COVER SHEET

LABORATORY RESPONSE TO RESULTS OF
CONTRACT COMPLIANCE SCREENING (CCS)

Response To: (check one) ☐ Organics CCS

☑ Inorganics CCS

Response materials sent to Organics CCS should be sent to the attention of Doris Ling, SMO.
Response materials sent to Inorganics CCS should be sent to the attention of Sa'ad Masri, SMO.

Laboratory Name: Versar, Inc.

Response Date: 7.9.87

Date Screening Results Received at Laboratory: 6.29.87

EPA Contract No.: 68 01 7367

Case No.: 7220

Sample Nos.*: MFC 491

MFC 492

*Only list sample numbers that require reconciliation.

This form is used to identify materials sent in response to results of Contract Compliance Screening (CCS). A separate form must accompany the response for each Case.

Please indicate (on the attached continuation form) which fractions and/or which criteria correspond with your resubmission. Response materials sent to CCS should also be copied to the Region and to EMSL/LV, each with this blue Cover Sheet.

004269

1012307

Inorganics Laboratory
Response to Contract Compliance Screening

Laboratory : Versar, Inc. | Date : July 9, 1987
Contract : 68-01-7317 | Case : 7220 QC 33

Criterion	Comments
K1	We report what is available from the instrument. This consists of a value reported in mg/L which is calculated from the average of nine 4 second exposures of which the initial exposure is a preburn that is not used. The contract requires us to run multiple exposures and to "include intensities (ICP) and absorbances (AA) unless instrument direct readout is in concetration units." We feel we follow the contract required procedure which does not state we must report all multiple exposures. WE are presently trying to get a clarifacation from the EPA.
B2	The aluminium values have been flagged with *'s and the ammended Form I's are enclosed.
B1	The method we use to calculate the results on the Form I's is as follows:

$$\frac{1.0\ g}{200\ ml} \times \%\ solids = \frac{1}{dilution\ factor} \quad \text{then}$$

$$\text{dilution factor (rounded to the nearest whole number)} \times \text{ICP results (in ppm)} = \text{ICP results (in mg/Kg)}$$

The discrepencies occur in the rounding of the dilution factor.

K2	The values have been adusted for percent solids and the ammended Form V is enclosed.
H1	The Form VII associated with the thalllium results are enclosed.

Prepared by: PKW

004270

Form VII D

Q.C. Report No. 33

INSTRUMENT DETECTION LIMITS AND

LABORATORY CONTROL SAMPLE

LAB NAME Versar, Inc. CASE NO. 7220 DATE 7.9.87

LCS NO. LCSFB

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA ID#	Instrument Detection Limits (IDL)-ug/l Furnace ID# 8	Lab Control Sample (ug/L) mg/kg (circle one) True	Found	%R
Metals:						
1. Aluminum	200					
2. Antimony	60					
3. Arsenic	10					
4. Barium	200					
5. Beryllium	5					
6. Cadmium	5					
7. Calcium	5000					
8. Chromium	10					
9. Cobalt	50					
10. Copper	25					
11. Iron	100					
12. Lead	5					
13. Magnesium	5000					
14. Manganese	15					
15. Mercury	0.2					
16. Nickel	40					
17. Potassium	5000					
18. Selenium	5					
19. Silver	10					
20. Sodium	5000					
21. Thallium	10		1.0	97.3	98.	101.
22. Vanadium	50					
23. Zinc	20					
Other:						
Cyanide	10	NR	NR			

NR - Not required

ID # 8 - Perkin Elmer 3030

004271

004271

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA. 22313
703/557-2490 FTS: 8-557-2490

SAMPLE NO.
MFC 491

DATE 6/ 1/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. 7220

SOW NO. 785

LAB RECEIPT DATE 05 08 87

LAB SAMPLE ID. NO. 27838

QC REPORT NO. 33

PROJECT-TASK 5027.0000

BATCH 33

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

UNITS IN MG/KG DRY WEIGHT

1.	ALUMINUM	3890.	* P	13.	MAGNESIUM	1470.	P
2.	ANTIMONY	5.1 U	P N	14.	MANGANESE	45.	P
3.	ARSENIC	2.4 U	F	15.	MERCURY	0.12 U	
4.	BARIUM	[32.]	P E	16.	NICKEL	[6.1]	P
5.	BERYLLIUM	[0.46]	P	17.	POTASSIUM	[690.]	P
6.	CADMIUM	0.73 U	P	18.	SELENIUM	1.2 U	F
7.	CALCIUM	2220.	P	19.	SILVER	0.97 U	P
8.	CHROMIUM	3.2	P	20.	SODIUM	[158.]	P E
9.	COBALT	[2.8]	P	21.	THALLIUM	2.0 U	F
10.	COPPER	[3.0]	P N	22.	VANADIUM	[10.]	P
11.	IRON	4560.	P	23.	ZINC	12.	P
12.	LEAD	3.5	F		PERCENT SOLIDS	82.6	
	CYANIDE	0.61 U					

FOOTNOTES: SEE COVER PAGE.

COMMENTS: TEXTURE - SANDY ; COLOR - GREY

LAB MANAGER

ROBERT S. MAXFIELD

004272

004272

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA. 22313
703/557-2490 FTS: 8-557-2490

SAMPLE NO.
MFC 492

DATE 6/ 1/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. 7220

SOW NO. 785

LAB RECEIPT DATE 05 08 87

LAB SAMPLE ID. NO. 27839

QC REPORT NO. 33

PROJECT-TASK 5027.0000

BATCH 33

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

UNITS IN MG/KG DRY WEIGHT

1.	ALUMINUM	464.	P	13.	MAGNESIUM	[125.]	P
2.	ANTIMONY	5.0 U	P N	14.	MANGANESE	11.	P
3.	ARSENIC	2.4 U	F	15.	MERCURY	0.12 U	
4.	BARIUM	[9.2]	PE	16.	NICKEL	2.4 U	P
5.	BERYLLIUM	0.24 U	P	17.	POTASSIUM	157. U	P
6.	CADMIUM	[0.94]	P	18.	SELENIUM	1.2 U	F
7.	CALCIUM	[623.]	P	19.	SILVER	0.95 U	P
8.	CHROMIUM	0.95 U	P	20.	SODIUM	[191.]	PE
9.	COBALT	0.95 U	P	21.	THALLIUM	2.0 U	F
10.	COPPER	0.95 U	P N	22.	VANADIUM	[1.3]	P
11.	IRON	616.	P	23.	ZINC	7.3	P
12.	LEAD	1.2 U	F		PERCENT SOLIDS	84.4	
	CYANIDE	0.59 U					

FOOTNOTES: SEE COVER PAGE.

COMMENTS: TEXTURE - SANDY ; COLOR - GREY

LAB MANAGER WJN FOR

ROBERT E. MAXFIELD

004273

Form V

Q. C. Report No. 33

SPIKE SAMPLE RECOVERY

LAB NAME Versar, Inc.

DATE 6-1-87

CASE NO. 7220

EPA Sample No. MFC 492

Lab Sample ID No. 27839

Units mg/kg

Matrix L. Soil

Compound	Control Limit ZR	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	ZR[1]
Metals:					
1. Aluminum	75-125	NR			
2. Antimony	-	58.	5.0U	118.	49.N
3. Arsenic(2)	-	8.5	2.4U	9.5	89.
4. Barium	-	448.	[9.3]	474.	93.
5. Beryllium	-	12.	.24U	12.	100.
6. Cadmium	-	11.	[0.93]	12.	.84
7. Calcium	-	NR			
8. Chromium	-	45.	0.95U	47.	96.
9. Cobalt	-	110.	0.95U	118.	93.
10. Copper	-	64.	0.95U	59.	108.
11. Iron	-	NR			
12. Lead (2)	-	14.	3.4	12.	88.
13. Magnesium	-	NR			
14. Manganese	-	120.	11.	118.	93.
15. Mercury(2)	-	0.60	0.12U	0.59	102.
16. Nickel	-	111.	2.4U	118.	94.
17. Potassium	-	NR			
18. Selenium(2)	-	2.2	1.2U	2.4	92
19. Silver	-	7.7	.95U	12.	.64N
20. Sodium	-	NR			
21. Thallium(2)	-	11.	2.4U	12.	92.
22. Vanadium	-	112.	[1.3]	118.	94.
23. Zinc	-	122.	7.3	118.	97.
Other:					
Cyanide	-	4.7	0.59U	5.7	82

[1] ZR = [(SSR - SR)/SA] x 100

"N" - out of control

"NR" - Not required

Comments: (2) EPA # MFC 491 / Lab # 27838

004274