23-5	Carbon Tetrachloride	NA	
108-05-4	Vinyl Acetate	NA	
75-27-4	Bromodichloromethane	NA	
78-87-5	1,2-Dichloropropane	NA	
10061-01-5	cis-1,3-Dichloropropene	NA	
79-01-6	Trichloroethene	NA	
124-48-1	Dibromochloromethane	NA	
79-00-5	1,1,2-Trichloroethane	NA	
71-43-2	Benzene	NA	
10061-02-6	Trans-1,3-Dichloropropene	NA	
75-25-2	Bromoform	NA	
108-10-1	4-Methyl-2-pentanone	NA	
591-78-6	2-Hexanone	NA	
127-18-4	Tetrachloroethene	NA	
79-34-5	1,1,2,2-Tetrachloroethane	NA	
108-88-3	Toluene	NA	
108-90-7	Chlorobenzene	NA	
100-41-4	Ethylbenzene	NA	
100-42-5	Styrene	NA	
1330-20-7	Xylene (total)	NA	

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB91-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-003

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBE08

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 10

Date Analyzed: 11/14/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	25	B
67-64-1	Acetone	140	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB91-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-003

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBE08

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 10

Date Analyzed: 11/14/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	C3 BENZENE	22.45	6	J

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB91-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-004

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBE09

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 6

Date Analyzed: 11/14/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	21	B
67-64-1	Acetone	130	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachlorcethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB91-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-004

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: AXBE09

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 6

Date Analyzed: 11/14/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB55-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-006

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: AXBE10

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 11

Date Analyzed: 11/14/90

Column: (pack/cap) CAP

Dilution Factor: 1.02

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	26	B
67-64-1	Acetone	58	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U'
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1B
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB55-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-006

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: AXBE10

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 11

Date Analyzed: 11/14/90

Column: (pack/cap) CAP

Dilution Factor: 1.02

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB42-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-007

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: AXBE11

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 9

Date Analyzed: 11/14/90

Column: (pack/cap) CAP

Dilution Factor: 0.980

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	34	B
67-64-1	Acetone	98	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	3	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB42-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-007

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: AXBE11

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 9

Date Analyzed: 11/14/90

Column: (pack/cap) CAP

Dilution Factor: 0.980

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB27-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-009

Sample wt/vol: 5.10 (g/mL) G Lab File ID: W111605

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 10 Date Analyzed: 11/16/90

Column: (pack/cap) PACK Dilution Factor: 0.980

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	41	B
67-64-1	Acetone	37	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 10

SMC-SB27-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-009

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111605

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 10

Date Analyzed: 11/16/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB41-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-011

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: W111418

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 4

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 0.962

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	51	B
67-64-1	Acetone	45	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1B

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB41-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-011

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111418

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 4

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB73-02 1..2

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-013

Sample wt/vol: 5.00 (g/mL) G Lab File ID: W111414

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 Date Analyzed: 11/14/90

Column: (pack/cap) PACK Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	30	B
67-64-1	Acetone	70	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB73-02 123

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-013

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111414

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 6

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB92-04

131

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-014

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: W111415

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 3

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 0.980

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	28	B
67-64-1	Acetone	62	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB92-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-014

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111415

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 3

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

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12/88 Rev.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB73-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-015

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: W111410

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 2

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 0.980

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	40	B
67-64-1	Acetone	82	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	4	J
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB73-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111410

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 2

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	DIETHYL ETHER	6.10	9	J

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB44-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-016

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: W111409

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 18

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 0.980

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	47	B
67-64-1	Acetone		E
75-15-0	Carbon Disulfide	3	J
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	150	
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	3	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	7	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	58	
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	360	

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB44-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-016

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111409

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 18

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	DIETHYL ETHER	6.10	10	J
2.	UNKNOWN	26.73	20	J
3.	UNKNOWN	28.17	7	J
4.	C3 BENZENE	29.70	30	J
5.	UNKNOWN	31.00	30	J

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB44-01DL

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-016 DL

Sample wt/vol: 4.10 (g/mL) G

Lab File ID: AXBF06

Level: (low/med) MED

Date Received: 11/07/90

% Moisture: not dec. 18

Date Analyzed: 11/15/90

Column: (pack/cap) CAP

Dilution Factor: 1.22

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	NA	
74-83-9	Bromomethane	NA	
75-01-4	Vinyl Chloride	NA	
75-00-3	Chloroethane	NA	
75-09-2	Methylene Chloride	NA	
67-64-1	Acetone	3900	B
75-15-0	Carbon Disulfide	NA	
75-35-4	1,1-Dichloroethene	NA	
75-34-3	1,1-Dichloroethane	NA	
540-59-0	1,2-Dichloroethene (total)	NA	
67-66-3	Chloroform	NA	
107-06-2	1,2-Dichloroethane	NA	
78-93-3	2-Butanone	NA	
71-55-6	1,1,1-Trichloroethane	NA	
56-23-5	Carbon Tetrachloride	NA	
108-05-4	Vinyl Acetate	NA	
75-27-4	Bromodichloromethane	NA	
78-87-5	1,2-Dichloropropane	NA	
10061-01-5	cis-1,3-Dichloropropene	NA	
79-01-6	Trichloroethene	NA	
124-48-1	Dibromochloromethane	NA	
79-00-5	1,1,2-Trichloroethane	NA	
71-43-2	Benzene	NA	
10061-02-6	Trans-1,3-Dichloropropene	NA	
75-25-2	Bromoform	NA	
108-10-1	4-Methyl-2-pentanone	NA	
591-78-6	2-Hexanone	NA	
127-18-4	Tetrachloroethene	NA	
79-34-5	1,1,2,2-Tetrachloroethane	NA	
108-88-3	Toluene	NA	
108-90-7	Chlorobenzene	NA	
100-41-4	Ethylbenzene	NA	
100-42-5	Styrene	NA	
1330-20-7	Xylene (total)	NA	

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB44-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-017

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111408

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 7

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	44	B
67-64-1	Acetone		E
75-15-0	Carbon Disulfide	16	
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB44-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-017

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111408

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 7

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	DIETHYL ETHER	6.10	10	J

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB44-02DL

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-017 DL

Sample wt/vol: 4.10 (g/mL) G

Lab File ID: AXBF08

Level: (low/med) MED

Date Received: 11/07/90

% Moisture: not dec. 7

Date Analyzed: 11/15/90

Column: (pack/cap) CAP

Dilution Factor: 1.22

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	NA	
74-83-9	Bromomethane	NA	
75-01-4	Vinyl Chloride	NA	
75-00-3	Chloroethane	NA	
75-09-2	Methylene Chloride	NA	
67-64-1	Acetone	4200	B
75-15-0	Carbon Disulfide	NA	
75-35-4	1,1-Dichloroethene	NA	
75-34-3	1,1-Dichloroethane	NA	
540-59-0	1,2-Dichloroethene (total)	NA	
67-66-3	Chloroform	NA	
107-06-2	1,2-Dichloroethane	NA	
78-93-3	2-Butanone	NA	
71-55-6	1,1,1-Trichloroethane	NA	
56-23-5	Carbon Tetrachloride	NA	
108-05-4	Vinyl Acetate	NA	
75-27-4	Bromodichloromethane	NA	
78-87-5	1,2-Dichloropropane	NA	
10061-01-5	cis-1,3-Dichloropropene	NA	
79-01-6	Trichloroethene	NA	
124-48-1	Dibromochloromethane	NA	
79-00-5	1,1,2-Trichloroethane	NA	
71-43-2	Benzene	NA	
10061-02-6	Trans-1,3-Dichloropropene	NA	
75-25-2	Bromoform	NA	
108-10-1	4-Methyl-2-pentanone	NA	
591-78-6	2-Hexanone	NA	
127-18-4	Tetrachloroethene	NA	
79-34-5	1,1,2,2-Tetrachloroethane	NA	
108-88-3	Toluene	NA	
108-90-7	Chlorobenzene	NA	
100-41-4	Ethylbenzene	NA	
100-42-5	Styrene	NA	
1330-20-7	Xylene (total)	NA	

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB40-05

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-018

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111407

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 3

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	34	B
67-64-1	Acetone	26	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB40-05

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-018

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111407

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 3

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	DIETHYL ETHER	6.13	8	J

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB46-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-019

Sample wt/vol: 5.00 (g/mL) G Lab File ID: W111413

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 4 Date Analyzed: 11/14/90

Column: (pack/cap) PACK Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	34	B
67-64-1	Acetone	72	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB46-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-019

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111413

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 4

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB40-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-020

Sample wt/vol: 5.00 (g/mL) G Lab File ID: W111412

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 11 Date Analyzed: 11/14/90

Column: (pack/cap) PACK Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	31	B
67-64-1	Acetone	43	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	3	J
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB40-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-020

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111412

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 11

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC

12/88 Rev.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB46-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-021

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: W111411

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 4

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 0.980

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	30	B
67-64-1	Acetone	23	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB46-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-021

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111411

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 4

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Roy F. Weston, Inc. - Lionville Laboratory
VOA ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/09/90 RFW LOT # :9011L541

CLIENT ID	RFW #		MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB29-04	006		S	90LVY222	11/08/90	N/A	11/15/90
SMC-SB29-01	007		S	90LVY221	11/08/90	N/A	11/14/90
SMC-SB45-02	014		S	90LVY221	11/08/90	N/A	11/14/90
SMC-SB45-03	015		S	90LVW237	11/08/90	N/A	11/15/90
SMC-SB60-02	016		S	90LVW237	11/08/90	N/A	11/15/90
SMC-SB32-04	031		S	90LVW237	11/08/90	N/A	11/15/90
SMC-SB93-01	035		S	90LVW237	11/08/90	N/A	11/15/90
SMC-FB-1108	039		W	90LVK182	11/08/90	N/A	11/14/90
SMC-FB-1108	039	D1	W	90LVK183	11/08/90	N/A	11/15/90
LAB QC:							
VBLK	MB1		S	90LVY222	N/A	N/A	11/15/90
VBLK	MB1		S	90LVY221	N/A	N/A	11/14/90
VBLK	MB1		S	90LVW237	N/A	N/A	11/14/90
VBLK	MB1		W	90LVK182	N/A	N/A	11/14/90
VBLK	MB1		W	90LVK183	N/A	N/A	11/15/90

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELDALLOY **SAMPLES RECEIVED:** 11-19-90
RFW #: 9011L541, GC/MS VOLATILE
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of one (1) water sample and seven (7) soil samples collected on 11-08-90.

The samples were analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Volatile target compounds on 11-14,15-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were not detected in these samples.

2. Sample SMC-FB-1108 required a two-fold dilution because it contained high levels of target compounds.

3. All surrogate recoveries were within EPA QC limits.

4. Matrix spike and spike duplicate samples are associated with RFW lot 9011L494.

5. The laboratory blanks contained the common contaminants acetone and methylene chloride at levels less than 5x the CRQL. The blank 90LVW237-MB1 also contained the target compounds 4-methyl-2-pentanone, 2-hexanone, and 2-butanone at levels less than the CRQL.

6. Internal standard areas were outside QC limits for sample SMC-SB93-01. This sample was re-analyzed on 11-16-90 and similar results were obtained. Re-analysis results are available upon request.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

1-16-91
Date

WESTON

GLOSSARY OF VOA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

33

SMC-SB29-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-006

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: Y111505

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 8

Date Analyzed: 11/15/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	65	B
67-64-1	Acetone	61	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB29-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-006

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: Y111505

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 8

Date Analyzed: 11/15/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 42

SMC-SB29-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-007

Sample wt/vol: 5.20 (g/mL) G Lab File ID: Y111413

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 Date Analyzed: 11/14/90

Column: (pack/cap) PACK Dilution Factor: 0.962

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	43	B
67-64-1	Acetone	82	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	8	J
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB29-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-007

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: Y111413

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 8

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 0.962

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 55

SMC-SB45-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-014

Sample wt/vol: 5.00 (g/mL) G Lab File ID: Y111414

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 Date Analyzed: 11/14/90

Column: (pack/cap) PACK Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	42	B
67-64-1	Acetone	180	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	7	J
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB45-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-014

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: Y111414

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 8

Date Analyzed: 11/14/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB45-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111423

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 4

Date Analyzed: 11/15/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	32	B
67-64-1	Acetone	56	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB45-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111423

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 4

Date Analyzed: 11/15/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB60-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-016

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111424

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 7

Date Analyzed: 11/15/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	32	B
67-64-1	Acetone	30	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB60-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-016

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111424

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 7

Date Analyzed: 11/15/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 87

SMC-SB32-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-031

Sample wt/vol: 5.00 (g/mL) G Lab File ID: W111425

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 Date Analyzed: 11/15/90

Column: (pack/cap) PACK Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	37	B
67-64-1	Acetone	160	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB32-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-031

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111425

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 8

Date Analyzed: 11/15/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB93-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-035

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111426

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 4

Date Analyzed: 11/15/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	36	B
67-64-1	Acetone	73	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	9	JB
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB93-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-035

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W111426

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 4

Date Analyzed: 11/15/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Roy F. Weston, Inc. - Lionville Laboratory
VOA ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/15/90 RFW LOT # :9011L633

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB77-03	006	S	90LVW248	11/14/90	N/A	11/21/90
SMC-FB-1114	011	W	90LVK185	11/14/90	N/A	11/20/90
LAB QC:						
VBLK	MB1	S	90LVW248	N/A	N/A	11/21/90
VBLK	MB1	W	90LVK185	N/A	N/A	11/20/90

6A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELD ALLOY **SAMPLES RECEIVED:** 11-15-90
RFW #: 9011L633, GC/MS VOLATILE
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of one (1) water sample and one (1) soil sample collected on 11-14-90.

The samples were analyzed according to criteria set forth in CLP SOW 2/88 (rev 5/89) for TCL Volatile target compounds on 11-20,21-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were not detected in these samples.

2. All surrogate recoveries were within EPA QC limits.

3. Matrix spike and spike duplicate samples were associated with RFW lot 9011L518.

4. The laboratory blanks contained the common contaminants methylene chloride and acetone at levels less than 4x the CRQL. The blank 90LVW248-MB1 also contained the target compounds 4-methyl-2-pentanone and 2-hexanone at levels less than the CRQL.

5. All internal standard area and retention time criteria were met.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

1-17-91
Date

WESTON

GLOSSARY OF VOA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB77-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L633-006

Sample wt/vol: 4.90 (g/mL) G Lab File ID: W112105

Level: (low/med) LOW Date Received: 11/15/90

% Moisture: not dec. 10 Date Analyzed: 11/21/90

Column: (pack/cap) PACK Dilution Factor: 1.02

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	38	B
67-64-1	Acetone	16	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB77-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L633-006

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: W112105

Level: (low/med) LOW

Date Received: 11/15/90

% Moisture: not dec. 10

Date Analyzed: 11/21/90

Column: (pack/cap) PACK

Dilution Factor: 1.02

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Roy F. Weston, Inc. - Lionville Laboratory
VOA ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/16/90 RFW LOT # :9011L679

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB84-05	002	S	90LVW248	11/16/90	N/A	11/21/90
SMC-SB42-05	003	S	90LVW249	11/16/90	N/A	11/23/90
SMC-SB42-05	003 MS	S	90LVW248	11/16/90	N/A	11/22/90
SMC-SB42-05	003 MSD	S	90LVW250	11/16/90	N/A	11/25/90
SMC-FB-1116	004	W	90LVP095	11/16/90	N/A	11/26/90
LAB QC:						
VBLK	MB1	S	90LVW248	N/A	N/A	11/21/90
VBLK	MB1	S	90LVW249	N/A	N/A	11/23/90
VBLK	MB1	S	90LVW250	N/A	N/A	11/24/90
VBLK	MB1	W	90LVP095	N/A	N/A	11/26/90

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELD ALLOY SAMPLES RECEIVED: 11-16-90
RFW #: 9011L679, GC/MS VOLATILE
W.O. #: 3485-06-01

NARRATIVE

The set of samples consisted of one (1) water sample and two (2) soil samples collected on 11-16-90.

The samples were analyzed according to criteria set forth in CLP SOW 2/88 (Rev. 5/89) for TCL Volatile target compounds on 11-21,22,23,24,25,26-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were detected in these samples.

2. All surrogate recoveries were within EPA QC limits.

3. All matrix spike recoveries were within EPA QC limits.

4. The laboratory blanks contained the common contaminants acetone and methylene chloride at levels less than 4x the CRQL. The blanks also contained the target compounds 2-butanone, 4-methyl-2-pentanone, and 2-hexanone at levels less than the CRQL.

5. Internal standard areas were outside control limits for the sample SMC-SB42-05 MSD. The original analysis and matrix spike analysis associated with this sample fulfilled its re-analysis requirement.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

1-16-91
Date

WESTON

GLOSSARY OF VOA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 27

SMC-SB84-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L679-002

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W112113

Level: (low/med) LOW

Date Received: 11/16/90

% Moisture: not dec. 9

Date Analyzed: 11/21/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	60	B
67-64-1	Acetone	70	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB84-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L679-002

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W112113

Level: (low/med) LOW

Date Received: 11/16/90

% Moisture: not dec. 9

Date Analyzed: 11/21/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB42-05 39

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L679-003

Sample wt/vol: 5.00 (g/mL) G Lab File ID: W112305

Level: (low/med) LOW Date Received: 11/16/90

% Moisture: not dec. 10 Date Analyzed: 11/23/90

Column: (pack/cap) PACK Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	18	B
67-64-1	Acetone	42	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	9	JB
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 37

SMC-SB42-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L679-003

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W112305

Level: (low/med) LOW

Date Received: 11/16/90

% Moisture: not dec. 10

Date Analyzed: 11/23/90

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.23	30	J
2.	UNKNOWN	13.37	6	J

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

183

SMC-SB42-05MS

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L679-003 MS

Sample wt/vol: 5.00 (g/mL) G Lab File ID: W112115

Level: (low/med) LOW Date Received: 11/16/90

% Moisture: not dec. 10 Date Analyzed: 11/22/90

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	60	B
67-64-1	Acetone	83	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene		S
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	2	J
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene		S
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene		S
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene		S
108-90-7	Chlorobenzene		S
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

S: SPIKE COMPOUND

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB42-05MSD 193

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L679-003 MSD

Sample wt/vol: 5.00 (g/mL) G Lab File ID: W112411

Level: (low/med) LOW Date Received: 11/16/90

% Moisture: not dec. 10 Date Analyzed: 11/25/90

Column: (pack/cap) PACK Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	35	B
67-64-1	Acetone	18	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene		S
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene		S
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene		S
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene		S
108-90-7	Chlorobenzene		S
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

S: SPIKE COMPOUND

Roy F. Weston, Inc. - Lionville Laboratory
BNA ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/06/90 RFW LOT # :9011L494

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB07-03	002	S	90LE1300	11/06/90	11/14/90	12/19/90
SMC-SB07-03	002 MS	S	90LE1300	11/06/90	11/14/90	12/19/90
SMC-SB07-03	002 MSD	S	90LE1300	11/06/90	11/14/90	11/28/90
SMC-SB13-03	004	S	90LE1300	11/06/90	11/14/90	12/11/90
SMC-SB20-04	006	S	90LE1300	11/06/90	11/14/90	12/20/90
SMC-SB22-05	009	S	90LE1300	11/06/90	11/14/90	12/19/90
SMC-SB24-03	010	S	90LE1300	11/06/90	11/14/90	12/11/90
SMC-SB39-04	012	S	90LE1300	11/06/90	11/14/90	12/11/90
SMC-SB47-04	014	S	90LE1300	11/06/90	11/14/90	12/11/90
SMC-SB01-02	015	S	90LE1300	11/06/90	11/14/90	12/11/90
SMC-SB02-02	016	S	90LE1311	11/06/90	11/16/90	12/18/90
SMC-SB03-02	017	S	90LE1311	11/06/90	11/16/90	12/18/90
SMC-SB04-03	018	S	90LE1311	11/06/90	11/16/90	12/18/90
SMC-SB05-02	019	S	90LE1300	11/06/90	11/14/90	12/20/90
SMC-SB06-02	020	S	90LE1311	11/06/90	11/16/90	12/18/90
SMC-FB-1106	021	W	90LE1273	11/06/90	11/09/90	12/18/90
LAB QC:						
SBLK	MB1	S	90LE1300	N/A	11/14/90	11/28/90
SBLK	MB1 BS	S	90LE1300	N/A	11/14/90	11/26/90
SBLK	MB1	S	90LE1311	N/A	11/16/90	12/13/90
SBLK	MB1 BS	S	90LE1311	N/A	11/16/90	12/13/90
SBLK	MB1	W	90LE1273	N/A	11/09/90	12/04/90
SBLK	MB1 BS	W	90LE1273	N/A	11/09/90	11/12/90
SBLK	MB1 BSD	W	90LE1273	N/A	11/09/90	11/12/90

WESTON

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELD ALLOY **SAMPLES RECEIVED:** 11-06-90
RFW #: 9011L494, SEMIVOLATILE
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of one (1) water sample and thirteen (13) soil samples collected on 11-06-90.

The samples were extracted on 11-09,14,16-90 and analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Semivolatile target compounds on 11-12,26,28-90 and 12-04,11,13,18,19,20-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were detected in these samples.

2. Two (2) of one-hundred-thirty-eight (138) surrogate recoveries was outside EPA QC. However, EPA CLP surrogate recovery criteria were met (i.e., no more than one outlier per fraction (acid and base neutral) and no recoveries less than 10%).

3. All water blank spike recoveries were within EPA QC limits. Five (5) of twenty-two (22) blank spike recoveries were outside EPA QC limits.

4. Three (3) of twenty-two (22) matrix spike recoveries were outside EPA QC limits.

5. The laboratory blanks contained the contaminants benzoic acid, bis(2-ethylhexyl) phthalate, pyrene, di-n-butylphthalate at levels less than the CRQL.

6. Internal standard areas are outside the QC limits for samples SMC-SB07-03, SMC-SB07-03 MS, and SMC-SB07-03 MSD. The analyses of the QC samples fulfilled the re-analysis requirement.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

9-1-91
Date

/sma

WESTON

GLOSSARY OF BNA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

A = Aldol Condensation Product.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB07-03 48

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-002

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S121913

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/19/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	bis(2-Chloroisopropyl)ether	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic acid	2000	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 43

SMC-SB07-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-002

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S121913

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/19/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
84-74-2	Di-n-Butylphthalate	890	B
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	790	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	JB
117-84-0	Di-n-Octyl phthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 50

SMC-SB07-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-002

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S121913

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/19/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.11

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	6.18	600	JAB

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB13-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-004

Sample wt/vol: 31.0 (g/mL) G Lab File ID: S121107

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 14 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	160	J
111-44-4	bis(2-Chloroethyl)ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
100-51-6	Benzyl alcohol	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	bis(2-Chloroisopropyl)ether	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
65-85-0	Benzoic acid	380	JB
111-91-1	bis(2-Chloroethoxy)methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB13-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-004

Sample wt/vol: 31.0 (g/mL) G Lab File ID: S121107

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 14 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	85	J
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-Butylphthalate	280	JB
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	840	U
56-55-3	Benzo(a)anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	JB
117-84-0	Di-n-Octyl phthalate	420	U
205-99-2	Benzo(b)fluoranthene	420	U
207-08-9	Benzo(k)fluoranthene	420	U
50-32-8	Benzo(a)pyrene	420	U
193-39-5	Indeno(1,2,3-cd)pyrene	420	U
53-70-3	Dibenzo(a,h)anthracene	420	U
191-24-2	Benzo(g,h,i)perylene	420	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB13-03 05

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-004

Sample wt/vol: 31.0 (g/mL) G Lab File ID: S121107

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 14 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.11

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.05	200	JAB
2.	ALDOL CONDENSATE	5.52	200	JAB
3.	ALDOL CONDENSATE	5.68	2000	JA
4.	BENZALDEHYDE	5.83	600	J
5.	UNKNOWN	6.93	400	J
6.	AROMATIC	7.57	300	J
7.	UNKNOWN	21.77	200	J
8.	UNKNOWN	22.72	300	J
9.	UNKNOWN	24.15	300	J
10.	UNKNOWN	24.35	300	J
11.	UNKNOWN	24.93	800	J
12.	AROMATIC	25.10	300	J
13.	AROMATIC	25.42	800	J
14.	AROMATIC	26.12	800	J
15.	AROMATIC	26.50	2000	J
16.	UNKNOWN	27.15	300	J
17.	UNKNOWN	27.50	500	J
18.	AROMATIC	27.97	500	J
19.	AROMATIC	28.42	400	J
20.	UNKNOWN	29.77	300	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB20-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

10.

Matrix: SOIL Lab Sample ID: 9011L494-006

Sample wt/vol: 30.8 (g/mL) G Lab File ID: S122009

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/20/90

GPC Cleanup: (Y/N) Y pH: 5.4 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	120	J
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	bis(2-Chloroisopropyl)ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 105

SMC-SB20-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-006

Sample wt/vol: 30.8 (g/mL) G Lab File ID: S122009

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/20/90

GPC Cleanup: (Y/N) Y pH: 5.4 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	410	B
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-Octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenzo(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

106

SMC-SB20-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-006

Sample wt/vol: 30.8 (g/mL) G Lab File ID: S122009

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/20/90

GPC Cleanup: (Y/N) Y pH: 5.4 Dilution Factor: 1.11

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.67	200	JAB
2.	ALDOL CONDENSATE	5.88	200	JA
3.	ALDOL CONDENSATE	6.17	300	JAB
4.	ALDOL CONDENSATE	6.88	400	JAB
5.	ALDOL CONDENSATE	7.90	200	JA

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB22-05

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

123

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-009

Sample wt/vol: 30.8 (g/mL) G

Lab File ID: S121914

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 8 dec.

Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/19/90

GPC Cleanup: (Y/N) Y pH: 5.1

Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	bis(2-Chloroisopropyl)ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic acid	2000	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB22-05

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-009

Sample wt/vol: 30.8 (g/mL) G Lab File ID: S121914

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 8 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/19/90

GPC Cleanup: (Y/N) Y pH: 5.1 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	52	JB
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-Octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenzo(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB22-05 125

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-009

Sample wt/vol: 30.8 (g/mL) G Lab File ID: S121914

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 8 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/19/90

GPC Cleanup: (Y/N) Y pH: 5.1 Dilution Factor: 1.11

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	6.17	200	JAB

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB24-03 100

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-010

Sample wt/vol: 29.9 (g/mL) G Lab File ID: S121020

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 11 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 5.0 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
100-51-6	Benzyl alcohol	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	bis(2-Chloroisopropyl)ether	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
65-85-0	Benzoic acid	2100	U
111-91-1	bis(2-Chloroethoxy)methane	420	U
120-83-2	2,4-Dichlorophenol	87	J
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	130	J
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.
137
SMC-SB24-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-010

Sample wt/vol: 29.9 (g/mL) G Lab File ID: S121020

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 11 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 5.0 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-Butylphthalate	1600	B
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	830	U
56-55-3	Benzo(a)anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)phthalate	420	U
117-84-0	Di-n-Octyl phthalate	420	U
205-99-2	Benzo(b)fluoranthene	420	U
207-08-9	Benzo(k)fluoranthene	420	U
50-32-8	Benzo(a)pyrene	420	U
193-39-5	Indeno(1,2,3-cd)pyrene	420	U
53-70-3	Dibenzo(a,h)anthracene	420	U
191-24-2	Benzo(g,h,i)perylene	420	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB24-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-010

Sample wt/vol: 29.9 (g/mL) G

Lab File ID: S121020

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 11 dec.

Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 5.0

Dilution Factor: 1.11

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.02	200	JAB
2.	ALDOL CONDENSATE	5.48	1000	JAB
3.	ALDOL CONDENSATE	6.20	400	JAB

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB39-04

155

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-012

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S121021

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 4 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
100-51-6	Benzyl alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	bis(2-Chloroisopropyl)ether	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	78	J
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	160	J
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 156

SMC-SB39-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-012

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S121021

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 4 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
84-74-2	Di-n-Butylphthalate	71	JB
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	39	J
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	380	U
117-84-0	Di-n-Octyl phthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenzo(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB39-04

157

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-012

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S121021

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 4 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.11

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.00	200	JAB
2.	ALDOL CONDENSATE	5.48	1000	JAB
3.	ALDOL CONDENSATE	5.67	200	JA
4.	ALDOL CONDENSATE	6.20	200	JAB
5.	UNKNOWN	6.97	200	J
6.	UNKNOWN	7.20	200	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB47-04

179

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-014

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S121022

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 4 dec.

Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 6.0

Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	bis(2-Chloroisopropyl)ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	110	J
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	200	J
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB47-04 180

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-014

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S121022

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 4 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	85	JB
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-Octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenzo(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB47-04 181

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-014

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S121022

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 4 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.11

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.00	200	JAB
2.	ALDOL CONDENSATE	5.48	600	JAB
3.	ALDOL CONDENSATE	5.65	200	JA
4.	ALDOL CONDENSATE	6.18	500	JAB

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB01-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

199

Matrix: SOIL Lab Sample ID: 9011L494-015

Sample wt/vol: 30.9 (g/mL) G Lab File ID: S121108

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 14 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
100-51-6	Benzyl alcohol	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	bis(2-Chloroisopropyl)ether	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
65-85-0	Benzoic acid	360	JB
111-91-1	bis(2-Chloroethoxy)methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB01-02 200

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-015

Sample wt/vol: 30.9 (g/mL) G Lab File ID: S121108

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 14 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-Butylphthalate	1000	B
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	830	U
56-55-3	Benzo(a)anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)phthalate	170	JB
117-84-0	Di-n-Octyl phthalate	420	U
205-99-2	Benzo(b)fluoranthene	420	U
207-08-9	Benzo(k)fluoranthene	420	U
50-32-8	Benzo(a)pyrene	420	U
193-39-5	Indeno(1,2,3-cd)pyrene	420	U
53-70-3	Dibenzo(a,h)anthracene	420	U
191-24-2	Benzo(g,h,i)perylene	420	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB01-02
201

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-015

Sample wt/vol: 30.9 (g/mL) G Lab File ID: S121108

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 14 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.11

Number TICs found: 17

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.05	400	JAB
2.	ALDOL CONDENSATE	5.53	2000	JAB
3.	ALDOL CONDENSATE	5.70	200	JA
4.	ALDOL CONDENSATE	6.22	200	JAB
5.	UNKNOWN	6.57	400	J
6.	UNKNOWN	7.00	600	J
7.	UNKNOWN	7.20	200	J
8.	ORGANIC ACID	18.68	400	J
9.	UNKNOWN	22.93	1000	J
10.	UNKNOWN	24.38	1000	J
11.	ALKANE	25.82	200	J
12.	UNKNOWN	26.13	700	J
13.	ALKANE	27.97	400	J
14.	UNKNOWN	31.67	500	J
15.	UNKNOWN	31.95	800	J
16.	UNKNOWN	32.13	200	J
17.	UNKNOWN	33.10	400	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB02-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

231

Matrix: SOIL Lab Sample ID: 9011L494-016

Sample wt/vol: 30.3 (g/mL) G Lab File ID: L121721

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 3 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB02-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

232

Matrix: SOIL Lab Sample ID: 9011L494-016

Sample wt/vol: 30.3 (g/mL) G Lab File ID: L121721

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 3 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
117-84-0	Di-n-Octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB02-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

236

Matrix: SOIL

Lab Sample ID: 9011L494-016

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: L121721

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 3 dec.

Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 6.8

Dilution Factor: 1.00

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.62	200	JAB
2.	ALDOL CONDENSATE	5.90	100	JA
3.	ALDOL CONDENSATE	6.65	200	JAB

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB03-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

24.1

Matrix: SOIL Lab Sample ID: 9011L494-017

Sample wt/vol: 30.0 (g/mL) G Lab File ID: L121722

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 3 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 6.2 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB03-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

245

Matrix: SOIL

Lab Sample ID: 9011L494-017

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: L121722

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 3 dec.

Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 6.2

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
117-84-0	Di-n-Octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB03-02

240

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-017

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: L121722

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 3 dec.

Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 6.2

Dilution Factor: 1.00

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.63	400	JAB
2.	ALDOL CONDENSATE	5.90	200	JA
3.	ALDOL CONDENSATE	6.65	200	JAB

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB04-03

257

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-018

Sample wt/vol: 30.4 (g/mL) G Lab File ID: L121807

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 2 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 6.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB04-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-018

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: L121807

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 2 dec.

Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 6.5

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	52	JB
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	670	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	160	J
117-84-0	Di-n-Octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB04-03

250

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-018

Sample wt/vol: 30.4 (g/mL) G Lab File ID: L121807

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 2 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 6.5 Dilution Factor: 1.00

Number TICs found: 21

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.53	300	JA
2.	ALDOL CONDENSATE	5.75	700	JAB
3.	ALDOL CONDENSATE	6.02	1000	JA
4.	ALDOL CONDENSATE	6.73	800	JAB
5.	ALDOL CONDENSATE	7.77	2000	JA
6.	ORGANIC ACID	19.48	400	J
7.	AROMATIC	23.78	300	J
8.	AROMATIC	24.85	1000	J
9.	C6 BENZENE	25.38	300	J
10.	AROMATIC	25.47	300	J
11.	AROMATIC	26.07	4000	J
12.	AROMATIC	26.15	800	J
13.	C6 BENZENE	26.27	300	J
14.	C6 BENZENE	26.70	1000	J
15.	C6 BENZENE	27.65	2000	J
16.	C6 BENZNEN	28.22	5000	J
17.	C6 BENZENE	28.48	600	J
18.	C6 BENZENE	29.13	300	J
19.	UNKNOWN	29.67	500	J
20.	C6 BENZENE	30.27	1000	J
21.	C6 BENZENE	30.98	1000	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB05-02 293

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-019

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S122008

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 6 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/20/90

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	bis(2-Chloroisopropyl)ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic acid	2000	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB05-02 294

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-019

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S122008

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 6 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/20/90

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	49	JB
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-Octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenzo(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB05-02 295

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-019

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S122008

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 6 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/20/90

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.11

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB06-02

304

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L494-020

Sample wt/vol: 30.8 (g/mL) G

Lab File ID: L121723

Level: (low/med) LOW

Date Received: 11/06/90

% Moisture: not dec. 6 dec.

Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 8.8

Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB06-02 305

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-020

Sample wt/vol: 30.8 (g/mL) G Lab File ID: L121723

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 6 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 8.8 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	690	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
117-84-0	Di-n-Octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB06-02 306

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-020

Sample wt/vol: 30.8 (g/mL) G Lab File ID: L121723

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 6 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/90

GPC Cleanup: (Y/N) N pH: 8.8 Dilution Factor: 1.00

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.62	100	JAB
2.	ALDOL CONDENSATE	5.90	200	JA
3.	ALDOL CONDENSATE	6.65	500	JAB

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB07-03MS 882

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-002 MS

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S121915

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/19/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol		S
111-44-4	bis(2-Chloroethyl)ether	400	U
95-57-8	2-Chlorophenol		S
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene		S
100-51-6	Benzyl alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	bis(2-Chloroisopropyl)ether	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-propylamine		S
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic acid	2000	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene		S
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol		S
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

S: SPIKE COMPOUND

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 883

SMC-SB07-03MS

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-002 MS

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S121915

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/19/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene		S
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol		S
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene		S
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol		S
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
84-74-2	Di-n-Butylphthalate	220	JB
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene		S
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	790	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	680	B
117-84-0	Di-n-Octyl phthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

S: SPIKE COMPOUND

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB07-03MSD

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-002 MSD

Sample wt/vol: 31.5 (g/mL) G Lab File ID: S112808

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/28/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol		S
111-44-4	bis(2-Chloroethyl)ether	380	U
95-57-8	2-Chlorophenol		S
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene		S
100-51-6	Benzyl alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	bis(2-Chloroisopropyl)ether	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-propylamine		S
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
65-85-0	Benzoic acid	610	JB
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene		S
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol		S
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

S: SPIKE COMPOUND

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB07-03MSD 891

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L494-002 MSD

Sample wt/vol: 31.5 (g/mL) G Lab File ID: S112808

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/28/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.11

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene		S
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol		S
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene		S
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol		S
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
84-74-2	Di-n-Butylphthalate	190	JB
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene		S
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	760	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	1100	B
117-84-0	Di-n-Octyl phthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenzo(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

(1) - Cannot be separated from Diphenylamine

S: SPIKE COMPOUND

Roy F. Weston, Inc. - Lionville Laboratory
BNA ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/07/90 RFW LOT # :9011L518

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB72-01	001	S	90LE1326	11/07/90	11/17/90	12/21/90
SMC-SB72-01	001 MS	S	90LE1326	11/07/90	11/17/90	12/23/90
SMC-SB72-04	002	S	90LE1326	11/07/90	11/17/90	12/27/90
SMC-SB91-04	003	S	90LE1326	11/07/90	11/17/90	12/27/90
SMC-SB92-04 SB91	004	S	90LE1300	11/07/90	11/14/90	12/20/90
SMC-SB55-04	006	S	90LE1300	11/07/90	11/14/90	11/27/90
SMC-SB42-01	007	S	90LE1326	11/07/90	11/17/90	12/21/90
SMC-SB27-02	009	S	90LE1300	11/07/90	11/14/90	11/27/90
SMC-SB41-02	011	S	90LE1326	11/07/90	11/17/90	12/27/90
SMC-SB73-02	013	S	90LE1326	11/07/90	11/17/90	12/21/90
SMC-SB92-04	014	S	90LE1326	11/07/90	11/17/90	12/21/90
SMC-SB73-04	015	S	90LE1326	11/07/90	11/17/90	12/21/90
SMC-SB44-01	016	S	90LE1326	11/07/90	11/17/90	12/27/90
SMC-SB44-02	017	S	90LE1326	11/07/90	11/17/90	12/27/90
SMC-SB40-05	018	S	90LE1326	11/07/90	11/17/90	12/27/90
SMC-SB46-04	019	S	90LE1326	11/07/90	11/17/90	12/27/90
SMC-SB40-02	020	S	90LE1326	11/07/90	11/17/90	12/23/90
SMC-SB46-01	021	S	90LE1326	11/07/90	11/17/90	12/27/90
LAB QC:						
SBLK	MB1	S	90LE1326	N/A	11/17/90	12/20/90
SBLK	MB1 BS	S	90LE1326	N/A	11/17/90	12/20/90
SBLK	MB1	S	90LE1300	N/A	11/14/90	11/28/90
SBLK	MB1 BS	S	90LE1300	N/A	11/14/90	11/26/90

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/ SHIELD ALLOY **SAMPLES RECEIVED:** 11-07-90
RFW #: 9011L518, SEMIVOLATILE
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of seventeen (17) soil samples collected on 11-07-90.

The samples were extracted on 11-14,17-90 and analyzed according to criteria set forth in CLP SOW 2/88 (rev 5/89) for TCL Semivolatile target compounds on 11-26,27,28-90 and 12-20,21,23,27-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were detected in these samples.

2. The initial calibration perfomred on 12-24-90 and the continuing calibration analyzed on 12-27-90 for instrument 5100S did not meet calibration criteria for the compound di-n-octyl-phthalate. The affected samples were SMC-SB72-04, SMC-SB91-04, SMC-SB41-02,SMC-SB44-02, SMC-SB40-05, SMC-SB46-04, SMC-SB46-01, and SMC-SB44-01.

3. One (1) of one hundred thirty-two (132) surrogate recoveries were outside EPA QC limits. However, EPA CLP surrogate recovery criteria were met (i.e., no more than one outlier per fraction (acid and base neutral) and no recoveries less than 10%).

4. One (1) of twenty-two (22) blank spike recoveries was outside EPA QC limits.

5. All matrix spike recoveries were within EPA QC limits.

6. The laboratory blanks contained the compounds bis(2-ethylhexyl)phthalate, benzoic acid, and pyrene at levels less than the CRQL. Blank 90LE1300-MB1 also contained the common contaminant di-n-butylphthalate at a level above 5x the CRQL.

WESTON

7. Internal standard area were outside control limits for sample SMC SB72-01, SMC-SB40-02, and SMC-SB44-01. The matrix spike analysis of sample SMC-SB72-01 fulfilled its re-analysis requirement. The remaining samples were re-analyzed on 12-27-90 and similar results were obtained.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

1-14-91
Date

WESTON

GLOSSARY OF BNA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

A = Aldol Condensation Product.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB72-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-001

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S122108

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
100-51-6	Benzyl alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	bis(2-Chloroisopropyl)ether	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB72-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-001

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S122108

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	350	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	77	J
120-12-7	Anthracene	350	U
84-74-2	Di-n-Butylphthalate	350	U
206-44-0	Fluoranthene	110	J
129-00-0	Pyrene	140	JB
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	710	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	73	J
117-81-7	bis(2-Ethylhexyl)phthalate	350	U
117-84-0	Di-n-Octyl phthalate	350	U
205-99-2	Benzo(b)fluoranthene	47	J
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

38

SMC-SB72-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-001

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S122108

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 6 dec.

Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.6

Dilution Factor: 1.00

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.85	800	JAB
2.	ALDOL CONDENSATE	6.13	1000	JAB
3.	ALDOL CONDENSATE	6.87	800	JA
4.	ALDOL CONDENSATE	7.25	500	JAB
5.	ALDOL CONDENSATE	7.67	200	JA
6.	ALDOL CONDENSATE	7.87	700	JA

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 61

SMC-SB72-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-002

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S122704

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
100-51-6	Benzyl alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	bis(2-Chloroisopropyl)ether	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 02

SMC-SB72-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-002

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S122704

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	350	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	170	J
85-01-8	Phenanthrene	160	J
120-12-7	Anthracene	55	J
84-74-2	Di-n-Butylphthalate	120	JB
206-44-0	Fluoranthene	240	J
129-00-0	Pyrene	250	JB
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	700	U
56-55-3	Benzo(a)anthracene	130	J
218-01-9	Chrysene	130	J
117-81-7	bis(2-Ethylhexyl)phthalate	88	J
117-84-0	Di-n-Octyl phthalate	350	U
205-99-2	Benzo(b)fluoranthene	61	J
207-08-9	Benzo(k)fluoranthene	75	J
50-32-8	Benzo(a)pyrene	66	J
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB72-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-002

Sample wt/vol: 30.7 (g/mL) G

Lab File ID: S122704

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 7 dec.

Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.83	300	JAB
2.	ALDOL CONDENSATE	6.12	800	JAB
3.	ALDOL CONDENSATE	6.83	500	JA
4.	ALDOL CONDENSATE	7.22	600	JAB
5.	ALDOL CONDENSATE	7.83	300	JA

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 10

SMC-SB91-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-003

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S122705

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 10 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 6.3 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	bis(2-Chloroisopropyl)ether	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-Di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 101

SMC-SB91-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-003

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S122705

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 10 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 6.3 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	130	J
85-01-8	Phenanthrene	42	J
120-12-7	Anthracene	360	U
84-74-2	Di-n-Butylphthalate	59	JB
206-44-0	Fluoranthene	62	J
129-00-0	Pyrene	110	JB
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	730	U
56-55-3	Benzo(a)anthracene	46	J
218-01-9	Chrysene	38	J
117-81-7	bis(2-Ethylhexyl)phthalate	360	U
117-84-0	Di-n-Octyl phthalate	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenzo(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 102

SMC-SB91-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-003

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S122705

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 10 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 6.3 Dilution Factor: 1.00

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSTAE	5.83	300	JAB
2.	ALDOL CONDENSATE	6.12	500	JAB
3.	ALDOL CONDENSATE	6.85	300	JA
4.	ALDOL CONDENSATE	7.23	800	JAB
5.	ALDOL CONDENSATE	7.87	200	JA

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB92-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-004

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S122010

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/20/90

GPC Cleanup: (Y/N) Y pH: 5.0 Dilution Factor: 1.11

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	bis(2-Chloroisopropyl)ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic acid	2000	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB92-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-004

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S122010

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/20/90

GPC Cleanup: (Y/N) Y pH: 5.0 Dilution Factor: 1.11

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	200	JB
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-Octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenzo(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 131

SMC-SB92-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-004

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S122010

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/20/90

GPC Cleanup: (Y/N) Y pH: 5.0 Dilution Factor: 1.11

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.88	200	JA
2.	ALDOL CONDENSATE	6.17	200	JAB
3.	ALDOL CONDENSATE	6.87	300	JAB
4.	ALDOL CONDENSATE	7.27	200	JA
5.	ALDOL CONDENSATE	7.88	300	JA

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 140

SMC-SB55-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-006

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S112713

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/90

GPC Cleanup: (Y/N) Y pH: 7.2 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	bis(2-Chloroisopropyl)ether	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic acid	180	J
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB55-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-006

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S112713

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/90

GPC Cleanup: (Y/N) Y pH: 7.2 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	370	JB
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
84-74-2	Di-n-Butylphthalate	870	B
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	73	J
85-68-7	Butylbenzylphthalate	77	J
91-94-1	3,3'-Dichlorobenzidine	800	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	950	B
117-84-0	Di-n-Octyl phthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 1.1.5

SMC-SB55-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-006

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S112713

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/90

GPC Cleanup: (Y/N) Y pH: 7.2 Dilution Factor: 1.11

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.17	200	JAB
2.	ALDOL CONDENSATE	5.65	600	JAB
3.	ALDOL CONDENSATE	6.35	300	JAB
4.	ORGANIC ACID	18.82	200	J
5.	UNKNOWN	22.32	200	J
6.	UNKNOWN	25.08	2000	J
7.	UNKNOWN	25.18	5000	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 175

SMC-SB42-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-007

Sample wt/vol: 31.2 (g/mL) G Lab File ID: S122104

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 9 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 6.5 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
100-51-6	Benzyl alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	bis(2-Chloroisopropyl)ether	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic acid	150	J
111-91-1	bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 170

SMC-SB42-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-007

Sample wt/vol: 31.2 (g/mL) G Lab File ID: S122104

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 9 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 6.5 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	350	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
84-74-2	Di-n-Butylphthalate	200	JB
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	700	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)phthalate	350	U
117-84-0	Di-n-Octyl phthalate	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 177

SMC-SB42-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-007

Sample wt/vol: 31.2 (g/mL) G Lab File ID: S122104

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 9 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 6.5 Dilution Factor: 1.00

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.88	200	JAB
2.	ALDOL CONDENSATE	6.17	700	JAB
3.	ALDOL CONDENSATE	6.88	600	JA
4.	ALDOL CONDENSATE	7.27	200	JAB
5.	UNKNOWN	7.68	200	JA
6.	UNKNOWN	7.88	300	JA
7.	ORGANIC ACID	19.38	700	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB27-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-009

Sample wt/vol: 29.7 (g/mL) G Lab File ID: S112712

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 9 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/90

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
100-51-6	Benzyl alcohol	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	bis(2-Chloroisopropyl)ether	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
65-85-0	Benzoic acid	240	J
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	49	J
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 196

SMC-SB27-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-009

Sample wt/vol: 29.7 (g/mL) G Lab File ID: S112712

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 9 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/90

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	180	JB
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
84-74-2	Di-n-Butylphthalate	730	B
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	81	J
85-68-7	Butylbenzylphthalate	100	J
91-94-1	3,3'-Dichlorobenzidine	820	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)phthalate	240	JB
117-84-0	Di-n-Octyl phthalate	410	U
205-99-2	Benzo(b)fluoranthene	410	U
207-08-9	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenzo(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB27-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-009

Sample wt/vol: 29.7 (g/mL) G

Lab File ID: S112712

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 9 dec.

Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 11/27/90

GPC Cleanup: (Y/N) Y pH: 6.4

Dilution Factor: 1.11

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SCANS 1100-2000			
2.	UNRESOLVED HYDROCARBONS			
3.	ALDOL CONDENSATE	5.18	200	JAB
4.	ALDOL CONDENSATE	5.67	900	JAB
5.	ALKANE	12.55	200	J
6.	ALKANE	13.87	200	J
7.	ALKANE	15.10	200	J
8.	ALKANE	16.28	200	J
9.	ORGANIC ACID	18.82	300	J
10.	UNKNOWN	20.38	200	J
11.	ALKANE	21.07	200	J
12.	UNKNOWN	21.23	200	J
13.	UNKNOWN	22.13	300	J
14.	UNKNOWN	22.27	200	J
15.	UNKNOWN	22.52	500	J
16.	UNKNOWN	23.83	500	J
17.	UNKNOWN	24.67	300	J
18.	UNKNOWN	25.50	400	J
19.	UNKNOWN	25.82	700	J
20.	UNKNOWN	27.08	800	J
21.	UNKNOWN	28.57	300	J
22.	UNKNOWN	30.13	200	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 2.5.1

SMC-SB41-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-011

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S122706

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 4 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

240

SMC-SB41-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-011

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S122706

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 4 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	150	J
85-01-8	Phenanthrene	59	J
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	67	JB
206-44-0	Fluoranthene	78	J
129-00-0	Pyrene	120	JB
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	690	U
56-55-3	Benzo(a)anthracene	53	J
218-01-9	Chrysene	39	J
117-81-7	bis(2-Ethylhexyl)phthalate	100	J
117-84-0	Di-n-Octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
241

SMC-SB41-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-011

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S122706

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 4 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.00

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.85	400	JAB
2.	ALDOL CONDENSATE	6.13	700	JAB
3.	ALDOL CONDENSATE	6.85	400	JA
4.	ALDOL CONDENSATE	7.23	400	JAB
5.	ALDOL CONDENSATE	7.87	500	JA

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB73-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-013

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S122105

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
100-51-6	Benzyl alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	bis(2-Chloroisopropyl)ether	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB73-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-013

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S122105

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	350	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
84-74-2	Di-n-Butylphthalate	100	JB
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	690	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)phthalate	350	U
117-84-0	Di-n-Octyl phthalate	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 212

SMC-SB73-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-013

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S122105

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 6 dec.

Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.1

Dilution Factor: 1.00

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.88	100	JAB
2.	ALDOL CONDENSATE	6.17	300	JAB
3.	ALDOL CONDENSATE	6.88	200	JA
4.	ALDOL CONDENSATE	7.28	600	JAB
5.	ALDOL CONDENSATE	7.90	200	JA
6.	ORGANIC ACID	19.33	200	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 2c7

SMC-SB92-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-014

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S122106

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 3 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 2c8

SMC-SB92-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-014

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S122106

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 3 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	110	JB
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
117-84-0	Di-n-Octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB92-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-014

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S122106

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 3 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	7.27	300	JAB
2.	ORGANIC ACID	19.37	200	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 301

SMC-SB73-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-015

Sample wt/vol: 29.9 (g/mL) G Lab File ID: S122107

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 2 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 3[illegible]

SMC-SB73-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-015

Sample wt/vol: 29.9 (g/mL) G Lab File ID: S122107

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 2 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	57	JB
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
117-84-0	Di-n-Octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

3.0

SMC-SB73-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-015

Sample wt/vol: 29.9 (g/mL) G

Lab File ID: S122107

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 2 dec.

Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH: 7.4

Dilution Factor: 1.00

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.87	100	JAB
2.	SULFUR	15.05	100	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 31

SMC-SB44-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-016

Sample wt/vol: 29.7 (g/mL) G Lab File ID: S122715

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 19 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	46	J
111-44-4	bis(2-Chloroethyl)ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
100-51-6	Benzyl alcohol	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	bis(2-Chloroisopropyl)ether	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
65-85-0	Benzoic acid	88	J
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	130	J
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

317

SMC-SB44-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-016

Sample wt/vol: 29.7 (g/mL) G Lab File ID: S122715

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 19 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	1000	J
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	110	J
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	790	J
85-01-8	Phenanthrene	130	J
120-12-7	Anthracene	84	J
84-74-2	Di-n-Butylphthalate	300	JB
206-44-0	Fluoranthene	290	J
129-00-0	Pyrene	350	JB
85-68-7	Butylbenzylphthalate	120	J
91-94-1	3,3'-Dichlorobenzidine	830	U
56-55-3	Benzo(a)anthracene	420	
218-01-9	Chrysene	580	
117-81-7	bis(2-Ethylhexyl)phthalate	250	J
117-84-0	Di-n-Octyl phthalate	410	U
205-99-2	Benzo(b)fluoranthene	350	J
207-08-9	Benzo(k)fluoranthene	160	J
50-32-8	Benzo(a)pyrene	740	
193-39-5	Indeno(1,2,3-cd)pyrene	380	J
53-70-3	Dibenzo(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	1100	

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 3

SMC-SB44-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-016

Sample wt/vol: 29.7 (g/mL) G Lab File ID: S122715

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 19 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

Number TICs found: 24

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SCANS 1300-2000			
2.	UNRESOLVED HYDROCARBONS			
3.	ALDOL CONDENSATE	6.12	3000	JAB
4.	ALDOL CONDENSATE	6.85	900	JA
5.	UNKNOWN	6.98	300	J
6.	UNKNOWN	7.65	300	J
7.	ALDOL CONDENSATE	7.87	1000	JA
8.	ALKANE	10.40	200	J
9.	ALKANE	11.27	300	J
10.	ALKANE	11.65	300	J
11.	UNKNOWN	11.88	200	J
12.	ALKANE	12.73	200	J
13.	ALKANE	13.05	500	J
14.	ALKANE	13.87	300	J
15.	ALKANE	14.35	400	J
16.	SULFUR	15.05	2000	J
17.	ALKANE	15.60	200	J
18.	SULFUR	20.07	30000	J
19.	UNKNOWN	20.75	200	J
20.	PAH	24.30	600	J
21.	PAH	25.55	900	J
22.	PAH	27.10	1000	J
23.	PAH	28.52	500	J
24.	PAH	28.65	1000	J
25.	PAH	31.20	1000	J
26.	UNKNOWN	33.12	900	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 386

SMC-SB44-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-017

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S122707

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 8.4 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
100-51-6	Benzyl alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	bis(2-Chloroisopropyl)ether	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	39	J
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	36	J
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 3[illegible]

SMC-SB44-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-017

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S122707

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 8.4 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	350	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	300	J
85-01-8	Phenanthrene	49	J
120-12-7	Anthracene	350	U
84-74-2	Di-n-Butylphthalate	140	JB
206-44-0	Fluoranthene	78	J
129-00-0	Pyrene	140	JB
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	700	U
56-55-3	Benzo(a)anthracene	52	J
218-01-9	Chrysene	46	J
117-81-7	bis(2-Ethylhexyl)phthalate	350	U
117-84-0	Di-n-Octyl phthalate	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB44-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-017

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S122707

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 7 dec.

Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 8.4

Dilution Factor: 1.00

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	6.12	500	JAB
2.	ALDOL CONDENSATE	6.85	900	JA
3.	ALDOL CONDENSATE	7.23	400	JAB
4.	ALDOL CONDENSATE	7.87	100	JA
5.	SULFUR	15.05	700	J
6.	ORGANIC ACID	19.32	100	J
7.	SULFUR	19.95	5000	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB40-05

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-018

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S122708

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 2 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 424

SMC-SB40-05

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-018

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S122708

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 2 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	160	J
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	76	JB
206-44-0	Fluoranthene	50	J
129-00-0	Pyrene	100	JB
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	39	J
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
117-84-0	Di-n-Octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB40-05

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-018

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S122708

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 2 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 411

SMC-SB46-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-019

Sample wt/vol: 31.0 (g/mL) G Lab File ID: S122709

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 11 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	bis(2-Chloroisopropyl)ether	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-Di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 412

SMC-SB46-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-019

Sample wt/vol: 31.0 (g/mL) G Lab File ID: S122709

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 11 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	160	J
85-01-8	Phenanthrene	39	J
120-12-7	Anthracene	360	U
84-74-2	Di-n-Butylphthalate	58	JB
206-44-0	Fluoranthene	52	J
129-00-0	Pyrene	95	JB
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	720	U
56-55-3	Benzo(a)anthracene	46	J
218-01-9	Chrysene	40	J
117-81-7	bis(2-Ethylhexyl)phthalate	360	U
117-84-0	Di-n-Octyl phthalate	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenzo(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 445

SMC-SB46-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-019

Sample wt/vol: 31.0 (g/mL) G Lab File ID: S122709

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 11 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	6.12	200	JAB

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB40-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-020

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S122314

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	65	J
111-44-4	bis(2-Chloroethyl)ether	360	U
95-57-8	2-Chlorophenol	47	J
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	bis(2-Chloroisopropyl)ether	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-Di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic acid	95	J
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	40	J
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB40-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-020

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S122314

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 7 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	99	J
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	250	J
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
84-74-2	Di-n-Butylphthalate	300	JB
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	59	JB
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	710	U
56-55-3	Benzo(a)anthracene	36	J
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	48	J
117-84-0	Di-n-Octyl phthalate	360	U
205-99-2	Benzo(b)fluoranthene	40	J
207-08-9	Benzo(k)fluoranthene	51	J
50-32-8	Benzo(a)pyrene	44	J
193-39-5	Indeno(1,2,3-cd)pyrene	37	J
53-70-3	Dibenzo(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	59	J

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 4-0

SMC-SB40-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-020

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S122314

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 7 dec.

Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) N pH: 7.6

Dilution Factor: 1.00

Number TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.65	200	JA
2.	ALDOL CONDENSATE	5.87	400	JAB
3.	ALDOL CONDENSATE	6.17	1000	JAB
4.	ALDOL CONDENSATE	6.88	1000	JA
5.	UNKNOWN	7.70	200	JA
6.	ALDOL CONDENSATE	7.90	300	JA
7.	ORGANIC ACID	19.40	900	J
8.	UNKNOWN	22.88	500	J
9.	UNKNOWN	23.87	700	J
10.	UNKNOWN	24.70	900	J
11.	UNKNOWN	27.18	500	J
12.	UNKNOWN	28.30	800	J
13.	UNKNOWN	28.67	300	J
14.	UNKNOWN	33.23	600	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB72-01MS 882

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-001 MS

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S122313

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol		S
111-44-4	bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol		S
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene		S
100-51-6	Benzyl alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	bis(2-Chloroisopropyl)ether	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-propylamine		S
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic acid	38	J
111-91-1	bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene		S
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol		S
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

S: SPIKE COMPOUND

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB72-01MS

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-001 MS

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S122313

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 dec. Date Extracted: 11/17/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene		S
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol		S
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene		S
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol		S
85-01-8	Phenanthrene	63	J
120-12-7	Anthracene	350	U
84-74-2	Di-n-Butylphthalate	91	JB
206-44-0	Fluoranthene	96	J
129-00-0	Pyrene		S
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	700	U
56-55-3	Benzo(a)anthracene	59	J
218-01-9	Chrysene	67	J
117-81-7	bis(2-Ethylhexyl)phthalate	350	U
117-84-0	Di-n-Octyl phthalate	350	U
205-99-2	Benzo(b)fluoranthene	35	J
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	35	J
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

S: SPIKE COMPOUND

Roy F. Weston, Inc. - Lionville Laboratory
BNA ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/09/90 RFW LOT # :9011L541

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB29-04	006	S	90LE1319	11/08/90	11/16/90	12/26/90
SMC-SB29-04	006 MS	S	90LE1319	11/08/90	11/16/90	12/23/90
SMC-SB29-04	006 MSD	S	90LE1319	11/08/90	11/16/90	12/23/90
SMC-SB29-01	007	S	90LE1319	11/08/90	11/16/90	12/23/90
SMC-SB45-02	014	S	90LE1319	11/08/90	11/16/90	12/23/90
SMC-SB45-03	015	S	90LE1319	11/08/90	11/16/90	12/23/90
SMC-SB60-02	016	S	90LE1337	11/08/90	11/19/90	12/04/90
SMC-SB60-02	016 MS	S	90LE1337	11/08/90	11/19/90	12/04/90
SMC-SB60-02	016 MSD	S	90LE1337	11/08/90	11/19/90	12/04/90
SMC-SB32-04	031	S	90LE1337	11/08/90	11/19/90	12/04/90
SMC-SB93-01	035	S	90LE1319	11/08/90	11/16/90	12/23/90
SMC-FB-1108	039	W	90LE1289	11/08/90	11/13/90	12/06/90

LAB QC:

SBLK	MB1	S	90LE1319	N/A	11/16/90	12/20/90
SBLK	MB1	S	90LE1337	N/A	11/19/90	12/04/90
SBLK	MB1 BS	S	90LE1337	N/A	11/19/90	12/04/90
SBLK	MB1	W	90LE1289	N/A	11/13/90	11/29/90
SBLK	MB1 BS	W	90LE1289	N/A	11/13/90	11/30/90
SBLK	MB1 BSD	W	90LE1289	N/A	11/13/90	11/30/90

13A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELDALLOY **SAMPLES RECEIVED:** 11-09-90
RFW #: 9011L541, SEMIVOLATILE
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of one (1) water sample and seven (7) soil samples collected on 11-08-90.

The samples were extracted on 11-13,16,19-90 and analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Semivolatile target compounds on 11-29,30-90 and 12-04,06,20,23,26-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were detected in these samples.

2. One (1) of one-hundred-eight (108) surrogate recoveries was outside EPA QC limits. However, EPA CLP surrogate recovery criteria were met (i.e., no more than one outlier per fraction (acid and base neutral) and no recoveries less than 10%).

3. All blank spike recoveries were within EPA QC limits.

4. Three (3) of forty-four (44) matrix spike recoveries were outside EPA QC limits.

5. The laboratory blank 90LE1319-MB1 contained the target compound phenol at a level less than the CRQL.

6. Internal standard area and retention time criteria were not met for SMC-SB45-02 and SMC-SB93-01. These samples were re-analyzed 12-26-90 and similar results were obtained. Re-analysis results are available upon request.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

1-16-91
Date

WESTON

GLOSSARY OF BNA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

A = Aldol Condensation Product.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

38

SMC-SB29-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-006

Sample wt/vol: 30.8 (g/mL) G Lab File ID: M122609

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
100-51-6	Benzyl alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	bis(2-Chloroisopropyl)ether	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 39

SMC-SB29-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-006

Sample wt/vol: 30.8 (g/mL) G Lab File ID: M122609

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	350	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
84-74-2	Di-n-Butylphthalate	50	J
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	700	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)phthalate	180	J
117-84-0	Di-n-Octyl phthalate	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 40

SMC-SB29-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-006

Sample wt/vol: 30.8 (g/mL) G

Lab File ID: M122609

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 8 dec.

Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 6.9

Dilution Factor: 1.00

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.12	200	JA
2.	ALDOL CONDENSATE	5.63	300	JAB

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB29-01 54

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-007

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S122308

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 6.8 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	bis(2-Chloroisopropyl)ether	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-Di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

55

SMC-SB29-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-007

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S122308

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 6.8 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	130	J
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
84-74-2	Di-n-Butylphthalate	110	J
206-44-0	Fluoranthene	44	J
129-00-0	Pyrene	50	J
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	710	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	62	J
117-84-0	Di-n-Octyl phthalate	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenzo(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 56

SMC-SB29-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-007

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S122308

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 6.8 Dilution Factor: 1.00

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.65	100	JA
2.	ALDOL CONDENSATE	6.15	900	JAB
3.	ALDOL CONDENSATE	6.88	200	JA
4.	ALDOL CONDENSATE	7.90	200	JA
5.	ORGANIC ACID	15.12	400	J
6.	ALKANE	26.18	200	J
7.	ALKANE	28.77	200	J
8.	UNKNOWN	33.28	200	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 82

SMC-SB45-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-014

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S122309

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 6.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
108-95-2	Phenol	44	JB
111-44-4	bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
100-51-6	Benzyl alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	bis(2-Chloroisopropyl)ether	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 83

SMC-SB45-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-014

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S122309

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 6.8 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	350	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	120	J
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
84-74-2	Di-n-Butylphthalate	72	J
206-44-0	Fluoranthene	37	J
129-00-0	Pyrene	42	J
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	710	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)phthalate	350	U
117-84-0	Di-n-Octyl phthalate	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 84

SMC-SB45-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-014

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S122309

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 6.8 Dilution Factor: 1.00

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	6.17	200	JAB
2.	ALDOL CONDENSATE	6.88	300	JA
3.	ORGANIC ACID	15.12	400	J
4.	UNKNOWN	26.77	500	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB45-03 106

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-015

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S122310

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 4 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 6.6 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	43	JB
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 107

SMC-SB45-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-015

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S122310

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 4 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 6.6 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	110	J
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	58	J
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	37	J
117-84-0	Di-n-Octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 108

SMC-SB45-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-015

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S122310

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 4 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 6.6 Dilution Factor: 1.00

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.67	200	JA
2.	ALDOL CONDENSATE	6.17	400	JAB
3.	SULFUR	15.10	1000	J
4.	SULFUR	20.10	3000	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 128

SMC-SB60-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-016

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S120315

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 16 dec. Date Extracted: 11/19/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/04/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.11

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
108-95-2	Phenol	430	U
111-44-4	bis(2-Chloroethyl)ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
100-51-6	Benzyl alcohol	430	U
95-50-1	1,2-Dichlorobenzene	430	U
95-48-7	2-Methylphenol	430	U
108-60-1	bis(2-Chloroisopropyl)ether	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-Di-n-propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
65-85-0	Benzoic acid	2200	U
111-91-1	bis(2-Chloroethoxy)methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	2200	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethylphthalate	430	U
208-96-8	Acenaphthylene	430	U
606-20-2	2,6-Dinitrotoluene	430	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 129

SMC-SB60-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-016

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S120315

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 16 dec. Date Extracted: 11/19/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/04/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	430	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
7005-72-3	4-Chlorophenyl-phenylether	430	U
86-73-7	Fluorene	430	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
84-74-2	Di-n-Butylphthalate	830	
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	870	U
56-55-3	Benzo(a)anthracene	430	U
218-01-9	Chrysene	430	U
117-81-7	bis(2-Ethylhexyl)phthalate	430	U
117-84-0	Di-n-Octyl phthalate	430	U
205-99-2	Benzo(b)fluoranthene	430	U
207-08-9	Benzo(k)fluoranthene	430	U
50-32-8	Benzo(a)pyrene	430	U
193-39-5	Indeno(1,2,3-cd)pyrene	430	U
53-70-3	Dibenzo(a,h)anthracene	430	U
191-24-2	Benzo(g,h,i)perylene	430	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 130

SMC-SB60-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-016

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S120315

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 16 dec. Date Extracted: 11/19/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/04/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.11

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.40	500	JA
2.	ALDOL CONDENSATE	5.65	500	JA
3.	ALDOL CONDENSATE	6.37	700	JA
4.	ALDOL CONDENSATE	7.37	600	JA

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 144

SMC-SB32-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-031

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S120318

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 6 dec. Date Extracted: 11/19/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/04/90

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	bis(2-Chloroisopropyl)ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 145

SMC-SB32-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-031

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S120318

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 6 dec. Date Extracted: 11/19/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/04/90

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	1200	
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-Octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenzo(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 146

SMC-SB32-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-031

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S120318

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 6 dec. Date Extracted: 11/19/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/04/90

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 1.11

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.18	200	JA

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.
156
SMC-SB93-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-035

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S122311

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 4 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	190	JB
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic acid	59	J
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

157

SMC-SB93-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-035

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S122311

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 4 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	140	J
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	130	J
206-44-0	Fluoranthene	40	J
129-00-0	Pyrene	42	J
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	690	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	110	J
117-84-0	Di-n-Octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 158

SMC-SB93-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-035

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S122311

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 4 dec. Date Extracted: 11/16/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/23/90

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	6.32	2000	JAB
2.	BENZALDEHYDE	6.48	1000	J
3.	ORGANIC ACID	15.22	20000	J

Roy F. Weston, Inc. - Lionville Laboratory
BNA ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/15/90 RFW LOT # :9011L633

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB77-03	006	S	90LE1358	11/14/90	11/23/90	01/02/91
SMC-FB-1114	011	W	90LE1338	11/14/90	11/19/90	12/06/90
LAB QC:						
SBLK	MB1	S	90LE1358	N/A	11/23/90	12/19/90
SBLK	MB1 BS	S	90LE1358	N/A	11/23/90	12/20/90
SBLK	MB1	W	90LE1338	N/A	11/19/90	11/30/90
SBLK	MB1 BS	W	90LE1338	N/A	11/19/90	11/30/90
SBLK	MB1 BSD	W	90LE1338	N/A	11/19/90	11/30/90

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELDALLOY **SAMPLES RECEIVED:** 11-15-90
RFW #: 9011L633, SEMIVOLATILE
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of one (1) water sample and one (1) soil sample collected on 11-14-90.

The samples were extracted on 11-19,23-90 and analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Semivolatile target compounds on 11-30-90, 12-06,19,20-90, and 01-02-91.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were detected in these samples.

2. One (1) of forty-two (42) surrogate recoveries was outside EPA QC limits. However, EPA CLP surrogate recovery criteria were met (i.e., no more than one outlier per fraction (acid and base neutral) and no recoveries less than 10%).

3. One (1) of thirty-three (33) blank spike recoveries was outside EPA QC limits. The high recovery was probably due to the continuous extraction process.

4. The laboratory blank 90LE1358-MB1 contained the common contaminants bis(2-ethylhexyl) phthalate and di-n-butylphthalate at levels less than the CRQL.

5. Internal standard areas were outside QC limits for sample SMC-SB77-03 and its respective re-analysis on 12-31-90; re-analysis results are available upon request.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

1-16-91
Date

WESTON

GLOSSARY OF BNA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

A = Aldol Condensation Product.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB77-03 28

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L633-006

Sample wt/vol: 30.3 (g/mL) G Lab File ID: M010216

Level: (low/med) LOW Date Received: 11/15/90

% Moisture: not dec. 0 dec. Date Extracted: 11/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/02/91

GPC Cleanup: (Y/N) N pH: 8.3 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
100-51-6	Benzyl alcohol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	bis(2-Chloroisopropyl)ether	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-Di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB77-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L633-006

Sample wt/vol: 30.3 (g/mL) G Lab File ID: M010216

Level: (low/med) LOW Date Received: 11/15/90

% Moisture: not dec. 0 dec. Date Extracted: 11/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/02/91

GPC Cleanup: (Y/N) N pH: 8.3 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	370	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
84-74-2	Di-n-Butylphthalate	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	730	U
56-55-3	Benzo(a)anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)phthalate	370	U
117-84-0	Di-n-Octyl phthalate	370	U
205-99-2	Benzo(b)fluoranthene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	370	U
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SMC-SB77-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L633-006

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: M010216

Level: (low/med) LOW

Date Received: 11/15/90

% Moisture: not dec. 0 dec.

Date Extracted: 11/23/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/02/91

GPC Cleanup: (Y/N) N pH: 8.3

Dilution Factor: 1.11

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.38	400	J
2.	ALDOL CONDENSATE	5.63	200	JA
3.	ALDOL CONDENSATE	6.33	100	JA
4.	ALDOL CONDENSATE	7.37	300	JA

Roy F. Weston, Inc. - Lionville Laboratory
BNA ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/16/90 RFW LOT # :9011L679

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB84-05	002	S	90LE1369	11/16/90	11/26/90	01/04/91
SMC-SB42-05	003	S	90LE1369	11/16/90	11/26/90	01/04/91
SMC-SB42-05	003 MS	S	90LE1369	11/16/90	11/26/90	01/04/91
SMC-SB42-05	003 MSD	S	90LE1369	11/16/90	11/26/90	01/04/91
SMC-FB-1116	004	W	90LE1338	11/16/90	11/19/90	12/28/90
LAB QC:						
SBLK	MB1	S	90LE1369	N/A	11/26/90	01/03/91
SBLK	MB1 BS	S	90LE1369	N/A	11/26/90	01/04/91
SBLK	MB2	S	90LE1369	N/A	11/26/90	01/03/91
SBLK	MB1	W	90LE1338	N/A	11/19/90	11/30/90
SBLK	MB1 BS	W	90LE1338	N/A	11/19/90	11/30/90
SBLK	MB1 BSD	W	90LE1338	N/A	11/19/90	11/30/90

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELDALLOY **SAMPLES RECEIVED:** 11-16-90
RFW #: 9011L679, SEMIVOLATILE
W.O. #: 3486-06-01

NARRATIVE

The set of samples consisted of one (1) water sample and two (2) soil samples collected on 11-16-90.

The samples were extracted on 11-19,26-90 and analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Semivolatile target compounds on 11-30-90, 12-28-90, and 01-03,04-91.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were detected in these samples.

2. Thirteen (13) of sixty-six (66) surrogate recoveries were outside EPA QC limits. EPA CLP surrogate recovery criteria were not met for sample 90LE1369-MB1; however, the samples were not affected. An addition method blank extracted with the sample extraction batch has been submitted to demonstrate the extraction efficiency.

3. One (1) of twenty-two (22) water blank spike recoveries was outside EPA QC limits. One (1) of eleven (11) soil blank spike recoveries was outside EPA QC limits.

4. Three (3) of twenty-two (22) matrix spike recoveries were outside EPA QC limits.

5. Internal standard areas were outside control limits for blank 90LE1369-MB1. The analysis of blank 90LE1369-MB2 fulfilled the re-analysis requirement.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

1-21-91
Date

WESTON

GLOSSARY OF BNA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

A = Aldol Condensation Product.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

30

SMC-SB84-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L679-002

Sample wt/vol: 30.2 (g/mL) G Lab File ID: M010408

Level: (low/med) LOW Date Received: 11/16/90

% Moisture: not dec. 9 dec. Date Extracted: 11/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
100-51-6	Benzyl alcohol	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	bis(2-Chloroisopropyl)ether	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
65-85-0	Benzoic acid	2000	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

31

SMC-SB84-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L679-002

Sample wt/vol: 30.2 (g/mL) G Lab File ID: M010408

Level: (low/med) LOW Date Received: 11/16/90

% Moisture: not dec. 9 dec. Date Extracted: 11/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	46	J
120-12-7	Anthracene	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	56	J
129-00-0	Pyrene	60	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	810	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)phthalate	410	U
117-84-0	Di-n-Octyl phthalate	410	U
205-99-2	Benzo(b)fluoranthene	410	U
207-08-9	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenzo(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 32

SMC-SB84-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L679-002

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: M010408

Level: (low/med) LOW

Date Received: 11/16/90

% Moisture: not dec. 9 dec.

Date Extracted: 11/26/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH: 7.1

Dilution Factor: 1.11

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.40	800	JAB
2.	ALDOL CONDENSATE	6.10	500	JA
3.	ALDOL CONDENSATE	7.08	800	JA
4.	UNKNOWN	8.53	100	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

50

SMC-SB42-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L679-003

Sample wt/vol: 30.5 (g/mL) G Lab File ID: M010410

Level: (low/med) LOW Date Received: 11/16/90

% Moisture: not dec. 6 dec. Date Extracted: 11/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	bis(2-Chloroisopropyl)ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 51

SMC-SB42-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L679-003

Sample wt/vol: 30.5 (g/mL) G Lab File ID: M010410

Level: (low/med) LOW Date Received: 11/16/90

% Moisture: not dec. 6 dec. Date Extracted: 11/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	880	
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-Octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenzo(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 52

SMC-SB42-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L679-003

Sample wt/vol: 30.5 (g/mL) G Lab File ID: M010410

Level: (low/med) LOW Date Received: 11/16/90

% Moisture: not dec. 6 dec. Date Extracted: 11/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.11

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALKANE	7.07	300	J

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELD ALLOY **SAMPLES RECEIVED:** 11-07-90
RFW #: 9011L518, PEST/PCB
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of three (3) soil samples and one (1) water sample collected on 11-07-90.

The samples were extracted on 11-12,14-90 and analyzed according to criteria set forth in the Contract Laboratory Program for Pesticide and PCB target compounds on 12-08,12,21,22-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

NOTE: Analysis of the samples included in this data package were completed in three separate run sequences:

For the analysis initiated on 12-08-90, linearity and breakdown criteria were met on the primary column.

Continuing calibration criteria were exceeded for several compounds but this occurred in standards analyzed after the sample extracts.

Retention time criteria were met for all compounds on both the primary and confirmation columns.

For the analysis initiated on 12-09-90, linearity and breakdown criteria were met on the primary column.

Continuing calibration criteria were exceeded for the following compounds analyzed in standards prior to the sample extracts:

Compounds	Column	Date/Time of Analysis
4,4'-DDT	SP2250/2401	12-12-90 at 00:02
Delta-BHC	SP2100	12-12-90 at 15:54
4,4'-DDT	SP2100	12-10-90 at 15:16
Dieldrin	SP2100	12-10-90 at 15:16
4,4'-DDT	SP2100	12-11-90 at 07:05
Delta-BHC	SP2100	12-11-90 at 07:38

Compounds	Column	Date/Time of Analysis
Endosulfan Sulfate	SP2100	12-11-90 at 07:38
4,4'-DDT	SP2100	12-11-90 at 23:59

Retention time criteria were exceeded for the following compounds on the SP2100 column:

Compounds	Date/Time of Analysis
Dieldrin	12-11-90 at 07:05
Endosulfan II	12-11-90 at 07:05
4,4'-DDT	12-11-90 at 07:05
Methoxychlor	12-11-90 at 07:05
Dieldrin	12-11-90 at 23:59
Endosulfan II	12-11-90 at 23:59
4,4'-DDT	12-11-90 at 23:59
Methoxychlor	12-11-90 at 23:59

Larger retention time windows were used for the evaluation of the accompanying data.

For the analysis initiated on 12-20-90, linearity and breakdown criteria were met on the primary column for all compounds except 4,4'-DDT. Quantitation for this parameter is performed by a calibration curve generated from the Evaluation Mixes as described in the statement of work.

Continuing calibration criteria were exceeded for the following compounds in standards analyzed prior to the sample extracts:

Compounds	Column	Date/Time of Analysis
4,4'-DDT	SP2250/2401	12-21-90 at 19:08
Endrin	SP2250/2401	12-22-90 at 02:54
Alpha-BHC	SP2100	12-22-90 at 02:57
Delta-BHC	SP2100	12-22-90 at 02:57

Retention time criteria were exceeded for aldrin, 4,4'-DDE, and endosulfan sulfate on the SP2250/2401 column at 12-22-90 at 02:57. Larger retention time windows were used for the calculation of the accompanying data.

WESTON

2. All obtainable surrogate recoveries were within EPA QC limits.

3. All blank spike recoveries were within EPA QC limits.

4. Sample SMC-SB92-04 required 100-fold and 1000-fold dilutions because it contained high levels of both target and non-target compounds.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

7-22-91
Date

GLOSSARY OF PEST/PCB DATA

DATA QUALIFIERS

U - Indicates that the compounds was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J - Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E - Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I - Interference.

ABBREVIATIONS

BS - Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD - Indicates blank spike duplicate.

MS - Indicates matrix spike.

MSD - Indicates matrix spike duplicate.

DL - Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA - Not applicable.

DF - Dilution factor.

NR - Not required.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB92-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L518-004

Sample wt/vol: 30.1 (g/mL) G Lab File ID: 12209013.45

Level: (low/med) LOW Date Received: 11/07/90

% Moisture: not dec. 6 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/22/90

GPC Cleanup: (Y/N) Y pH: 5.0 Dilution Factor: 100

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	840	U
319-85-7	Beta-BHC	840	U
319-86-8	Delta-BHC	840	U
58-89-9	gamma-BHC (Lindane)	840	U
76-44-8	Heptachlor	840	U
309-00-2	Aldrin	840	U
1024-57-3	Heptachlor epoxide	840	U
959-98-8	Endosulfan I	840	U
60-57-1	Dieldrin	1700	U
72-55-9	4,4'-DDE	1700	U
72-20-8	Endrin	1700	U
33213-65-9	Endosulfan II	1700	U
72-54-8	4,4'-DDD	1700	U
1031-07-8	Endosulfan sulfate	1700	U
50-29-3	4,4'-DDT		E
72-43-5	Methoxychlor	8400	U
53494-70-5	Endrin ketone	1700	U
5103-71-9	alpha-Chlordane	8400	U
5103-74-2	gamma-Chlordane	8400	U
8001-35-2	Toxaphene	17000	U
12674-11-2	Aroclor-1016	8400	U
11104-28-2	Aroclor-1221	8400	U
11141-16-5	Aroclor-1232	8400	U
53469-21-9	Aroclor-1242	8400	U
12672-29-6	Aroclor-1248	8400	U
11097-69-1	Aroclor-1254	17000	U
11096-82-5	Aroclor-1260	17000	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB92-04DL

Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-004 DL

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 12209013.18

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 6 dec.

Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) Y pH: 5.0

Dilution Factor: 1000

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	NA	
319-85-7	Beta-BHC	NA	
319-86-8	Delta-BHC	NA	
58-89-9	gamma-BHC (Lindane)	NA	
76-44-8	Heptachlor	NA	
309-00-2	Aldrin	NA	
1024-57-3	Heptachlor epoxide	NA	
959-98-8	Endosulfan I	NA	
60-57-1	Dieldrin	NA	
72-55-9	4,4'-DDE	NA	
72-20-8	Endrin	NA	
33213-65-9	Endosulfan II	NA	
72-54-8	4,4'-DDD	NA	
1031-07-8	Endosulfan sulfate	NA	
50-29-3	4,4'-DDT	37000	
72-43-5	Methoxychlor	NA	
53494-70-5	Endrin ketone	NA	
5103-71-9	alpha-Chlordane	NA	
5103-74-2	gamma-Chlordane	NA	
8001-35-2	Toxaphene	NA	
12674-11-2	Aroclor-1016	NA	
11104-28-2	Aroclor-1221	NA	
11141-16-5	Aroclor-1232	NA	
53469-21-9	Aroclor-1242	NA	
12672-29-6	Aroclor-1248	NA	
11097-69-1	Aroclor-1254	NA	
11096-82-5	Aroclor-1260	NA	

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB55-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-006

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 12099013.75

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 7 dec.

Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/12/90

GPC Cleanup: (Y/N) Y pH: 7.2

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	8.6	U
319-85-7	Beta-BHC	8.6	U
319-86-8	Delta-BHC	8.6	U
58-89-9	gamma-BHC (Lindane)	8.6	U
76-44-8	Heptachlor	8.6	U
309-00-2	Aldrin	8.6	U
1024-57-3	Heptachlor epoxide	8.6	U
959-98-8	Endosulfan I	8.6	U
60-57-1	Dieldrin	17	U
72-55-9	4,4'-DDE	17	U
72-20-8	Endrin	17	U
33213-65-9	Endosulfan II	17	U
72-54-8	4,4'-DDD	17	U
1031-07-8	Endosulfan sulfate	17	U
50-29-3	4,4'-DDT	17	U
72-43-5	Methoxychlor	86	U
53494-70-5	Endrin ketone	17	U
5103-71-9	alpha-Chlordane	86	U
5103-74-2	gamma-Chlordane	86	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	86	U
11104-28-2	Aroclor-1221	86	U
11141-16-5	Aroclor-1232	86	U
53469-21-9	Aroclor-1242	86	U
12672-29-6	Aroclor-1248	86	U
11097-69-1	Aroclor-1254	170	U
11096-82-5	Aroclor-1260	170	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB27-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L518-009

Sample wt/vol: 29.7 (g/mL) G

Lab File ID: 12099013.79

Level: (low/med) LOW

Date Received: 11/07/90

% Moisture: not dec. 9 dec.

Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/12/90

GPC Cleanup: (Y/N) Y pH: 6.4

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	8.9	U
319-85-7	Beta-BHC	8.9	U
319-86-8	Delta-BHC	8.9	U
58-89-9	gamma-BHC (Lindane)	8.9	U
76-44-8	Heptachlor	8.9	U
309-00-2	Aldrin	8.9	U
1024-57-3	Heptachlor epoxide	8.9	U
959-98-8	Endosulfan I	8.9	U
60-57-1	Dieldrin	18	U
72-55-9	4,4'-DDE	18	U
72-20-8	Endrin	18	U
33213-65-9	Endosulfan II	18	U
72-54-8	4,4'-DDD	18	U
1031-07-8	Endosulfan sulfate	18	U
50-29-3	4,4'-DDT	18	U
72-43-5	Methoxychlor	89	U
53494-70-5	Endrin ketone	18	U
5103-71-9	alpha-Chlordane	89	U
5103-74-2	gamma-Chlordane	89	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	89	U
11104-28-2	Aroclor-1221	89	U
11141-16-5	Aroclor-1232	89	U
53469-21-9	Aroclor-1242	89	U
12672-29-6	Aroclor-1248	89	U
11097-69-1	Aroclor-1254	180	U
11096-82-5	Aroclor-1260	180	U

Roy F. Weston, Inc. - Lionville Laboratory
PEST/PCB ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/09/90 RFW LOT # :9011L541

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB60-02	016	S	90LE1337	11/08/90	11/19/90	12/10/90
SMC-SB60-02	016 MS	S	90LE1337	11/08/90	11/19/90	12/10/90
SMC-SB60-02	016 MSD	S	90LE1337	11/08/90	11/19/90	12/10/90
SMC-SB32-04	031	S	90LE1337	11/08/90	11/19/90	12/10/90
SMC-FB-1108	039	W	90LE1282	11/08/90	11/12/90	12/10/90
LAB QC:						
SBLK	MB1	S	90LE1337	N/A	11/19/90	12/10/90
SBLK	MB1 BS	S	90LE1337	N/A	11/19/90	12/10/90
PBLK	MB1	W	90LE1282	N/A	11/12/90	12/08/90
PBLK	MB1 BS	W	90LE1282	N/A	11/12/90	12/08/90
PBLK	MB1 BSD	W	90LE1282	N/A	11/12/90	12/08/90

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELDALLOY **SAMPLES RECEIVED:** 11-09-90
RFW #: 9011L541, PEST/PCB
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of two (2) soil samples and one (1) water sample collected on 11-08-90.

The samples were extracted on 11-12,19-90 and analyzed according to criteria set forth in the Contract Laboratory Program for Pesticide and PCB target compounds on 12-08,10-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Linearity and breakdown criteria were met on the primary column.

2. Continuing calibration criteria were met for all compounds on at least one column for all standards.

3. Retention time criteria were met for all compounds on the primary column. Retention time criteria were met for all compounds which required confirmation analyses.

4. All surrogate recoveries were within EPA QC limits.

5. One (1) of twelve (12) matrix spike recoveries was outside EPA QC limits. The matrix spike recovery of gamma-BHC (31%) was below the EPA QC limit of 46%.

6. One (1) of eighteen (18) blank spike recoveries was outside EPA QC limits. The blank spike recovery of gamma-BHC (39%) was below the EPA QC limits of 46%.

7. Due to late eluting components some chromatographs have an odd appearance. Since these components did not affect the spike recoveries they do not appear to affect this case.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

12-26-90
Date

WESTON

GLOSSARY OF PEST/PCB DATA

DATA QUALIFIERS

U - Indicates that the compounds was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J - Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E - Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I - Interference.

ABBREVIATIONS

BS - Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD - Indicates blank spike duplicate.

MS - Indicates matrix spike.

MSD - Indicates matrix spike duplicate.

DL - Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA - Not applicable.

DF - Dilution factor.

NR - Not required.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB60-02

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

021

Matrix: SOIL

Lab Sample ID: 9011L541-016

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: 12099013.24

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 16 dec.

Date Extracted: 11/19/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/10/90

GPC Cleanup: (Y/N) N pH: 6.7

Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	4.7	U
319-85-7	Beta-BHC	4.7	U
319-86-8	Delta-BHC	4.7	U
58-89-9	gamma-BHC (Lindane)	4.7	U
76-44-8	Heptachlor	4.7	U
309-00-2	Aldrin	4.7	U
1024-57-3	Heptachlor epoxide	4.7	U
959-98-8	Endosulfan I	4.7	U
60-57-1	Dieldrin	9.4	U
72-55-9	4,4'-DDE	9.4	U
72-20-8	Endrin	9.4	U
33213-65-9	Endosulfan II	9.4	U
72-54-8	4,4'-DDD	9.4	U
1031-07-8	Endosulfan sulfate	9.4	U
50-29-3	4,4'-DDT	9.4	U
72-43-5	Methoxychlor	47	U
53494-70-5	Endrin ketone	9.4	U
5103-71-9	alpha-Chlordane	47	U
5103-74-2	gamma-Chlordane	47	U
8001-35-2	Toxaphene	94	U
12674-11-2	Aroclor-1016	47	U
11104-28-2	Aroclor-1221	47	U
11141-16-5	Aroclor-1232	47	U
53469-21-9	Aroclor-1242	47	U
12672-29-6	Aroclor-1248	47	U
11097-69-1	Aroclor-1254	94	U
11096-82-5	Aroclor-1260	94	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB32-04

026

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-031

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 12099013.29

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 6 dec. Date Extracted: 11/19/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/10/90

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	4.2	U
319-85-7	Beta-BHC	4.2	U
319-86-8	Delta-BHC	4.2	U
58-89-9	gamma-BHC (Lindane)	4.2	U
76-44-8	Heptachlor	4.2	U
309-00-2	Aldrin	4.2	U
1024-57-3	Heptachlor epoxide	4.2	U
959-98-8	Endosulfan I	4.2	U
60-57-1	Dieldrin	8.4	U
72-55-9	4,4'-DDE	8.4	U
72-20-8	Endrin	8.4	U
33213-65-9	Endosulfan II	8.4	U
72-54-8	4,4'-DDD	8.4	U
1031-07-8	Endosulfan sulfate	8.4	U
50-29-3	4,4'-DDT	8.4	U
72-43-5	Methoxychlor	42	U
53494-70-5	Endrin ketone	8.4	U
5103-71-9	alpha-Chlordane	42	U
5103-74-2	gamma-Chlordane	42	U
8001-35-2	Toxaphene	84	U
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	42	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254	84	U
11096-82-5	Aroclor-1260	84	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB60-02MS

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-016 MS

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 12099013.25

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 16 dec. Date Extracted: 11/19/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/10/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	4.7	U
319-85-7	Beta-BHC	4.7	U
319-86-8	Delta-BHC	4.7	U
58-89-9	gamma-BHC (Lindane)		S
76-44-8	Heptachlor		S
309-00-2	Aldrin		S
1024-57-3	Heptachlor epoxide	4.7	U
959-98-8	Endosulfan I	4.7	U
60-57-1	Dieldrin		S
72-55-9	4,4'-DDE	16	
72-20-8	Endrin		S
33213-65-9	Endosulfan II	9.4	U
72-54-8	4,4'-DDD	9.4	U
1031-07-8	Endosulfan sulfate	9.4	U
50-29-3	4,4'-DDT		S
72-43-5	Methoxychlor	47	U
53494-70-5	Endrin ketone	9.4	U
5103-71-9	alpha-Chlordane	47	U
5103-74-2	gamma-Chlordane	47	U
8001-35-2	Toxaphene	94	U
12674-11-2	Aroclor-1016	47	U
11104-28-2	Aroclor-1221	47	U
11141-16-5	Aroclor-1232	47	U
53469-21-9	Aroclor-1242	47	U
12672-29-6	Aroclor-1248	47	U
11097-69-1	Aroclor-1254	94	U
11096-82-5	Aroclor-1260	94	U

S: SPIKE COMPOUND

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB60-02MSD

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-016 MSD

250

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 12099013.28

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 16 dec. Date Extracted: 11/19/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/10/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	4.7	U
319-85-7	Beta-BHC	4.7	U
319-86-8	Delta-BHC	4.7	U
58-89-9	gamma-BHC (Lindane)		S
76-44-8	Heptachlor		S
309-00-2	Aldrin		S
1024-57-3	Heptachlor epoxide	4.7	U
959-98-8	Endosulfan I	4.7	U
60-57-1	Dieldrin		S
72-55-9	4,4'-DDE	27	
72-20-8	Endrin		S
33213-65-9	Endosulfan II	9.3	U
72-54-8	4,4'-DDD	9.3	U
1031-07-8	Endosulfan sulfate	9.3	U
50-29-3	4,4'-DDT		S
72-43-5	Methoxychlor	47	U
53494-70-5	Endrin ketone	9.3	U
5103-71-9	alpha-Chlordane	47	U
5103-74-2	gamma-Chlordane	47	U
8001-35-2	Toxaphene	93	U
12674-11-2	Aroclor-1016	47	U
11104-28-2	Aroclor-1221	47	U
11141-16-5	Aroclor-1232	47	U
53469-21-9	Aroclor-1242	47	U
12672-29-6	Aroclor-1248	47	U
11097-69-1	Aroclor-1254	93	U
11096-82-5	Aroclor-1260	93	U

S: SPIKE COMPOUND

Roy F. Weston, Inc. - Lionville Laboratory
PCB ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/09/90 RFW LOT # :9011L541

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB35-04	003	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB94-04	005	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB35-01	008	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB34-01	009	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB30-04	010	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB31-04	011	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB31-01	012	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB30-01	013	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB34-04	018	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB32-01	032	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB33-01	033	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB33-04	034	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB33-04	034 MS	S	90LE1303	11/08/90	11/14/90	12/11/90
SMC-SB33-04	034 MSD	S	90LE1303	11/08/90	11/14/90	12/11/90
LAB QC:						
PBLK	MB1	S	90LE1303	N/A	11/14/90	12/11/90
PBLK	MB1 BS	S	90LE1303	N/A	11/14/90	12/11/90

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELD ALLOY **SAMPLES RECEIVED:** 11-09-90
RFW #: 9011L541, PCB
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of twelve (12) soil samples collected on 11-08-90.

The samples were extracted on 11-14-90 and analyzed according to criteria set forth in the Contract Laboratory Program for PCB target compounds on 12-11-90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Sample SMC-SB32-01 was confirmed outside of analysis holding time.

2. Linearity and breakdown criteria were met on the primary column. The concentration of aldrin in Evaluation C standard mix was beyond the linear range of LIMS. A 2.5% RSD was determined using the data from the Hewlett-Packard chromatograms included in the package.

3. Continuing calibration criteria were met for all target compounds on both columns.

   Continuing calibration criteria were calculated manually for standards analyzed on 12-18,19,20. The associated forms could not be produced in the LIMS computer system.

4. Retention time criteria were met for all compounds on both the primary and confirmation columns.

5. All surrogate recoveries were within EPA QC limits.

6. All matrix spike recoveries were within laboratory control warning limits.

7. All blank spike recoveries were within laboratory control warning limits.

8. The confirmation analysis for sample SMC-SB33-01 was not performed due to analyst error.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

1-9-91
Date

WESTON

GLOSSARY OF PEST/PCB DATA

DATA QUALIFIERS

U - Indicates that the compounds was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J - Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E - Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I - Interference.

ABBREVIATIONS

BS - Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD - Indicates blank spike duplicate.

MS - Indicates matrix spike.

MSD - Indicates matrix spike duplicate.

DL - Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA - Not applicable.

DF - Dilution factor.

NR - Not required.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 18

SMC-SB35-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-003

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 12109009.23

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 4 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 0.500

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	41	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	82	U
11096-82-5	Aroclor-1260	82	U

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1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB35-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-008

Sample wt/vol: 30.1 (g/mL) G Lab File ID: 12109009.27

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 5 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 7.7 Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	42	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254	84	U
11096-82-5	Aroclor-1260	84	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 27

SMC-SB34-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-009

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 12109009.28

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 8 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	43	U
11104-28-2	Aroclor-1221	43	U
11141-16-5	Aroclor-1232	43	U
53469-21-9	Aroclor-1242	43	U
12672-29-6	Aroclor-1248	43	U
11097-69-1	Aroclor-1254	86	U
11096-82-5	Aroclor-1260	86	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 30

SMC-SB30-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-010

Sample wt/vol: 31.3 (g/mL) G Lab File ID: 12109009.29

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 10 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND			
12674-11-2	Aroclor-1016		43	U
11104-28-2	Aroclor-1221		43	U
11141-16-5	Aroclor-1232		43	U
53469-21-9	Aroclor-1242		43	U
12672-29-6	Aroclor-1248		43	U
11097-69-1	Aroclor-1254		85	U
11096-82-5	Aroclor-1260		85	U

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1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB31-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-011

Sample wt/vol: 32.2 (g/mL) G Lab File ID: 12109009.30

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 3 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 0.500

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	38	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	77	U
11096-82-5	Aroclor-1260	77	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 36

SMC-SB31-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-012

Sample wt/vol: 32.0 (g/mL) G

Lab File ID: 12109009.31

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 8 dec.

Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 7.6

Dilution Factor: 0.500

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	41	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	13	J
11096-82-5	Aroclor-1260	82	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 42

SMC-SB30-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-013

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 12109009.34

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 11 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 0.500

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
12674-11-2	Aroclor-1016	44	U
11104-28-2	Aroclor-1221	44	U
11141-16-5	Aroclor-1232	44	U
53469-21-9	Aroclor-1242	44	U
12672-29-6	Aroclor-1248	44	U
11097-69-1	Aroclor-1254	89	U
11096-82-5	Aroclor-1260	89	U

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1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 45

SMC-SB34-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-018

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 12109009.35

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 7 dec.

Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 7.4

Dilution Factor: 0.500

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
12674-11-2	Aroclor-1016	43	U
11104-28-2	Aroclor-1221	43	U
11141-16-5	Aroclor-1232	43	U
53469-21-9	Aroclor-1242	43	U
12672-29-6	Aroclor-1248	43	U
11097-69-1	Aroclor-1254	86	U
11096-82-5	Aroclor-1260	86	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB33-01

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-033

Sample wt/vol: 32.2 (g/mL) G Lab File ID: 12109009.37

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 4 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 5.3 Dilution Factor: 0.500

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
12674-11-2	Aroclor-1016	39	U
11104-28-2	Aroclor-1221	39	U
11141-16-5	Aroclor-1232	39	U
53469-21-9	Aroclor-1242	39	U
12672-29-6	Aroclor-1248	39	U
11097-69-1	Aroclor-1254	16	J
11096-82-5	Aroclor-1260	77	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 57

SMC-SB33-04

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-034

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 12109009.38

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 8.8 Dilution Factor: 0.500

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	42	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254	84	U
11096-82-5	Aroclor-1260	84	U

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

247

SMC-SB33-04MS

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L541-034 MS

Sample wt/vol: 31.0 (g/mL) G Lab File ID: 12109009.41

Level: (low/med) LOW Date Received: 11/09/90

% Moisture: not dec. 7 dec. Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 8.8 Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	42	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254		S
11096-82-5	Aroclor-1260	84	U

S: SPIKE COMPOUND FORM 1 PEST 12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB33-04MSD

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL

Lab Sample ID: 9011L541-034 MSD

Sample wt/vol: 30.8 (g/mL) G

Lab File ID: 12109009.42

Level: (low/med) LOW

Date Received: 11/09/90

% Moisture: not dec. 7 dec.

Date Extracted: 11/14/90

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/11/90

GPC Cleanup: (Y/N) N pH: 8.8

Dilution Factor: 0.500

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	42	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254		S
11096-82-5	Aroclor-1260	84	U

S: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

Roy F. Weston, Inc. - Lionville Laboratory
PEST/PCB ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/15/90 RFW LOT # :9011L633

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB77-03	006	S	90LE1358	11/14/90	11/23/90	12/27/90
SMC-FB-1114	011	W	90LE1334	11/14/90	11/19/90	12/26/90
LAB QC:						
PBLK	MB2	S	90LE1358	N/A	11/23/90	12/27/90
PBLK	MB2 BS	S	90LE1358	N/A	11/23/90	12/27/90
PBLK	MB2 BS	S	90LE1358	N/A	11/23/90	01/05/91
PBLK	MB1	W	90LE1334	N/A	11/19/90	12/26/90
PBLK	MB1 BS	W	90LE1334	N/A	11/19/90	12/26/90
PBLK	MB1 BSD	W	90LE1334	N/A	11/19/90	12/26/90

WESTON

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELD ALLOY **SAMPLES RECEIVED: 11-15-90**
RFW #: 9011L633, PEST/PCB
W.O. #: 2724-05-01

NARRATIVE

The set of samples consisted of one (1) soil sample and one (1) water sample collected on 11-14-90.

The samples were extracted on 11-19,23-90 and analyzed according to criteria set forth in the Contract Laboratory Program for Pesticide and PCB target compounds on 12-26,27-90 and 01-05-91.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. The concentration of aldrin in Evaluation C standard mix was beyond the linear range of LIMS computer system. A % RSD was determined using the data from the Hewlett-Packard chromatograms included in the package.

2. Continuing calibration criteria were exceeded for beta-BHC and endrin on the SP2250/2401 at 12-27-90 at 11:32.

   Although the criteria for the calibration factors were exceeded for several compounds, the response increased, thereby increasing sensitivity for all compounds analyzed prior to the sample extracts.

3. Continuing calibration criteria were met on the confirmation column for all compounds requiring a confirmation analysis.

4. Retention time criteria were met for all compounds requiring quantitation and confirmation analysis.

5. All surrogate recoveries were within EPA QC limits.

6. Two (2) of eleven (11) obtainable soil blank spike recoveries exceeded the EPA QC limit. The blank spike for the soil extraction batch was initially analyzed at a dilution that was inappropriate for the spike level. This blank spike was re-analyzed on 01-05-91 at a 10-fold dilution. This re-analysis was performed outside the holding time for sample extracts. All recoveries from this analysis were within EPA QC limits.

   The standards for the re-analysis were not submitted with the data package but they are available upon request.

   One (1) of twelve (12) water blank spike recoveries was outside EPA QC limits. The blank spike recoveries for endrin (122%) exceeded the EPA QC limit of 121%. Target compounds were not detected in the accompanying samples, therefore, the data is not affected.

7. Matrix spike and spike duplicate samples are associated with RFW lot 9011L541.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

2-28-91
Date

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 20

SMC-SB77-03

Lab Name: Roy F. Weston, Inc. Work Order: 2724-05-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L633-006

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 12269013.63

Level: (low/med) LOW Date Received: 11/15/90

% Moisture: not dec. 0 dec. Date Extracted: 11/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/90

GPC Cleanup: (Y/N) N pH: 8.3 Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	4.0	U
319-85-7	Beta-BHC	4.0	U
319-86-8	Delta-BHC	4.0	U
58-89-9	gamma-BHC (Lindane)	4.0	U
76-44-8	Heptachlor	4.0	U
309-00-2	Aldrin	4.0	U
1024-57-3	Heptachlor epoxide	4.0	U
959-98-8	Endosulfan I	4.0	U
60-57-1	Dieldrin	7.9	U
72-55-9	4,4'-DDE	7.9	U
72-20-8	Endrin	7.9	U
33213-65-9	Endosulfan II	7.9	U
72-54-8	4,4'-DDD	7.9	U
1031-07-8	Endosulfan sulfate	7.9	U
50-29-3	4,4'-DDT	7.9	U
72-43-5	Methoxychlor	40	U
53494-70-5	Endrin ketone	7.9	U
5103-71-9	alpha-Chlordane	40	U
5103-74-2	gamma-Chlordane	40	U
8001-35-2	Toxaphene	79	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	40	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	79	U
11096-82-5	Aroclor-1260	79	U

Roy F. Weston, Inc. - Lionville Laboratory
PEST/PCB ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/16/90 RFW LOT # :9011L679

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB84-05	002	S	90LE1369	11/16/90	11/26/90	01/04/91
SMC-SB42-05	003	S	90LE1369	11/16/90	11/26/90	01/04/91
SMC-FB-1116	004	W	90LE1334	11/16/90	11/19/90	12/26/90

LAB QC:

SBLK	MB2	S	90LE1369	N/A	11/26/90	01/04/91
PBLK	MB1	W	90LE1334	N/A	11/19/90	12/26/90
PBLK	MB1 BS	W	90LE1334	N/A	11/19/90	12/26/90
PBLK	MB1 BSD	W	90LE1334	N/A	11/19/90	12/26/90

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELDALLOY SAMPLES RECEIVED: 11-16-90
RFW #: 9011L679, PEST/PCB
W.O. #: 3486-06-01

NARRATIVE

The set of samples consisted of two (2) soil samples and one (1) water sample collected on 11-16-90.

The samples were extracted on 11-19,26-90 and analyzed according to criteria set forth in the Contract Laboratory Program for Pesticide and PCB target compounds on 12-26-90 and 01-04-91.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. The sample results in this data package were obtained in two separate run sequences.

   For the analysis initiated on 12-26-90, the concentration of aldrin in Evaluation C standard mix was beyond the linear range of the LIMS computer system. A % RSD of 6.5% using the data from the Hewlett-Packard chromatograms included in the package.

   Continuing calibration criteria were exceeded for several compounds but this occurred in standards analyzed after the sample extracts so there was no re-analysis requirement.

   For the analysis initiated on 01-03-91, linearity and breakdown criteria were met on the primary column for all compounds but aldrin.

   Continuing calibration criteria were met for all compounds except 4,4'-DDT on 01-04-91 at 12:21 in all standards analyzed prior to sample extracts.

2. Retention time criteria were met for all compounds on both the primary and confirmation columns.

3. The pesticide spiking solution was inadvertently prepared at 10x the usual concentration of pesticides. The soil matrix spike samples were not reported because the pesticide concentrations were outside the linearty range of the instrument.

4. One (1) of twelve (12) blank spike recoveries was outside EPA QC limits. The blank spike recovery for endrin (122%) exceeded the EPA QC limit of 121%.

5. One (1) of seven (7) surrogate recoveries was outside EPA QC limits. The DBC surrogate recovery for PBLKLE1369-MB2 (18%) was below the EPA QC limit of 20%.

6. Sample SMC-SB42-05 required a two-fold dilution because it contained a high levels of non-target compounds.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

2-15-91
Date

WESTON

GLOSSARY OF PEST/PCB DATA

DATA QUALIFIERS

U - Indicates that the compounds was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J - Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E - Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I - Interference.

ABBREVIATIONS

BS - Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD - Indicates blank spike duplicate.

MS - Indicates matrix spike.

MSD - Indicates matrix spike duplicate.

DL - Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA - Not applicable.

DF - Dilution factor.

NR - Not required.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB84-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

18

Matrix: SOIL Lab Sample ID: 9011L679-002

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 01039113.34

Level: (low/med) LOW Date Received: 11/16/90

% Moisture: not dec. 9 dec. Date Extracted: 11/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	4.4	U
319-85-7	Beta-BHC	4.4	U
319-86-8	Delta-BHC	4.4	U
58-89-9	gamma-BHC (Lindane)	4.4	U
76-44-8	Heptachlor	4.4	U
309-00-2	Aldrin	4.4	U
1024-57-3	Heptachlor epoxide	4.4	U
959-98-8	Endosulfan I	4.4	U
60-57-1	Dieldrin	8.8	U
72-55-9	4,4'-DDE	8.8	U
72-20-8	Endrin	8.8	U
33213-65-9	Endosulfan II	8.8	U
72-54-8	4,4'-DDD	8.8	U
1031-07-8	Endosulfan sulfate	8.8	U
50-29-3	4,4'-DDT	8.8	U
72-43-5	Methoxychlor	44	U
53494-70-5	Endrin ketone	8.8	U
5103-71-9	alpha-Chlordane	44	U
5103-74-2	gamma-Chlordane	44	U
8001-35-2	Toxaphene	88	U
12674-11-2	Aroclor-1016	44	U
11104-28-2	Aroclor-1221	44	U
11141-16-5	Aroclor-1232	44	U
53469-21-9	Aroclor-1242	44	U
12672-29-6	Aroclor-1248	44	U
11097-69-1	Aroclor-1254	88	U
11096-82-5	Aroclor-1260	28	J

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SMC-SB42-05

Lab Name: Roy F. Weston, Inc. Work Order: 3486-06-01-0000

Client: TRC/SHIELDALLOY

Matrix: SOIL Lab Sample ID: 9011L679-003

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 01039113.38

Level: (low/med) LOW Date Received: 11/16/90

% Moisture: not dec. 6 dec. Date Extracted: 11/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	8.4	U
319-85-7	Beta-BHC	8.4	U
319-86-8	Delta-BHC	8.4	U
58-89-9	gamma-BHC (Lindane)	8.4	U
76-44-8	Heptachlor	8.4	U
309-00-2	Aldrin	8.4	U
1024-57-3	Heptachlor epoxide	8.4	U
959-98-8	Endosulfan I	8.4	U
60-57-1	Dieldrin	17	U
72-55-9	4,4'-DDE	17	U
72-20-8	Endrin	17	U
33213-65-9	Endosulfan II	17	U
72-54-8	4,4'-DDD	17	U
1031-07-8	Endosulfan sulfate	17	U
50-29-3	4,4'-DDT	17	U
72-43-5	Methoxychlor	84	U
53494-70-5	Endrin ketone	17	U
5103-71-9	alpha-Chlordane	84	U
5103-74-2	gamma-Chlordane	84	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	84	U
11104-28-2	Aroclor-1221	84	U
11141-16-5	Aroclor-1232	84	U
53469-21-9	Aroclor-1242	84	U
12672-29-6	Aroclor-1248	84	U
11097-69-1	Aroclor-1254	170	U
11096-82-5	Aroclor-1260	170	U

X

Soil Borings

Cn^-, Cr^{+6}, SO

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	SMC-SB07-01	% Solids	96.2	%	0.10
		Cyanide, Total	1.0 u	MG/KG	1.0
		Chromium VI	0.15	MG/KG	0.10
-002	SMC-SB07-03	% Solids	96.2	%	0.10
		Cyanide, Total	1.0 u	MG/KG	1.0
		Chromium VI	0.10 u	MG/KG	0.10
-003	SMC-SB13-01	% Solids	92.2	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.11 u	MG/KG	0.11
-004	SMC-SB13-03	% Solids	86.0	%	0.10
		Cyanide, Total	1.2 u	MG/KG	1.2
		Chromium VI	0.12 u	MG/KG	0.12
-005	SMC-SB20-01	% Solids	93.7	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.15	MG/KG	0.11
-006	SMC-SB20-04	% Solids	92.3	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.11 u	MG/KG	0.11
-007	SMC-SB22-01	% Solids	93.7	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.66	MG/KG	0.11
		Sulfate	55.7	MG/KG	26.7
-008	SMC-SB22-04	% Solids	93.4	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.11 u	MG/KG	0.11
		Sulfate	26.8 u	MG/KG	26.8
-010	SMC-SB24-03	% Solids	92.0	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.11 u	MG/KG	0.11
		Sulfate	83.9	MG/KG	27.2
-011	SMC-SB39-01	% Solids	95.2	%	0.10

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-011	SMC-SB39-01	Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.22	MG/KG	0.10

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-012	SMC-SB39-04	% Solids	94.7		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.37		MG/KG	0.11
-013	SMC-SB47-01	% Solids	91.3		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
-014	SMC-SB47-04	% Solids	95.7		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.10	u	MG/KG	0.10
-015	SMC-SB01-02	% Solids	89.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-019	SMC-SB05-02	% Solids	94.6		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11

U.S. EPA - CLP

EPA SAMPLE NO.

SB0701

1

INORGANIC ANALYSIS DATA SHEET

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494001

Level (low/med): LOW Date Received: 11/06/90

% Solids: 96.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2090			P
7440-36-0	Antimony	4.6	U		P
7440-38-2	Arsenic	0.40	U	N	F
7440-39-3	Barium	9.1	B		P
7440-41-7	Beryllium	0.66	B		P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	65.7	B		P
7440-47-3	Chromium	3.3		N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	1.7	B		P
7439-89-6	Iron	2460			P
7439-92-1	Lead	3.5			F
7439-95-4	Magnesium	305	B		P
7439-96-5	Manganese	11.0		N*	P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	2.1	U	*	P
7440-09-7	Potassium	235	B		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	44.5	B		P
7440-28-0	Thallium	0.80	U	N	F
7440-62-2	Vanadium	128		N	P
7440-66-6	Zinc	7.7		*	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SB0703

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494002

Level (low/med): LOW Date Received: 11/06/90

% Solids: 96.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1590			P
7440-36-0	Antimony	4.5	U		P
7440-38-2	Arsenic	0.40	U	N	F
7440-39-3	Barium	6.3	B		P
7440-41-7	Beryllium	0.76	B		P
7440-43-9	Cadmium	0.82	U		P
7440-70-2	Calcium	113	B		P
7440-47-3	Chromium	3.8		N	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	1.8	B		P
7439-89-6	Iron	2400			P
7439-92-1	Lead	2.5			F
7439-95-4	Magnesium	316	B		P
7439-96-5	Manganese	15.6		N*	P
7439-97-6	Mercury	0.07	U	N	CV
7440-02-0	Nickel	3.9	B	*	P
7440-09-7	Potassium	189	U		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	0.82	U	N	P
7440-23-5	Sodium	41.4	B		P
7440-28-0	Thallium	0.80	U	N	F
7440-62-2	Vanadium	145		N	P
7440-66-6	Zinc	9.4		*	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

042

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494003

Level (low/med): LOW Date Received: 11/06/90

% Solids: 92.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9000			P
7440-36-0	Antimony	4.6	U		P
7440-38-2	Arsenic	1.5	B	N	F
7440-39-3	Barium	110			P
7440-41-7	Beryllium	2.0			P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	2560			P
7440-47-3	Chromium	32.4		N	P
7440-48-4	Cobalt	4.7	B		P
7440-50-8	Copper	12.2			P
7439-89-6	Iron	8170			P
7439-92-1	Lead	2.04			F
7439-95-4	Magnesium	1090			P
7439-96-5	Manganese	547		N*	P
7439-97-6	Mercury	0.11	U	N	CV
7440-02-0	Nickel	94.4		*	P
7440-09-7	Potassium	230	B		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	76.1	B		P
7440-28-0	Thallium	0.86	U	N	F
7440-62-2	Vanadium	417		N	P
7440-66-6	Zinc	75.0		*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SB 0

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494004

Level (low/med): LOW Date Received: 11/06/90

% Solids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2140			P
7440-36-0	Antimony	4.9	U		P
7440-38-2	Arsenic	1.0	B	N	F
7440-39-3	Barium	21.7	B		P
7440-41-7	Beryllium	1.2			P
7440-43-9	Cadmium	0.90	U		P
7440-70-2	Calcium	364	B		P
7440-47-3	Chromium	98.6		N	P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	17.8			P
7439-89-6	Iron	3480			P
7439-92-1	Lead	2.31			F
7439-95-4	Magnesium	182	B		P
7439-96-5	Manganese	135		N*	P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	44.2		*	P
7440-09-7	Potassium	205	U		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	0.90	U	N	P
7440-23-5	Sodium	65.1	B		P
7440-28-0	Thallium	0.86	U	NW	F
7440-62-2	Vanadium	229		N	P
7440-66-6	Zinc	35.5		*	P
	Cyanide	0.58	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494005

Level (low/med): LOW Date Received: 11/06/90

% Solids: 93.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7950			P
7440-36-0	Antimony	4.7	U		P
7440-38-2	Arsenic	4.7		NS	F
7440-39-3	Barium	152			P
7440-41-7	Beryllium	5.7			P
7440-43-9	Cadmium	1.7			P
7440-70-2	Calcium	13100			P
7440-47-3	Chromium	143		N	P
7440-48-4	Cobalt	9.7	B		P
7440-50-8	Copper	342			P
7439-89-6	Iron	18900			P
7439-92-1	Lead	3.62			F
7439-95-4	Magnesium	4070			P
7439-96-5	Manganese	1510		N*	P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	322		*	P
7440-09-7	Potassium	556	B		P
7782-49-2	Selenium	0.42	U	NW	F
7440-22-4	Silver	0.85	U	N	P
7440-23-5	Sodium	206	B		P
7440-28-0	Thallium	0.85	U	NW	F
7440-62-2	Vanadium	1160		N	P
7440-66-6	Zinc	59.8		*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

045

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494006

Level (low/med): LOW Date Received: 11/06/90

% Solids: 92.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3030			P
7440-36-0	Antimony	4.6	U		P
7440-38-2	Arsenic	0.41	U	N	F
7440-39-3	Barium	10.4	B		P
7440-41-7	Beryllium	0.23	B		P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	50.4	B		P
7440-47-3	Chromium	0.83	U	N	P
7440-48-4	Cobalt	2.8	B		P
7440-50-8	Copper	3.8	B		P
7439-89-6	Iron	12900			P
7439-92-1	Lead	3 3	U		F
7439-95-4	Magnesium	70.0	B		P
7439-96-5	Manganese	24.8		N X	P
7439-97-6	Mercury	0.07	U	N	CV
7440-02-0	Nickel	2.5	B	X	P
7440-09-7	Potassium	191	U		P
7782-49-2	Selenium	0.41	U	NW	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	34.0	B		P
7440-28-0	Thallium	0.82	U	N	F
7440-62-2	Vanadium	2.4	B	N	P
7440-66-6	Zinc	8.5		X	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SB 22 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494007

Level (low/med): LOW Date Received: 11/06/90

% Solids: 93.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6030			P
7440-36-0	Antimony	4.5	U		P
7440-38-2	Arsenic	1.1	B	N	F
7440-39-3	Barium	44.4			P
7440-41-7	Beryllium	0.59	B		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	269	B		P
7440-47-3	Chromium	32.7		N	P
7440-48-4	Cobalt	2.6	B		P
7440-50-8	Copper	3.6	B		P
7439-89-6	Iron	7610			P
7439-92-1	Lead	4.1			F
7439-95-4	Magnesium	640	B		P
7439-96-5	Manganese	85.7		N *	P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	11.4		*	P
7440-09-7	Potassium	375	B		P
7782-49-2	Selenium	0.42	U	NW	F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	332	B		P
7440-28-0	Thallium	0.85	U	NW	F
7440-62-2	Vanadium	82.9		N	P
7440-66-6	Zinc	23.7		*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SB2204

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494008

Level (low/med): LOW Date Received: 11/06/90

% Solids: 93.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2800			P
7440-36-0	Antimony	4.3	U		P
7440-38-2	Arsenic	0.43	U	N	F
7440-39-3	Barium	8.0	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.78	U		P
7440-70-2	Calcium	25.4	U		P
7440-47-3	Chromium	3.6		N	P
7440-48-4	Cobalt	1.8	B		P
7440-50-8	Copper	2.9	B		P
7439-89-6	Iron	5520			P
7439-92-1	Lead	5.8			F
7439-95-4	Magnesium	33.0	B		P
7439-96-5	Manganese	10.8		N*	P
7439-97-6	Mercury	0.07	U	N	CV
7440-02-0	Nickel	2.0	U	*	P
7440-09-7	Potassium	179	U		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	0.78	U	N	P
7440-23-5	Sodium	40.8	B		P
7440-28-0	Thallium	0.86	U	N	F
7440-62-2	Vanadium	5.1	B	N	P
7440-66-6	Zinc	34.3		*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC 3634 3 SB 24 03

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494010

Level (low/med): LOW Date Received: 11/06/90

% Solids: 92.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3000			P
7440-36-0	Antimony	4.7	B		P
7440-38-2	Arsenic	0.80	B	N	F
7440-39-3	Barium	8.5	B		P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	0.80	U		P
7440-70-2	Calcium	70.1	B		P
7440-47-3	Chromium	3.5		N	P
7440-48-4	Cobalt	5.0	B		P
7440-50-8	Copper	3.3	B		P
7439-89-6	Iron	7510			P
7439-92-1	Lead	5.0			F
7439-95-4	Magnesium	131	B		P
7439-96-5	Manganese	203		N *	P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	2.0	U	*	P
7440-09-7	Potassium	183	U		P
7782-49-2	Selenium	0.42	U	NW	F
7440-22-4	Silver	0.80	U	N	P
7440-23-5	Sodium	81.7	B		P
7440-28-0	Thallium	0.85	U	N	F
7440-62-2	Vanadium	8.6	B	N	P
7440-66-6	Zinc	10.3		*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SB3901

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494011

Level (low/med): LOW Date Received: 11/06/90

% Solids: 95.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1990			P
7440-36-0	Antimony	4.5	U		P
7440-38-2	Arsenic	0.53	B	N	F
7440-39-3	Barium	16.7	B		P
7440-41-7	Beryllium	1.6			P
7440-43-9	Cadmium	0.82	U		P
7440-70-2	Calcium	341	B		P
7440-47-3	Chromium	101		N	P
7440-48-4	Cobalt	2.2	B		P
7440-50-8	Copper	3.4	B		P
7439-89-6	Iron	3840			P
7439-92-1	Lead	5.5			F
7439-95-4	Magnesium	254	B		P
7439-96-5	Manganese	192		N*	P
7439-97-6	Mercury	0.07	U	N	CV
7440-02-0	Nickel	25.4		*	P
7440-09-7	Potassium	187	U		P
7782-49-2	Selenium	0.41	U	NW	F
7440-22-4	Silver	0.82	U	N	P
7440-23-5	Sodium	30.2	B		P
7440-28-0	Thallium	8.1	U	NW	F
7440-62-2	Vanadium	328		N	P
7440-66-6	Zinc	40.1		*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SB04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494012

Level (low/med): LOW Date Received: 11/06/90

% Solids: 94.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1090			P
7440-36-0	Antimony	4.4	B		P
7440-38-2	Arsenic	0.42	U	N	F
7440-39-3	Barium	4.2	B		P
7440-41-7	Beryllium	0.44	B		P
7440-43-9	Cadmium	0.79	U		P
7440-70-2	Calcium	61.9	B		P
7440-47-3	Chromium	8.0		N	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	0.99	U		P
7439-89-6	Iron	2440			P
7439-92-1	Lead	2.2			F
7439-95-4	Magnesium	70.7	B		P
7439-96-5	Manganese	16.5		N*	P
7439-97-6	Mercury	0.07	U	N	CV
7440-02-0	Nickel	2.0	U	*	P
7440-09-7	Potassium	182	U		P
7782-49-2	Selenium	0.42	U	NW	F
7440-22-4	Silver	0.79	U	N	P
7440-23-5	Sodium	42.5	B		P
7440-28-0	Thallium	0.84	U	NW	F
7440-62-2	Vanadium	82.6		N	P
7440-66-6	Zinc	9.8		*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB 47 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494013

Level (low/med): LOW Date Received: 11/06/90

% Solids: 91.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7060			P
7440-36-0	Antimony	4.8	U		P
7440-38-2	Arsenic	4.0		N	F
7440-39-3	Barium	59.9			P
7440-41-7	Beryllium	20.0			P
7440-43-9	Cadmium	1.5			P
7440-70-2	Calcium	8460			P
7440-47-3	Chromium	87.3		N	P
7440-48-4	Cobalt	9.5	B		P
7440-50-8	Copper	32.2			P
7439-89-6	Iron	9810			P
7439-92-1	Lead	7.2		S	F
7439-95-4	Magnesium	3510			P
7439-96-5	Manganese	1810		N*	P
7439-97-6	Mercury	0.07	U	N	CV
7440-02-0	Nickel	339		*	P
7440-09-7	Potassium	199	U		P
7782-49-2	Selenium	0.42	B	NW	F
7440-22-4	Silver	0.87	U	N	P
7440-23-5	Sodium	410	B		P
7440-28-0	Thallium	0.83	U	N	F
7440-62-2	Vanadium	4110		N	P
7440-66-6	Zinc	266		*	P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

052

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SB 47 04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494014

Level (low/med): LOW Date Received: 11/06/90

% Solids: 95.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	867			P
7440-36-0	Antimony	5.0	B		P
7440-38-2	Arsenic	0.41	U	N	F
7440-39-3	Barium	5.3	B		P
7440-41-7	Beryllium	0.50	B		P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	198	B		P
7440-47-3	Chromium	1.7	B	N	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	899			P
7439-92-1	Lead	1.5			F
7439-95-4	Magnesium	153	B		P
7439-96-5	Manganese	53.2		N	P
7439-97-6	Mercury	0.06	U	N	CV
7440-02-0	Nickel	3.0	B		P
7440-09-7	Potassium	189	U		P
7782-49-2	Selenium	0.41	U	NW	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	61.0	B		P
7440-28-0	Thallium	0.81	U	NW	F
7440-62-2	Vanadium	121		N	P
7440-66-6	Zinc	13.2			P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SB D

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494015

Level (low/med): LOW Date Received: 11/06/90

% Solids: 89.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	459			P
7440-36-0	Antimony	4.9	U		P
7440-38-2	Arsenic	0.44	U	N	F
7440-39-3	Barium	3.9	B		P
7440-41-7	Beryllium	0.22	U		P
7440-43-9	Cadmium	0.89	U		P
7440-70-2	Calcium	284	B		P
7440-47-3	Chromium	1.1	B	N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	405			P
7439-92-1	Lead	3.5			F
7439-95-4	Magnesium	82.2	B		P
7439-96-5	Manganese	2.6	B	N*	P
7439-97-6	Mercury	0.08	U	N	CV
7440-02-0	Nickel	2.2	U	*	P
7440-09-7	Potassium	203	U		P
7782-49-2	Selenium	0.44	U	NW	F
7440-22-4	Silver	0.89	U	N	P
7440-23-5	Sodium	46.1	B		P
7440-28-0	Thallium	0.88	U	NW	F
7440-62-2	Vanadium	4.9	B	N	P
7440-66-6	Zinc	25.3		*	P
	Cyanide	0.56	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB05 0

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP494

Matrix (soil/water): SOIL Lab Sample ID: 9011494019

Level (low/med): LOW Date Received: 11/06/90

% Solids: 94.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	927			P
7440-36-0	Antimony	4.7	U		P
7440-38-2	Arsenic	0.78	B	N	F
7440-39-3	Barium	8.3	B		P
7440-41-7	Beryllium	0.47	B		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	237	B		P
7440-47-3	Chromium	16.2		N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.2	B		P
7439-89-6	Iron	1240			P
7439-92-1	Lead	4.0			F
7439-95-4	Magnesium	154	B		P
7439-96-5	Manganese	40.5		N*	P
7439-97-6	Mercury	0.07	U	N	CV
7440-02-0	Nickel	10.9		*	P
7440-09-7	Potassium	194	U		P
7782-49-2	Selenium	0.44	U	NW	F
7440-22-4	Silver	0.85	U	N	P
7440-23-5	Sodium	53.7	B		P
7440-28-0	Thallium	0.846	U	N S	F
7440-62-2	Vanadium	105		N	P
7440-66-6	Zinc	6.3		*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	SMC-SB07-01	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	2090		MG/KG	41.5
		Arsenic, Total	2.0	u	MG/KG	2.0
		Boron, Total	20.7	u	MG/KG	20.7
		Barium, Total	41.5	u	MG/KG	41.5
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1040	u	MG/KG	1040
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.4	u	MG/KG	10.4
		Chromium, Total	3.3		MG/KG	2.1
		Copper, Total	5.2	u	MG/KG	5.2
		Iron, Total	2460		MG/KG	20.7
		Mercury, Total	0.10	u	MG/KG	0.10
		Potassium, Total	1040	u	MG/KG	1040
		Magnesium, Total	1040	u	MG/KG	1040
		Manganese, Total	11.0		MG/KG	3.1
		Sodium, Total	1040	u	MG/KG	1040
		Niobium, Total	41.5	u	MG/KG	41.5
		Nickel, Total	8.3	u	MG/KG	8.3
		Lead, Total	3.5		MG/KG	0.60
		Antimony, Total	12.4	u	MG/KG	12.4
		Selenium, Total	1.0	u	MG/KG	1.0
		Strontium, Total	20.7	u	MG/KG	20.7
		Titanium, Total	85.2		MG/KG	20.7
		Thallium, Total	2.0	u	MG/KG	2.0
		Vanadium, Total	128		MG/KG	10.4
		Zinc, Total	7.7		MG/KG	4.1
-002	SMC-SB07-03	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	1590		MG/KG	41.2
		Arsenic, Total	2.0	u	MG/KG	2.0
		Boron, Total	20.6	u	MG/KG	20.6
		Barium, Total	41.2	u	MG/KG	41.2
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1030	u	MG/KG	1030
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.3	u	MG/KG	10.3
		Chromium, Total	3.8		MG/KG	2.1
		Copper, Total	5.1	u	MG/KG	5.1
		Iron, Total	2400		MG/KG	20.6

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	SMC-SB07-03	Mercury, Total	0.067	u	MG/KG	0.067
		Potassium, Total	1030	u	MG/KG	1030
		Magnesium, Total	1030	u	MG/KG	1030
		Manganese, Total	15.6		MG/KG	3.1
		Sodium, Total	1030	u	MG/KG	1030
		Niobium, Total	41.2	u	MG/KG	41.2
		Nickel, Total	8.2	u	MG/KG	8.2
		Lead, Total	2.5		MG/KG	0.60
		Antimony, Total	12.4	u	MG/KG	12.4
		Selenium, Total	1.0	u	MG/KG	1.0
		Strontium, Total	20.6	u	MG/KG	20.6
		Titanium, Total	85.8		MG/KG	20.6
		Thallium, Total	2.0	u	MG/KG	2.0
		Vanadium, Total	145		MG/KG	10.3
		Zinc, Total	9.4		MG/KG	4.1
		Zirconium, Total	41.2	u	MG/KG	41.2

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-003	SMC-SB13-01	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	9000		MG/KG	41.6
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	20.8	u	MG/KG	20.8
		Barium, Total	110		MG/KG	41.6
		Beryllium, Total	2.0		MG/KG	1.0
		Calcium, Total	2560		MG/KG	1040
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.4	u	MG/KG	10.4
		Chromium, Total	32.4		MG/KG	2.1
		Copper, Total	12.2		MG/KG	5.2
		Iron, Total	8170		MG/KG	20.8
		Mercury, Total	0.11	u	MG/KG	0.11
		Potassium, Total	1040	u	MG/KG	1040
		Magnesium, Total	1090		MG/KG	1040
		Manganese, Total	547		MG/KG	3.1
		Sodium, Total	1040	u	MG/KG	1040
		Niobium, Total	41.6	u	MG/KG	41.6
		Nickel, Total	94.4		MG/KG	8.3
		Lead, Total	39.5		MG/KG	12.9
		Antimony, Total	12.5	u	MG/KG	12.5
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	22.5		MG/KG	20.8
		Titanium, Total	200		MG/KG	20.8
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	417		MG/KG	10.4
		Zinc, Total	75.0		MG/KG	4.2
-004	SMC-SB13-03	Silver, Total	2.2	u	MG/KG	2.2
		Aluminum, Total	2140		MG/KG	44.8
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	22.4	u	MG/KG	22.4
		Barium, Total	44.8	u	MG/KG	44.8
		Beryllium, Total	1.2		MG/KG	1.1
		Calcium, Total	1120	u	MG/KG	1120
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	11.2	u	MG/KG	11.2
		Chromium, Total	98.5		MG/KG	2.2
		Copper, Total	17.7		MG/KG	5.6
		Iron, Total	3480		MG/KG	22.4

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-004	SMC-SB13-03	Mercury, Total	0.10	u	MG/KG	0.10
		Potassium, Total	1120	u	MG/KG	1120
		Magnesium, Total	1120	u	MG/KG	1120
		Manganese, Total	135		MG/KG	3.4
		Sodium, Total	1120	u	MG/KG	1120
		Niobium, Total	44.8	u	MG/KG	44.8
		Nickel, Total	44.1		MG/KG	9.0
		Lead, Total	46.2		MG/KG	12.8
		Antimony, Total	13.4	u	MG/KG	13.4
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	22.4	u	MG/KG	22.4
		Titanium, Total	125		MG/KG	22.4
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	228		MG/KG	11.2
		Zinc, Total	35.5		MG/KG	4.5
		Zirconium, Total	44.8	u	MG/KG	44.8

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-005	SMC-SB20-01	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	7950		MG/KG	42.6
		Arsenic, Total	4.7		MG/KG	2.1
		Boron, Total	21.3	u	MG/KG	21.3
		Barium, Total	152		MG/KG	42.6
		Beryllium, Total	5.7		MG/KG	1.1
		Calcium, Total	13100		MG/KG	1070
		Cadmium, Total	1.7		MG/KG	1.1
		Cobalt, Total	10.7	u	MG/KG	10.7
		Chromium, Total	143		MG/KG	2.1
		Copper, Total	342		MG/KG	5.3
		Iron, Total	18900		MG/KG	21.3
		Mercury, Total	0.085	u	MG/KG	0.085
		Potassium, Total	1070	u	MG/KG	1070
		Magnesium, Total	4070		MG/KG	1070
		Manganese, Total	1510		MG/KG	3.2
		Sodium, Total	1070	u	MG/KG	1070
		Niobium, Total	42.6	u	MG/KG	42.6
		Nickel, Total	322		MG/KG	8.5
		Lead, Total	72.4		MG/KG	12.7
		Antimony, Total	12.8	u	MG/KG	12.8
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	110		MG/KG	21.3
		Titanium, Total	341		MG/KG	21.3
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	1160		MG/KG	10.7
		Zinc, Total	59.8		MG/KG	4.3
-006	SMC-SB20-04	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	3030		MG/KG	41.7
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	20.9	u	MG/KG	20.9
		Barium, Total	41.7	u	MG/KG	41.7
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1040	u	MG/KG	1040
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.4	u	MG/KG	10.4
		Chromium, Total	2.1	u	MG/KG	2.1
		Copper, Total	5.2	u	MG/KG	5.2
		Iron, Total	12900		MG/KG	20.9

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-006	SMC-SB20-04	Mercury, Total	0.070	u	MG/KG	0.070
		Potassium, Total	1040	u	MG/KG	1040
		Magnesium, Total	1040	u	MG/KG	1040
		Manganese, Total	24.8		MG/KG	3.1
		Sodium, Total	1040	u	MG/KG	1040
		Niobium, Total	41.7	u	MG/KG	41.7
		Nickel, Total	8.3	u	MG/KG	8.3
		Lead, Total	12.4	u	MG/KG	12.4
		Antimony, Total	12.5	u	MG/KG	12.5
		Selenium, Total	1.0	u	MG/KG	1.0
		Strontium, Total	20.9	u	MG/KG	20.9
		Titanium, Total	74.6		MG/KG	20.9
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	10.4	u	MG/KG	10.4
		Zinc, Total	8.5		MG/KG	4.2
		Zirconium, Total	41.7	u	MG/KG	41.7

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-007	SMC-SB22-01	Silver, Total	2.0	u	MG/KG	2.0
		Aluminum, Total	6030		MG/KG	40.6
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	20.3	u	MG/KG	20.3
		Barium, Total	44.4		MG/KG	40.6
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1010	u	MG/KG	1010
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.1	u	MG/KG	10.1
		Chromium, Total	32.7		MG/KG	2.0
		Copper, Total	5.1	u	MG/KG	5.1
		Iron, Total	7610		MG/KG	20.3
		Mercury, Total	0.093	u	MG/KG	0.093
		Potassium, Total	1010	u	MG/KG	1010
		Magnesium, Total	1010	u	MG/KG	1010
		Manganese, Total	85.7		MG/KG	3.0
		Sodium, Total	1010	u	MG/KG	1010
		Niobium, Total	40.6	u	MG/KG	40.6
		Nickel, Total	11.4		MG/KG	8.1
		Lead, Total	8.1		MG/KG	1.3
		Antimony, Total	12.2	u	MG/KG	12.2
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	20.3	u	MG/KG	20.3
		Titanium, Total	133		MG/KG	20.3
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	82.9		MG/KG	10.1
		Zinc, Total	23.7		MG/KG	4.1
-008	SMC-SB22-04	Silver, Total	2.0	u	MG/KG	2.0
		Aluminum, Total	2800		MG/KG	39.1
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	19.6	u	MG/KG	19.6
		Barium, Total	39.1	u	MG/KG	39.1
		Beryllium, Total	0.98	u	MG/KG	0.98
		Calcium, Total	978	u	MG/KG	978
		Cadmium, Total	0.98	u	MG/KG	0.98
		Cobalt, Total	9.8	u	MG/KG	9.8
		Chromium, Total	3.6		MG/KG	2.0
		Copper, Total	4.9	u	MG/KG	4.9
		Iron, Total	5520		MG/KG	19.6

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-008	SMC-SB22-04	Mercury, Total	0.074	u	MG/KG	0.074
		Potassium, Total	978	u	MG/KG	978
		Magnesium, Total	978	u	MG/KG	978
		Manganese, Total	10.8		MG/KG	2.9
		Sodium, Total	978	u	MG/KG	978
		Niobium, Total	39.1	u	MG/KG	39.1
		Nickel, Total	7.8	u	MG/KG	7.8
		Lead, Total	5.8		MG/KG	0.64
		Antimony, Total	11.7	u	MG/KG	11.7
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	19.6	u	MG/KG	19.6
		Titanium, Total	82.1		MG/KG	19.6
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	9.8	u	MG/KG	9.8
		Zinc, Total	34.3		MG/KG	3.9
		Zirconium, Total	39.1	u	MG/KG	39.1

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-010	SMC-SB24-03	Silver, Total	2.0	u	MG/KG	2.0
		Aluminum, Total	3000		MG/KG	40.0
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	20.0	u	MG/KG	20.0
		Barium, Total	40.0	u	MG/KG	40.0
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1000	u	MG/KG	1000
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.0	u	MG/KG	10.0
		Chromium, Total	3.5		MG/KG	2.0
		Copper, Total	5.0	u	MG/KG	5.0
		Iron, Total	7520		MG/KG	20.0
		Mercury, Total	0.087	u	MG/KG	0.087
		Potassium, Total	1000	u	MG/KG	1000
		Magnesium, Total	1000	u	MG/KG	1000
		Manganese, Total	203		MG/KG	3.0
		Sodium, Total	1000	u	MG/KG	1000
		Niobium, Total	40.0	u	MG/KG	40.0
		Nickel, Total	8.0	u	MG/KG	8.0
		Lead, Total	5.0		MG/KG	0.63
		Antimony, Total	12.0	u	MG/KG	12.0
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	20.0	u	MG/KG	20.0
		Titanium, Total	103		MG/KG	20.0
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	10.0	u	MG/KG	10.0
		Zinc, Total	10.3		MG/KG	4.0
		Zirconium, Total	40.0	u	MG/KG	40.0
-011	SMC-SB39-01	Silver, Total	2.0	u	MG/KG	2.0
		Aluminum, Total	2000		MG/KG	40.8
		Arsenic, Total	2.0	u	MG/KG	2.0
		Boron, Total	20.4	u	MG/KG	20.4
		Barium, Total	40.8	u	MG/KG	40.8
		Beryllium, Total	1.6		MG/KG	1.0
		Calcium, Total	1020	u	MG/KG	1020
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.2	u	MG/KG	10.2
		Chromium, Total	102		MG/KG	2.0
		Copper, Total	5.1	u	MG/KG	5.1

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-011	SMC-SB39-01	Iron, Total	3840		MG/KG	20.4
		Mercury, Total	0.072	u	MG/KG	0.072
		Potassium, Total	1020	u	MG/KG	1020
		Magnesium, Total	1020	u	MG/KG	1020
		Manganese, Total	193		MG/KG	3.1
		Sodium, Total	1020	u	MG/KG	1020
		Niobium, Total	40.8	u	MG/KG	40.8
		Nickel, Total	25.4		MG/KG	8.2
		Lead, Total	5.5		MG/KG	2.4
		Antimony, Total	12.2	u	MG/KG	12.2
		Selenium, Total	1.0	u	MG/KG	1.0
		Strontium, Total	20.4	u	MG/KG	20.4
		Titanium, Total	102		MG/KG	20.4
		Thallium, Total	20.3	u	MG/KG	20.3
		Vanadium, Total	328		MG/KG	10.2
		Zinc, Total	40.1		MG/KG	4.1
		Zirconium, Total	40.8	u	MG/KG	40.8

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-012	SMC-SB39-04	Silver, Total	2.0	u	MG/KG	2.0
		Aluminum, Total	1090		MG/KG	39.7
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	19.8	u	MG/KG	19.8
		Barium, Total	39.7	u	MG/KG	39.7
		Beryllium, Total	0.99	u	MG/KG	0.99
		Calcium, Total	992	u	MG/KG	992
		Cadmium, Total	0.99	u	MG/KG	0.99
		Cobalt, Total	9.9	u	MG/KG	9.9
		Chromium, Total	8.0		MG/KG	2.0
		Copper, Total	5.0	u	MG/KG	5.0
		Iron, Total	2440		MG/KG	19.8
		Mercury, Total	0.073	u	MG/KG	0.073
		Potassium, Total	992	u	MG/KG	992
		Magnesium, Total	992	u	MG/KG	992
		Manganese, Total	16.5		MG/KG	3.0
		Sodium, Total	992	u	MG/KG	992
		Niobium, Total	39.7	u	MG/KG	39.7
		Nickel, Total	7.9	u	MG/KG	7.9
		Lead, Total	2.2		MG/KG	0.63
		Antimony, Total	11.9	u	MG/KG	11.9
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	19.8	u	MG/KG	19.8
		Titanium, Total	40.4		MG/KG	19.8
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	82.6		MG/KG	9.9
		Zinc, Total	9.8		MG/KG	4.0
		Zirconium, Total	39.7	u	MG/KG	39.7
-013	SMC-SB47-01	Silver, Total	2.2	u	MG/KG	2.2
		Aluminum, Total	7060		MG/KG	43.4
		Arsenic, Total	4.0		MG/KG	2.1
		Boron, Total	21.7	u	MG/KG	21.7
		Barium, Total	59.9		MG/KG	43.4
		Beryllium, Total	20.0		MG/KG	1.1
		Calcium, Total	8470		MG/KG	1090
		Cadmium, Total	1.5		MG/KG	1.1
		Cobalt, Total	10.9	u	MG/KG	10.9
		Chromium, Total	87.3		MG/KG	2.2
		Copper, Total	32.3		MG/KG	5.4

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-013	SMC-SB47-01	Iron, Total	9810		MG/KG	21.7
		Mercury, Total	0.066	u	MG/KG	0.066
		Potassium, Total	1090	u	MG/KG	1090
		Magnesium, Total	3510		MG/KG	1090
		Manganese, Total	1810		MG/KG	3.3
		Sodium, Total	1090	u	MG/KG	1090
		Niobium, Total	43.4	u	MG/KG	43.4
		Nickel, Total	339		MG/KG	8.7
		Lead, Total	7.4		MG/KG	0.62
		Antimony, Total	13.0	u	MG/KG	13.0
		Selenium, Total	1.0	u	MG/KG	1.0
		Strontium, Total	46.4		MG/KG	21.7
		Titanium, Total	219		MG/KG	21.7
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	4110		MG/KG	10.9
		Zinc, Total	266		MG/KG	4.3

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-014	SMC-SB47-04	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	868		MG/KG	41.3
		Arsenic, Total	2.0	u	MG/KG	2.0
		Boron, Total	20.6	u	MG/KG	20.6
		Barium, Total	41.3	u	MG/KG	41.3
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1030	u	MG/KG	1030
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.3	u	MG/KG	10.3
		Chromium, Total	2.1	u	MG/KG	2.1
		Copper, Total	5.2	u	MG/KG	5.2
		Iron, Total	899		MG/KG	20.6
		Mercury, Total	0.058	u	MG/KG	0.058
		Potassium, Total	1030	u	MG/KG	1030
		Magnesium, Total	1030	u	MG/KG	1030
		Manganese, Total	53.3		MG/KG	3.1
		Sodium, Total	1030	u	MG/KG	1030
		Niobium, Total	41.3	u	MG/KG	41.3
		Nickel, Total	8.3	u	MG/KG	8.3
		Lead, Total	1.5		MG/KG	0.61
		Antimony, Total	12.4	u	MG/KG	12.4
		Selenium, Total	1.0	u	MG/KG	1.0
		Strontium, Total	20.6	u	MG/KG	20.6
		Titanium, Total	50.1		MG/KG	20.6
		Thallium, Total	2.0	u	MG/KG	2.0
		Vanadium, Total	121		MG/KG	10.3
		Zinc, Total	13.2		MG/KG	4.1
		Zirconium, Total	41.3	u	MG/KG	41.3
-015	SMC-SB01-02	Silver, Total	2.2	u	MG/KG	2.2
		Aluminum, Total	459		MG/KG	44.3
		Arsenic, Total	2.2	u	MG/KG	2.2
		Boron, Total	22.1	u	MG/KG	22.1
		Barium, Total	44.3	u	MG/KG	44.3
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1110	u	MG/KG	1110
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	11.1	u	MG/KG	11.1
		Chromium, Total	2.2	u	MG/KG	2.2
		Copper, Total	5.5	u	MG/KG	5.5

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-015	SMC-SB01-02	Iron, Total	405		MG/KG	22.1
		Mercury, Total	0.077	u	MG/KG	0.077
		Potassium, Total	1110	u	MG/KG	1110
		Magnesium, Total	1110	u	MG/KG	1110
		Manganese, Total	3.3	u	MG/KG	3.3
		Sodium, Total	1110	u	MG/KG	1110
		Niobium, Total	44.3	u	MG/KG	44.3
		Nickel, Total	8.9	u	MG/KG	8.9
		Lead, Total	3.5		MG/KG	0.66
		Antimony, Total	13.3	u	MG/KG	13.3
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	22.1	u	MG/KG	22.1
		Titanium, Total	32.5		MG/KG	22.1
		Thallium, Total	2.2	u	MG/KG	2.2
		Vanadium, Total	11.1	u	MG/KG	11.1
		Zinc, Total	25.4		MG/KG	4.4
		Zirconium, Total	44.3	u	MG/KG	44.3

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-019	SMC-SB05-02	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	927		MG/KG	42.3
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	21.1	u	MG/KG	21.1
		Barium, Total	42.3	u	MG/KG	42.3
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1060	u	MG/KG	1060
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.6	u	MG/KG	10.6
		Chromium, Total	16.2		MG/KG	2.1
		Copper, Total	5.3	u	MG/KG	5.3
		Iron, Total	1240		MG/KG	21.1
		Mercury, Total	0.066	u	MG/KG	0.066
		Potassium, Total	1060	u	MG/KG	1060
		Magnesium, Total	1060	u	MG/KG	1060
		Manganese, Total	40.5		MG/KG	3.2
		Sodium, Total	1060	u	MG/KG	1060
		Niobium, Total	42.3	u	MG/KG	42.3
		Nickel, Total	10.9		MG/KG	8.5
		Lead, Total	4.0		MG/KG	0.63
		Antimony, Total	12.7	u	MG/KG	12.7
		Selenium, Total	10.5	u	MG/KG	10.5
		Strontium, Total	21.1	u	MG/KG	21.1
		Titanium, Total	35.9		MG/KG	21.1
		Thallium, Total	4.2	u	MG/KG	4.2
		Vanadium, Total	106		MG/KG	10.6
		Zinc, Total	6.3		MG/KG	4.2
		Zirconium, Total	42.3	u	MG/KG	42.3

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L494

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-019	SMC-SB05-02	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	927		MG/KG	42.3
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	21.1	u	MG/KG	21.1
		Barium, Total	42.3	u	MG/KG	42.3
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1060	u	MG/KG	1060
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.6	u	MG/KG	10.6
		Chromium, Total	16.2		MG/KG	2.1
		Copper, Total	5.3	u	MG/KG	5.3
		Iron, Total	1240		MG/KG	21.1
		Mercury, Total	0.066	u	MG/KG	0.066
		Potassium, Total	1060	u	MG/KG	1060
		Magnesium, Total	1060	u	MG/KG	1060
		Manganese, Total	40.5		MG/KG	3.2
		Sodium, Total	1060	u	MG/KG	1060
		Niobium, Total	42.3	u	MG/KG	42.3
		Nickel, Total	10.9		MG/KG	8.5
		Lead, Total	4.0		MG/KG	0.63
		Antimony, Total	12.7	u	MG/KG	12.7
		Selenium, Total	10.5	u	MG/KG	10.5
		Strontium, Total	21.1	u	MG/KG	21.1
		Titanium, Total	35.9		MG/KG	21.1
		Thallium, Total	4.2	u	MG/KG	4.2
		Vanadium, Total	106		MG/KG	10.6
		Zinc, Total	6.3		MG/KG	4.2
		Zirconium, Total	42.3	u	MG/KG	42.3

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

SOW No.: 07/87

EPA Sample No.	Lab Sample ID.
SMC-SB91-04	9011518004
SMC-SB91-04D	9011518004
SMC-SB91-04S	9011518004
SMC-SB55-01	9011518005
SMC-SB55-01D	9011518005
SMC-SB55-01S	9011518005
SMC-SB55-04	9011518006
SMC-SB55-04D	9011518006
SMC-SB55-04S	9011518006
SMC-SB27-02	9011518009
SMC-SB27-04	9011518010
SMC-SB44-01	9011518016
SMC-SB44-02	9011518017
SMC-SB40-05	9011518018
SMC-SB46-04	9011518019
SMC-SB40-02	9011518020
SMC-SB46-01	9011518021
SMC-FB-1107	9011518022

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: [signature]

Date: 2-8-91

WESTON

Roy F. Weston, INC.
Lionville Laboratory

CLIENT:TRC/SHIELDALLOY SAMPLES RECEIVED:11/7/90
RFW #:9011L518
W.O.#:2724-05-01

METALS NARRATIVE

The set of samples consisted of (1) water samples and (11) soil samples collected on 11/7/90.

The samples were analyzed according to criteria set forth in CLP SOW 7/87.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory.

2. All ICV and CCV values were within control limits.

3. All ICB and CCB values were within control limits.

4. All preparation blank values were within control limits.

5. All LCS results were within the 80-120% control limits.

   Note: The USEPA has dropped control limits for antimony and silver due to documented difficulties in obtaining reliable results. WESTON Analytics has adopted the same policy.

6. All matrix spike recoveries were within the 75-125% control limits with the exception of Sb, As, Cu, Pb, Se, Ag, and Tl. All corresponding samples were flagged with an "N" according to CLP protocol.

7. All duplicate analyses were within the 20% RPD control limits with the exception of Al. All corresponding samples were flagged with an "*" according to CLP protocol.

WESTON

8. Pb and Se samples results were calculated by the method of standard addition (MSA). All corresponding samples were flagged with an "S" according to CLP protocol.

Jack R. Tuschall, Ph.D.
Laboratory Manager
WESTON Analytical Laboratories

2-8-91
Date

WESTON ANALYTICS
INORGANIC METHODOLOGY SUMMARY

METALS

EPA	206.2	:	As		
EPA	200.7	:	Sb		
EPA	239.1	:	Pb		
EPA	270.1	:	Se		
EPA	279.2	:	Tl		
EPA	245.1	:	Hg		
EPA	200.72	:	Ag	Co	Mn
			Al	Cr	Na
			Ba	Cu	Ni
			Be	Fe	V
			Ca	K	Zn
			Cd	Mg	

Total Cyanide : EPA 335.2

Total Recoverable Phenolics : EPA 420.1

Other :

USEPA CONTRACT LABORATORY PROGRAM
DATA QUALIFIER DESCRIPTIONS
INORGANIC ANALYSIS SOW NO. 787

CONCENTRATION QUALIFIERS:

B = INDICATES THAT THE REPORTED VALUE IS LESS THAN THE CRDL BUT GREATER THAN THE IDL.

U = INDICATES THAT THE ANALYTE WAS ANALYZED FOR BUT NOT DETECTED.

QUALIFIERS:

E = THE REPORTED VALUE IS ESTIMATED BECAUSE OF THE PRESENCE OF INTERFERENCE.

M = DUPLICATE INJECTION PRECISION NOT MET.

N = SPIKED SAMPLE RECOVERY NOT WITHIN CONTROL LIMITS.

S = THE REPORTED VALUE WAS DETERMINED BY THE METHOD OF STANDARD ADDITIONS (MSA).

W = POST DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUT OF CONTROL LIMITS (85-125%) WHILE SAMPLE ABSORBANCE IS LESS THAN 50% OF SPIKE ABSORBANCE.

* = DUPLICATE ANALYSIS NOT WITHIN CONTROL LIMITS.

+ = CORRELATION COEFFICIENT FOR THE MSA IS LESS THAN 0.995.

METHOD:

P = ICP
A = FLAME AA
F = FURNACE AA
CV = MANUAL COLD VAPOR AA.
AV = AUTOMATED COLD VAPOR AA.
AS = SEMI-AUTOMATED SPECTROPHOTOMETRIC
C = MANUAL SPECTROPHOTOMETRIC
T = TITRIMETRIC
NR = NOT REQUIRED

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB91-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518004

Level (low/med): LOW Date Received: 11/07/90

% Solids: 94.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3260		E *	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.55	B	N	F
7440-39-3	Barium	6.2	B		P
7440-41-7	Beryllium	0.25	B		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	76.0	B		P
7440-47-3	Chromium	0.84	U		P
7440-48-4	Cobalt	2.5	B		P
7440-50-8	Copper	2.1	B	N	P
7439-89-6	Iron	11200		E	P
7439-92-1	Lead	2.6		N	F
7439-95-4	Magnesium	63.2	B		P
7439-96-5	Manganese	26.4		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	192	U		P
7782-49-2	Selenium	0.41	U	NW	F
7440-22-4	Silver	0.84	U	N	P
7440-23-5	Sodium	31.6	B		P
7440-28-0	Thallium	0.81	U	N	F
7440-62-2	Vanadium	6.4	B		P
7440-66-6	Zinc	4.3			P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB55-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518005

Level (low/med): LOW Date Received: 11/07/90

% Solids: 94.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8610		E*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.74	B	N	F
7440-39-3	Barium	36.2	B		P
7440-41-7	Beryllium	3.5			P
7440-43-9	Cadmium	1.2			P
7440-70-2	Calcium	1890			P
7440-47-3	Chromium	158			P
7440-48-4	Cobalt	8.2	B		P
7440-50-8	Copper	91.3		N	P
7439-89-6	Iron	23200		E	P
7439-92-1	Lead	9.0	B	N	F
7439-95-4	Magnesium	1460			P
7439-96-5	Manganese	371		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	179			P
7440-09-7	Potassium	185	U		P
7782-49-2	Selenium	0.42	U	NW	F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	188	B		P
7440-28-0	Thallium	8.4	U	N	F
7440-62-2	Vanadium	671			P
7440-66-6	Zinc	48.9			P
	Cyanide	0.53	U		C

Color Before: Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB55-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518006

Level (low/med): LOW Date Received: 11/07/90

% Solids: 89.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9440		E*	P
7440-36-0	Antimony	4.9	U	N	P
7440-38-2	Arsenic	0.43	U	N	F
7440-39-3	Barium	23.0	B		P
7440-41-7	Beryllium	0.51	B		P
7440-43-9	Cadmium	0.89	U		P
7440-70-2	Calcium	74.4	B		P
7440-47-3	Chromium	6.4			P
7440-48-4	Cobalt	11.3			P
7440-50-8	Copper	2.2	B	N	P
7439-89-6	Iron	31500		E	P
7439-92-1	Lead	14.7		N	F
7439-95-4	Magnesium	464	B		P
7439-96-5	Manganese	68.5		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.7	B		P
7440-09-7	Potassium	511	B		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	0.89	U	N	P
7440-23-5	Sodium	77.0	B		P
7440-28-0	Thallium	8.6	U	N	F
7440-62-2	Vanadium	16.6			P
7440-66-6	Zinc	7.5			P
	Cyanide	0.56	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-5827-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518009

Level (low/med): LOW Date Received: 11/07/90

% Solids: 89.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12000		E*	P
7440-36-0	Antimony	4.9	U	N	P
7440-38-2	Arsenic	0.93	B	N	F
7440-39-3	Barium	26.8	B		P
7440-41-7	Beryllium	0.51	B		P
7440-43-9	Cadmium	0.88	U		P
7440-70-2	Calcium	76.0	B		P
7440-47-3	Chromium	7.5			P
7440-48-4	Cobalt	4.9	B		P
7440-50-8	Copper	3.7	B	N	P
7439-89-6	Iron	21600		E	P
7439-92-1	Lead	4.9	B	N	F
7439-95-4	Magnesium	525	B		P
7439-96-5	Manganese	49.9		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	7.0	B		P
7440-09-7	Potassium	450	B		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	0.88	U	N	P
7440-23-5	Sodium	161	B		P
7440-28-0	Thallium	0.86	U	NW	F
7440-62-2	Vanadium	21.2			P
7440-66-6	Zinc	12.5			P
	Cyanide	0.56	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

smc-5327-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518010

Level (low/med): LOW Date Received: 11/07/90

% Solids: 94.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2290		E*	P
7440-36-0	Antimony	5.8	B	N	P
7440-38-2	Arsenic	0.58	B	NW	F
7440-39-3	Barium	12.8	B		P
7440-41-7	Beryllium	0.28	B		P
7440-43-9	Cadmium	0.80	U		P
7440-70-2	Calcium	66.5	B		P
7440-47-3	Chromium	2.6			P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	1.5	B	N	P
7439-89-6	Iron	2990		E	P
7439-92-1	Lead	2.8		S N	F
7439-95-4	Magnesium	111	B		P
7439-96-5	Manganese	11.0		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.9	B		P
7440-09-7	Potassium	189	B		P
7782-49-2	Selenium	0.42	U	NW	F
7440-22-4	Silver	0.80	U	N	P
7440-23-5	Sodium	119	B		P
7440-28-0	Thallium	8.3	U	NW	F
7440-62-2	Vanadium	35.9			P
7440-66-6	Zinc	2.7	B		P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB44-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518016

Level (low/med): LOW Date Received: 11/07/90

% Solids: 82.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6760		E*	P
7440-36-0	Antimony	4.9	U	N	P
7440-38-2	Arsenic	1.7	B	NW	F
7440-39-3	Barium	15.8	B		P
7440-41-7	Beryllium	6.6			P
7440-43-9	Cadmium	0.89	U		P
7440-70-2	Calcium	2340			P
7440-47-3	Chromium	97.5			P
7440-48-4	Cobalt	5.0	B		P
7440-50-8	Copper	4.4	B	N	P
7439-89-6	Iron	21000		E	P
7439-92-1	Lead	9.0	B		F
7439-95-4	Magnesium	1130			P
7439-96-5	Manganese	612		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.9	B		P
7440-09-7	Potassium	467	B		P
7782-49-2	Selenium	0.46	U	NW	F
7440-22-4	Silver	0.89	U	N	P
7440-23-5	Sodium	66.3	B		P
7440-28-0	Thallium	9.3	U	N	F
7440-62-2	Vanadium	1280			P
7440-66-6	Zinc	13.7			P
	Cyanide				

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-5044-DE

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518017

Level (low/med): LOW Date Received: 11/07/90

% Solids: 92.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5760		E*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	1.9	B	N	F
7440-39-3	Barium	26.9	B		P
7440-41-7	Beryllium	0.26	B		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	240	B		P
7440-47-3	Chromium	5.1			P
7440-48-4	Cobalt	1.8	B		P
7440-50-8	Copper	2.5	B	N	P
7439-89-6	Iron	7480		E	P
7439-92-1	Lead	4.6	B	N	F
7439-95-4	Magnesium	891	B		P
7439-96-5	Manganese	54.6		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	389	B		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	0.85	U	N	P
7440-23-5	Sodium	179	B		P
7440-28-0	Thallium	8.0	U	N	F
7440-62-2	Vanadium	12.4			P
7440-66-6	Zinc	8.5			P
	Cyanide				

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

SMC-SB10-05

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518018

Level (low/med): LOW Date Received: 11/07/90

% Solids: 97.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	257		E*	P
7440-36-0	Antimony	4.2	U	N	P
7440-38-2	Arsenic	0.38	U	N	F
7440-39-3	Barium	1.9	U		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.76	U		P
7440-70-2	Calcium	27.8	B		P
7440-47-3	Chromium	0.95	B		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	0.95	U	N	P
7439-89-6	Iron	760		E	P
7439-92-1	Lead	1.4		N	F
7439-95-4	Magnesium	20.6	U		P
7439-96-5	Manganese	3.8		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.9	U		P
7440-09-7	Potassium	175	U		P
7782-49-2	Selenium	0.38	U	NW	F
7440-22-4	Silver	0.76	U	N	P
7440-23-5	Sodium	28.2	B		P
7440-28-0	Thallium	0.76	U	N	F
7440-62-2	Vanadium	1.1	U		P
7440-66-6	Zinc	4.2			P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB16-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518019

Level (low/med): LOW Date Received: 11/07/90

% Solids: 95.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3160		E*	P
7440-36-0	Antimony	4.4	U	N	P
7440-38-2	Arsenic	0.85	B	NW	F
7440-39-3	Barium	11.0	B		P
7440-41-7	Beryllium	0.38	B		P
7440-43-9	Cadmium	0.80	U		P
7440-70-2	Calcium	131	B		P
7440-47-3	Chromium	0.80	U		P
7440-48-4	Cobalt	10.2			P
7440-50-8	Copper	1.3	B	N	P
7439-89-6	Iron	11200		E	P
7439-92-1	Lead	3.2		SN	F
7439-95-4	Magnesium	142	B		P
7439-96-5	Manganese	69.8		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	362	B		P
7782-49-2	Selenium	0.41	U	NW	F
7440-22-4	Silver	0.80	U	N	P
7440-23-5	Sodium	71.9	B		P
7440-28-0	Thallium	0.81	U	NW	F
7440-62-2	Vanadium	44.0			P
7440-66-6	Zinc	5.7			P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

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EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

smc-SB510-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518020

Level (low/med): LOW Date Received: 11/07/90

% Solids: 88.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3960		E *	P
7440-36-0	Antimony	4.8	U	N	P
7440-38-2	Arsenic	1.2	B	NW	F
7440-39-3	Barium	30.2	B		P
7440-41-7	Beryllium	0.22	U		P
7440-43-9	Cadmium	0.87	U		P
7440-70-2	Calcium	553	B		P
7440-47-3	Chromium	3.5			P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	1.7	B	N	P
7439-89-6	Iron	4110		E	P
7439-92-1	Lead	8.8		N	F
7439-95-4	Magnesium	319	B		P
7439-96-5	Manganese	85.9		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.2	U		P
7440-09-7	Potassium	279	B		P
7782-49-2	Selenium	0.44	U	NW	F
7440-22-4	Silver	0.87	U	N	P
7440-23-5	Sodium	52.2	B		P
7440-28-0	Thallium	0.88	U	NW	F
7440-62-2	Vanadium	7.3	B		P
7440-66-6	Zinc	8.7			P
	Cyanide	0.56	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

smc-5B46-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP518

Matrix (soil/water): SOIL Lab Sample ID: 9011518021

Level (low/med): LOW Date Received: 11/07/90

% Solids: 95.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1770		E*	P
7440-36-0	Antimony	4.4	U	N	P
7440-38-2	Arsenic	1.0	B	N	F
7440-39-3	Barium	8.7	B		P
7440-41-7	Beryllium	1.6			P
7440-43-9	Cadmium	0.80	U		P
7440-70-2	Calcium	1710			P
7440-47-3	Chromium	6.6			P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	2.3	B	N	P
7439-89-6	Iron	2610		E	P
7439-92-1	Lead	2.3		✓	F
7439-95-4	Magnesium	844	B		P
7439-96-5	Manganese	22.0		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	19.0			P
7440-09-7	Potassium	213	B		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	0.80	U	N	P
7440-23-5	Sodium	35.4	B		P
7440-28-0	Thallium	0.80	U	NW	F
7440-62-2	Vanadium	308			P
7440-66-6	Zinc	6.0			P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

WESTON BATCH #: 9011L518

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-016	SMC-SB44-01	Silver, Total	2.2	u	MG/KG	2.2
		Aluminum, Total	6760		MG/KG	44.6
		Arsenic, Total	2.3	u	MG/KG	2.3
		Barium, Total	44.6	u	MG/KG	44.6
		Beryllium, Total	6.6		MG/KG	1.1
		Calcium, Total	2340		MG/KG	1120
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	11.2	u	MG/KG	11.2
		Chromium, Total	97.4		MG/KG	2.2
		Copper, Total	5.6	u	MG/KG	5.6
		Iron, Total	21000		MG/KG	22.3
		Mercury, Total	0.10	u	MG/KG	0.10
		Potassium, Total	1120	u	MG/KG	1120
		Magnesium, Total	1130		MG/KG	1120
		Manganese, Total	612		MG/KG	3.3
		Sodium, Total	1120	u	MG/KG	1120
16	SMC-SB44-01	Nickel, Total	8.9	u	MG/KG	8.9
		Lead, Total	9.0		MG/KG	7.0
		Antimony, Total	13.4	u	MG/KG	13.4
		Selenium, Total	1.2	u	MG/KG	1.2
		Titanium, Total	156		MG/KG	22.3
		Thallium, Total	23.2	u	MG/KG	23.2
		Vanadium, Total	1280		MG/KG	11.2
		Zinc, Total	13.7		MG/KG	4.5

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L518

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-017	SMC-SB44-02	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	5770		MG/KG	42.8
		Arsenic, Total	2.0	u	MG/KG	2.0
		Barium, Total	42.8	u	MG/KG	42.8
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1070	u	MG/KG	1070
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.7	u	MG/KG	10.7
		Chromium, Total	5.1		MG/KG	2.1
		Copper, Total	5.3	u	MG/KG	5.3
		Iron, Total	7490		MG/KG	21.4
		Mercury, Total	0.086	u	MG/KG	0.086
		Potassium, Total	1070	u	MG/KG	1070
		Magnesium, Total	1070	u	MG/KG	1070
		Manganese, Total	54.7		MG/KG	3.2
		Sodium, Total	1070	u	MG/KG	1070
		Nickel, Total	8.6	u	MG/KG	8.6
		Lead, Total	4.6		MG/KG	3.0
		Antimony, Total	12.8	u	MG/KG	12.8
		Selenium, Total	1.0	u	MG/KG	1.0
		Titanium, Total	205		MG/KG	21.4
		Thallium, Total	20.1	u	MG/KG	20.1
		Vanadium, Total	12.4		MG/KG	10.7
		Zinc, Total	8.5		MG/KG	4.3
-018	SMC-SB40-05	Silver, Total	1.9	u	MG/KG	1.9
		Aluminum, Total	257		MG/KG	38.2
		Arsenic, Total	1.9	u	MG/KG	1.9
		Boron, Total	19.1	u	MG/KG	19.1
		Barium, Total	38.2	u	MG/KG	38.2
		Beryllium, Total	0.95	u	MG/KG	0.95
		Calcium, Total	955	u	MG/KG	955
		Cadmium, Total	0.95	u	MG/KG	0.95
		Cobalt, Total	9.5	u	MG/KG	9.5
		Chromium, Total	1.9	u	MG/KG	1.9
		Copper, Total	4.8	u	MG/KG	4.8
		Iron, Total	761		MG/KG	19.1
		Mercury, Total	0.054	u	MG/KG	0.054
		Potassium, Total	955	u	MG/KG	955
		Magnesium, Total	955	u	MG/KG	955

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L518

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-018	SMC-SB40-05	Manganese, Total	3.8		MG/KG	2.9
		Sodium, Total	955	u	MG/KG	955
		Niobium, Total	38.2	u	MG/KG	38.2
		Nickel, Total	7.6	u	MG/KG	7.6
		Lead, Total	1.4		MG/KG	0.57
		Antimony, Total	11.5	u	MG/KG	11.5
		Selenium, Total	0.95	u	MG/KG	0.95
		Strontium, Total	19.1	u	MG/KG	19.1
		Titanium, Total	29.4		MG/KG	19.1
		Thallium, Total	1.9	u	MG/KG	1.9
		Vanadium, Total	9.5	u	MG/KG	9.5
		Zinc, Total	4.2		MG/KG	3.8

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L518

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-019	SMC-SB46-04	Silver, Total	2.0	u	MG/KG	2.0
		Aluminum, Total	3170		MG/KG	40.4
		Arsenic, Total	2.0	u	MG/KG	2.0
		Barium, Total	40.4	u	MG/KG	40.4
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1010	u	MG/KG	1010
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.2		MG/KG	10.1
		Chromium, Total	2.0	u	MG/KG	2.0
		Copper, Total	5.1	u	MG/KG	5.1
		Iron, Total	11300		MG/KG	20.2
		Mercury, Total	0.072	u	MG/KG	0.072
		Potassium, Total	1010	u	MG/KG	1010
		Magnesium, Total	1010	u	MG/KG	1010
		Manganese, Total	70.1		MG/KG	3.0
		Sodium, Total	1010	u	MG/KG	1010
		Nickel, Total	8.1	u	MG/KG	8.1
		Lead, Total	3.2		MG/KG	1.2
		Antimony, Total	12.1	u	MG/KG	12.1
		Selenium, Total	1.0	u	MG/KG	1.0
		Titanium, Total	98.5		MG/KG	20.2
		Thallium, Total	2.0	u	MG/KG	2.0
		Vanadium, Total	44.1		MG/KG	10.1
		Zinc, Total	5.7		MG/KG	4.0
-020	SMC-SB40-02	Silver, Total	2.2	u	MG/KG	2.2
		Aluminum, Total	3970		MG/KG	43.5
		Arsenic, Total	2.2	u	MG/KG	2.2
		Barium, Total	43.5	u	MG/KG	43.5
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1090	u	MG/KG	1090
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.9	u	MG/KG	10.9
		Chromium, Total	3.5		MG/KG	2.2
		Copper, Total	5.4	u	MG/KG	5.4
		Iron, Total	4120		MG/KG	21.8
		Mercury, Total	0.11	u	MG/KG	0.11
		Potassium, Total	1090	u	MG/KG	1090
		Magnesium, Total	1090	u	MG/KG	1090
		Manganese, Total	86.3		MG/KG	3.3

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L518

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-020	SMC-SB40-02	Sodium, Total	1090	u	MG/KG	1090
		Nickel, Total	8.7	u	MG/KG	8.7
		Lead, Total	8.8		MG/KG	0.66
		Antimony, Total	13.1	u	MG/KG	13.1
		Selenium, Total	1.1	u	MG/KG	1.1
		Titanium, Total	120		MG/KG	21.8
		Thallium, Total	2.2	u	MG/KG	2.2
		Vanadium, Total	10.9	u	MG/KG	10.9
		Zinc, Total	8.7		MG/KG	4.4

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L518

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-021	SMC-SB46-01	Silver, Total	2.0	u	MG/KG	2.0
		Aluminum, Total	1770		MG/KG	39.7
		Arsenic, Total	2.0	u	MG/KG	2.0
		Barium, Total	39.7	u	MG/KG	39.7
		Beryllium, Total	1.6		MG/KG	0.99
		Calcium, Total	1710		MG/KG	992
		Cadmium, Total	0.99	u	MG/KG	0.99
		Cobalt, Total	9.9	u	MG/KG	9.9
		Chromium, Total	6.6		MG/KG	2.0
		Copper, Total	5.0	u	MG/KG	5.0
		Iron, Total	2610		MG/KG	19.8
		Mercury, Total	0.095	u	MG/KG	0.095
		Potassium, Total	992	u	MG/KG	992
		Magnesium, Total	992	u	MG/KG	992
		Manganese, Total	22.0		MG/KG	3.0
		Sodium, Total	992	u	MG/KG	992
		Nickel, Total	19.0		MG/KG	7.9
		Lead, Total	2.3		MG/KG	0.60
		Antimony, Total	11.9	u	MG/KG	11.9
		Selenium, Total	1.0	u	MG/KG	1.0
		Titanium, Total	81.8		MG/KG	19.8
		Thallium, Total	2.0	u	MG/KG	2.0
		Vanadium, Total	308		MG/KG	9.9
		Zinc, Total	6.0		MG/KG	4.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L518

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-004	SMC-SB91-04	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	3270		MG/KG	42.0
		Arsenic, Total	2.0	u	MG/KG	2.0
		Boron, Total	21.0	u	MG/KG	21.0
		Barium, Total	42.0	u	MG/KG	42.0
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1050	u	MG/KG	1050
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.5	u	MG/KG	10.5
		Chromium, Total	2.1	u	MG/KG	2.1
		Copper, Total	5.2	u	MG/KG	5.2
		Iron, Total	11200		MG/KG	21.0
		Mercury, Total	0.082	u	MG/KG	0.082
		Potassium, Total	1050	u	MG/KG	1050
		Magnesium, Total	1050	u	MG/KG	1050
		Manganese, Total	26.4		MG/KG	3.1
		Sodium, Total	1050	u	MG/KG	1050
		Niobium, Total	42.0	u	MG/KG	42.0
		Nickel, Total	8.4	u	MG/KG	8.4
		Lead, Total	2.6		MG/KG	0.61
		Antimony, Total	12.6	u	MG/KG	12.6
		Selenium, Total	1.0	u	MG/KG	1.0
		Strontium, Total	21.0	u	MG/KG	21.0
		Titanium, Total	93.5		MG/KG	21.0
		Thallium, Total	2.0	u	MG/KG	2.0
		Vanadium, Total	10.5	u	MG/KG	10.5
		Zinc, Total	4.3		MG/KG	4.2
		Zirconium, Total	42.0	u	MG/KG	42.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L518

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-006	SMC-SB55-04	Silver, Total	2.2	u	MG/KG	2.2
		Aluminum, Total	9420		MG/KG	44.1
		Arsenic, Total	2.2	u	MG/KG	2.2
		Boron, Total	22.1	u	MG/KG	22.1
		Barium, Total	44.1	u	MG/KG	44.1
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1100	u	MG/KG	1100
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	11.3		MG/KG	11.0
		Chromium, Total	6.4		MG/KG	2.2
		Copper, Total	5.5	u	MG/KG	5.5
		Iron, Total	31500		MG/KG	22.1
		Mercury, Total	0.068	u	MG/KG	0.068
		Potassium, Total	1100	u	MG/KG	1100
		Magnesium, Total	1100	u	MG/KG	1100
		Manganese, Total	68.4		MG/KG	3.3
		Sodium, Total	1100	u	MG/KG	1100
		Niobium, Total	44.1	u	MG/KG	44.1
		Nickel, Total	8.8	u	MG/KG	8.8
		Lead, Total	14.8		MG/KG	3.2
		Antimony, Total	13.2	u	MG/KG	13.2
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	22.1	u	MG/KG	22.1
		Titanium, Total	193		MG/KG	22.1
		Thallium, Total	21.6	u	MG/KG	21.6
		Vanadium, Total	16.6		MG/KG	11.0
		Zinc, Total	7.5		MG/KG	4.4
		Zirconium, Total	44.1	u	MG/KG	44.1
-009	SMC-SB27-02	Silver, Total	2.2	u	MG/KG	2.2
		Aluminum, Total	12000		MG/KG	44.1
		Arsenic, Total	2.2	u	MG/KG	2.2
		Boron, Total	22.1	u	MG/KG	22.1
		Barium, Total	44.1	u	MG/KG	44.1
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1100	u	MG/KG	1100
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	11.0	u	MG/KG	11.0
		Chromium, Total	7.5		MG/KG	2.2
		Copper, Total	5.5	u	MG/KG	5.5

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L518

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-009	SMC-SB27-02	Iron, Total	21600		MG/KG	22.1
		Mercury, Total	0.097	u	MG/KG	0.097
		Potassium, Total	1100	u	MG/KG	1100
		Magnesium, Total	1100	u	MG/KG	1100
		Manganese, Total	49.9		MG/KG	3.3
		Sodium, Total	1100	u	MG/KG	1100
		Niobium, Total	44.1	u	MG/KG	44.1
		Nickel, Total	8.8	u	MG/KG	8.8
		Lead, Total	4.9		MG/KG	3.3
		Antimony, Total	13.2	u	MG/KG	13.2
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	22.1	u	MG/KG	22.1
		Titanium, Total	241		MG/KG	22.1
		Thallium, Total	2.2	u	MG/KG	2.2
		Vanadium, Total	21.2		MG/KG	11.0
		Zinc, Total	12.5		MG/KG	4.4
		Zirconium, Total	1120		MG/KG	44.1

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L518

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-004	SMC-SB91-04	% Solids	94.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-005	SMC-SB55-01	% Solids	94.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.89		MG/KG	0.11
-006	SMC-SB55-04	% Solids	89.5		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.28		MG/KG	0.11
-008	SMC-SB42-04	Cyanide, Total	1.1	u	MG/KG	1.1
-009	SMC-SB27-02	% Solids	89.8		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-010	SMC-SB27-04	% Solids	94.9		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.10	u	MG/KG	0.10
-016	SMC-SB44-01	% Solids	82.2		%	0.10
-017	SMC-SB44-02	% Solids	92.7		%	0.10
-018	SMC-SB40-05	% Solids	97.0		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.10	u	MG/KG	0.10
019	SMC-SB46-04	% Solids	95.6		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L518

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-020	SMC-SB40-02	% Solids	88.7		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
-021	SMC-SB46-01	% Solids	95.8		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	SMC-SB08-01	% Solids	94.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-002	SMC-SB08-02	% Solids	58.9		%	0.10
		Cyanide, Total	1.7	u	MG/KG	1.7
		Chromium VI	0.17	u	MG/KG	0.17
-003	SMC-SB35-04	% Solids	91.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-005	SMC-SB94-04	% Solids	90.3		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	7.7		MG/KG	0.11
-006	SMC-SB29-04	% Solids	92.3		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
-007	SMC-SB29-01	% Solids	92.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
-008	SMC-SB35-01	% Solids	95.8		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.19		MG/KG	0.10
-009	SMC-SB34-01	% Solids	90.2		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-010	SMC-SB30-04	% Solids	87.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-011	SMC-SB31-04	% Solids	97.8		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.22		MG/KG	0.10

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-012	SMC-SB31-01	% Solids	91.3		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.64		MG/KG	0.11
-013	SMC-SB30-01	% Solids	91.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	1.3		MG/KG	0.11
-014	SMC-SB45-02	% Solids	92.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
-015	SMC-SB45-03	% Solids	96.3		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
-016	SMC-SB60-02	% Solids	92.8		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
17	SMC-SB60-04	% Solids	94.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-018	SMC-SB34-04	% Solids	92.2		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	9.1		MG/KG	0.11
-019	SMC-SB10-01	% Solids	91.8		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-020	SMC-SB16-03	% Solids	86.2		%	0.10
		Cyanide, Total	1.2	u	MG/KG	1.2
		Chromium VI	0.12	u	MG/KG	0.12
-021	SMC-SB12-03	% Solids	82.2		%	0.10
		Cyanide, Total	1.2	u	MG/KG	1.2
		Chromium VI	0.25		MG/KG	0.12

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-022	SMC-SB15-01	% Solids	88.9	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.11 u	MG/KG	0.11
-023	SMC-SB14-01	% Solids	92.4	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.11 u	MG/KG	0.11
-024	SMC-SB10-03	% Solids	94.6	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.11 u	MG/KG	0.11
-025	SMC-SB14-02	% Solids	96.4	%	0.10
		Cyanide, Total	1.0 u	MG/KG	1.0
		Chromium VI	0.10 u	MG/KG	0.10
-026	SMC-SB15-02	% Solids	96.3	%	0.10
		Cyanide, Total	1.0 u	MG/KG	1.0
		Chromium VI	0.10 u	MG/KG	0.10
-027	AMX-SB17-02	% Solids	96.7	%	0.10
		Cyanide, Total	1.0 u	MG/KG	1.0
		Chromium VI	0.10 u	MG/KG	0.10
-028	SMC-SB18-01	% Solids	91.3	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.27	MG/KG	0.11
-029	SMC-SB17-01	% Solids	93.1	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.11 u	MG/KG	0.11
-030	SMC-SB18-02	% Solids	92.3	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.10 u	MG/KG	0.10
-031	SMC-SB32-04	% Solids	92.4	%	0.10
		Cyanide, Total	1.1 u	MG/KG	1.1
		Chromium VI	0.11 u	MG/KG	0.11

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-032	SMC-SB32-01	% Solids	93.6		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.79		MG/KG	0.11
-033	SMC-SB33-01	% Solids	95.4		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.10	u	MG/KG	0.10
-034	SMC-SB33-04	% Solids	91.0		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-035	SMC-SB93-01	% Solids	96.4		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
-036	SMC-SB95-01	% Solids	93.3		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-037	SMC-SB94-02	% Solids	93.9		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-038	SMC-SB97-02	% Solids	95.3		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.10	u	MG/KG	0.10

Roy F. Weston, INC.
Lionville Laboratory

CLIENT:TRC/SHIELD ALLOY SAMPLES RECEIVED:11/9/90
RFW #:9011L541
W.O.#:2724-05-01-0000

METALS NARRATIVE

The set of samples consisted of (1) water sample0 and (37) soil samples collected on 11/8/90.

The samples were analyzed according to criteria set forth in CLP SOW 7/87.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory.

2. All ICV and CCV values were within control limits.

3. All ICB and CCB values were within control limits.

4. All preparation blank values were within control limits.

5. All LCS results were within the 80-120% control limits.

   Note: The USEPA has dropped control limits for antimony and silver due to documented difficulties in obtaining reliable results. WESTON Analytics has adopted the same policy.

6. All matrix spike recoveries were within the 75-125% control limits with the exception of As, Cu, Mn, Ag, Tl, Sb, Cr and V. All corresponding samples were flagged with an "N" according to CLP protocol.

7. All duplicate analyses were within the 20% RPD control limits with the exception of Al, Ca, Mg, V, Pb, Mn, Zn. All corresponding samples were flagged with an "*" according to CLP protocol.

WESTON

8. Pb and As sample results were calculated by the method of standard addition (MSA). All corresponding samples were flagged with an "S" according to CLP protocol.

Jack R. Tuschall, Ph.D.
Laboratory Manager
WESTON Analytical Laboratories

3-15-21
Date

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

SOW No.: 07/87

EPA Sample No.	Lab Sample ID.
SMCSB8601	9011541001
SMCSB8601D	9011541001
SMCSB8601S	9011541001
SMCSB8602	9011541002
SMCSB3504	9011541003
SMCSB3504D	9011541003
SMCSB3504S	9011541003
SMCSB9404	9011541005
SMCSB9429-04	9011541006
SMCSB8[illegible]-01	9011541007
SMCSB 3[illegible]-01	9011541008
SMCSB 3[illegible]-01	9011541009
SMCSB3004	9011541010
SMCSB3104	9011541011
SMCSB3101	9011541012
SMCSB3001	9011541013
SMCSB0502	9011541014
SMCSB0503	9011541015
SMCSB1002	9011541016
SMCSB1004	9011541017
SMCSB3404	9011541018
SMCSB10-01	9011541019
SMCSB10D	9011541019
SMCSB10S	9011541019

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: [signature]

Date: 3-15-9[illegible]

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

SOW No.: 07/87

EPA Sample No.	Lab Sample ID.
SMC SB1603	9011541020
SMC SB1203	9011541021
SMC SB1501	9011541022
SMC SB1501D	9011541022
SMC SB1501S	9011541022
SMC SB1601	9011541023
SMC SB1401D	9011541023
SMC SB1401S	9011541023
SMC SB1603	9011541024
SMC SB1402	9011541025
SMC SB1502	9011541026
SMC SB1702	9011541027
SMC SB1801	9011541028
SMC SB1701	9011541029
SMC SB1802	9011541030
SMC SB3204	9011541031
SMC SB3201	9011541032
SMC SB3301	9011541033
SMC SB3304	9011541034
SMC SB9301	9011541035
SMC SB9501	9011541036
SMC SB9402	9011541037
SMC-SB97-02	9011541038
SMC-SB97-02D	9011541038
SMC-SB97-02S	9011541038
SMC EB-1108	9011541039

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by e Laboratory Manager or the Manager's designee, as verified by the llowing signature.

Lab Manager: _____

Date: _____

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB08-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541001

Level (low/med): LOW Date Received: 11/09/90

% Solids: 94.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5360		*	P
7440-36-0	Antimony	4.4	U	N	P
7440-38-2	Arsenic	1.4	B	N	F
7440-39-3	Barium	13.0	B		P
7440-41-7	Beryllium	2.1			P
7440-43-9	Cadmium	0.80	U		P
7440-70-2	Calcium	4950		*	P
7440-47-3	Chromium	30.8		N	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	2.3	B	N	P
7439-89-6	Iron	2200			P
7439-92-1	Lead	9.3		*	F
7439-95-4	Magnesium	2440		*	P
7439-96-5	Manganese	92.9		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	11.6			P
7440-09-7	Potassium	182	U		P
7782-49-2	Selenium	0.41	U	W	F
7440-22-4	Silver	0.80	U	N	P
7440-23-5	Sodium	103	B		P
7440-28-0	Thallium	0.82	U	N	F
7440-62-2	Vanadium	435		EN*	P
7440-66-6	Zinc	9.2		E*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB08-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541002

Level (low/med): LOW Date Received: 11/09/90

% Solids: 58.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3510		*	P
7440-36-0	Antimony	7.2	U	N	P
7440-38-2	Arsenic	0.81	B	N	F
7440-39-3	Barium	12.7	B		P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	1.3	U		P
7440-70-2	Calcium	274	B	*	P
7440-47-3	Chromium	6.5		N	P
7440-48-4	Cobalt	2.3	U		P
7440-50-8	Copper	2.1	B	N	P
7439-89-6	Iron	4300			P
7439-92-1	Lead	3.2		*	F
7439-95-4	Magnesium	410	B	*	P
7439-96-5	Manganese	32.3		N*	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	3.9	B		P
7440-09-7	Potassium	391	B		P
7782-49-2	Selenium	0.67	U		F
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	101	B		P
7440-28-0	Thallium	1.3	U	NW	F
7440-62-2	Vanadium	182		EN*	P
7440-66-6	Zinc	8.1		E*	P
	Cyanide	0.85	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB35-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541003

Level (low/med): LOW Date Received: 11/09/90

% Solids: 91.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2470		*	P
7440-36-0	Antimony	4.6	B	N	P
7440-38-2	Arsenic	0.42	U	N	F
7440-39-3	Barium	5.4	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	45.2	B	*	P
7440-47-3	Chromium	0.89	B	N	P
7440-48-4	Cobalt	1.6	B		P
7440-50-8	Copper	2.5	B	N	P
7439-89-6	Iron	7790			P
7439-92-1	Lead	2.0		*	F
7439-95-4	Magnesium	47.2	B	*	P
7439-96-5	Manganese	13.3		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	275	B		P
7782-49-2	Selenium	0.42	U	W	F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	45.0	B		P
7440-28-0	Thallium	0.83	U	NW	F
7440-62-2	Vanadium	1.2	U	EN*	P
7440-66-6	Zinc	3.0	B	E*	P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB94-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541005

Level (low/med): LOW Date Received: 11/09/90

% Solids: 90.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5510		*	P
7440-36-0	Antimony	4.8	U	N	P
7440-38-2	Arsenic	0.44	U	N	F
7440-39-3	Barium	8.1	B		P
7440-41-7	Beryllium	0.27	B		P
7440-43-9	Cadmium	0.88	U		P
7440-70-2	Calcium	58.8	B	*	P
7440-47-3	Chromium	77.5		N	P
7440-48-4	Cobalt	7.4	B		P
7440-50-8	Copper	5.1	B	N	P
7439-89-6	Iron	36100			P
7439-92-1	Lead	2.3		S	F
7439-95-4	Magnesium	111	B	*	P
7439-96-5	Manganese	48.1		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.2	U		P
7440-09-7	Potassium	201	U		P
7782-49-2	Selenium	0.44	U	W	F
7440-22-4	Silver	0.88	U	N	P
7440-23-5	Sodium	34.0	B		P
7440-28-0	Thallium	0.87	U	NW	F
7440-62-2	Vanadium	1.3	U	EN*	P
7440-66-6	Zinc	5.3		E*	P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB29-04

Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541006

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7810		*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	0.55	B	NW	F
7440-39-3	Barium	20.6	B		P
7440-41-7	Beryllium	0.30	B		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	157	B	*	P
7440-47-3	Chromium	3.5		N	P
7440-48-4	Cobalt	2.8	B		P
7440-50-8	Copper	6.9		N	P
7439-89-6	Iron	18400			P
7439-92-1	Lead	5.9		*	F
7439-95-4	Magnesium	149	B	*	P
7439-96-5	Manganese	36.1		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.5	B		P
7440-09-7	Potassium	679	B		P
7782-49-2	Selenium	0.42	U	W	F
7440-22-4	Silver	0.85	U	N	P
7440-23-5	Sodium	65.5	B		P
7440-28-0	Thallium	8.4	U	N	F
7440-62-2	Vanadium	15.9		EN*	P
7440-66-6	Zinc	5.4		E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB29-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541007

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8980		*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.58	B	N	F
7440-39-3	Barium	12.4	B		P
7440-41-7	Beryllium	0.59	B		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	680	B	*	P
7440-47-3	Chromium	13.0		N	P
7440-48-4	Cobalt	5.2	B		P
7440-50-8	Copper	7.5		N	P
7439-89-6	Iron	26400			P
7439-92-1	Lead	11.3		*	F
7439-95-4	Magnesium	296	B	*	P
7439-96-5	Manganese	120		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.1	B		P
7440-09-7	Potassium	773	B		P
7782-49-2	Selenium	0.40	U	W	F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	26.3	B		P
7440-28-0	Thallium	0.80	U	N	F
7440-62-2	Vanadium	48.9		EN*	P
7440-66-6	Zinc	10.8		E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

SMC-SB35-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541008

Level (low/med): LOW Date Received: 11/09/90

% Solids: 95.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3040		*	P
7440-36-0	Antimony	17.9		N	P
7440-38-2	Arsenic	0.60	B	N	F
7440-39-3	Barium	7.5	B		P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	1610		*	P
7440-47-3	Chromium	762		N	P
7440-48-4	Cobalt	3.1	B		P
7440-50-8	Copper	2.6	B	N	P
7439-89-6	Iron	7490			P
7439-92-1	Lead	2.5		*	F
7439-95-4	Magnesium	219	B	*	P
7439-96-5	Manganese	56.3		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	322	B		P
7782-49-2	Selenium	0.39	U		F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	56.1	B		P
7440-28-0	Thallium	0.78	U	N	F
7440-62-2	Vanadium	28.2		EN*	P
7440-66-6	Zinc	6.7		E*	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

SMC-SB34-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541009

Level (low/med): LOW Date Received: 11/09/90

% Solids: 90.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4470		*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	1.2	B	N	F
7440-39-3	Barium	33.7	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	1250		*	P
7440-47-3	Chromium	14.8		N	P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	3.1	B	N	P
7439-89-6	Iron	6770			P
7439-92-1	Lead	9.4		*	F
7439-95-4	Magnesium	201	B	*	P
7439-96-5	Manganese	44.6		N*	P
7439-97-6	Mercury	0.10			CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	464	B		P
7782-49-2	Selenium	0.42	U	W	F
7440-22-4	Silver	0.84	U	N	P
7440-23-5	Sodium	152	B		P
7440-28-0	Thallium	0.84	U	N	F
7440-62-2	Vanadium	8.2	B	EN*	P
7440-66-6	Zinc	11.4		E*	P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

SMC-SB30-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541010

Level (low/med): LOW Date Received: 11/09/90

% Solids: 87.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12500		*	P
7440-36-0	Antimony	5.0	U	N	P
7440-38-2	Arsenic	0.44	U	N	F
7440-39-3	Barium	13.3	B		P
7440-41-7	Beryllium	0.41	B		P
7440-43-9	Cadmium	0.90	U		P
7440-70-2	Calcium	135	B	*	P
7440-47-3	Chromium	0.90	U	N	P
7440-48-4	Cobalt	10.9	B		P
7440-50-8	Copper	11.7		N	P
7439-89-6	Iron	46800			P
7439-92-1	Lead	4.3	B	*	F
7439-95-4	Magnesium	233	B	*	P
7439-96-5	Manganese	70.6		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.7	B		P
7440-09-7	Potassium	207	U		P
7782-49-2	Selenium	0.44	U		F
7440-22-4	Silver	1.4	B	N	P
7440-23-5	Sodium	101	B		P
7440-28-0	Thallium	8.8	U	N	F
7440-62-2	Vanadium	13.8		EN*	P
7440-66-6	Zinc	7.5		E*	P
	Cyanide	0.57	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

SMC-SB31-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541011

Level (low/med): LOW Date Received: 11/09/90

% Solids: 97.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	687		*	P
7440-36-0	Antimony	4.3	U	N	P
7440-38-2	Arsenic	0.40	U	N	F
7440-39-3	Barium	2.6	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.79	U		P
7440-70-2	Calcium	26.1	B	*	P
7440-47-3	Chromium	11.3		N	P
7440-48-4	Cobalt	2.5	B		P
7440-50-8	Copper	0.98	U	N	P
7439-89-6	Iron	2580			P
7439-92-1	Lead	0.95	B	*	F
7439-95-4	Magnesium	22.6	B	*	P
7439-96-5	Manganese	21.9		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	180	U		P
7782-49-2	Selenium	0.40	U	W	F
7440-22-4	Silver	0.79	U	N	P
7440-23-5	Sodium	38.0	B		P
7440-28-0	Thallium	0.80	U	N	F
7440-62-2	Vanadium	12.6		EN*	P
7440-66-6	Zinc	4.4		E*	P
	Cyanide	0.51	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

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INORGANIC ANALYSIS DATA SHEET

SMC-SB31-0

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP5

Matrix (soil/water): SOIL Lab Sample ID: 90115410

Level (low/med): LOW Date Received: 11/09/90

% Solids: 91.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6620		*	P
7440-36-0	Antimony	16.8		N	P
7440-38-2	Arsenic	0.86	B	N	F
7440-39-3	Barium	26.1	B		P
7440-41-7	Beryllium	0.68	B		P
7440-43-9	Cadmium	0.87	U		P
7440-70-2	Calcium	1670		*	P
7440-47-3	Chromium	783		N	P
7440-48-4	Cobalt	3.2	B		P
7440-50-8	Copper	6.7		N	P
7439-89-6	Iron	10900			P
7439-92-1	Lead	57.2		S*	F
7439-95-4	Magnesium	572	B	*	P
7439-96-5	Manganese	163		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	7.4	B		P
7440-09-7	Potassium	653	B		P
7782-49-2	Selenium	0.43	U	W	F
7440-22-4	Silver	0.87	U	N	P
7440-23-5	Sodium	101	B		P
7440-28-0	Thallium	8.6	U	N	F
7440-62-2	Vanadium	109		EN*	P
7440-66-6	Zinc	30.5		E*	P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB30-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541013

Level (low/med): LOW Date Received: 11/09/90

% Solids: 91.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6900		*	P
7440-36-0	Antimony	39.5		N	P
7440-38-2	Arsenic	1.0	B	N	F
7440-39-3	Barium	39.9	B		P
7440-41-7	Beryllium	1.4			P
7440-43-9	Cadmium	0.92	B		P
7440-70-2	Calcium	1690		*	P
7440-47-3	Chromium	2280		N	P
7440-48-4	Cobalt	5.7	B		P
7440-50-8	Copper	10.8		N	P
7439-89-6	Iron	13400			P
7439-92-1	Lead	43.0		*	F
7439-95-4	Magnesium	720	B	*	P
7439-96-5	Manganese	1240		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	24.0			P
7440-09-7	Potassium	426	B		P
7782-49-2	Selenium	0.42	U	W	F
7440-22-4	Silver	0.82	U	N	P
7440-23-5	Sodium	96.1	B		P
7440-28-0	Thallium	8.4	U	N	F
7440-62-2	Vanadium	262		EN*	P
7440-66-6	Zinc	75.0		E*	P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

SMC-SB45-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541014

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3780		*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	1.1	B	NW	F
7440-39-3	Barium	7.8	B		P
7440-41-7	Beryllium	0.47	B		P
7440-43-9	Cadmium	0.86	U		P
7440-70-2	Calcium	466	B	*	P
7440-47-3	Chromium	57.8		N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	4.7	B	N	P
7439-89-6	Iron	4910			P
7439-92-1	Lead	52.6		*	F
7439-95-4	Magnesium	369	B	*	P
7439-96-5	Manganese	46.7		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.3	B		P
7440-09-7	Potassium	266	B		P
7782-49-2	Selenium	0.48	B	W	F
7440-22-4	Silver	0.86	U	N	P
7440-23-5	Sodium	97.4	B		P
7440-28-0	Thallium	8.3	U	N	F
7440-62-2	Vanadium	86.8		EN*	P
7440-66-6	Zinc	13.8		E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

SMC-SB 45-03

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541015

Level (low/med): LOW Date Received: 11/09/90

% Solids: 96.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2270		*	P
7440-36-0	Antimony	4.4	U	N	P
7440-38-2	Arsenic	0.62	B	N	F
7440-39-3	Barium	4.9	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.79	U		P
7440-70-2	Calcium	95.7	B	*	P
7440-47-3	Chromium	5.1		N	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	1.2	B	N	P
7439-89-6	Iron	3040			P
7439-92-1	Lead	1.9		*	F
7439-95-4	Magnesium	191	B	*	P
7439-96-5	Manganese	50.4		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	219	B		P
7782-49-2	Selenium	0.41	U	W	F
7440-22-4	Silver	0.79	U	N	P
7440-23-5	Sodium	65.5	B		P
7440-28-0	Thallium	0.83	U	NW	F
7440-62-2	Vanadium	23.6		EN*	P
7440-66-6	Zinc	3.2	B	E*	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

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EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB60-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541016

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4370		*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.42	U	N	F
7440-39-3	Barium	13.4	B		P
7440-41-7	Beryllium	0.38	B		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	96.3	B	*	P
7440-47-3	Chromium	28.4		N	P
7440-48-4	Cobalt	4.4	B		P
7440-50-8	Copper	3.7	B	N	P
7439-89-6	Iron	17800			P
7439-92-1	Lead	8.3		*	F
7439-95-4	Magnesium	223	B	*	P
7439-96-5	Manganese	93.0		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	11.2			P
7440-09-7	Potassium	193	U		P
7782-49-2	Selenium	0.42	U	W	F
7440-22-4	Silver	0.84	U	N	P
7440-23-5	Sodium	67.8	B		P
7440-28-0	Thallium	0.85	U	NW	F
7440-62-2	Vanadium	46.0		EN*	P
7440-66-6	Zinc	11.4		E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB60-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541017

Level (low/med): LOW Date Received: 11/09/90

% Solids: 94.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5570		*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.48	B	N	F
7440-39-3	Barium	16.1	B		P
7440-41-7	Beryllium	0.45	B		P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	73.4	B	*	P
7440-47-3	Chromium	17.4		N	P
7440-48-4	Cobalt	4.3	B		P
7440-50-8	Copper	4.6	B	N	P
7439-89-6	Iron	20000			P
7439-92-1	Lead	13.2		*	F
7439-95-4	Magnesium	231	B	*	P
7439-96-5	Manganese	91.4		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	14.4			P
7440-09-7	Potassium	254	B		P
7782-49-2	Selenium	0.42	U	W	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	60.7	B		P
7440-28-0	Thallium	0.83	U	N	F
7440-62-2	Vanadium	53.9		EN*	P
7440-66-6	Zinc	13.4		E*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-5834-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541018

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5210		*	P
7440-36-0	Antimony	6.5	B	N	P
7440-38-2	Arsenic	0.42	U	N	F
7440-39-3	Barium	9.9	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.80	U		P
7440-70-2	Calcium	40.5	B	*	P
7440-47-3	Chromium	56.8		N	P
7440-48-4	Cobalt	5.7	B		P
7440-50-8	Copper	3.5	B	N	P
7439-89-6	Iron	18800			P
7439-92-1	Lead	2.5	U	*	F
7439-95-4	Magnesium	105	B	*	P
7439-96-5	Manganese	44.3		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	184	U		P
7782-49-2	Selenium	0.42	U	W	F
7440-22-4	Silver	0.80	U	N	P
7440-23-5	Sodium	90.1	B		P
7440-28-0	Thallium	0.85	U	N	F
7440-62-2	Vanadium	5.6	B	EN*	P
7440-66-6	Zinc	4.5		E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

86

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB10-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541019

Level (low/med): LOW Date Received: 11/09/90

% Solids: 91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4360		*	P
7440-36-0	Antimony	4.8	U	N	P
7440-38-2	Arsenic	0.78	B	N	F
7440-39-3	Barium	14.7	B		P
7440-41-7	Beryllium	0.22	U		P
7440-43-9	Cadmium	0.87	U		P
7440-70-2	Calcium	84.8	B	*	P
7440-47-3	Chromium	3.9		N	P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	2.1	B	N	P
7439-89-6	Iron	4330			P
7439-92-1	Lead	4.5		*	F
7439-95-4	Magnesium	178	B	*	P
7439-96-5	Manganese	22.7		N*	P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	2.2	U		P
7440-09-7	Potassium	291	B		P
7782-49-2	Selenium	0.42	U		F
7440-22-4	Silver	2.0	B	N	P
7440-23-5	Sodium	185	B		P
7440-28-0	Thallium	0.84	U	NW	F
7440-62-2	Vanadium	10.2	B	EN*	P
7440-66-6	Zinc	8.8		E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-5816-03

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541020

Level (low/med): LOW Date Received: 11/09/90

% Solids: 86.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1410		*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	0.50	B	N	F
7440-39-3	Barium	3.7	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	27.6	U	*	P
7440-47-3	Chromium	1.6	B	N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	1.1	U	N	P
7439-89-6	Iron	2700			P
7439-92-1	Lead	0.78	B	*	F
7439-95-4	Magnesium	65.6	B	*	P
7439-96-5	Manganese	7.0		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	194	U		P
7782-49-2	Selenium	0.46	U		F
7440-22-4	Silver	0.85	U	N	P
7440-23-5	Sodium	39.4	B		P
7440-28-0	Thallium	0.92	U	N	F
7440-62-2	Vanadium	2.9	B	EN*	P
7440-66-6	Zinc	2.3	B	E*	P
	Cyanide	0.58	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB12-03

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541021

Level (low/med): LOW Date Received: 11/09/90

% Solids: 82.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3330		*	P
7440-36-0	Antimony	5.2	U	N	P
7440-38-2	Arsenic	1.2	B	N	F
7440-39-3	Barium	15.9	B		P
7440-41-7	Beryllium	4.5			P
7440-43-9	Cadmium	0.94	U		P
7440-70-2	Calcium	1520		*	P
7440-47-3	Chromium	18.1		N	P
7440-48-4	Cobalt	3.0	B		P
7440-50-8	Copper	7.3		N	P
7439-89-6	Iron	5800			P
7439-92-1	Lead	20.1		*	F
7439-95-4	Magnesium	594	B	*	P
7439-96-5	Manganese	65.6		N*	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	81.9			P
7440-09-7	Potassium	319	B		P
7782-49-2	Selenium	0.47	U		F
7440-22-4	Silver	0.94	U	N	P
7440-23-5	Sodium	55.8	B		P
7440-28-0	Thallium	0.94	U	NW	F
7440-62-2	Vanadium	903		EN*	P
7440-66-6	Zinc	29.9		E*	P
	Cyanide	0.61	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB15-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541022

Level (low/med): LOW Date Received: 11/09/90

% Solids: 88.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5190		*	P
7440-36-0	Antimony	4.8	U	*	P
7440-38-2	Arsenic	1.7	B	N	F
7440-39-3	Barium	39.6	B		P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	0.87	U		P
7440-70-2	Calcium	706	B	*	P
7440-47-3	Chromium	29.7		N	P
7440-48-4	Cobalt	2.5	B		P
7440-50-8	Copper	7.5		N	P
7439-89-6	Iron	7030			P
7439-92-1	Lead	14.8		*	F
7439-95-4	Magnesium	654	B	*	P
7439-96-5	Manganese	56.5		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	13.6			P
7440-09-7	Potassium	325	B		P
7782-49-2	Selenium	0.51	B	W	F
7440-22-4	Silver	0.87	U	N	P
7440-23-5	Sodium	159	B		P
7440-28-0	Thallium	8.6	U	N	F
7440-62-2	Vanadium	139		EN*	P
7440-66-6	Zinc	49.6		E*	P
	Cyanide	0.56	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB14-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541023

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2290		*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	1.1	B	N	F
7440-39-3	Barium	6.9	B		P
7440-41-7	Beryllium	0.25	B		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	80.2	B	*	P
7440-47-3	Chromium	2.3		N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.4	B	N	P
7439-89-6	Iron	7400			P
7439-92-1	Lead	4.8		S*	F
7439-95-4	Magnesium	134	B	*	P
7439-96-5	Manganese	24.5		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	3.0	B		P
7440-09-7	Potassium	194	U		P
7782-49-2	Selenium	0.41	U	W	F
7440-22-4	Silver	0.85	U	N	P
7440-23-5	Sodium	86.2	B		P
7440-28-0	Thallium	8.1	U	N	F
7440-62-2	Vanadium	19.2		EN*	P
7440-66-6	Zinc	3.8	B	E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-5B10-03

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541024

Level (low/med): LOW Date Received: 11/09/90

% Solids: 94.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1070		*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.96	B	N	F
7440-39-3	Barium	4.9	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	35.1	B	*	P
7440-47-3	Chromium	1.7	B	N	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	1.9	B	N	P
7439-89-6	Iron	2480			P
7439-92-1	Lead	2.2		*	F
7439-95-4	Magnesium	79.5	B	*	P
7439-96-5	Manganese	17.6		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	190	U		P
7782-49-2	Selenium	0.41	U	W	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	112	B		P
7440-28-0	Thallium	0.82	U	N	F
7440-62-2	Vanadium	6.5	B	EN*	P
7440-66-6	Zinc	3.3	B	E*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB14-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541025

Level (low/med): LOW Date Received: 11/09/90

% Solids: 96.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	749		*	P
7440-36-0	Antimony	4.2	U	N	P
7440-38-2	Arsenic	0.41	U	N	F
7440-39-3	Barium	2.9	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.76	U		P
7440-70-2	Calcium	37.3	B	*	P
7440-47-3	Chromium	3.2		N	P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.3	B	N	P
7439-89-6	Iron	1110			P
7439-92-1	Lead	1.7		*	F
7439-95-4	Magnesium	58.9	B	*	P
7439-96-5	Manganese	5.6		N*	P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	1.9	U		P
7440-09-7	Potassium	175	U		P
7782-49-2	Selenium	0.41	U	W	F
7440-22-4	Silver	1.3	B	N	P
7440-23-5	Sodium	87.5	B		P
7440-28-0	Thallium	0.81	U	NW	F
7440-62-2	Vanadium	8.9	B	EN*	P
7440-66-6	Zinc	4.2		E*	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB15-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541026

Level (low/med): LOW Date Received: 11/09/90

% Solids: 96.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1920		*	P
7440-36-0	Antimony	4.4	U	N	P
7440-38-2	Arsenic	0.79	B	N	F
7440-39-3	Barium	5.8	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.80	U		P
7440-70-2	Calcium	61.5	B	*	P
7440-47-3	Chromium	3.8		N	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	1.6	B	N	P
7439-89-6	Iron	2580			P
7439-92-1	Lead	2.2		*	F
7439-95-4	Magnesium	121	B	*	P
7439-96-5	Manganese	9.9		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	184	U		P
7782-49-2	Selenium	0.38	U	W	F
7440-22-4	Silver	2.1		N	P
7440-23-5	Sodium	115	B		P
7440-28-0	Thallium	0.77	U	N	F
7440-62-2	Vanadium	16.2		EN*	P
7440-66-6	Zinc	1.8	B	E*	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB17-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541027

Level (low/med): LOW Date Received: 11/09/90

% Solids: 96.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1620		*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.48	B	N	F
7440-39-3	Barium	7.4	B		P
7440-41-7	Beryllium	0.26	B		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	32.3	B	*	P
7440-47-3	Chromium	2.6		N	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	1.5	B	N	P
7439-89-6	Iron	2300			P
7439-92-1	Lead	0.58		S*	F
7439-95-4	Magnesium	165	B	*	P
7439-96-5	Manganese	6.3		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	190	B		P
7782-49-2	Selenium	0.39	U	W	F
7440-22-4	Silver	1.5	B	N	P
7440-23-5	Sodium	164	B		P
7440-28-0	Thallium	0.77	U	NW	F
7440-62-2	Vanadium	21.7		EN*	P
7440-66-6	Zinc	1.7	B	E*	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC-SB18-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541028

Level (low/med): LOW Date Received: 11/09/90

% Solids: 91.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7440		*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	1.3	B	N	F
7440-39-3	Barium	37.3	B		P
7440-41-7	Beryllium	0.38	B		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	81.6	B	*	P
7440-47-3	Chromium	7.2		N	P
7440-48-4	Cobalt	1.9	B		P
7440-50-8	Copper	4.2	B	N	P
7439-89-6	Iron	7620			P
7439-92-1	Lead	4.6		W*	F
7439-95-4	Magnesium	533	B	*	P
7439-96-5	Manganese	24.2		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	3.8	B		P
7440-09-7	Potassium	1180			P
7782-49-2	Selenium	0.42	U	W	F
7440-22-4	Silver	2.2		N	P
7440-23-5	Sodium	479	B		P
7440-28-0	Thallium	8.5	U	NW	F
7440-62-2	Vanadium	24.8		EN*	P
7440-66-6	Zinc	5.7		E*	P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB17-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541029

Level (low/med): LOW Date Received: 11/09/90

% Solids: 93.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1720		*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	1.6	B	N	F
7440-39-3	Barium	8.1	B		P
7440-41-7	Beryllium	1.0			P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	297	B	*	P
7440-47-3	Chromium	11.5		N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	4.8	B	N	P
7439-89-6	Iron	2200			P
7439-92-1	Lead	25.9		*	F
7439-95-4	Magnesium	1200		*	P
7439-96-5	Manganese	62.3		N*	P
7439-97-6	Mercury	0.08			CV
7440-02-0	Nickel	13.4			P
7440-09-7	Potassium	220	B		P
7782-49-2	Selenium	0.40	U	W	F
7440-22-4	Silver	1.3	B	N	P
7440-23-5	Sodium	223	B		P
7440-28-0	Thallium	0.80	U	NW	F
7440-62-2	Vanadium	153		EN*	P
7440-66-6	Zinc	25.5		E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB18-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541030

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4940		*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	1.7	B	N	F
7440-39-3	Barium	24.1	B		P
7440-41-7	Beryllium	0.21	B		P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	80.2	B	*	P
7440-47-3	Chromium	4.7		N	P
7440-48-4	Cobalt	3.4	B		P
7440-50-8	Copper	2.8	B	N	P
7439-89-6	Iron	5240			P
7439-92-1	Lead	3.4		*	F
7439-95-4	Magnesium	378	B	*	P
7439-96-5	Manganese	43.9		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	B		P
7440-09-7	Potassium	778	B		P
7782-49-2	Selenium	0.40	U	W	F
7440-22-4	Silver	2.0	B	N	P
7440-23-5	Sodium	329	B		P
7440-28-0	Thallium	0.81	U	NW	F
7440-62-2	Vanadium	14.8		EN*	P
7440-66-6	Zinc	4.0	B	E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB32-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541031

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3080		*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.43	U	N	F
7440-39-3	Barium	12.3	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.82	U		P
7440-70-2	Calcium	63.2	B	*	P
7440-47-3	Chromium	0.82	U	N	P
7440-48-4	Cobalt	4.0	B		P
7440-50-8	Copper	2.6	B	N	P
7439-89-6	Iron	6290			P
7439-92-1	Lead	2.8		*	F
7439-95-4	Magnesium	98.0	B	*	P
7439-96-5	Manganese	25.2		N	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	187	U		P
7782-49-2	Selenium	0.43	U	W	F
7440-22-4	Silver	2.1		N	P
7440-23-5	Sodium	120	B		P
7440-28-0	Thallium	0.86	U	N	F
7440-62-2	Vanadium	8.4	B	EN*	P
7440-66-6	Zinc	1.6	B	E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-5832-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541032

Level (low/med): LOW Date Received: 11/09/90

% Solids: 93.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3890		*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	1.1	B	N	F
7440-39-3	Barium	30.8	B		P
7440-41-7	Beryllium	7.8			P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	1010	B	*	P
7440-47-3	Chromium	1100		N	P
7440-48-4	Cobalt	3.3	B		P
7440-50-8	Copper	13.1		N	P
7439-89-6	Iron	8210			P
7439-92-1	Lead	331		*	F
7439-95-4	Magnesium	707	B	*	P
7439-96-5	Manganese	565		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	108			P
7440-09-7	Potassium	285	B		P
7782-49-2	Selenium	0.41	U	W	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	268	B		P
7440-28-0	Thallium	0.82	U	NW	F
7440-62-2	Vanadium	1190		EN*	P
7440-66-6	Zinc	243		E*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

100
EPA SAMPLE NO.

1
INORGANIC ANALYSIS DATA SHEET

SMC-SB33-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541033

Level (low/med): LOW Date Received: 11/09/90

% Solids: 95.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4910		*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	1.1	B	N	F
7440-39-3	Barium	26.3	B		P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	891	B	*	P
7440-47-3	Chromium	180		N	P
7440-48-4	Cobalt	3.3	B		P
7440-50-8	Copper	5.1	B	N	P
7439-89-6	Iron	8480			P
7439-92-1	Lead	15.4		S*	F
7439-95-4	Magnesium	683	B	*	P
7439-96-5	Manganese	236		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	36.4			P
7440-09-7	Potassium	191	B		P
7782-49-2	Selenium	0.40	U	W	F
7440-22-4	Silver	2.3		N	P
7440-23-5	Sodium	187	B		P
7440-28-0	Thallium	0.79	U	NW	F
7440-62-2	Vanadium	145		EN*	P
7440-66-6	Zinc	14.2		E*	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB33-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541034

Level (low/med): LOW Date Received: 11/09/90

% Solids: 91.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4080		*	P
7440-36-0	Antimony	6.8	B	N	P
7440-38-2	Arsenic	0.43	U	N	F
7440-39-3	Barium	12.8	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	27.4	U	*	P
7440-47-3	Chromium	313		N	P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	3.2	B	N	P
7439-89-6	Iron	6820			P
7439-92-1	Lead	4.2		S*	F
7439-95-4	Magnesium	69.1	B	*	P
7439-96-5	Manganese	21.6		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	193	U		P
7782-49-2	Selenium	0.43	U	W	F
7440-22-4	Silver	2.1	B	N	P
7440-23-5	Sodium	524	B		P
7440-28-0	Thallium	0.87	U	N	F
7440-62-2	Vanadium	9.7	B	EN*	P
7440-66-6	Zinc	1.8	B	E*	P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB93-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541035

Level (low/med): LOW Date Received: 11/09/90

% Solids: 96.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6390		*	P
7440-36-0	Antimony	4.3	U	N	P
7440-38-2	Arsenic	0.92	B	NW	F
7440-39-3	Barium	10.9	B		P
7440-41-7	Beryllium	0.41	B		P
7440-43-9	Cadmium	0.78	U		P
7440-70-2	Calcium	1370		*	P
7440-47-3	Chromium	7.2		N	P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	6.9		N	P
7439-89-6	Iron	11600			P
7439-92-1	Lead	8.6		S*	F
7439-95-4	Magnesium	360	B	*	P
7439-96-5	Manganese	107		N*	P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	4.5	B		P
7440-09-7	Potassium	561	B		P
7782-49-2	Selenium	0.40	U	W	F
7440-22-4	Silver	1.5	B	N	P
7440-23-5	Sodium	102	B		P
7440-28-0	Thallium	0.80	U	NW	F
7440-62-2	Vanadium	28.7		EN*	P
7440-66-6	Zinc	5.8		E*	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB95-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541036

Level (low/med): LOW Date Received: 11/09/90

% Solids: 93.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3140		*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.75	B	N	F
7440-39-3	Barium	6.4	B		P
7440-41-7	Beryllium	0.25	B		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	55.9	B	*	P
7440-47-3	Chromium	1.1	B	N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.9	B	N	P
7439-89-6	Iron	10800			P
7439-92-1	Lead	3.2		S*	F
7439-95-4	Magnesium	134	B	*	P
7439-96-5	Manganese	20.3		N*	P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	192	U		P
7782-49-2	Selenium	0.43	U	W	F
7440-22-4	Silver	2.1		N	P
7440-23-5	Sodium	101	B		P
7440-28-0	Thallium	0.85	U	N	F
7440-62-2	Vanadium	9.1	B	EN*	P
7440-66-6	Zinc	3.7	B	E*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB94-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541037

Level (low/med): LOW Date Received: 11/09/90

% Solids: 82.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6750		*	P
7440-36-0	Antimony	5.3	U	N	P
7440-38-2	Arsenic	1.5	B	N	F
7440-39-3	Barium	113			P
7440-41-7	Beryllium	3.5			P
7440-43-9	Cadmium	0.96	U		P
7440-70-2	Calcium	4350		*	P
7440-47-3	Chromium	29.3		N	P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	11.1		N	P
7439-89-6	Iron	8580			P
7439-92-1	Lead	55.8		S*	F
7439-95-4	Magnesium	4210		*	P
7439-96-5	Manganese	342		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	64.2			P
7440-09-7	Potassium	382	B		P
7782-49-2	Selenium	0.47	U	W	F
7440-22-4	Silver	1.9	B	N	P
7440-23-5	Sodium	264	B		P
7440-28-0	Thallium	9.3	U	NW	F
7440-62-2	Vanadium	517		EN*	P
7440-66-6	Zinc	53.7		E*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-5897-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP541

Matrix (soil/water): SOIL Lab Sample ID: 9011541038

Level (low/med): LOW Date Received: 11/09/90

% Solids: 95.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3220		*	P
7440-36-0	Antimony	4.2	U	N	P
7440-38-2	Arsenic	0.87	B	NW	F
7440-39-3	Barium	18.4	B		P
7440-41-7	Beryllium	3.2			P
7440-43-9	Cadmium	0.77	U		P
7440-70-2	Calcium	1270		*	P
7440-47-3	Chromium	27.7		N	P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	5.2		N	P
7439-89-6	Iron	5180			P
7439-92-1	Lead	14.9		S*	F
7439-95-4	Magnesium	1440		*	P
7439-96-5	Manganese	142		N*	P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	73.7			P
7440-09-7	Potassium	176	U		P
7782-49-2	Selenium	0.41	U	W	F
7440-22-4	Silver	0.77	U	N	P
7440-23-5	Sodium	142	B		P
7440-28-0	Thallium	8.1	U	N	F
7440-62-2	Vanadium	472		EN*	P
7440-66-6	Zinc	20.2		E*	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	SMC-SB08-01	Silver, Total	2.0	u	MG/KG	2.0
		Aluminum, Total	5360		MG/KG	39.8
		Arsenic, Total	2.0	u	MG/KG	2.0
		Boron, Total	19.9	u	MG/KG	19.9
		Barium, Total	39.8	u	MG/KG	39.8
		Beryllium, Total	2.1		MG/KG	1.0
		Calcium, Total	4950		MG/KG	996
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.0	u	MG/KG	10.0
		Chromium, Total	30.8		MG/KG	2.0
		Copper, Total	5.0	u	MG/KG	5.0
		Iron, Total	2200		MG/KG	19.9
		Mercury, Total	0.11	u	MG/KG	0.11
		Potassium, Total	996	u	MG/KG	996
		Magnesium, Total	2440		MG/KG	996
		Manganese, Total	92.9		MG/KG	3.0
		Sodium, Total	996	u	MG/KG	996
		Niobium, Total	39.8	u	MG/KG	39.8
		Nickel, Total	11.6		MG/KG	8.0
		Lead, Total	9.3		MG/KG	2.4
		Antimony, Total	12.0	u	MG/KG	12.0
		Selenium, Total	1.0	u	MG/KG	1.0
		Strontium, Total	19.9	u	MG/KG	19.9
		Titanium, Total	85.2		MG/KG	19.9
		Thallium, Total	2.0	u	MG/KG	2.0
		Vanadium, Total	435		MG/KG	10.0
		Zinc, Total	9.2		MG/KG	4.0
		Zirconium, Total	39.8	u	MG/KG	39.8
-002	SMC-SB08-02	Silver, Total	3.3	u	MG/KG	3.3
		Aluminum, Total	3510		MG/KG	65.2
		Arsenic, Total	3.4	u	MG/KG	3.4
		Boron, Total	32.6	u	MG/KG	32.6
		Barium, Total	65.2	u	MG/KG	65.2
		Beryllium, Total	1.6	u	MG/KG	1.6
		Calcium, Total	1630	u	MG/KG	1630
		Cadmium, Total	1.6	u	MG/KG	1.6
		Cobalt, Total	16.3	u	MG/KG	16.3
		Chromium, Total	6.5		MG/KG	3.3
		Copper, Total	8.2	u	MG/KG	8.2

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	SMC-SB08-02	Iron, Total	4300		MG/KG	32.6
		Mercury, Total	0.17	u	MG/KG	0.17
		Potassium, Total	1630	u	MG/KG	1630
		Magnesium, Total	1630	u	MG/KG	1630
		Manganese, Total	32.3		MG/KG	4.9
		Sodium, Total	1630	u	MG/KG	1630
		Niobium, Total	65.2	u	MG/KG	65.2
		Nickel, Total	13.0	u	MG/KG	13.0
		Lead, Total	3.2		MG/KG	1.0
		Antimony, Total	19.6	u	MG/KG	19.6
		Selenium, Total	1.7	u	MG/KG	1.7
		Strontium, Total	32.6	u	MG/KG	32.6
		Titanium, Total	168		MG/KG	32.6
		Thallium, Total	3.4	u	MG/KG	3.4
		Vanadium, Total	182		MG/KG	16.3
		Zinc, Total	8.1		MG/KG	6.5
		Zirconium, Total	65.2	u	MG/KG	65.2

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-006	SMC-SB29-04	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	7810		MG/KG	42.4
		Arsenic, Total	2.1	u	MG/KG	2.1
		Barium, Total	42.4	u	MG/KG	42.4
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1060	u	MG/KG	1060
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.6	u	MG/KG	10.6
		Chromium, Total	3.5		MG/KG	2.1
		Copper, Total	6.9		MG/KG	5.3
		Iron, Total	18400		MG/KG	21.2
		Mercury, Total	0.11	u	MG/KG	0.11
		Potassium, Total	1060	u	MG/KG	1060
		Magnesium, Total	1060	u	MG/KG	1060
		Manganese, Total	36.1		MG/KG	3.2
		Sodium, Total	1060	u	MG/KG	1060
		Nickel, Total	8.5	u	MG/KG	8.5
		Lead, Total	5.9		MG/KG	0.63
		Antimony, Total	12.7	u	MG/KG	12.7
		Selenium, Total	1.1	u	MG/KG	1.1
		Titanium, Total	140		MG/KG	21.2
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	15.9		MG/KG	10.6
		Zinc, Total	5.4		MG/KG	4.2
-007	SMC-SB29-01	Silver, Total	2.0	u	MG/KG	2.0
		Aluminum, Total	8980		MG/KG	40.7
		Arsenic, Total	2.0	u	MG/KG	2.0
		Barium, Total	40.7	u	MG/KG	40.7
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1020	u	MG/KG	1020
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.2	u	MG/KG	10.2
		Chromium, Total	13.0		MG/KG	2.0
		Copper, Total	7.5		MG/KG	5.1
		Iron, Total	26400		MG/KG	20.3
		Mercury, Total	0.11	u	MG/KG	0.11
		Potassium, Total	1020	u	MG/KG	1020
		Magnesium, Total	1020	u	MG/KG	1020
		Manganese, Total	120		MG/KG	3.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-007	SMC-SB29-01	Sodium, Total	1020	u	MG/KG	1020
		Nickel, Total	8.1	u	MG/KG	8.1
		Lead, Total	11.2		MG/KG	2.4
		Antimony, Total	12.2	u	MG/KG	12.2
		Selenium, Total	1.0	u	MG/KG	1.0
		Titanium, Total	160		MG/KG	20.3
		Thallium, Total	2.0	u	MG/KG	2.0
		Vanadium, Total	48.8		MG/KG	10.2
		Zinc, Total	10.8		MG/KG	4.1

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-014	SMC-SB45-02	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	3780		MG/KG	42.8
		Arsenic, Total	2.1	u	MG/KG	2.1
		Barium, Total	42.8	u	MG/KG	42.8
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1070	u	MG/KG	1070
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.7	u	MG/KG	10.7
		Chromium, Total	57.8		MG/KG	2.1
		Copper, Total	5.3	u	MG/KG	5.3
		Iron, Total	4900		MG/KG	21.4
		Mercury, Total	0.11	u	MG/KG	0.11
		Potassium, Total	1070	u	MG/KG	1070
		Magnesium, Total	1070	u	MG/KG	1070
		Manganese, Total	46.7		MG/KG	3.2
		Sodium, Total	1070	u	MG/KG	1070
		Nickel, Total	8.6	u	MG/KG	8.6
		Lead, Total	52.6		MG/KG	6.2
		Antimony, Total	12.8	u	MG/KG	12.8
		Selenium, Total	1.0	u	MG/KG	1.0
		Titanium, Total	99.4		MG/KG	21.4
		Thallium, Total	20.7	u	MG/KG	20.7
		Vanadium, Total	86.8		MG/KG	10.7
		Zinc, Total	13.8		MG/KG	4.3
-015	SMC-SB45-03	Silver, Total	2.0	u	MG/KG	2.0
		Aluminum, Total	2270		MG/KG	39.7
		Arsenic, Total	2.1	u	MG/KG	2.1
		Barium, Total	39.7	u	MG/KG	39.7
		Beryllium, Total	0.99	u	MG/KG	0.99
		Calcium, Total	993	u	MG/KG	993
		Cadmium, Total	0.99	u	MG/KG	0.99
		Cobalt, Total	9.9	u	MG/KG	9.9
		Chromium, Total	5.1		MG/KG	2.0
		Copper, Total	5.0	u	MG/KG	5.0
		Iron, Total	3050		MG/KG	19.9
		Mercury, Total	0.10	u	MG/KG	0.10
		Potassium, Total	993	u	MG/KG	993
		Magnesium, Total	993	u	MG/KG	993
		Manganese, Total	50.4		MG/KG	3.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-015	SMC-SB45-03	Sodium, Total	993	u	MG/KG	993
		Nickel, Total	7.9	u	MG/KG	7.9
		Lead, Total	1.9		MG/KG	0.62
		Antimony, Total	11.9	u	MG/KG	11.9
		Selenium, Total	1.0	u	MG/KG	1.0
		Titanium, Total	82.0		MG/KG	19.9
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	23.6		MG/KG	9.9
		Zinc, Total	4.0	u	MG/KG	4.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-016	SMC-SB60-02	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	4370		MG/KG	42.1
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	21.1	u	MG/KG	21.1
		Barium, Total	42.1	u	MG/KG	42.1
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1050	u	MG/KG	1050
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.5	u	MG/KG	10.5
		Chromium, Total	28.4		MG/KG	2.1
		Copper, Total	5.3	u	MG/KG	5.3
		Iron, Total	17800		MG/KG	21.1
		Mercury, Total	0.11	u	MG/KG	0.11
		Potassium, Total	1050	u	MG/KG	1050
		Magnesium, Total	1050	u	MG/KG	1050
		Manganese, Total	93.0		MG/KG	3.2
		Sodium, Total	1050	u	MG/KG	1050
		Niobium, Total	42.1	u	MG/KG	42.1
		Nickel, Total	11.2		MG/KG	8.4
		Lead, Total	8.3		MG/KG	1.3
		Antimony, Total	12.6	u	MG/KG	12.6
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	21.1	u	MG/KG	21.1
		Titanium, Total	103		MG/KG	21.1
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	46.0		MG/KG	10.5
		Zinc, Total	11.4		MG/KG	4.2
		Zirconium, Total	42.1	u	MG/KG	42.1
-017	SMC-SB60-04	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	5570		MG/KG	41.6
		Arsenic, Total	2.1	u	MG/KG	2.1
		Barium, Total	41.6	u	MG/KG	41.6
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1040	u	MG/KG	1040
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.4	u	MG/KG	10.4
		Chromium, Total	17.4		MG/KG	2.1
		Copper, Total	5.2	u	MG/KG	5.2
		Iron, Total	20000		MG/KG	20.8

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-030	SMC-SB18-02	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	4940		MG/KG	41.3
		Arsenic, Total	2.0	u	MG/KG	2.0
		Barium, Total	41.3	u	MG/KG	41.3
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1030	u	MG/KG	1030
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.3	u	MG/KG	10.3
		Chromium, Total	4.7		MG/KG	2.1
		Copper, Total	5.2	u	MG/KG	5.2
		Iron, Total	5240		MG/KG	20.6
		Mercury, Total	0.10	u	MG/KG	0.10
		Potassium, Total	1030	u	MG/KG	1030
		Magnesium, Total	1030	u	MG/KG	1030
		Manganese, Total	43.9		MG/KG	3.1
		Sodium, Total	1030	u	MG/KG	1030
		Nickel, Total	8.3	u	MG/KG	8.3
		Lead, Total	3.4		MG/KG	1.2
		Antimony, Total	12.4	u	MG/KG	12.4
		Selenium, Total	1.0	u	MG/KG	1.0
		Thallium, Total	2.0	u	MG/KG	2.0
		Vanadium, Total	14.8		MG/KG	10.3
		Zinc, Total	4.1	u	MG/KG	4.1
-031	SMC-SB32-04	Silver, Total	2.1		MG/KG	2.0
		Aluminum, Total	3080		MG/KG	40.9
		Arsenic, Total	2.2	u	MG/KG	2.2
		Boron, Total	20.5	u	MG/KG	20.5
		Barium, Total	40.9	u	MG/KG	40.9
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	1020	u	MG/KG	1020
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.2	u	MG/KG	10.2
		Chromium, Total	2.0	u	MG/KG	2.0
		Copper, Total	5.1	u	MG/KG	5.1
		Iron, Total	6290		MG/KG	20.5
		Mercury, Total	0.066	u	MG/KG	0.066
		Potassium, Total	1020	u	MG/KG	1020
		Magnesium, Total	1020	u	MG/KG	1020
		Manganese, Total	25.2		MG/KG	3.1

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-031	SMC-SB32-04	Sodium, Total	1020	u	MG/KG	1020
		Niobium, Total	40.9	u	MG/KG	40.9
		Nickel, Total	8.2	u	MG/KG	8.2
		Lead, Total	2.8		MG/KG	1.3
		Antimony, Total	12.3	u	MG/KG	12.3
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	20.5	u	MG/KG	20.5
		Titanium, Total	78.6		MG/KG	20.5
		Thallium, Total	2.2	u	MG/KG	2.2
		Vanadium, Total	10.2	u	MG/KG	10.2
		Zinc, Total	4.1	u	MG/KG	4.1
		Zirconium, Total	40.9	u	MG/KG	40.9

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-034	SMC-SB33-04	Silver, Total	2.1		MG/KG	2.1
		Aluminum, Total	4080		MG/KG	42.1
		Arsenic, Total	2.2	u	MG/KG	2.2
		Barium, Total	42.1	u	MG/KG	42.1
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1050	u	MG/KG	1050
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.5	u	MG/KG	10.5
		Chromium, Total	313		MG/KG	2.1
		Copper, Total	5.3	u	MG/KG	5.3
		Iron, Total	6820		MG/KG	21.0
		Mercury, Total	0.11	u	MG/KG	0.11
		Potassium, Total	1050	u	MG/KG	1050
		Magnesium, Total	1050	u	MG/KG	1050
		Manganese, Total	21.6		MG/KG	3.2
		Sodium, Total	1050	u	MG/KG	1050
		Nickel, Total	8.4	u	MG/KG	8.4
		Lead, Total	3.7		MG/KG	1.3
		Antimony, Total	12.6	u	MG/KG	12.6
		Selenium, Total	1.1	u	MG/KG	1.1
		Thallium, Total	2.2	u	MG/KG	2.2
		Vanadium, Total	10.5	u	MG/KG	10.5
		Zinc, Total	4.2	u	MG/KG	4.2
-035	SMC-SB93-01	Silver, Total	1.9	u	MG/KG	1.9
		Aluminum, Total	6390		MG/KG	39.0
		Arsenic, Total	2.0	u	MG/KG	2.0
		Barium, Total	39.0	u	MG/KG	39.0
		Beryllium, Total	0.97	u	MG/KG	0.97
		Calcium, Total	1370		MG/KG	975
		Cadmium, Total	0.97	u	MG/KG	0.97
		Cobalt, Total	9.8	u	MG/KG	9.8
		Chromium, Total	7.2		MG/KG	1.9
		Copper, Total	6.9		MG/KG	4.9
		Iron, Total	11600		MG/KG	19.5
		Mercury, Total	0.080	u	MG/KG	0.080
		Potassium, Total	975	u	MG/KG	975
		Magnesium, Total	975	u	MG/KG	975
		Manganese, Total	107		MG/KG	2.9
		Sodium, Total	975	u	MG/KG	975

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-035	SMC-SB93-01	Nickel, Total	7.8	u	MG/KG	7.8
		Lead, Total	8.9		MG/KG	0.60
		Antimony, Total	11.7	u	MG/KG	11.7
		Selenium, Total	1.0	u	MG/KG	1.0
		Titanium, Total	113		MG/KG	19.5
		Thallium, Total	2.0	u	MG/KG	2.0
		Vanadium, Total	28.7		MG/KG	9.8
		Zinc, Total	5.8		MG/KG	3.9

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L541

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-038	SMC-SB97-02	Silver, Total	1.9	u	MG/KG	1.9
		Aluminum, Total	3220		MG/KG	38.5
		Arsenic, Total	2.0	u	MG/KG	2.0
		Boron, Total	19.2	u	MG/KG	19.2
		Barium, Total	38.5	u	MG/KG	38.5
		Beryllium, Total	3.2		MG/KG	0.96
		Calcium, Total	1270		MG/KG	962
		Cadmium, Total	0.96	u	MG/KG	0.96
		Cobalt, Total	9.6	u	MG/KG	9.6
		Chromium, Total	27.7		MG/KG	1.9
		Copper, Total	5.2		MG/KG	4.8
		Iron, Total	5180		MG/KG	19.2
		Mercury, Total	0.078	u	MG/KG	0.078
		Potassium, Total	962	u	MG/KG	962
		Magnesium, Total	1440		MG/KG	962
		Manganese, Total	142		MG/KG	2.9
		Sodium, Total	962	u	MG/KG	962
		Niobium, Total	38.5	u	MG/KG	38.5
		Nickel, Total	73.8		MG/KG	7.7
		Lead, Total	20.1		MG/KG	6.1
		Antimony, Total	11.5	u	MG/KG	11.5
		Selenium, Total	1.0	u	MG/KG	1.0
		Strontium, Total	19.2	u	MG/KG	19.2
		Titanium, Total	94.5		MG/KG	19.2
		Thallium, Total	20.3	u	MG/KG	20.3
		Vanadium, Total	473		MG/KG	9.6
		Zinc, Total	20.2		MG/KG	3.8
		Zirconium, Total	38.5	u	MG/KG	38.5

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELDALLOY **SAMPLES RECEIVED:** 02-14-91
RFW #: 9102L551
W.O. #: 2724-05-01

INORGANIC NARRATIVE

The following is a summary of the quality control results and a description of any problems encountered during the analysis of this batch of samples;

1. All preparation blanks were analyzed below the required detection limit.

2. All laboratory control standards (blank spikes) are within the control limits of 80-120%. All %RPD were within the 20% guidance limit.

3. All calibration verification checks are within the required control limits of 85-115%. Calibration verification is performed using independent standards.

4. All matrix spike recoveries are summarized in the Inorganics Accuracy Report contained within this document. Recoveries for sample #9102L551-074 were outside the 75-125% guidance limits. RPD were outside the 20% guidance limit.

5. All replicate results are summarized on the Inorganic Precision report contained within this document. Results for sample #91021551-074 fell outside of the 20% RPD guidance limit.

6. The analytical methods applied by the laboratory, unless otherwise requested, for all inorganic analyses are derived from the USEPA Method for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020), and Standard Methods for the Examination of Water and Wastewater 16 ed. Methods for the analysis of solid samples are derived from Test Methods for Evaluating Solid Waste (USEPA SW846).

RELOG OF
9011L-595

Jack R. Tuschall, Ph.D. Date
Laboratory Manager
Lionville Analytical Laboratory

pas.21\i2-551

ROY F. WESTON, INC.
GLOSSARY OF TERMS - INORGANIC REPORTS

DATA QUALIFIERS

U - Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* - Indicates that the original sample result is greater than 4x the spike amount added. The USEPA-CLP has determined that spike results on samples where this occurs may be unreliable and therefore, the control limits are not applicable.

ABBREVIATIONS

MB - Method or preparation blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate.
REP - Sample Replicate.
LC - Indicates a method LCS or Blank Spike.
NC - Not calculable, result below the detection limit.

A suffix of -R and -S following these codes indicates a replicate and spike analysis respectively.

ANALYTICAL METAL METHODS

As :	EPA 206.2	Se :	EPA 270.2
Pb :	EPA 239.2	ICP Scan :	EPA 200.7
Hg :	EPA 245.1	All Others :	EPA 200.7
Tl :	EPA 279.2	EP Leachates (except Hg) :	200.7

The analytical methods applied by the laboratory for the determination of drinking water is 5.2.1.

NOTES

The laboratory prepares a matrix spike at one per 20 frequency for TCLP samples. The Federal Register recommends that all matrix spikes be prepared at greater than 50% of the indigenous analyte concentration. A matrix duplicate is also prepared.

The USEPA-CLP has dropped control limits for silver and antimony due to documented difficulties in obtaining reliable results. WESTON Analytics, however, monitors it's recoveries for unusal occurrences of silver and/or antimony quantification.

Holding times for soil samples have not been promulgated by the USEPA.

For solid samples, all results are reported on a dry weight basis.

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/05/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9102L551

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-070	SMC-SB62-01	% Solids	92.5	%	0.10
-071	SMC-SB62-04	% Solids	93.4	%	0.10
-072	SMC-SB64-01	% Solids	93.1	%	0.10
-073	SMC-SB64-04	% Solids	79.9	%	0.10
-074	SMC-SB77-01	% Solids	91.9	%	0.10
		Chromium VI	2.2	MG/KG	0.44
-075	SMC-SB77-03	% Solids	90.2	%	0.10
-076	SMC-SB11-01	% Solids	91.8	%	0.10
77	SMC-SB11-02	% Solids	91.5	%	0.10
-078	SMC-SB63-01	% Solids	89.7	%	0.10

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/05/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9102L551

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-079	SMC-SB63-04	% Solids	90.1	%	0.1
-136	SMC-SB25-01	% Solids	93.8	%	0.1
-137	SMC-SB25-04	% Solids	89.7	%	0.1
-138	SMC-SB98-01	% Solids	89.5	%	0.1

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/05/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9102L551

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-139	SMC-SB79-01	% Solids	96.6	%	0.10
-140	SMC-SB79-02	% Solids	91.1	%	0.10
-141	SMC-SB78-01	% Solids	69.2	%	0.10
-142	SMC-SB78-03	% Solids	93.1	%	0.10
-143	SMC-SB23-01	% Solids	93.8	%	0.10
-144	SMC-SB23-05	% Solids	89.7	%	0.10
		Chromium VI	2.5	MG/KG	0.22
-145	SMC-SB99-01	% Solids	92.3	%	0.10
-147	SMC-SB26-01	% Solids	94.9	%	0.10
-148	SMC-SB26-04	% Solids	91.8	%	0.10
-149	SMC-SB28-01	% Solids	98.8	%	0.10
		Chromium VI	0.20 u	MG/KG	0.20

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/05/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9102L551

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-150	SMC-SB28-04	% Solids	98.4	%	0.10
-151	SMC-SB36-01	% Solids	91.8	%	0.10
		Chromium VI	18.1	MG/KG	0.22
-152	SMC-SB36-04	% Solids	89.6	%	0.10
-153	SMC-SB56-01	% Solids	92.8	%	0.10
-154	SMC-SB56-04	% Solids	92.0	%	0.10
-155	SMC-SB57-01	% Solids	93.0	%	0.10
-156	SMC-SB57-03	% Solids	87.4	%	0.10
		Chromium VI	2.3	MG/KG	0.23
57	SMC-SB54-01	% Solids	94.6	%	0.10
		Chromium VI	8.6	MG/KG	0.21
-158	SMC-SB54-04	% Solids	94.1	%	0.10
		Chromium VI	0.37	MG/KG	0.21
-159	SMC-SB53-01	% Solids	95.1	%	0.10
		Chromium VI	2.2	MG/KG	0.21

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/05/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9102L551

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-160	SMC-SB53-04	% Solids	96.6	%	0.10
-161	SMC-SB52-01	Chromium VI	1.3	MG/KG	0.43
-162	SMC-SB52-04	% Solids	95.0	%	0.10
-163	SMC-SB80-01	% Solids	88.2	%	0.10
-164	SMC-SB80-03	% Solids	92.0	%	0.10
-166	SMC-SB09-01	% Solids	96.2	%	0.10
		Chromium VI	2.5	MG/KG	0.42
-167	SMC-SB09-02	% Solids	89.4	%	0.10
		Chromium VI	42.9	MG/KG	0.45
-168	SMC-SB21-01	% Solids	94.4	%	0.10
		Chromium VI	1.3	MG/KG	0.21
-169	SMC-SB21-04	% Solids	89.7	%	0.10
-170	SMC-SB19-03	% Solids	92.2	%	0.10

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/05/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9102L551

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-171	SMC-SB61-01	% Solids	91.3	%	0.10
-172	SMC-SB61-04	% Solids	95.6	%	0.10
-173	SMC-SB83-01	% Solids	93.1	%	0.10
-174	SMC-SB83-03	% Solids	92.2	%	0.10
-175	SMC-SB81-01	% Solids	86.8	%	0.10
		Chromium VI	2.5	MG/KG	0.46
-176	SMC-SB81-03	% Solids	94.8	%	0.10
		Chromium VI	0.71	MG/KG	0.21
-177	SMC-SB82-01	% Solids	93.1	%	0.10
178	SMC-SB82-03	% Solids	92.8	%	0.10
-179	SMC-SB51-02	% Solids	92.9	%	0.10
-180	SMC-SB51-01	% Solids	94.1	%	0.10

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/05/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9102L551

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-181	SMC-SB50-01	% Solids	93.4	%	0.10
-182	SMC-SB50-04	% Solids	91.3	%	0.10
-183	SMC-SB37-01	% Solids	92.4	%	0.10
-184	SMC-SB38-01	% Solids	94.0	%	0.10
-185	SMC-SB49-04	% Solids	93.0	%	0.10
		Chromium VI	0.80	MG/KG	0.22
-186	SMC-SB37-04	% Solids	94.0	%	0.10
		Chromium VI	0.47	MG/KG	0.21
-187	SMC-SB49-01	% Solids	99.6	%	0.10
88	SMC-SB38-04	% Solids	96.1	%	0.10

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L562

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	SMC-SB09-01	Mercury, Total	0.090	u	MG/KG	0.090
		Potassium, Total	1040	u	MG/KG	1040
		Magnesium, Total	1040	u	MG/KG	1040
		Manganese, Total	36.8		MG/KG	3.1
		Sodium, Total	1040	u	MG/KG	1040
		Niobium, Total	41.5	u	MG/KG	41.5
		Nickel, Total	11.0		MG/KG	8.3
		Lead, Total	3.4		MG/KG	0.62
		Antimony, Total	12.4	u	MG/KG	12.4
		Selenium, Total	1.0	u	MG/KG	1.0
		Strontium, Total	20.7	u	MG/KG	20.7
		Titanium, Total	121		MG/KG	20.7
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	324		MG/KG	10.4
		Zinc, Total	8.7		MG/KG	4.1
-002	SMC-SB09-01	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	4550		MG/KG	41.5
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	20.7	u	MG/KG	20.7
		Barium, Total	41.5	u	MG/KG	41.5
		Beryllium, Total	1.6		MG/KG	1.0
		Calcium, Total	1040	u	MG/KG	1040
		Cadmium, Total	1.0	u	MG/KG	1.0
		Cobalt, Total	10.4	u	MG/KG	10.4
		Chromium, Total	178		MG/KG	2.1
		Copper, Total	5.2	u	MG/KG	5.2
		Iron, Total	4450		MG/KG	20.7

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L562

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-003	SMC-SB09-02	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	3990		MG/KG	42.8
		Arsenic, Total	2.1	u	MG/KG	2.1
		Boron, Total	29.1		MG/KG	21.4
		Barium, Total	42.8	u	MG/KG	42.8
		Beryllium, Total	7.2		MG/KG	1.1
		Calcium, Total	1150		MG/KG	1070
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.7	u	MG/KG	10.7
		Chromium, Total	375		MG/KG	2.1
		Copper, Total	8.9		MG/KG	5.3
		Iron, Total	8860		MG/KG	21.4
		Mercury, Total	0.072	u	MG/KG	0.072
		Potassium, Total	1070	u	MG/KG	1070
		Magnesium, Total	2160		MG/KG	1070
		Manganese, Total	441		MG/KG	3.2
		Sodium, Total	1070	u	MG/KG	1070
		Niobium, Total	42.8	u	MG/KG	42.8
		Nickel, Total	246		MG/KG	8.6
		Lead, Total	14.5		MG/KG	3.2
		Antimony, Total	12.8	u	MG/KG	12.8
		Selenium, Total	10.7	u	MG/KG	10.7
		Strontium, Total	21.4	u	MG/KG	21.4
		Titanium, Total	98.1		MG/KG	21.4
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	1630		MG/KG	10.7
		Zinc, Total	40.0		MG/KG	4.3

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L562

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	SMC-SB09-01	% Solids	96.2		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	22.8		MG/KG	1.0
-003	SMC-SB09-02	% Solids	89.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	41.7		MG/KG	1.1
-004	SMC-SB21-01	% Solids	94.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.84		MG/KG	0.11
-005	SMC-SB21-04	% Solids	89.7		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-006	SMC-SB19-03	% Solids	92.2		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-007	SMC-SB61-01	% Solids	91.3		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-008	SMC-SB61-04	% Solids	95.6		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.10	u	MG/KG	0.10
-009	SMC-SB83-01	% Solids	93.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-010	SMC-SB83-03	% Solids	92.2		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L562

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-011	SMC-SB81-01	% Solids	86.8		%	0.10
		Cyanide, Total	1.2	u	MG/KG	1.2
		Chromium VI	0.17		MG/KG	0.12
-012	SMC-SB81-03	% Solids	94.8		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.10	u	MG/KG	0.10
-013	SMC-SB82-01	% Solids	93.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-014	SMC-SB82-03	% Solids	92.8		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-015	SMC-SB51-02	% Solids	92.9		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-016	SMC-SB51-01	% Solids	94.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.35		MG/KG	0.11
-017	SMC-SB50-01	% Solids	93.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.58		MG/KG	0.11
-018	SMC-SB50-04	% Solids	91.3		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.45		MG/KG	0.11
-019	SMC-SB37-01	% Solids	92.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.18		MG/KG	0.11
-020	SMC-SB38-01	% Solids	94.0		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L562

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-021	SMC-SB49-04	% Solids	93.0		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-022	SMC-SB43-01	% Solids	89.7		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
-023	SMC-SB48-01	% Solids	90.6		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
-024	SMC-SB37-04	% Solids	94.0		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-025	SMC-SB48-04	% Solids	95.0		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
J26	SMC-SB43-04	% Solids	94.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
-027	SMC-SB49-01	% Solids	96.6		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.32		MG/KG	0.10
-028	SMC-SB38-04	% Solids	96.1		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.10	u	MG/KG	0.10

WESTON

Roy F. Weston, INC.
Lionville Laboratory

CLIENT: TRC/SHIELD ALLOY
RFW #:9011L562
W.O.#:2724-05-01-0000

SAMPLES RECEIVED:11/9/90

METALS NARRATIVE

The set of samples consisted of (1) water sample and (27) soil samples collected on 11/9/90.

The samples were analyzed according to criteria set forth in CLP SOW 7/87.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory.

2. All ICV and CCV values were within control limits.

3. All ICB and CCB values were within control limits.

4. All preparation blank values were within control limits.

5. All LCS results were within the 80-120% control limits.

   Note: The USEPA has dropped control limits for antimony and silver due to documented difficulties in obtaining reliable results. WESTON Analytics has adopted the same policy.

6. All matrix spike recoveries were within the 75-125% control limits with the exception of As, Sb, Mn, Se, Ag, Tl and V. All corresponding samples were flagged with an "N" according to CLP protocol.

7. All duplicate analyses were within the 20% RPD control limits with the exception of Al, Cr, Fe and Mn. All corresponding samples were flagged with an "*" according to CLP protocol.

WESTON

8. Pb sample results were calculated by the method of standard addition (MSA). All corresponding samples were flagged with an "S" according to CLP protocol.

Jack R. Tuschall, Ph.D.
Laboratory Manager
WESTON Analytical Laboratories

3-1-91

Date

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
SMC-FB01	9011562001
SMC SB0901	9011562002
SMC SB0901D	9011562002
SMC SB0901S	9011562002
SMC SB0902	9011562003
SMC SB2101	9011562004
SMC SB2104	9011562005
SMC SB1903	9011562006
SMC SB6101	9011562007
SMC SB6104	9011562008
SMC SB8201	9011562009
SMC SB8203	9011562010
SMC SB8101	9011562011
SMC SB8103	9011562012
SMC SB8201	9011562013
SMC SB8203	9011562014
SMC SB5102	9011562015
SMC SB5101	9011562016
SMC SB5101D	9011562016
SMC SB5101S	9011562016
SMC SB5201	9011562017
SMC SB5204	9011562018
SMC SB5501	9011562019
SMC SB3401	9011562020

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: [signature]

Date: 3-1-91

U.S. EPA - CLP

054

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
SMC SB4904	9011562021
SMC SB4904D	9011562021
SMC SB4904S	9011562021
SMC SB4301	9011562022
SMC SB4501	9011562023
SMC SB3704	9011562024
SMC SB0504	9011562025
SMC SB4304	9011562026
SMC SB4901	9011562027
SMC SB3804	9011562028
SMC SB3804D	9011562028
SMC SB3804S	9011562028

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: _____

Date: _____

U.S. EPA - CLP

EPA SAMPLE NO.: 050

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INORGANIC ANALYSIS DATA SHEET

SMC 5B09 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562002

Level (low/med): LOW Date Received: 11/09/90

% Solids: 96.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4550		E*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.70	B	N	F
7440-39-3	Barium	19.4	B		P
7440-41-7	Beryllium	1.6			P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	95.5	B		P
7440-47-3	Chromium	178		E*	P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	3.1	B		P
7439-89-6	Iron	4440		E*	P
7439-92-1	Lead	3.4			F
7439-95-4	Magnesium	554	B		P
7439-96-5	Manganese	36.8		E N*	P
7439-97-6	Mercury	0.09	U	r	CV
7440-02-0	Nickel	11.0			P
7440-09-7	Potassium	655	B		P
7782-49-2	Selenium	0.41	U	WN	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	188	B		P
7440-28-0	Thallium	0.83	U	WN	F
7440-62-2	Vanadium	324		EN	P
7440-66-6	Zinc	8.7			P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

05

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

Smc SB 09 02

.b Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562003

Level (low/med): LOW Date Received: 11/09/90

% Solids: 89.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3980		E*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	1.6	B	N	F
7440-39-3	Barium	20.7	B		P
7440-41-7	Beryllium	7.2			P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	1150			P
7440-47-3	Chromium	375		E*	P
7440-48-4	Cobalt	4.7	B		P
7440-50-8	Copper	8.8			P
7439-89-6	Iron	8860		E*	P
7439-92-1	Lead	33.9		S	F
7439-95-4	Magnesium	2160			P
7439-96-5	Manganese	441		E*N	P
7439-97-6	Mercury	0.07	U	*	CV
7440-02-0	Nickel	245			P
7440-09-7	Potassium	539	B		P
7782-49-2	Selenium	0.47	B	W N	F
7440-22-4	Silver	0.85	U	N	P
7440-23-5	Sodium	216	B		P
7440-28-0	Thallium	0.85	U	W N	F
7440-62-2	Vanadium	1630		EN	P
7440-66-6	Zinc	40.0			P
	Cyanide	0.56	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

053

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EMC 5821 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562004

Level (low/med): LOW Date Received: 11/09/90

% Solids: 94.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10400		E	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	1.2	B	N	F
7440-39-3	Barium	71.8			P
7440-41-7	Beryllium	7.7			P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	7690			P
7440-47-3	Chromium	162		E	P
7440-48-4	Cobalt	10.0	B		P
7440-50-8	Copper	49.4			P
7439-89-6	Iron	15000		E	P
7439-92-1	Lead	68.3		S	F
7439-95-4	Magnesium	6330			P
7439-96-5	Manganese	3150		E N	P
7439-97-6	Mercury	0.08	U	+	CV
7440-02-0	Nickel	463			P
7440-09-7	Potassium	389	B		P
7782-49-2	Selenium	0.42	U	W N	F
7440-22-4	Silver	0.84	U	N	P
7440-23-5	Sodium	195	B		P
7440-28-0	Thallium	0.84	U	W N	F
7440-62-2	Vanadium	1810		EN	P
7440-66-6	Zinc	286			P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO. 05

1

INORGANIC ANALYSIS DATA SHEET

SMC EB21 CA

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP56

Matrix (soil/water): SOIL Lab Sample ID: 901156200

Level (low/med): LOW Date Received: 11/09/90

% Solids: 89.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6700		E*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.41	U	N	F
7440-39-3	Barium	15.5	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.82	U		P
7440-70-2	Calcium	46.6	B		P
7440-47-3	Chromium	4.0		E*	P
7440-48-4	Cobalt	3.3	B		P
7440-50-8	Copper	3.9	B		P
7439-89-6	Iron	12100		E*	P
7439-92-1	Lead	3.9			F
7439-95-4	Magnesium	296	B		P
7439-96-5	Manganese	37.6		E*N	P
7439-97-6	Mercury	0.08	U	N	CV
7440-02-0	Nickel	5.0	B		P
7440-09-7	Potassium	216	B		P
7782-49-2	Selenium	0.41	U	WN	F
7440-22-4	Silver	0.82	U	N	P
7440-23-5	Sodium	80.0	B		P
7440-28-0	Thallium	0.82	U	WN	F
7440-62-2	Vanadium	11.1		EN	P
7440-66-6	Zinc	5.7			P
	Cyanide	0.56	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EMCSB19 03

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562006

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3830		E	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	1.0	B	N	F
7440-39-3	Barium	26.4	B		P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	327	B		P
7440-47-3	Chromium	31.8		E	P
7440-48-4	Cobalt	2.5	B		P
7440-50-8	Copper	5.3			P
7439-89-6	Iron	5970		E	P
7439-92-1	Lead	3.5		S	F
7439-95-4	Magnesium	342	B		P
7439-96-5	Manganese	458		EN	P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	17.6			P
7440-09-7	Potassium	189	U		P
7782-49-2	Selenium	0.41	U	WN	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	38.7	B		P
7440-28-0	Thallium	0.83	U	W N	F
7440-62-2	Vanadium	245		EN	P
7440-66-6	Zinc	20.4			P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

3MCS1361 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562007

Level (low/med): LOW Date Received: 11/09/90

% Solids: 91.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5250		E*	P
7440-36-0	Antimony	4.8	U	N	P
7440-38-2	Arsenic	0.83	B	N	F
7440-39-3	Barium	22.9	B		P
7440-41-7	Beryllium	0.31	B		P
7440-43-9	Cadmium	0.87	U		P
7440-70-2	Calcium	84.3	B		P
7440-47-3	Chromium	33.0		E*	P
7440-48-4	Cobalt	3.3	B		P
7440-50-8	Copper	4.9	B		P
7439-89-6	Iron	12000		E*	P
7439-92-1	Lead	10.7			F
7439-95-4	Magnesium	271	B		P
7439-96-5	Manganese	78.9		E*N	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	10.9			P
7440-09-7	Potassium	405	B		P
7782-49-2	Selenium	0.44	U	WN	F
7440-22-4	Silver	0.87	U	N	P
7440-23-5	Sodium	210	B		P
7440-28-0	Thallium	0.87	U	WN	F
7440-62-2	Vanadium	29.4		EN*	P
7440-66-6	Zinc	17.3			P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

062

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC 51361 04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562008

Level (low/med): LOW Date Received: 11/09/90

% Solids: 95.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3190		E X	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.41	U	N	F
7440-39-3	Barium	6.3	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.82	U		P
7440-70-2	Calcium	40.2	B		P
7440-47-3	Chromium	12.5		E X	P
7440-48-4	Cobalt	2.1	B		P
7440-50-8	Copper	3.4	B		P
7439-89-6	Iron	8750		E X	P
7439-92-1	Lead	2.0			F
7439-95-4	Magnesium	99.9	B		P
7439-96-5	Manganese	23.7		E X N	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	3.5	B		P
7440-09-7	Potassium	187	U		P
7782-49-2	Selenium	0.41	U	W N	F
7440-22-4	Silver	0.82	U	N	P
7440-23-5	Sodium	147	B		P
7440-28-0	Thallium	0.82	U	W N	F
7440-62-2	Vanadium	8.8	B	EN	P
7440-66-6	Zinc	7.7			P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC5E83 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562009

Level (low/med): LOW Date Received: 11/09/90

% Solids: 93.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4660		E*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	1.4	B	N	F
7440-39-3	Barium	29.9	B		P
7440-41-7	Beryllium	0.51	B		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	618	B		P
7440-47-3	Chromium	35.5		E*	P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	5.4			P
7439-89-6	Iron	8300		E*	P
7439-92-1	Lead	14.7			F
7439-95-4	Magnesium	415	B		P
7439-96-5	Manganese	118		E*N	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	11.7			P
7440-09-7	Potassium	307	B		P
7782-49-2	Selenium	0.42	U	WN	F
7440-22-4	Silver	0.85	U	N	P
7440-23-5	Sodium	59.8	B		P
7440-28-0	Thallium	0.85	U	WN	F
7440-62-2	Vanadium	91.2		EN	P
7440-66-6	Zinc	21.0			P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC 51583 03

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562010

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5090		EX	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.88	B	N	F
7440-39-3	Barium	27.1	B		P
7440-41-7	Beryllium	0.23	B		P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	94.1	B		P
7440-47-3	Chromium	7.4		EX	P
7440-48-4	Cobalt	2.5	B		P
7440-50-8	Copper	3.8	B		P
7439-89-6	Iron	7540		EX	P
7439-92-1	Lead	5.1		S	F
7439-95-4	Magnesium	360	B		P
7439-96-5	Manganese	40.9		EXN	P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	4.4	B		P
7440-09-7	Potassium	234	B		P
7782-49-2	Selenium	0.42	U	EWN	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	52.3	B		P
7440-28-0	Thallium	0.83	U	WN	F
7440-62-2	Vanadium	16.9		EN	P
7440-66-6	Zinc	8.9			P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

065

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC S1381 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP56

Matrix (soil/water): SOIL Lab Sample ID: 901156201

Level (low/med): LOW Date Received: 11/09/90

% Solids: 86.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4580		EX	P
7440-36-0	Antimony	5.0	U	N	P
7440-38-2	Arsenic	1.3	B	N	F
7440-39-3	Barium	216			P
7440-41-7	Beryllium	2.8			P
7440-43-9	Cadmium	0.91	U		P
7440-70-2	Calcium	1190			P
7440-47-3	Chromium	211		EX	P
7440-48-4	Cobalt	4.5	B		P
7440-50-8	Copper	13.0			P
7439-89-6	Iron	7590		EX	P
7439-92-1	Lead	165		S	F
7439-95-4	Magnesium	1180			P
7439-96-5	Manganese	557		EXN	P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	176			P
7440-09-7	Potassium	335	B		P
7782-49-2	Selenium	0.46	U	WN	F
7440-22-4	Silver	0.91	U	N	P
7440-23-5	Sodium	292	B		P
7440-28-0	Thallium	0.91	U	WN	F
7440-62-2	Vanadium	612		EN	P
7440-66-6	Zinc	48.0			P
	Cyanide	0.58	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE No.

1

INORGANIC ANALYSIS DATA SHEET

SMC5581 63

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562012

Level (low/med): LOW Date Received: 11/09/90

% Solids: 94.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4520		E*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.81	B	N	F
7440-39-3	Barium	118			P
7440-41-7	Beryllium	2.4			P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	1100			P
7440-47-3	Chromium	95.5		E*	P
7440-48-4	Cobalt	4.0	B		P
7440-50-8	Copper	10.8			P
7439-89-6	Iron	7010		E*	P
7439-92-1	Lead	17.4			F
7439-95-4	Magnesium	1010	B		P
7439-96-5	Manganese	573		E*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	131			P
7440-09-7	Potassium	425	B		P
7782-49-2	Selenium	0.52	B	WN	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	193	B		P
7440-28-0	Thallium	0.83	U	N	F
7440-62-2	Vanadium	532		EN	P
7440-66-6	Zinc	53.1			P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

067

SMC SB 5201

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562013

Level (low/med): LOW Date Received: 11/09/90

% Solids: 93.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3320		EX	P
7440-36-0	Antimony	6.5	B	N	P
7440-38-2	Arsenic	1.5	B	N	F
7440-39-3	Barium	15.4	B		P
7440-41-7	Beryllium	0.32	B		P
7440-43-9	Cadmium	0.86	U		P
7440-70-2	Calcium	235	B		P
7440-47-3	Chromium	10.9		EX	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.5	B		P
7439-89-6	Iron	3720		EX	P
7439-92-1	Lead	13.0			F
7439-95-4	Magnesium	311	B		P
7439-96-5	Manganese	51.1		EXN	P
7439-97-6	Mercury	0.06	U	N	CV
7440-02-0	Nickel	5.4	B		P
7440-09-7	Potassium	349	B		P
7782-49-2	Selenium	0.43	U	WN	F
7440-22-4	Silver	0.86	U	N	P
7440-23-5	Sodium	75.3	B		P
7440-28-0	Thallium	0.86	U	WN	F
7440-62-2	Vanadium	68.3		EN	P
7440-66-6	Zinc	9.6			P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

003
EPA SAMPLE NO.

1
INORGANIC ANALYSIS DATA SHEET

SanCSub82
C3

Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562014

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4010		E*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.65	B	N	F
7440-39-3	Barium	11.2	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	27.3	U		P
7440-47-3	Chromium	4.8		E *	P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	3.4	B		P
7439-89-6	Iron	7470		E*	P
7439-92-1	Lead	2.4			F
7439-95-4	Magnesium	127	B		P
7439-96-5	Manganese	21.5		E * N	P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	202	B		P
7782-49-2	Selenium	0.42	U	W N	F
7440-22-4	Silver	0.84	U	N	P
7440-23-5	Sodium	35.7	B		P
7440-28-0	Thallium	0.84	U	N	F
7440-62-2	Vanadium	6.0	B	EN	P
7440-66-6	Zinc	8.6			P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP63

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
SMC SB67-01	9011633001
SMC SB67-01D	9011633001
SMC SB67-01S	9011633001
SMC SB67-04	9011633002
SMC SB64-01	9011633003
SMC-SB64-04	9011633004
SMC SB77-01	9011633005
SMC-SB77-03	9011633006
SMC-SB11-01	9011633007
SMC-SB11-01D	9011633007
SMC-SB11-01S	9011633007
SMC-SB11-02	90116330.8
SMC-SB13-01	90116330.9
SMC-SB13-04	9011633010
SMC-FB-1114	9011633011

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: [signature]

Date: 2-21-91

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB62-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP633

Matrix (soil/water): SOIL Lab Sample ID: 9011633001

Level (low/med): LOW Date Received: 11/15/90

% Solids: 92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3940		*	P
7440-36-0	Antimony	4.4	U	N	P
7440-38-2	Arsenic	0.42	B	NW	F
7440-39-3	Barium	12.9	B		P
7440-41-7	Beryllium	0.42	B		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	94.9	B		P
7440-47-3	Chromium	50.7		N	P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	1.9	B	N	P
7439-89-6	Iron	7270		*	P
7439-92-1	Lead	6.4		S	F
7439-95-4	Magnesium	155	B		P
7439-96-5	Manganese	48.4			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.1	B		P
7440-09-7	Potassium	184	U		P
7782-49-2	Selenium	0.38	U	NW	F
7440-22-4	Silver	0.74	U	N	P
7440-23-5	Sodium	18.9	U		P
7440-28-0	Thallium	0.77	U	W	F
7440-62-2	Vanadium	55.4			P
7440-66-6	Zinc	11.2			P
	Cyanide	0.541	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

029

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB62 C4

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP633

Matrix (soil/water): SOIL Lab Sample ID: 9011633002

Level (low/med): LOW Date Received: 11/15/90

% Solids: 93.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2290		*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.40	U	NW	F
7440-39-3	Barium	9.9	B		P
7440-41-7	Beryllium	0.23	B		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	50.9	B		P
7440-47-3	Chromium	9.2		N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	1.3	B	N	P
7439-89-6	Iron	3200		*	P
7439-92-1	Lead	2.2			F
7439-95-4	Magnesium	106	B		P
7439-96-5	Manganese	37.9			P
7439-97-6	Mercury	0.10	u		CV
7440-02-0	Nickel	5.2	B		P
7440-09-7	Potassium	245	B		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	0.84	U	N	P
7440-23-5	Sodium	35.1	B		P
7440-28-0	Thallium	0.80	U		F
7440-62-2	Vanadium	30.4			P
7440-66-6	Zinc	22.1			P
	Cyanide	0.535	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB64-01

b Name: WESTON-LIONVILLE Contract: 68-W8-0057

b Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP633

trix (soil/water): SOIL Lab Sample ID: 9011633003

vel (low/med): LOW Date Received: 11/15/90

Solids: 93.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5070		*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.42	U	N	F
7440-39-3	Barium	15.5	B		P
7440-41-7	Beryllium	0.35	B		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	86.6	B		P
7440-47-3	Chromium	2.3		N	P
7440-48-4	Cobalt	2.2	B		P
7440-50-8	Copper	1.8	B	N	P
7439-89-6	Iron	11500		*	P
7439-92-1	Lead	4.3			F
7439-95-4	Magnesium	226	B		P
7439-96-5	Manganese	30.3			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	3.7	B		P
7440-09-7	Potassium	186	U		P
7782-49-2	Selenium	0.42	B	NW	F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	19.1	U		P
7440-28-0	Thallium	0.84	U	W	F
7440-62-2	Vanadium	29.5			P
7440-66-6	Zinc	3.8	B		P
	Cyanide	0.537	U		C

Before: BROWN Clarity Before: Texture: FINE

After: BROWN Clarity After: Artifacts:

nts:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB64-04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP633

Matrix (soil/water): SOIL Lab Sample ID: 9011633004

Level (low/med): LOW Date Received: 11/15/90

% Solids: 79.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5670		*	P
7440-36-0	Antimony	5.3	U	N	P
7440-38-2	Arsenic	0.81	B	N	F
7440-39-3	Barium	23.7	B		P
7440-41-7	Beryllium	0.43	B		P
7440-43-9	Cadmium	0.96	U		P
7440-70-2	Calcium	152	B		P
7440-47-3	Chromium	6.0		N	P
7440-48-4	Cobalt	2.2	B		P
7440-50-8	Copper	2.3	B	N	P
7439-89-6	Iron	8120		*	P
7439-92-1	Lead	6.4			F
7439-95-4	Magnesium	629	B		P
7439-96-5	Manganese	43.7			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	6.7	B		P
7440-09-7	Potassium	248	B		P
7782-49-2	Selenium	0.65	B	NW	F
7440-22-4	Silver	0.96	U	N	P
7440-23-5	Sodium	71.0	B		P
7440-28-0	Thallium	0.92	U	W	F
7440-62-2	Vanadium	36.9			P
7440-66-6	Zinc	14.0			P
	Cyanide	0.626	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-S377-C

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP633

Matrix (soil/water): SOIL Lab Sample ID: 9011633005

Level (low/med): LOW Date Received: 11/15/90

% Solids: 91.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17100		*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	0.96	B	NW	F
7440-39-3	Barium	138			P
7440-41-7	Beryllium	8.3			P
7440-43-9	Cadmium	0.86	U		P
7440-70-2	Calcium	10300			P
7440-47-3	Chromium	135		N	P
7440-48-4	Cobalt	5.0	B		P
7440-50-8	Copper	14.1		N	P
7439-89-6	Iron	14400		*	P
7439-92-1	Lead	124		S	F
7439-95-4	Magnesium	9590			P
7439-96-5	Manganese	1480		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	115			P
7440-09-7	Potassium	1240			P
7782-49-2	Selenium	1.1		NS	F
7440-22-4	Silver	0.86	U	N	P
7440-23-5	Sodium	5400			P
7440-28-0	Thallium	8.6	U		F
7440-62-2	Vanadium	1760			P
7440-66-6	Zinc	72.8			P
	Cyanide	0.544	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

034

1

INORGANIC ANALYSIS DATA SHE

EPA SAMPLE NO.

SMC-SB77-03

Lab Name: WESTON-LIONVILLE Contract:

Lab Code: WESTON Case No.: TRC SAS No.:

SDG No.: CLP633

Matrix (soil/water): SOIL Lab Sample ID #: 9011633006

Level (low/med): LOW Date Recieved: 11/15/90

% Solids: 90.2

Concentration Units (ug/L or mg/kg dry weight): MG/

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9160		*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	0.61	B	NW	F
7440-39-3	Barium	33.2	B		P
7440-41-7	Beryllium	0.65	B		P
7440-43-9	Cadmium	0.86	U		P
7440-70-2	Calcium	2020			P
7440-47-3	Chromium	3.9		N	P
7440-48-4	Cobalt	2.6	B		P
7440-50-8	Copper	3.6	B	N	P
7439-89-6	Iron	12700		*	P
7439-92-1	Lead	5.8		S	F
7439-95-4	Magnesium	957	B		P
7439-96-5	Manganese	45.2			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	5.7	B		P
7440-09-7	Potassium	197	U		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	0.86	U	N	P
7440-23-5	Sodium	540	B		P
7440-28-0	Thallium	8.7	U	W	F
7440-62-2	Vanadium	75.8			P
7440-66-6	Zinc	3.1	B		P
	Cyanide	0.554	U		C

lor Before: BROWN Clarity Before: Texture: FINE

lor After: BROWN Clarity After: Artifacts:

nments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB11-01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP63

Matrix (soil/water): SOIL Lab Sample ID: 901163300

Level (low/med): LOW Date Received: 11/15/90

% Solids: 91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6400		*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.71	B	N	F
7440-39-3	Barium	27.9	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	129	B		P
7440-47-3	Chromium	5.2		N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	1.1	U	N	P
7439-89-6	Iron	6000		*	P
7439-92-1	Lead	3.8			F
7439-95-4	Magnesium	421	B		P
7439-96-5	Manganese	20.2			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	2.8	B		P
7440-09-7	Potassium	193	U		P
7782-49-2	Selenium	0.55	B	NW	F
7440-22-4	Silver	0.84	U	N	P
7440-23-5	Sodium	19.8	U		P
7440-28-0	Thallium	0.84	U	W	F
7440-62-2	Vanadium	7.4	B		P
7440-66-6	Zinc	5.4			P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC-SB11-02

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP633

Matrix (soil/water): SOIL Lab Sample ID: 9011633008

Level (low/med): LOW Date Received: 11/15/90

% Solids: 91.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1690		*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.43	U	N	F
7440-39-3	Barium	8.8	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	27.2	U		P
7440-47-3	Chromium	4.9		N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	1.5	B	N	P
7439-89-6	Iron	2840		*	P
7439-92-1	Lead	1.2			F
7439-95-4	Magnesium	105	B		P
7439-96-5	Manganese	15.9			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	2.9	B		P
7440-09-7	Potassium	192	U		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	0.84	U	N	P
7440-23-5	Sodium	19.7	U		P
7440-28-0	Thallium	0.86	U		F
7440-62-2	Vanadium	2.7	B		P
7440-66-6	Zinc	2.3	B		P
	Cyanide	0.546	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEF

SMC-SB13-01

Lab Name: WESTON-LIONVILLE Contra

SDG No.: CLP63

Lab Code: WESTON Case No.: TRC SAS No.:

Matrix (soil/water): SOIL Lab Sample ID: 90116330

Level (low/med): LOW Date Received: 11/15/90

% Solids: 89.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2440		*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	0.66	B	NW	F
7440-39-3	Barium	17.5	B		P
7440-41-7	Beryllium	0.30	B		P
7440-43-9	Cadmium	0.86	U		P
7440-70-2	Calcium	597	B		P
7440-47-3	Chromium	17.0		N	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	3.8	B	N	P
7439-89-6	Iron	2780		*	P
7439-92-1	Lead	12.8			F
7439-95-4	Magnesium	252	B		P
7439-96-5	Manganese	133			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	6.2	B		P
7440-09-7	Potassium	318	B		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	0.86	U	N	P
7440-23-5	Sodium	38.6	B		P
7440-28-0	Thallium	0.86	U	W	F
7440-62-2	Vanadium	51.4			P
7440-66-6	Zinc	17.2			P
	Cyanide	0.627	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE I

1

INORGANIC ANALYSIS DATA SHEET

SMC-SBB-

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLPE

Matrix (soil/water): SOIL Lab Sample ID: 9011633C

Level (low/med): LOW Date Received: 11/15/9C

% Solids: 90.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4640		*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	1.2	B	NW	F
7440-39-3	Barium	18.8	B		P
7440-41-7	Beryllium	0.77	B		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	677	B		P
7440-47-3	Chromium	27.4		N	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	5.1		N	P
7439-89-6	Iron	6760		*	P
7439-92-1	Lead	18.6			F
7439-95-4	Magnesium	4070			P
7439-96-5	Manganese	87.6			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	16.4			P
7440-09-7	Potassium	206	B		P
7782-49-2	Selenium	0.41	U	NW	F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	190	B		P
7440-28-0	Thallium	0.83	U	W	F
7440-62-2	Vanadium	125			P
7440-66-6	Zinc	65.2			P
	Cyanide	0.555	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L633

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-006	SMC-SB77-03	Silver, Total	2.2	u	MG/KG	2.2
		Aluminum, Total	9160		MG/KG	43.1
		Arsenic, Total	2.2	u	MG/KG	2.2
		Boron, Total	21.5	u	MG/KG	21.5
		Barium, Total	43.1	u	MG/KG	43.1
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	2020		MG/KG	1080
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	10.8	u	MG/KG	10.8
		Chromium, Total	3.9		MG/KG	2.2
		Copper, Total	5.4	u	MG/KG	5.4
		Iron, Total	12700		MG/KG	21.5
		Mercury, Total	0.11	u	MG/KG	0.11
		Potassium, Total	1080	u	MG/KG	1080
		Magnesium, Total	1080	u	MG/KG	1080
		Manganese, Total	45.2		MG/KG	3.2
		Sodium, Total	1080	u	MG/KG	1080
		Niobium, Total	43.1	u	MG/KG	43.1
		Nickel, Total	8.6	u	MG/KG	8.6
		Lead, Total	5.8		MG/KG	0.65
		Antimony, Total	12.9	u	MG/KG	12.9
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	21.5	u	MG/KG	21.5
		Titanium, Total	198		MG/KG	21.5
		Thallium, Total	21.7	u	MG/KG	21.7
		Vanadium, Total	75.8		MG/KG	10.8
		Zinc, Total	4.3	u	MG/KG	4.3
		Zirconium, Total	43.1	u	MG/KG	43.1

WESTON

Roy F. Weston, INC.
Lionville Laboratory

CLIENT:TRC/SHIELD ALLOY **SAMPLES RECEIVED:**11/16/90
RFW #:9011L679
W.O.#:3486-06-01-0000

METALS NARRATIVE

The set of samples consisted of (1) water sample and (2) soil samples collected on 11/16/90.

The samples were analyzed according to criteria set forth in CLP SOW 7/87.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory.

2. All ICV and CCV values were within control limits.

3. All ICB and CCB values were within control limits.

4. All preparation blank values were within control limits.

5. All LCS results were within the 80-120% control limits.

   Note: The USEPA has dropped control limits for antimony and silver due to documented difficulties in obtaining reliable results. WESTON Analytics has adopted the same policy.

6. All matrix spike recoveries were within the 75-125% control limits with the exception of Mn, Se, Tl and Zn. All corresponding samples were flagged with an "N" according to CLP protocol.

7. All duplicate analyses were within the 20% RPD control limits with the exception of Ag. All corresponding samples were flagged with an "*" according to CLP protocol.

WESTON

8. Se sample results were calculated by the method of standard addition (MSA). All corresponding samples were flagged with an "S" according to CLP protocol.

Jack R. Tuschall, Ph.D.
Laboratory Manager
WESTON Analytical Laboratories

10-9-91
Date

WESTON

USEPA CONTRACT LABORATORY PROGRAM
DATA QUALIFIER DESCRIPTIONS
INORGANIC ANALYSIS SOW NO. 787

CONCENTRATION QUALIFIERS:

B = INDICATES THAT THE REPORTED VALUE IS LESS THAN THE CRDL BUT GREATER THAN THE IDL.

U = INDICATES THAT THE ANALYTE WAS ANALYZED FOR BUT NOT DETECTED.

QUALIFIERS:

E = THE REPORTED VALUE IS ESTIMATED BECAUSE OF THE PRESENCE OF INTERFERENCE.

M = DUPLICATE INJECTION PRECISION NOT MET.

N = SPIKED SAMPLE RECOVERY NOT WITHIN CONTROL LIMITS.

S = THE REPORTED VALUE WAS DETERMINED BY THE METHOD OF STANDARD ADDITIONS (MSA).

W = POST DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUT OF CONTROL LIMITS (85-125%) WHILE SAMPLE ABSORBANCE IS LESS THAN 50% OF SPIKE ABSORBANCE.

* = DUPLICATE ANALYSIS NOT WITHIN CONTROL LIMITS.

+ = CORRELATION COEFFICIENT FOR THE MSA IS LESS THAN 0.995.

METHOD:

P = ICP
A = FLAME AA
F = FURNACE AA
CV = MANUAL COLD VAPOR AA.
AV = AUTOMATED COLD VAPOR AA.
AS = SEMI-AUTOMATED SPECTROPHOTOMETRIC
C = MANUAL SPECTROPHOTOMETRIC
T = TITRIMETRIC
NR = NOT REQUIRED

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP679

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
SMC RA6401	9011679001
SMC RA6401D	9011679001
SMC RA6401S	9011679001
SMC SB4205	9011679003
SMC EB1116	9011679004

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: [signature]

Date: 7-13-91

U.S. EPA - CLP

024

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMC RA 64
01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP67

Matrix (soil/water): SOIL Lab Sample ID: 901167900

Level (low/med): LOW Date Received: 11/16/90

% Solids: 86.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4660			P
7440-36-0	Antimony	11.2	B		P
7440-38-2	Arsenic	69.8			F
7440-39-3	Barium	370			P
7440-41-7	Beryllium	0.57	B		P
7440-43-9	Cadmium	1.0	B		P
7440-70-2	Calcium	49300			P
7440-47-3	Chromium	801			P
7440-48-4	Cobalt	4.0	B		P
7440-50-8	Copper	21.4			P
7439-89-6	Iron	10300			P
7439-92-1	Lead	101			F
7439-95-4	Magnesium	2250			P
7439-96-5	Manganese	110		N	P
7439-97-6	Mercury	0.05			CV
7440-02-0	Nickel	6.3	B		P
7440-09-7	Potassium	678	B		P
7782-49-2	Selenium	4.0		N S	F
7440-22-4	Silver	4.4		*	P
7440-23-5	Sodium	353	B		P
7440-28-0	Thallium	0.92	U	NW	F
7440-62-2	Vanadium	67.0			P
7440-66-6	Zinc	248		N	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

025

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC SB42 05

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP679

Matrix (soil/water): SOIL Lab Sample ID: 9011679003

Level (low/med): LOW Date Received: 11/16/90

% Solids: 90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2110			P
7440-36-0	Antimony	4.8	U		P
7440-38-2	Arsenic	0.44	U		F
7440-39-3	Barium	3.7	B		P
7440-41-7	Beryllium	0.26	B		P
7440-43-9	Cadmium	0.88	U		P
7440-70-2	Calcium	112	B		P
7440-47-3	Chromium	1.2	B		P
7440-48-4	Cobalt	1.6	B		P
7440-50-8	Copper	1.2	B		P
7439-89-6	Iron	8780			P
7439-92-1	Lead	1.9			F
7439-95-4	Magnesium	23.8	U		P
7439-96-5	Manganese	11.0		N	P
7439-97-6	Mercury	0.06			CV
7440-02-0	Nickel	2.2	U		P
7440-09-7	Potassium	202	U		P
7782-49-2	Selenium	0.44	U	NW	F
7440-22-4	Silver	2.7		*	P
7440-23-5	Sodium	21.0	B		P
7440-28-0	Thallium	0.87	U	NW	F
7440-62-2	Vanadium	8.3	B		P
7440-66-6	Zinc	4.1	B	N	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 3486-06-01-0000

WESTON BATCH #: 9011L679

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-003	SMC-SB42-05	Sodium, Total	1100	u	MG/KG	1100
		Niobium, Total	43.5	u	MG/KG	43.5
		Nickel, Total	8.8	u	MG/KG	8.8
		Lead, Total	1.9		MG/KG	0.65
		Antimony, Total	13.2	u	MG/KG	13.2
		Selenium, Total	1.1	u	MG/KG	1.1
		Strontium, Total	22.0	u	MG/KG	22.0
		Titanium, Total	44.2		MG/KG	22.0
		Thallium, Total	2.2	u	MG/KG	2.2
		Vanadium, Total	11.0	u	MG/KG	11.0
		Zinc, Total	4.4	u	MG/KG	4.4
		Zirconium, Total	43.5	u	MG/KG	43.5
-003	SMC-SB42-05	Silver, Total	2.7		MG/KG	2.2
		Aluminum, Total	2110		MG/KG	44.1
		Arsenic, Total	2.2	u	MG/KG	2.2
		Boron, Total	22.0	u	MG/KG	22.0
		Barium, Total	44.1	u	MG/KG	44.1
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	1100	u	MG/KG	1100
		Cadmium, Total	1.1	u	MG/KG	1.1
		Cobalt, Total	11.0	u	MG/KG	11.0
		Chromium, Total	2.2	u	MG/KG	2.2
		Copper, Total	5.5	u	MG/KG	5.5
		Iron, Total	8790		MG/KG	22.0
		Mercury, Total	0.16		MG/KG	0.12
		Potassium, Total	1100	u	MG/KG	1100
		Magnesium, Total	1100	u	MG/KG	1100
		Manganese, Total	11.0		MG/KG	3.3

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/07/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 3486-06-01-0000

WESTON BATCH #: 9011L679

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-003	SMC-SB42-05	% Solids	90.0	%	0.10
		Chromium VI	0.11 u	MG/KG	0.11

Roy F. Weston, Inc. - Lionville Laboratory
PHC ANALYTICAL DATA PACKAGE FOR
TRC/SHIELDALLOY

DATE RECEIVED: 11/07/90 RFW LOT # :9011L518

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SMC-SB72-01	001	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-SB72-01	001 MS	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-SB72-01	001 MSD	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-SB72-04	002	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-SB91-04	003	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-SB92-04	004	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-SB42-01	007	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-SB41-02	011	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-SB73-02	013	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-SB92-04	014	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-SB73-04	015	S	90DHC355	11/07/90	11/12/90	11/14/90
SMC-FB-1107	022	W	90DHC390	11/07/90	11/27/90	11/27/90
LAB QC:						
	MB1	S	90DHC355	N/A	11/12/90	11/14/90
	MB1 BS	S	90DHC355	N/A	11/12/90	11/14/90
	MB1	W	90DHC390	N/A	11/27/90	11/27/90
	MB1 BS	W	90DHC390	N/A	11/27/90	11/27/90
	MB2 BS	W	90DHC390	N/A	11/27/90	11/27/90
	MB3 BS	W	90DHC390	N/A	11/27/90	11/27/90

ROY F. WESTON, INC.
Lionville Laboratory

Client: TRC/SHIELD ALLOY
RFW # : 9011L518 (Petroleum Hydrocarbons)
W.O. #: 2724-05-01-0000

U = Indicates that the compound was analyzed for but not detected. The detection limit for the sample (not the method detection limit) is reported with U (e.g., 10u).

J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10mg/L and a concentration of 3mg/L is calculated, it is reported as 3J.

NA = Not Applicable. NR = Not Required.

NC = Not calculable, results below detection limit.

The method used for the analysis of petroleum hydrocarbons is EPA Method 418.1 (USEPA 600/4-79-020) and EPA Method 413.2 (USEPA 600/4-79-020) for oil and grease. Solid samples are extracted using Method 9071 (USEPA SW846) then analyzed by EPA Method 418.1.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

- Blanks were free of contamination.
- One matrix spike recovery was outside laboratory limits due to non-homogeniety of the sample.
- Blank spike recoveries were within laboratory limits.

Samples Received : 11/07/90
Date of Extraction: 11/12 & 27/90
Date of Analysis : 11/14 & 27/90

for J. Michael Taylor
Project Director
Lionville Analytical Laboratory

11/30/90
DATE

Roy F. Weston, Inc. - Lionville Laboratory

Petroleum Hydrocarbons by IR

Report Date: 01/07/91 16:23

RFW Batch Number: 9011L518 Client: TRC/SHIELDALLOY Work Order: 2724-05-01-0000 Page: 1

	Cust ID:	SMC-SB72-01	SMC-SB72-01	SMC-SB72-01	SMC-SB72-04	SMC-SB91-04	SMC-SB92-04
Sample Information	RFW#:	001	001 MS	001 MSD	002	003	004
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	4.00	2.00	1.00	1.00	1.00
	Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Petroleum Hydrocarbon		18	13 B	12 %	69	8.0	4.0

	Cust ID:	SMC-SB42-01	SMC-SB41-02	SMC-SB73-02	SMC-SB92-04	SMC-SB73-04	SMC-FB-1107
Sample Information	RFW#:	007	011	013	014	015	022
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/L
Petroleum Hydrocarbon		4.5	35	3.9 U	3.5 U	3.4 J	2.0 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked. %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

ROY F. WESTON, INC.
Lionville Laboratory

Client: TRC/SHIELDALLOY
RFW # : 9011L679 (Petroleum Hydrocarbons)
W.O. #: 3486-06-01-0000

U = Indicates that the compound was analyzed for but not detected. The detection limit for the sample (not the method detection limit) is reported with U (e.g., 10u).

J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10mg/L and a concentration of 3mg/L is calculated, it is reported as 3J.

NA = Not Applicable. NR = Not Required.

NC = Not calculable, results below detection limit.

The method used for the analysis of petroleum hydrocarbons is EPA Method 418.1 (USEPA 600/4-79-020) and EPA Method 413.2 (USEPA 600/4-79-020) for oil and grease. Solid samples are extracted using Method 9071 (USEPA SW846) then analyzed by EPA Method 418.1.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

- Blanks were free of contamination.
- Blank spike recoveries were within laboratory limits.
- Matrix spike recoveries were witin laboratory limits.

Samples Received : 11/16/90
Date of Extraction: 11/20/90
Date of Analysis : 11/23/90

for Pam Daniels
J. Michael Taylor
Project Director
Lionville Analytical Laboratory

11/30/90
DATE

Roy F. Weston, Inc. Environmental Laboratory

Petroleum Hydrocarbons by IR

Report Date: 11/30/90 09:59

RFW Batch Number: 9011L679 Client: TRC/SHIELDALLOY Work Order: 3486-06-01-0000 Page: 1

	Cust ID:	SMC-SB84-05	SMC-SB84-05	SMC-SB84-05	SMC-SB84-05	SMC-SB42-05	SMC-FB-1116
Sample Information	RFW#:	002	002 REP	002 MS	002 MSD	003	004
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/L
Petroleum Hydrocarbon		3.3 J	3.8 U	91 %	91 %	4.0 U	1.0 U

	Cust ID:	PBLK	PBLK BS	PBLK	PBLK BS
Sample Information	RFW#:	90DHC375-MB1	90DHC375-MB1	90DHC376-MB1	90DHC376-MB1
	Matrix:	SOIL	SOIL	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00
	Units:	mg/Kg	mg/Kg	mg/L	mg/L
Petroleum Hydrocarbon		4.0 U	93 %	1.0 U	94 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CMCSB51 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP5

Matrix (soil/water): SOIL Lab Sample ID: 90115620

Level (low/med): LOW Date Received: 11/09/90

% Solids: 94.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4010		E X	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	1.2	B	N	F
7440-39-3	Barium	14.9	B		P
7440-41-7	Beryllium	2.1			P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	149	B		P
7440-47-3	Chromium	5.8		E X	P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	3.0	B		P
7439-89-6	Iron	5570		E X	P
7439-92-1	Lead	21.0	B		F
7439-95-4	Magnesium	504	B		P
7439-96-5	Manganese	55.0		E X N	P
7439-97-6	Mercury	0.06	U	N	CV
7440-02-0	Nickel	3.8	B		P
7440-09-7	Potassium	839	B		P
7782-49-2	Selenium	0.41	U	W N	F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	59.3	B		P
7440-28-0	Thallium	0.83	U	W N	F
7440-62-2	Vanadium	466		EN	P
7440-66-6	Zinc	7.4			P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC5B20 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP5

Matrix (soil/water): SOIL Lab Sample ID: 90115620

Level (low/med): LOW Date Received: 11/09/90

% Solids: 93.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4480		E*	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	1.2	B	N	F
7440-39-3	Barium	15.5	B		P
7440-41-7	Beryllium	4.2			P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	372	B		P
7440-47-3	Chromium	6.4		E*	P
7440-48-4	Cobalt	6.1	B		P
7440-50-8	Copper	3.3	B		P
7439-89-6	Iron	6610		E*	P
7439-92-1	Lead	4.4	B		F
7439-95-4	Magnesium	528	B		P
7439-96-5	Manganese	26.1		E*N	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	221			P
7440-09-7	Potassium	253	B		P
7782-49-2	Selenium	0.53	B	W N	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	110	B		P
7440-28-0	Thallium	0.85	U	W N	F
7440-62-2	Vanadium	928		EN*	P
7440-66-6	Zinc	16.3			P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SINC S1B50 04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562018

Level (low/med): LOW Date Received: 11/09/90

% Solids: 91.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1290		E	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.49	B	N	F
7440-39-3	Barium	3.1	B		P
7440-41-7	Beryllium	1.2			P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	94.1	B		P
7440-47-3	Chromium	10.2		E	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	1.2	B		P
7439-89-6	Iron	1640		E	P
7439-92-1	Lead	2.5		S	F
7439-95-4	Magnesium	202	B		P
7439-96-5	Manganese	7.3		E N	P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	7.3	B		P
7440-09-7	Potassium	186	U		P
7782-49-2	Selenium	0.41	U	N	F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	136	B		P
7440-28-0	Thallium	0.82	U	W N	F
7440-62-2	Vanadium	265		EN	P
7440-66-6	Zinc	2.4	B		P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

073

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC SB55 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562019

Level (low/med): LOW Date Received: 11/09/90

% Solids: 92.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5660		E	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.76	B	N	F
7440-39-3	Barium	8.3	B		P
7440-41-7	Beryllium	2.7			P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	1310			P
7440-47-3	Chromium	32.7		E	P
7440-48-4	Cobalt	2.5	B		P
7440-50-8	Copper	4.1	B		P
7439-89-6	Iron	8020		E	P
7439-92-1	Lead	12.4	B		F
7439-95-4	Magnesium	548	B		P
7439-96-5	Manganese	33.7		E N	P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	301	B		P
7782-49-2	Selenium	0.47	B	W N	F
7440-22-4	Silver	0.84	U	N	P
7440-23-5	Sodium	66.5	B		P
7440-28-0	Thallium	0.83	U	W N	F
7440-62-2	Vanadium	594		EN	P
7440-66-6	Zinc	7.8			P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

074

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC SB 38 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562020

Level (low/med): LOW Date Received: 11/09/90

% Solids: 94.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3550		E X	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.65	B	N	F
7440-39-3	Barium	9.2	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	222	B		P
7440-47-3	Chromium	17.4		E X	P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	2.5	B		P
7439-89-6	Iron	5250		E X	P
7439-92-1	Lead	4.8			F
7439-95-4	Magnesium	275	B		P
7439-96-5	Manganese	37.5		E X N	P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	187	U		P
7782-49-2	Selenium	0.42	U	N	F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	32.2	B		P
7440-28-0	Thallium	0.84	U	W N	F
7440-62-2	Vanadium	13.4		EN	P
7440-66-6	Zinc	4.9			P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO. 075

1

INORGANIC ANALYSIS DATA SHEET

SMC5349 04

La. Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562021

Level (low/med): LOW Date Received: 11/09/90

% Solids: 93.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2770		E*	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	0.43	U	N	F
7440-39-3	Barium	9.0	B		P
7440-41-7	Beryllium	0.73	B		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	114	B		P
7440-47-3	Chromium	108		E*	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	3.1	B		P
7439-89-6	Iron	2320		E*	P
7439-92-1	Lead	17.8			F
7439-95-4	Magnesium	288	B		P
7439-96-5	Manganese	21.2		E*N	P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	11.3			P
7440-09-7	Potassium	203	B		P
7782-49-2	Selenium	0.43	B	W N	F
7440-22-4	Silver	0.85	U	N	P
7440-23-5	Sodium	126	B		P
7440-28-0	Thallium	0.85	U	W N	F
7440-62-2	Vanadium	154		EN	P
7440-66-6	Zinc	6.0			P
	Cyanide	0.54	U		C

olor Before: BROWN Clarity Before: Texture: FINE

olor After: BROWN Clarity After: Artifacts:

omments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC SB 43 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562022

Level (low/med): LOW Date Received: 11/09/90

% Solids: 89.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4010		E	P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	43.1		N	F
7440-39-3	Barium	123			P
7440-41-7	Beryllium	0.91	B		P
7440-43-9	Cadmium	1.6			P
7440-70-2	Calcium	1740			P
7440-47-3	Chromium	260		E	P
7440-48-4	Cobalt	32.8			P
7440-50-8	Copper	121			P
7439-89-6	Iron	31100		E	P
7439-92-1	Lead	105			F
7439-95-4	Magnesium	639	B		P
7439-96-5	Manganese	2380		E N	P
7439-97-6	Mercury	0.11			CV
7440-02-0	Nickel	41.9			P
7440-09-7	Potassium	248	B		P
7782-49-2	Selenium	0.75	B	N	F
7440-22-4	Silver	3.3		N	P
7440-23-5	Sodium	192	B		P
7440-28-0	Thallium	8.6	U	WN	F
7440-62-2	Vanadium	176		EN	P
7440-66-6	Zinc	159			P
	Cyanide	0.70			C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

077

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

Sinc 51348 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562023

Level (low/med): LOW Date Received: 11/09/90

% Solids: 90.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10900		E*	P
7440-36-0	Antimony	4.8	U	N	P
7440-38-2	Arsenic	2.5		N	F
7440-39-3	Barium	39.6	B		P
7440-41-7	Beryllium	0.46	B		P
7440-43-9	Cadmium	0.88	U		P
7440-70-2	Calcium	384	B		P
7440-47-3	Chromium	7.6		E*	P
7440-48-4	Cobalt	4.5	B		P
7440-50-8	Copper	5.3	B		P
7439-89-6	Iron	13800		E*	P
7439-92-1	Lead	4.2			F
7439-95-4	Magnesium	1010	B		P
7439-96-5	Manganese	72.0		E*N	P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	4.2	B		P
7440-09-7	Potassium	493	B		P
7782-49-2	Selenium	0.65	B	SN	F
7440-22-4	Silver	0.88	U	N	P
7440-23-5	Sodium	64.2	B		P
7440-28-0	Thallium	0.87	U	WN	F
7440-62-2	Vanadium	35.5		EN	P
7440-66-6	Zinc	18.7			P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

073

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

Sin CSIB 37 04

1 Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562024

Level (low/med): LOW Date Received: 11/09/90

% Solids: 94.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2040		E	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.63	B	N	F
7440-39-3	Barium	2.8	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	59.0	B		P
7440-47-3	Chromium	21.6		E	P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.2	B		P
7439-89-6	Iron	3450		E	P
7439-92-1	Lead	7.9	B		F
7439-95-4	Magnesium	112	B		P
7439-96-5	Manganese	10.5		E N	P
7439-97-6	Mercury	0.70	U		CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	192	U		P
7782-49-2	Selenium	0.41	U	W N	F
7440-22-4	Silver	0.84	U	N	P
7440-23-5	Sodium	49.8	B		P
7440-28-0	Thallium	0.81	U	W N	F
7440-62-2	Vanadium	22.7		EN	P
7440-66-6	Zinc	3.3	B		P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

073

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC SB 48 04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562025

Level (low/med): LOW Date Received: 11/09/90

% Solids: 95.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2020		E*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.40	U	N	F
7440-39-3	Barium	4.8	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.82	U		P
7440-70-2	Calcium	45.3	B		P
7440-47-3	Chromium	4.1		E*	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	3.1	B		P
7439-89-6	Iron	3710		E*	P
7439-92-1	Lead	2.0			F
7439-95-4	Magnesium	68.3	B		P
7439-96-5	Manganese	9.8		E*N	P
7439-97-6	Mercury	0.07	U	[redacted]	CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	188	U		P
7782-49-2	Selenium	0.40	U	WN	F
7440-22-4	Silver	0.82	U	N	P
7440-23-5	Sodium	32.5	B		P
7440-28-0	Thallium	0.80	U	WN	F
7440-62-2	Vanadium	3.4	B	EN	P
7440-66-6	Zinc	2.9	B		P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

080

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC 5643 04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562026

Level (low/med): LOW Date Received: 11/09/90

% Solids: 94.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2130		E ✱	P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	0.71	B	N	F
7440-39-3	Barium	9.5	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.83	U		P
7440-70-2	Calcium	143	B		P
7440-47-3	Chromium	4.5		E ✱	P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	6.0			P
7439-89-6	Iron	4170		E ✱	P
7439-92-1	Lead	5.2	B		F
7439-95-4	Magnesium	151	B		P
7439-96-5	Manganese	56.1		E ✱ N	P
7439-97-6	Mercury	0.08	U	✱	CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	191	U		P
7782-49-2	Selenium	0.39	U	W N	F
7440-22-4	Silver	0.83	U	N	P
7440-23-5	Sodium	19.6	U		P
7440-28-0	Thallium	0.78	U	W N	F
7440-62-2	Vanadium	5.5	B	EN ✱	P
7440-66-6	Zinc	38.6			P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

SMC SB49 01

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP56

Matrix (soil/water): SOIL Lab Sample ID: 901156202

Level (low/med): LOW Date Received: 11/09/90

% Solids: 96.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3140		E*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.97	B	N	F
7440-39-3	Barium	44.2			P
7440-41-7	Beryllium	3.8			P
7440-43-9	Cadmium	0.82	U		P
7440-70-2	Calcium	266	B		P
7440-47-3	Chromium	7.1		E*	P
7440-48-4	Cobalt	3.0	B		P
7440-50-8	Copper	3.6	B		P
7439-89-6	Iron	8320		E*	P
7439-92-1	Lead	6.6			F
7439-95-4	Magnesium	496	B		P
7439-96-5	Manganese	70.6		E*N	P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	11.3			P
7440-09-7	Potassium	235	B		P
7782-49-2	Selenium	0.41	U	N	F
7440-22-4	Silver	0.82	U	N	P
7440-23-5	Sodium	214	B		P
7440-28-0	Thallium	0.82	U	W	F
7440-62-2	Vanadium	826		EN	P
7440-66-6	Zinc	8.5			P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

032

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC513 38 04

Lab Name: WESTON-LIONVILLE Contract: 68-W8-0057

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP562

Matrix (soil/water): SOIL Lab Sample ID: 9011562028

Level (low/med): LOW Date Received: 11/09/90

% Solids: 96.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1610		E X	P
7440-36-0	Antimony	4.4	U	N	P
7440-38-2	Arsenic	0.41	U	N	F
7440-39-3	Barium	4.3	B		P
7440-41-7	Beryllium	0.34	B		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	56.1	B		P
7440-47-3	Chromium	3.9		E X	P
7440-48-4	Cobalt	1.4	U		P
7440-50-8	Copper	1.2	B		P
7439-89-6	Iron	1730		E X	P
7439-92-1	Lead	1.2			F
7439-95-4	Magnesium	116	B		P
7439-96-5	Manganese	9.7		E X N	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	185	U		P
7782-49-2	Selenium	0.47	B	W N	F
7440-22-4	Silver	0.81	U	N	P
7440-23-5	Sodium	19.0	U		P
7440-28-0	Thallium	0.81	U	W N	F
7440-62-2	Vanadium	76.7		EN	P
7440-66-6	Zinc	7.8			P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

WESTON

Roy F. Weston, INC.
Lionville Laboratory

CLIENT: TRC/SHIELD ALLOY
RFW #: 9011L595
W.O.#: 2724-05-01

SAMPLES RECEIVED: 11/13/90

METALS NARRATIVE

The set of samples consisted of (1) water sample and (28) soil samples collected on 11/12/90.

The samples were analyzed according to criteria set forth in CLP SOW 7/87.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory.

2. All ICV and CCV values were within control limits.

3. All ICB and CCB values were within control limits.

4. All preparation blank values were within control limits.

5. All LCS results were within the 80-120% control limits.

   Note: The USEPA has dropped control limits for antimony and silver due to documented difficulties in obtaining reliable results. WESTON Analytics has adopted the same policy.

6. All matrix spike recoveries were within the 75-125% control limits with the exception of As, Sb, Be, Cr, Hg, Mn, Ni, Se, Ag, Tl and Zn. All corresponding samples were flagged with an "N" according to CLP protocol.

7. All duplicate analyses were within the 20% RPD control limits with the exception of Al, Ba, Be, Ca, Cr, Cu, Fe, Pb, Ni, Mg, Mn, V and Zn. All corresponding samples were flagged with an "*" according to CLP protocol.

WESTON

8. Pb and Se sample results were calculated by the method of standard addition (MSA). All corresponding samples were flagged with an "S" according to CLP protocol.

Jack R. Tuschall, Ph.D.
Laboratory Manager
WESTON Analytical Laboratories

Date

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC58 9801

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP595

Matrix (soil/water): SOIL Lab Sample ID: 9011595003

Level (low/med): LOW Date Received: 11/13/90

% Solids: 89.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2000		E*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.51	B	N	F
7440-39-3	Barium	4.7	B	E*	P
7440-41-7	Beryllium	0.11	B	EN	P
7440-43-9	Cadmium	0.71	U		P
7440-70-2	Calcium	37.6	B	E*	P
7440-47-3	Chromium	1.2	B	EN	P
7440-48-4	Cobalt	1.0	U		P
7440-50-8	Copper	0.93	U	*	P
7439-89-6	Iron	4520		E*	P
7439-92-1	Lead	2.7			F
7439-95-4	Magnesium	32.2	B	E	P
7439-96-5	Manganese	6.8		EN	P
7439-97-6	Mercury	0.10		N	CV
7440-02-0	Nickel	1.7	U	EN*	P
7440-09-7	Potassium	181	U		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	2.5	U	N	P
7440-23-5	Sodium	18.7	U		P
7440-28-0	Thallium	0.86	U	N	F
7440-62-2	Vanadium	0.82	U	E	P
7440-66-6	Zinc	3.9	B	N	P
	Cyanide	0.56	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE N

SMC5B7901

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP5

Matrix (soil/water): SOIL Lab Sample ID: 90115950

Level (low/med): LOW Date Received: 11/13/90

% Solids: 96.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6320		E*	P
7440-36-0	Antimony	4.1	B	N	P
7440-38-2	Arsenic	0.41	U	N	F
7440-39-3	Barium	29.0	B	E*	P
7440-41-7	Beryllium	1.4		EN	P
7440-43-9	Cadmium	0.62	U		P
7440-70-2	Calcium	315	B	E* N	P
7440-47-3	Chromium	49.2		E	P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	3.4	B	*	P
7439-89-6	Iron	8160		E*	P
7439-92-1	Lead	23.6			F
7439-95-4	Magnesium	399	B	E	P
7439-96-5	Manganese	26.2		E N	P
7439-97-6	Mercury	0.04		N	CV
7440-02-0	Nickel	4.0	B	EN*	P
7440-09-7	Potassium	1000			P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	2.2	U	N	P
7440-23-5	Sodium	772	B		P
7440-28-0	Thallium	0.81	U	NW	F
7440-62-2	Vanadium	209		E	P
7440-66-6	Zinc	9.3		N	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC58 7902

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP595

Matrix (soil/water): SOIL Lab Sample ID: 9011595005

Level (low/med): LOW Date Received: 11/13/90

% Solids: 91.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5420		E*	P
7440-36-0	Antimony	4.3	U	N	P
7440-38-2	Arsenic	0.40	U	N	F
7440-39-3	Barium	10.9	B	E*	P
7440-41-7	Beryllium	0.23	B	EN	P
7440-43-9	Cadmium	0.67	U		P
7440-70-2	Calcium	27.6	B	E*	P
7440-47-3	Chromium	12.1		E N	P
7440-48-4	Cobalt	1.9	B		P
7440-50-8	Copper	3.5	B	*	P
7439-89-6	Iron	9960		E*	P
7439-92-1	Lead	66.2			F
7439-95-4	Magnesium	105	B	E	P
7439-96-5	Manganese	13.6		E N	P
7439-97-6	Mercury	0.10			CV
7440-02-0	Nickel	3.5	B	EN*	P
7440-09-7	Potassium	737	B		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	2.4	U	N	P
7440-23-5	Sodium	809	B		P
7440-28-0	Thallium	1.1	B	NW	F
7440-62-2	Vanadium	15.1		E	P
7440-66-6	Zinc	8.8		N	P
	Cyanide	0.55	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC587901

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP595

Matrix (soil/water): SOIL Lab Sample ID: 9011595006

Level (low/med): LOW Date Received: 11/13/90

% Solids: 69.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4080		E*	P
7440-36-0	Antimony	5.7	B	N	P
7440-38-2	Arsenic	1.3	B	N	F
7440-39-3	Barium	74.5		E*	P
7440-41-7	Beryllium	0.38	B	EN	P
7440-43-9	Cadmium	0.86	U		P
7440-70-2	Calcium	295	B	E*	P
7440-47-3	Chromium	16.1		E	P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	3.7	B	*	P
7439-89-6	Iron	4540		E*	P
7439-92-1	Lead	63.2			F
7439-95-4	Magnesium	2060		E	P
7439-96-5	Manganese	47.9		E	P
7439-97-6	Mercury	0.14			CV
7440-02-0	Nickel	7.7	B	EN*	P
7440-09-7	Potassium	620	B		P
7782-49-2	Selenium	0.53	U	N	F
7440-22-4	Silver	3.1	U	N	P
7440-23-5	Sodium	315	B		P
7440-28-0	Thallium	1.1	U	N	F
7440-62-2	Vanadium	52.8		E	P
7440-66-6	Zinc	37.5		N	P
	Cyanide	0.72	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC587803

b Name: WESTON-LIONVILLE Contract: 2221-04-01

b Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP595

trix (soil/water): SOIL Lab Sample ID: 9011595007

vel (low/med): LOW Date Received: 11/13/90

Solids: 93.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5050		E*	P
7440-36-0	Antimony	4.6	B	N	P
7440-38-2	Arsenic	1.0	B	N	F
7440-39-3	Barium	17.3	B	E*	P
7440-41-7	Beryllium	0.20	B	EN	P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	45.8	B	E*	P
7440-47-3	Chromium	2.4		E N	P
7440-48-4	Cobalt	2.6	B		P
7440-50-8	Copper	2.7	B	*	P
7439-89-6	Iron	8750		E*	P
7439-92-1	Lead	6.0			F
7439-95-4	Magnesium	148	B	E	P
7439-96-5	Manganese	34.1		E N	P
7439-97-6	Mercury	0.10		N	CV
7440-02-0	Nickel	2.3	B	EN*	P
7440-09-7	Potassium	294	B		P
7782-49-2	Selenium	0.42	U	NW	F
7440-22-4	Silver	2.3	U	N	P
7440-23-5	Sodium	490	B		P
7440-28-0	Thallium	0.84	U	NW	F
7440-62-2	Vanadium	6.2	B	E	P
7440-66-6	Zinc	7.0		N	P
	Cyanide	0.54	U		C

lor Before: BROWN Clarity Before: Texture: FINE

lor After: BROWN Clarity After: Artifacts:

mments:

U.S. EPA - CLP

EPA SAMPLE N

1

INORGANIC ANALYSIS DATA SHEET

SMCSB2301

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP5

Matrix (soil/water): SOIL Lab Sample ID: 90115950

Level (low/med): LOW Date Received: 11/13/90

% Solids: 93.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3050		E*	P
7440-36-0	Antimony	4.2	U	N	P
7440-38-2	Arsenic	0.57	B	N	F
7440-39-3	Barium	21.5	B	E*	P
7440-41-7	Beryllium	0.68	B	EN	P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	268	B	E*	P
7440-47-3	Chromium	31.4		E N	P
7440-48-4	Cobalt	0.97	U		P
7440-50-8	Copper	3.0	B	*	P
7439-89-6	Iron	7390		E*	P
7439-92-1	Lead	8.4	B		F
7439-95-4	Magnesium	547	B	E	P
7439-96-5	Manganese	62.4		E N	P
7439-97-6	Mercury	0.09		N	CV
7440-02-0	Nickel	12.5		EN*	P
7440-09-7	Potassium	320	B		P
7782-49-2	Selenium	0.42	U	N	F
7440-22-4	Silver	2.4	U	N	P
7440-23-5	Sodium	284	B		P
7440-28-0	Thallium	0.85	U	NW	F
7440-62-2	Vanadium	93.8		E	P
7440-66-6	Zinc	9.0		N	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMC SB 2305

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159500

Level (low/med): LOW Date Received: 11/13/90

% Solids: 89.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2770		E*	P
7440-36-0	Antimony	8.4	B	N	P
7440-38-2	Arsenic	1.8	B	N	F
7440-39-3	Barium	21.0	B	E*	P
7440-41-7	Beryllium	4.1		EN*	P
7440-43-9	Cadmium	0.70	U		P
7440-70-2	Calcium	908	B	E*	P
7440-47-3	Chromium	834		E*N	P
7440-48-4	Cobalt	3.7	B		P
7440-50-8	Copper	4.8	B	*	P
7439-89-6	Iron	9090		E*	P
7439-92-1	Lead	54.2		*	F
7439-95-4	Magnesium	503	B	E*	P
7439-96-5	Manganese	348		E*N	P
7439-97-6	Mercury	0.07			CV
7440-02-0	Nickel	3.8	B	EN*	P
7440-09-7	Potassium	652	B		P
7782-49-2	Selenium	0.41	U	N	F
7440-22-4	Silver	2.5	U	N	P
7440-23-5	Sodium	321	B		P
7440-28-0	Thallium	0.82	U	NW	F
7440-62-2	Vanadium	732		E*	P
7440-66-6	Zinc	79.6		N*	P
	Cyanide	0.56	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMCSB9901

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159501

Level (low/med): LOW Date Received: 11/13/90

% Solids: 92.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6000		E*	P
7440-36-0	Antimony	6.7	B	N	P
7440-38-2	Arsenic	0.65	B	N	F
7440-39-3	Barium	18.5	B	E*	P
7440-41-7	Beryllium	0.29	B	EN*	P
7440-43-9	Cadmium	0.67	U		P
7440-70-2	Calcium	145	B	E*	P
7440-47-3	Chromium	51.0		E N	P
7440-48-4	Cobalt	1.4	B		P
7440-50-8	Copper	3.4	B	*	P
7439-89-6	Iron	8700		E*	P
7439-92-1	Lead	12.9		N	F
7439-95-4	Magnesium	672	B	E	P
7439-96-5	Manganese	31.2		E N	P
7439-97-6	Mercury	0.16	U	N	CV
7440-02-0	Nickel	6.3	B	EN*	P
7440-09-7	Potassium	499	B		P
7782-49-2	Selenium	0.42	U	N	F
7440-22-4	Silver	2.4	U	N	P
7440-23-5	Sodium	295	B		P
7440-28-0	Thallium	0.84	U	NW	F
7440-62-2	Vanadium	27.2		E	P
7440-66-6	Zinc	5.0		N	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

SMC5B2601

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159501

Level (low/med): LOW Date Received: 11/13/90

% Solids: 94.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6040		E*	P
7440-36-0	Antimony	4.0	U	N	P
7440-38-2	Arsenic	1.1	B	N	F
7440-39-3	Barium	28.4	B	E*	P
7440-41-7	Beryllium	0.25	B	EN	P
7440-43-9	Cadmium	0.62	U		P
7440-70-2	Calcium	1930		E*	P
7440-47-3	Chromium	10.1		E N	P
7440-48-4	Cobalt	0.91	U		P
7440-50-8	Copper	1.5	B	*	P
7439-89-6	Iron	5410		E*	P
7439-92-1	Lead	6.0			F
7439-95-4	Magnesium	754	B	E	P
7439-96-5	Manganese	25.3		E N	P
7439-97-6	Mercury	0.11	U	N	CV
7440-02-0	Nickel	2.0	B	EN*	P
7440-09-7	Potassium	206	B		P
7782-49-2	Selenium	0.41	U	N	F
7440-22-4	Silver	2.2	U	N	P
7440-23-5	Sodium	505	B		P
7440-28-0	Thallium	0.81	U	NW	F
7440-62-2	Vanadium	14.1		E	P
7440-66-6	Zinc	9.7		N	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMCS82604

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159501

Level (low/med): LOW Date Received: 11/13/90

% Solids: 91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2180		E*	P
7440-36-0	Antimony	4.2	U	N	P
7440-38-2	Arsenic	0.49	B	N	F
7440-39-3	Barium	8.3	B	E*	P
7440-41-7	Beryllium	0.16	B	EN	P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	36.5	B	E*	P
7440-47-3	Chromium	1.6	B	E	P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	1.5	B	*	P
7439-89-6	Iron	4290		E*	P
7439-92-1	Lead	1.2			F
7439-95-4	Magnesium	35.7	B	E	P
7439-96-5	Manganese	28.3		E	P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	1.6	U	EN*	P
7440-09-7	Potassium	168	U		P
7782-49-2	Selenium	0.42	U	N	F
7440-22-4	Silver	2.3	U	N	P
7440-23-5	Sodium	211	B		P
7440-28-0	Thallium	0.85	U	N	F
7440-62-2	Vanadium	0.76	U	E	P
7440-66-6	Zinc	6.8		N	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE N

SMCSB2961

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP5

Matrix (soil/water): SOIL Lab Sample ID: 90115950

Level (low/med): LOW Date Received: 11/13/90

% Solids: 98.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	104000		E*	P
7440-36-0	Antimony	3.9	U	N	P
7440-38-2	Arsenic	2.6	B	N	F
7440-39-3	Barium	228		E*	P
7440-41-7	Beryllium	19.2		EN	P
7440-43-9	Cadmium	0.61	U		P
7440-70-2	Calcium	115000		E*	P
7440-47-3	Chromium	127		E N	P
7440-48-4	Cobalt	3.3	B		P
7440-50-8	Copper	33.6		*	P
7439-89-6	Iron	1670		E*	P
7439-92-1	Lead	70.4			F
7439-95-4	Magnesium	43000		E	P
7439-96-5	Manganese	113		E N	P
7439-97-6	Mercury	0.08	U	N	CV
7440-02-0	Nickel	469		EN*	P
7440-09-7	Potassium	155	U		P
7782-49-2	Selenium	5.1		NW	F
7440-22-4	Silver	2.2	U	N	P
7440-23-5	Sodium	1020			P
7440-28-0	Thallium	0.75	U	NW	F
7440-62-2	Vanadium	3630		E	P
7440-66-6	Zinc	49.1		N	P
	Cyanide	0.51	U		C

Color Before: BROWN Clarity Before: Texture: FINE

olor After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

SMCSB2804

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 9011595015

Level (low/med): LOW Date Received: 11/13/90

% Solids: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1750		E*	P
7440-36-0	Antimony	3.9	U	N	P
7440-38-2	Arsenic	0.69	B	N	F
7440-39-3	Barium	4.6	B	E*	P
7440-41-7	Beryllium	0.19	B	EN	P
7440-43-9	Cadmium	0.61	U		P
7440-70-2	Calcium	427	B	E*	P
7440-47-3	Chromium	5.9		E N	P
7440-48-4	Cobalt	1.6	B		P
7440-50-8	Copper	1.5	B	*	P
7439-89-6	Iron	4770		E*	P
7439-92-1	Lead	1.8			F
7439-95-4	Magnesium	195	B	E	P
7439-96-5	Manganese	15.1		E N	P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	1.5	B	EN*	P
7440-09-7	Potassium	156	U		P
7782-49-2	Selenium	0.40	U	N	F
7440-22-4	Silver	2.2	U	N	P
7440-23-5	Sodium	271	B		P
7440-28-0	Thallium	0.81	U	NW	F
7440-62-2	Vanadium	16.7		E	P
7440-66-6	Zinc	5.5		N	P
	Cyanide	0.51	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

SMC583601

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159501

Level (low/med): LOW Date Received: 11/13/90

% Solids: 91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5290		E*	P
7440-36-0	Antimony	19.8		N	P
7440-38-2	Arsenic	1.2	B	N	F
7440-39-3	Barium	99.6		E*	P
7440-41-7	Beryllium	6.3		EN	P
7440-43-9	Cadmium	0.92	B		P
7440-70-2	Calcium	4790		E*	P
7440-47-3	Chromium	1630		E	P
7440-48-4	Cobalt	3.7	B		P
7440-50-8	Copper	10.6		*	P
7439-89-6	Iron	5010		E*	P
7439-92-1	Lead	20.6			F
7439-95-4	Magnesium	2180		E	P
7439-96-5	Manganese	158		E	P
7439-97-6	Mercury	0.10			CV
7440-02-0	Nickel	116		EN*	P
7440-09-7	Potassium	422	B		P
7782-49-2	Selenium	2.0		NW	F
7440-22-4	Silver	2.4	U	N	P
7440-23-5	Sodium	137	B		P
7440-28-0	Thallium	0.81	U	NW	F
7440-62-2	Vanadium	1250		E	P
7440-66-6	Zinc	117		N	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMCSB36C4

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159501

Level (low/med): LOW Date Received: 11/13/90

% Solids: 89.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3720		E*	P
7440-36-0	Antimony	4.2	U	N	P
7440-38-2	Arsenic	0.77	B	N	F
7440-39-3	Barium	21.4	B	E*	P
7440-41-7	Beryllium	0.37	B	EN	P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	121	B	E*	P
7440-47-3	Chromium	57.5		E	P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	2.3	B	*	P
7439-89-6	Iron	5320		E*	P
7439-92-1	Lead	7.0			F
7439-95-4	Magnesium	217	B	E	P
7439-96-5	Manganese	33.8		E	P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	2.9	B	EN*	P
7440-09-7	Potassium	491	B		P
7782-49-2	Selenium	0.41	U	N	F
7440-22-4	Silver	2.4	U	N	P
7440-23-5	Sodium	90.3	B		P
7440-28-0	Thallium	0.82	U	NW	F
7440-62-2	Vanadium	47.8		E	P
7440-66-6	Zinc	7.4		N	P
	Cyanide	0.56	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMC585601

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159501

Level (low/med): LOW Date Received: 11/13/90

% Solids: 92.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3650		E*	P
7440-36-0	Antimony	4.3	U	N	P
7440-38-2	Arsenic	1.4	B	N	F
7440-39-3	Barium	53.2		E*	P
7440-41-7	Beryllium	19.4		EN	P
7440-43-9	Cadmium	0.68	U		P
7440-70-2	Calcium	1050	B	E*	P
7440-47-3	Chromium	67.6		E N	P
7440-48-4	Cobalt	12.4			P
7440-50-8	Copper	15.1		*	P
7439-89-6	Iron	6960		E*	P
7439-92-1	Lead	46.1			F
7439-95-4	Magnesium	3320		E	P
7439-96-5	Manganese	627		E N	P
7439-97-6	Mercury	0.09		N	CV
7440-02-0	Nickel	912		EN*	P
7440-09-7	Potassium	173	U		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	2.4	U	N	P
7440-23-5	Sodium	174	B		P
7440-28-0	Thallium	8.5	U	N	F
7440-62-2	Vanadium	3950		E	P
7440-66-6	Zinc	50.9		N	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE N

SMCS85604

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP5

Matrix (soil/water): SOIL Lab Sample ID: 90115950

Level (low/med): LOW Date Received: 11/13/90

% Solids: 92.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3010		E*	P
7440-36-0	Antimony	4.3	U	N	P
7440-38-2	Arsenic	0.81	B	N	F
7440-39-3	Barium	15.6	B	E*	P
7440-41-7	Beryllium	0.25	B	EN	P
7440-43-9	Cadmium	0.68	U		P
7440-70-2	Calcium	78.0	B	E*	P
7440-47-3	Chromium	3.6		E N	P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	0.89	U	*	P
7439-89-6	Iron	4140		E*	P
7439-92-1	Lead	3.4			F
7439-95-4	Magnesium	352	B	E	P
7439-96-5	Manganese	28.0		E N	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	3.0	B	EN*	P
7440-09-7	Potassium	172	U		P
7782-49-2	Selenium	0.42	U	N	F
7440-22-4	Silver	2.4	U	N	P
7440-23-5	Sodium	65.4	B		P
7440-28-0	Thallium	0.85	U	NW	F
7440-62-2	Vanadium	25.8		E	P
7440-66-6	Zinc	5.3		N	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SMC585701

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP595

Matrix (soil/water): SOIL Lab Sample ID: 9011595020

Level (low/med): LOW Date Received: 11/13/90

% Solids: 93.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8420		E*	P
7440-36-0	Antimony	4.2	U	N	P
7440-38-2	Arsenic	1.1	B	N	F
7440-39-3	Barium	128		E*	P
7440-41-7	Beryllium	4.1		EN*	P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	5430		E*	P
7440-47-3	Chromium	61.8		E* N	P
7440-48-4	Cobalt	3.4	B		P
7440-50-8	Copper	9.9		*	P
7439-89-6	Iron	6210		E*	P
7439-92-1	Lead	49.1		S*	F
7439-95-4	Magnesium	3260		E*	P
7439-96-5	Manganese	129		E* N	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	345		EN*	P
7440-09-7	Potassium	167	U		P
7782-49-2	Selenium	0.42	U	NW	F
7440-22-4	Silver	2.3	U	N	P
7440-23-5	Sodium	153	B		P
7440-28-0	Thallium	0.84	U	NW	F
7440-62-2	Vanadium	802		E*	P
7440-66-6	Zinc	33.3		N*	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMCSB5703

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP5

Matrix (soil/water): SOIL Lab Sample ID: 90115950

Level (low/med): LOW Date Received: 11/13/90

% Solids: 87.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2340		E*	P
7440-36-0	Antimony	7.0	B	N	P
7440-38-2	Arsenic	0.83	B	N	F
7440-39-3	Barium	12.9	B	E*	P
7440-41-7	Beryllium	0.83	B	EN	P
7440-43-9	Cadmium	0.68	U		P
7440-70-2	Calcium	121	B	E*	P
7440-47-3	Chromium	378		E N	P
7440-48-4	Cobalt	1.0	U		P
7440-50-8	Copper	1.1	B	*	P
7439-89-6	Iron	2500		E*	P
7439-92-1	Lead	9.1			F
7439-95-4	Magnesium	188	B	E	P
7439-96-5	Manganese	123		E N	P
7439-97-6	Mercury	0.06	U	N	CV
7440-02-0	Nickel	1.6	U	EN*	P
7440-09-7	Potassium	174	U		P
7782-49-2	Selenium	0.43	U	NW	F
7440-22-4	Silver	2.4	U	N	P
7440-23-5	Sodium	115	B		P
7440-28-0	Thallium	0.87	U	NW	F
7440-62-2	Vanadium	146		E	P
7440-66-6	Zinc	16.6		N	P
	Cyanide	0.57	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMC585401

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP5

Matrix (soil/water): SOIL Lab Sample ID: 90115950

Level (low/med): LOW Date Received: 11/13/90

% Solids: 94.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	15000		E*	P
7440-36-0	Antimony	4.2	U	N	P
7440-38-2	Arsenic	0.60	B	N	F
7440-39-3	Barium	178		E*	P
7440-41-7	Beryllium	2.2		EN	P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	11700		E*	P
7440-47-3	Chromium	334		E	P
7440-48-4	Cobalt	6.3	B		P
7440-50-8	Copper	7.1		*	P
7439-89-6	Iron	2300		E*	P
7439-92-1	Lead	40.5			F
7439-95-4	Magnesium	5580		E	P
7439-96-5	Manganese	150		E	P
7439-97-6	Mercury	0.14	U	N	CV
7440-02-0	Nickel	677		EN*	P
7440-09-7	Potassium	169	U		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	2.4	U	N	P
7440-23-5	Sodium	1030	B		P
7440-28-0	Thallium	0.81	U	NW	F
7440-62-2	Vanadium	433		E	P
7440-66-6	Zinc	48.3		N	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FIN

Color After: BROWN Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

SMCSB5404

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159502

Level (low/med): LOW Date Received: 11/13/90

% Solids: 94.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5190		E*	P
7440-36-0	Antimony	4.0	U	N	P
7440-38-2	Arsenic	0.63	B	N	F
7440-39-3	Barium	35.7	B	E*	P
7440-41-7	Beryllium	3.8		EN	P
7440-43-9	Cadmium	0.62	U		P
7440-70-2	Calcium	2070		E*	P
7440-47-3	Chromium	145		E N	P
7440-48-4	Cobalt	2.1	B		P
7440-50-8	Copper	3.4	B	*	P
7439-89-6	Iron	6340		E*	P
7439-92-1	Lead	4.3		S	F
7439-95-4	Magnesium	1410		E	P
7439-96-5	Manganese	60.6		E N	P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	30.8		EN*	P
7440-09-7	Potassium	928	B		P
7782-49-2	Selenium	0.41	U	NW	F
7440-22-4	Silver	2.2	U	N	P
7440-23-5	Sodium	646	B		P
7440-28-0	Thallium	8.1	U	N	F
7440-62-2	Vanadium	721		E	P
7440-66-6	Zinc	7.1		N	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SMC585301

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP595

Matrix (soil/water): SOIL Lab Sample ID: 9011595024

Level (low/med): LOW Date Received: 11/13/90

% Solids: 95.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3570		E*	P
7440-36-0	Antimony	4.0	U	N	P
7440-38-2	Arsenic	0.88	B	N	F
7440-39-3	Barium	160		E*	P
7440-41-7	Beryllium	7.6		EN	P
7440-43-9	Cadmium	0.63	U		P
7440-70-2	Calcium	1160		E*	P
7440-47-3	Chromium	473		E	P
7440-48-4	Cobalt	10.3			P
7440-50-8	Copper	9.9		*	P
7439-89-6	Iron	4140		E*	P
7439-92-1	Lead	34.8			F
7439-95-4	Magnesium	2060		E	P
7439-96-5	Manganese	233		E	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	275		EN*	P
7440-09-7	Potassium	162	U		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	2.3	U	N	P
7440-23-5	Sodium	557	B		P
7440-28-0	Thallium	0.80	U	NW	F
7440-62-2	Vanadium	1510		E	P
7440-66-6	Zinc	30.6		N	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMC585304

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159502

Level (low/med): LOW Date Received: 11/13/90

% Solids: 96.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1620		E*	P
7440-36-0	Antimony	3.9	U	N	P
7440-38-2	Arsenic	0.40	U	N	F
7440-39-3	Barium	6.1	B	E*	P
7440-41-7	Beryllium	0.08	B	EN	P
7440-43-9	Cadmium	0.61	U		P
7440-70-2	Calcium	69.5	B	E*	P
7440-47-3	Chromium	2.9		E	P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	0.80	U	*	P
7439-89-6	Iron	2680		E*	P
7439-92-1	Lead	4.2			F
7439-95-4	Magnesium	84.2	B	E	P
7439-96-5	Manganese	14.9		E	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.5	U	EN*	P
7440-09-7	Potassium	155	U		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	2.2	U	N	P
7440-23-5	Sodium	98.7	B		P
7440-28-0	Thallium	0.80	U	N	F
7440-62-2	Vanadium	6.1	B	E	P
7440-66-6	Zinc	10.5		N	P
	Cyanide	0.52	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMC585201

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159502

Level (low/med): LOW Date Received: 11/13/90

% Solids: 93.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	19600		E*	P
7440-36-0	Antimony	4.1	U	N	P
7440-38-2	Arsenic	1.5	B	N	F
7440-39-3	Barium	119		E*	P
7440-41-7	Beryllium	3.8		EN	P
7440-43-9	Cadmium	0.64	U		P
7440-70-2	Calcium	21500		E*	P
7440-47-3	Chromium	206		E N	P
7440-48-4	Cobalt	1.4	B		P
7440-50-8	Copper	6.1		*	P
7439-89-6	Iron	3380		E*	P
7439-92-1	Lead	30.8			F
7439-95-4	Magnesium	9260		E	P
7439-96-5	Manganese	128		E N	P
7439-97-6	Mercury	0.12	U	N	CV
7440-02-0	Nickel	43.3		EN*	P
7440-09-7	Potassium	164	U		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	2.3	U	N	P
7440-23-5	Sodium	892	B		P
7440-28-0	Thallium	8.1	U	N	F
7440-62-2	Vanadium	742		E	P
7440-66-6	Zinc	28.9		N	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

SMCSB5204

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159502

Level (low/med): LOW Date Received: 11/13/90

% Solids: 95.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2250		E*	P
7440-36-0	Antimony	4.1	U	N	P
7440-38-2	Arsenic	0.42	B	N	F
7440-39-3	Barium	7.2	B	E*	P
7440-41-7	Beryllium	0.08	B	EN	P
7440-43-9	Cadmium	0.64	U		P
7440-70-2	Calcium	44.8	B	E*	P
7440-47-3	Chromium	2.2		E N	P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	0.88	B	•	P
7439-89-6	Iron	3400		E*	P
7439-92-1	Lead	4.5			F
7439-95-4	Magnesium	54.2	B	E	P
7439-96-5	Manganese	7.7		E N	P
7439-97-6	Mercury	0.08		N	CV
7440-02-0	Nickel	1.5	U	EN*	P
7440-09-7	Potassium	163	U		P
7782-49-2	Selenium	0.40	U	N	F
7440-22-4	Silver	2.3	U	N	P
7440-23-5	Sodium	87.4	B		P
7440-28-0	Thallium	0.80	U	N	F
7440-62-2	Vanadium	3.1	B	E	P
7440-66-6	Zinc	3.0	B	N	P
	Cyanide	0.53	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE N

1

INORGANIC ANALYSIS DATA SHEET

SMCSB8001

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP5

Matrix (soil/water): SOIL Lab Sample ID: 90115950

Level (low/med): LOW Date Received: 11/13/90

% Solids: 88.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6970		E*	P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	0.66	B	N	F
7440-39-3	Barium	102		E*	P
7440-41-7	Beryllium	6.0		EN	P
7440-43-9	Cadmium	0.71	U		P
7440-70-2	Calcium	785	B	E*	P
7440-47-3	Chromium	66.2		E N	P
7440-48-4	Cobalt	9.3	B		P
7440-50-8	Copper	8.7		*	P
7439-89-6	Iron	10300		E*	P
7439-92-1	Lead	102			F
7439-95-4	Magnesium	3210		E	P
7439-96-5	Manganese	299		E N	P
7439-97-6	Mercury	0.07		N	CV
7440-02-0	Nickel	617		EN*	P
7440-09-7	Potassium	283	B		P
7782-49-2	Selenium	0.45	U	NW	F
7440-22-4	Silver	2.5	U	N	P
7440-23-5	Sodium	129	B		P
7440-28-0	Thallium	0.91	U	NW	F
7440-62-2	Vanadium	1120		E	P
7440-66-6	Zinc	95.2		N	P
	Cyanide	0.57	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

SMC58803

Lab Name: WESTON-LIONVILLE Contract: 2221-04-01

Lab Code: WESTON Case No.: TRC SAS No.: SDG No.: CLP59

Matrix (soil/water): SOIL Lab Sample ID: 901159502

Level (low/med): LOW Date Received: 11/13/90

% Solids: 92.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1830		E*	P
7440-36-0	Antimony	4.4	U	N	P
7440-38-2	Arsenic	0.76	B	N	F
7440-39-3	Barium	7.0	B	E*	P
7440-41-7	Beryllium	0.11	B	EN	P
7440-43-9	Cadmium	0.69	U		P
7440-70-2	Calcium	47.0	B	E*	P
7440-47-3	Chromium	2.8		E N	P
7440-48-4	Cobalt	1.1	B		P
7440-50-8	Copper	0.90	U	*	P
7439-89-6	Iron	3040		E*	P
7439-92-1	Lead	2.5			F
7439-95-4	Magnesium	119	B	E	P
7439-96-5	Manganese	10.3		E N	P
7439-97-6	Mercury	0.06		N	CV
7440-02-0	Nickel	1.7	U	EN*	P
7440-09-7	Potassium	175	U		P
7782-49-2	Selenium	0.41	U	NW	F
7440-22-4	Silver	2.5	U	N	P
7440-23-5	Sodium	73.6	B		P
7440-28-0	Thallium	0.82	U	N	F
7440-62-2	Vanadium	10.2	B	E	P
7440-66-6	Zinc	5.5		N	P
	Cyanide	0.54	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELDALLOY
RFW #: 9011L595
W.O. #: 2724-05-01

SAMPLES RECEIVED: 11-13-90

INORGANIC NARRATIVE

The following is a summary of the quality control results and a description of any problems encountered during the analysis of this batch of samples:

1. All sample holding times as required by 40CFR136 were met for water samples.

2. All preparation blank results were below the required detection limit.

3. All laboratory control standards (blank spikes) are within the control limits of 80-120%. All %RPD were within the 20% guidance limit.

4. All calibration verification checks are within the required control limits of 85-115%. Calibration verification is performed using independent standards.

5. All matrix spike recoveries are within the 75-125% guidance limits. All %RPD were within the 20% guidance limit.

6. All replicate results are within the 20% guidance limit.

7. The analytical methods applied by the laboratory, unless otherwise requested, for all inorganic analyses are derived from the USEPA Method for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020), and Standard Methods for the Examination of Water and Wastewater 16 ed. Methods for the analysis of solid samples are derived from Test Methods for Evaluating Solid Waste (USEPA SW846).

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

2-8-9
Date

pas.21\111-595

ROY F. WESTON, INC.
GLOSSARY OF TERMS - INORGANIC REPORTS

DATA QUALIFIERS

U - Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* - Indicates that the original sample result is greater than 4x the spike amount added. The USEPA-CLP has determined that spike results on samples where this occurs may be unreliable and therefore, the control limits are not applicable.

ABBREVIATIONS

MB - Method or preparation blank.
MS - Matrix Spike.
MSD - Matrix Spike Duplicate.
REP - Sample Replicate.
LC - Indicates a method LCS or Blank Spike.
NC - Not calculable, result below the detection limit.

A suffix of -R and -S following these codes indicates a replicate and spike analysis respectively.

ANALYTICAL METAL METHODS

The analytical methods applied by the laboratory for the determination of drinking water is 5.2.1.

As :	EPA 206.2	Se :	EPA 270.2
Pb :	EPA 239.2I	CP Scan :	EPA 200.7
Hg :	EPA 245.1	All Others :	EPA 200.7
Tl :	EPA 279.2	EP Leachates (except Hg) :	200.7

NOTES

The laboratory is preparing a matrix spike at one per 20 frequency for TCLP samples of similar matrix. The Federal Register suggest that all matrix spikes be greater than 50%. A matrix duplicate is also prepared.

The USEPA-CLP has dropped control limits for silver and antimony due to documented difficulties in obtaining reliable results. WESTON Analytics has adopted the same policy.

Holding times for soil samples have not been promulgated by the USEPA.

For solid samples, all results are reported on a dry weight basis.

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/04/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L595

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTIN(LIMIT
-001	SMC-SB25-01	% Solids	93.8		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.1
-002	SMC-SB25-04	% Solids	89.7		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.1
-003	SMC-SB98-01	% Solids	89.5		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.1
-004	SMC-SB79-01	% Solids	96.6		%	0.1
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.48		MG/KG	0.1
005	SMC-SB79-02	% Solids	91.1		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.45		MG/KG	0.11
-006	SMC-SB78-01	% Solids	69.2		%	0.10
		Cyanide, Total	1.4	u	MG/KG	1.4
		Chromium VI	0.37		MG/KG	0.14
-007	SMC-SB78-03	% Solids	93.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-008	SMC-SB23-01	% Solids	93.8		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	3.0		MG/KG	0.11
-009	SMC-SB23-05	% Solids	89.7		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.28		MG/KG	0.11
-010	SMC-SB99-01	% Solids	92.3		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/04/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L595

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-012	SMC-SB26-01	% Solids	94.9		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.10	u	MG/KG	0.1
-013	SMC-SB26-04	% Solids	91.8		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.1
-014	SMC-SB28-01	% Solids	98.8		%	0.1
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.10	u	MG/KG	0.1
-015	SMC-SB28-04	% Solids	98.4		%	0.1
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.13		MG/KG	0.1
-016	SMC-SB36-01	% Solids	91.8		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	5.6		MG/KG	0.1
-017	SMC-SB36-04	% Solids	89.6		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	8.0		MG/KG	0.1
-018	SMC-SB56-01	% Solids	92.8		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.34		MG/KG	0.1
-019	SMC-SB56-04	% Solids	92.0		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.1
-020	SMC-SB57-01	% Solids	93.0		%	0.1
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.43		MG/KG	0.1

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/04/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L595

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-021	SMC-SB57-03	% Solids	87.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-022	SMC-SB54-01	% Solids	94.6		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	4.8		MG/KG	0.11
-023	SMC-SB54-04	% Solids	94.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-024	SMC-SB53-01	% Solids	95.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	1.3		MG/KG	0.10
25	SMC-SB53-04	% Solids	96.6		%	0.10
		Cyanide, Total	1.0	u	MG/KG	1.0
		Chromium VI	0.10		MG/KG	0.10
-026	SMC-SB52-01	% Solids	93.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.38		MG/KG	0.11
-027	SMC-SB52-04	% Solids	95.0		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.12		MG/KG	0.10
-028	SMC-SB80-01	% Solids	88.2		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-029	SMC-SB80-03	% Solids	92.0		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.15		MG/KG	0.11

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: TRC/SHIELDALLOY
RFW #: 9102L610
W.O. #: 2724-05-01

SAMPLES RECEIVED: 02-19-91

INORGANIC NARRATIVE

The following is a summary of the quality control results and a description of any problems encountered during the analysis of this batch of samples:

1. All preparation blank results were below the required detection limit.

2. Laboratory control standards (blank spikes) were outside the control limits of 80-120% for chromium VI.

3. All calibration verification checks are within the required control limits of 85-115%. Calibration verification is performed using independent standards.

4. Matrix spike recoveries are summarized in the Inorganics Accuracy Report contained within this document. Recoveries were outside the 75-125% guidance limit. Chromium RPD were outside the 20% guidance limit.

5. Replicate results are summarized on the Inorganic Precision report contained within this document. Chromium results were outside the 20% RPD guidance limits for sample -029.

6. The analytical methods applied by the laboratory, unless otherwise requested, for all inorganic analyses are derived from the USEPA Method for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020), and Standard Methods for the Examination of Water and Wastewater 16 ed. Methods for the analysis of solid samples are derived from Test Methods for Evaluating Solid Waste (USEPA SW846).

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

Date

pas.21\i2-610

ROY F. WESTON, INC.
GLOSSARY OF TERMS - INORGANIC REPORTS

DATA QUALIFIERS

U - Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* - Indicates that the original sample result is greater than 4x the spike amount added. The USEPA-CLP has determined that spike results on samples where this occurs may be unreliable and therefore, the control limits are not applicable.

ABBREVIATIONS

MB - Method or preparation blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate.
REP - Sample Replicate.
LC - Indicates a method LCS or Blank Spike.
NC - Not calculable, result below the detection limit.

A suffix of -R and -S following these codes indicates a replicate and spike analysis respectively.

ANALYTICAL METAL METHODS

As :	EPA 206.2	Se :	EPA 270.2
Pb :	EPA 239.2	ICP Scan :	EPA 200.7
Hg :	EPA 245.1	All Others :	EPA 200.7
Tl :	EPA 279.2	EP Leachates (except Hg) :	200.7

The analytical methods applied by the laboratory for the determination of drinking water is 5.2.1.

NOTES

The laboratory prepares a matrix spike at one per 20 frequency for TCLP samples. The Federal Register recommends that all matrix spikes be prepared at greater than 50% of the indigenous analyte concentration. A matrix duplicate is also prepared.

The USEPA-CLP has dropped control limits for silver and antimony due to documented difficulties in obtaining reliable results. WESTON Analytics, however, monitors it's recoveries for unusal occurrences of silver and/or antimony quantification.

Holding times for soil samples have not been promulgated by the USEPA.

For solid samples, all results are reported on a dry weight basis.

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/18/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9102L610

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-046	SMC-SB13-03	Chromium VI	0.24	MG/KG	0.23
-047	SMC-SB20-01	Chromium VI	0.85	MG/KG	0.21
-052	SMC-SB29-01	Chromium VI	2.8	MG/KG	0.21
-059	SMC-SB55-01	Chromium VI	1.4	MG/KG	0.21
-068	SMC-SB35-01	Chromium VI	0.92	MG/KG	0.42
-072	SMC-SB31-01	Chromium VI	1.3	MG/KG	0.22
-073	SMC-SB30-01	Chromium VI	0.22 u	MG/KG	0.22
)90	SMC-SB32-01	Chromium VI	0.36	MG/KG	0.21
-091	SMC-SB33-01	Chromium VI	0.21 u	MG/KG	0.21

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/18/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9102L610

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-092	SMC-SB33-04	Chromium VI	4.1	MG/KG	0.22

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L633

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	SMC-SB62-01	% Solids	92.5		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-002	SMC-SB62-04	% Solids	93.4		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.26		MG/KG	0.11
-003	SMC-SB64-01	% Solids	93.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-004	SMC-SB64-04	% Solids	79.9		%	0.10
		Cyanide, Total	1.3	u	MG/KG	1.3
		Chromium VI	0.12	u	MG/KG	0.12
005	SMC-SB77-01	% Solids	91.9		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.46		MG/KG	0.11
-006	SMC-SB77-03	% Solids	90.2		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
-007	SMC-SB11-01	% Solids	91.8		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
		Sulfate	51.7		MG/KG	27.2
-008	SMC-SB11-02	% Solids	91.5		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1
		Chromium VI	0.11	u	MG/KG	0.11
		Sulfate	27.3	u	MG/KG	27.3
-009	SMC-SB63-01	% Solids	89.7		%	0.10
		Cyanide, Total	1.3	u	MG/KG	1.3
		Chromium VI	0.11	u	MG/KG	0.11
-010	SMC-SB63-04	% Solids	90.1		%	0.10
		Cyanide, Total	1.1	u	MG/KG	1.1

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 02/15/91

CLIENT: TRC/SHIELDALLOY
WORK ORDER: 2724-05-01-0000

WESTON BATCH #: 9011L633

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-010	SMC-SB63-04	Chromium VI	0.12	MG/KG	0.11

Roy F. Weston, INC.
Lionville Laboratory

CLIENT:TRC/SHIELD ALLOY
RFW #:9011L633
W.O.#:2724-05-01-0000

SAMPLES RECEIVED:11/15/90

METALS NARRATIVE

The set of samples consisted of (1) water sample and (10) soil samples collected on 11/14/90.

The samples were analyzed according to criteria set forth in CLP SOW 7/87.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory.

2. All ICV and CCV values were within control limits.

3. All ICB and CCB values were within control limits.

4. All preparation blank values were within control limits.

5. All LCS results were within the 80-120% control limits.

   Note: The USEPA has dropped control limits for antimony and silver due to documented difficulties in obtaining reliable results. WESTON Analytics has adopted the same policy.

6. All matrix spike recoveries were within the 75-125% control limits with the exception of Sb, As, Cr, Cu, Se and Ag. All corresponding samples were flagged with an "N" according to CLP protocol.

7. All duplicate analyses were within the 20% RPD control limits with the exception of Al and Fe. All corresponding samples were flagged with an "*" according to CLP protocol.