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PRC

June 23, 1992

Ms. Chris Prokop
U.S. Environmental Protection Agency, Region 9
HWMD (H-4-4)
75 Hawthorne Street
San Francisco, CA 94105

Contract No. 68-W9-0009
Work Assignment No. R09042

Subject: Data Validation Report for the samples collected at the O'Brien Corporation Site.

Dear Mr. Prokop:

PRC Environmental Management, Inc., (PRC), is pleased to submit the data validation report from samples collected at the O'Brien Corporation Site on April 9 and 10, 1992.

After you have reviewed this report, please call me if you have any questions or comments.

Sincerely,

Santiago Lee
Project Manager

Enclosures

cc: File

S-3 → Pb = 2,880 mg/kg (ppm)

S-10 → Cr = 316 mg/kg ppm
Ni = 371 mg/kg

S-2 → Pb = 415 mg/kg (ppm)

S-9 → Pb = 126 mg/kg (ppm)

h. All other inorganic results are considered valid and usable for all purposes as reported. All QC criteria, other than those discussed above, were met and are considered acceptable.

REFERENCES

U.S. Environmental Protection Agency, 1988a, Laboratory Data Validation Functional Guideline for Evaluating Organics Analyses, Hazardous Site evaluation Division.

U.S. Environmental Protection Agency, 1988b, Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses, Hazardous Site Evaluation Division.

TABLE 1

DATA QUALIFIERS

U	The compound was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
J	Results are considered estimates and the data are valid for limited purposes. The results are qualitively acceptable.
R	Results are rejected and data are invalid for all purposes.
UJ	The compound was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

Table 2
ANALYTICAL RESULTS*

Case No. : R09042
Site : O'Brien Corporation
Lab. : Versar Laboratories, Inc.
Reviewer : Ron Ohta, PRC
Date : June 5, 1992

Analysis Type : Soil Samples for Volatile Analyses

Concentration in ug/kg

Field Sample Number	S-8			S-10 **			S-10RE ***			LAB BLANK			LAB BLANK								
Lab. Sample Number	74720A			74721A			74721ARE			VBLK42			VBLK73								
Date & Time of Analysis	04-22-92 (17:21)			04-22-92 (19:36)			05-01-92 (16:13)			04-22-92 (11:56)			05-01-92 (15:28)								
Compound	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.
Methylene chloride	7	U	a	6	UJ	a,c	6	UJ	a,c	6			6								
Acetone	140			34	J	c	12	UJ	c	10	U		10	U							
Carbon disulfide	6	UJ	b	6	UJ	b,c	6	UJ	b,c	5	U		5	U							
Vinyl acetate	12	UJ	b	12	UJ	b,c	12	UJ	b,c	10	U		10	U							
Bromoform	6	UJ	b	6	UJ	b,c	6	UJ	b,c	5	U		5	U							
2-Hexanone	12	UJ	b	12	UJ	b,c	12	UJ	b,c	10	U		10	U							

* Other analytes were analyzed for but were not detected/qualified. Refer to Table 6 for the list of analytes and the sample quantitation limits.
** All results for this sample should be considered as estimates due to a surrogate recovery value out of quality control limits. The compounds not listed but analyzed for should be considered as estimates at the contract required quantitation limit (UJ).
*** All results for this sample should be considered as estimates due to a holding time exceedance.
The compounds not listed but analyzed for, should be considered as estimates at the contract required quantitation limit (UJ).
Val - Validity Refer to data qualifier definitions in Table 1.
Com. - Comments Refer to corresponding section in the narrative for each letter.

Table 3
ANALYTICAL RESULTS*

Case No. : R09042
Site : O'Brien Corporation
Lab. : Versar Laboratories, Inc.
Reviewer : Ron Ohta, PRC
Date : June 5, 1992

Analysis Type : Soil Samples for Semivolatile Analyses

Concentration in ug/kg

Field Sample Number	S-8			S-10			LAB BLANK														
Lab. Sample Number	74718			74719			VBLK32														
Date & Time of Analysis	05-05-92 (15:08)			05-05-92 (17:01)			05-05-92 (13:53)														
Compound	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.
Hexachlorocyclopentadiene	810	UJ	b	740	UJ	b	660	U													
2,4-Dinitrophenol	4000	UJ	b	3600	UJ	b	3200	U													
4-Nitroaniline	4000	UJ	b	3600	UJ	b	3200	U													
Pyrene	810	UJ	b	560	J	b	660	U													

* Other analytes were analyzed for but were not detected/qualified. Refer to Table 6 for the list of analytes and the sample quantitation limits.
Val - Validity Refer to data qualifier definitions in Table 1.
Com. - Comments Refer to corresponding section in the narrative for each letter.

Table 4
ANALYTICAL RESULTS

Case No. : R09042
Site : O'Brien Corporation
Lab. : Versar Laboratories, Inc.
Reviewer : Ron Ohta, PRC
Date : June 5, 1992

Analysis Type : Soil Samples for Inorganic Analyses

Concentration in mg/kg

Field Sample Number	S-8			S-10			PREPBLANK														
Lab. Sample Number	74716			74717																	
Compound	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.
Antimony	1.7	UJ	g	1.5	UJ	g	1.7	U													
Arsenic	2.5			3.2			0.1	U													
Beryllium	0.5			0.9			0.3	U													
Cadmium	0.5	U		0.4	U		0.5	U													
Chromium	31.6			316.0			0.5	U													
Copper	17.2			47.5			0.5	U													
Lead	4.3			11.2			0.1	U													
Mercury	0.1	J	g	0.2	J	g	0.1	U													
Nickel	56.6			387.0			1.2	U													
Selenium	0.1	U		0.1	U		0.1	U													
Silver	0.4	U		0.4	U		0.4	U													
Thallium	0.1	U		0.1	U		0.1	U													
Zinc	28.6			61.2			0.2	U													

Val - Validity Refer to data qualifier definitions in Table 1.
Com. - Comments Refer to corresponding section in the narrative for each letter.

Table 5
ANALYTICAL RESULTS

Case No. : R09042
Site : O'Brien Corporation
Lab. : Versar Laboratories, Inc.
Reviewer : Ron Ohta, PRC
Date : June 5, 1992

Analysis Type : Soil Samples for Lead Analysis

Concentration in mg/kg

Field Sample Number	S-1			S-2			S-3			S-4			S-5			S-6			S-7		
Lab. Sample Number	74708			74709			74710			74711			74712			74713			74714		
Compound	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.
Lead	94.5			415.0			8880			9.1			19.8			13.9			3.6		

Val - Validity Refer to data qualifier definitions in Table 1.
Com. - Comments Refer to corresponding section in the narrative for each letter.

Table 5
ANALYTICAL RESULTS

Case No. : R09042
Site : O'Brien Corporation
Lab. : Versar Laboratories, Inc.
Reviewer : Ron Ohta, PRC
Date : June 5, 1992

Analysis Type : Soil Samples for Lead Analysis

Concentration in mg/kg

Field Sample Number	S-9																							
Lab. Sample Number	74715			PREPBLANK																				
Compound	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.
Lead	182.0			0.1	U																			

Val - Validity Refer to data qualifier definitions in Table 1.
Com. - Comments Refer to corresponding section in the narrative for each letter.

TABLE 6

CONTRACT REQUIRED QUANTITATION LIMITS
(Sheet 1 of 3)

Case No.: R09042
Laboratory: Versar Laboratories, Inc.
Reviewer: Ron Ohta, PRC
Date: June 5, 1992

CLP VOLATILES	Contract Required Quantitation Limits**	
Compounds	Water µg/L	Low Soil/Sediment µg/kg
Chloromethane	10	10
Bromomethane	10	10
Vinyl Chloride	10	10
Chloroethane	10	10
Methylene Chloride	5	5
Acetone	10	10
Carbon Disulfide	5	5
1,1-Dichloroethene	5	5
1,1-Dichloroethane	5	5
1,2-Dichloroethene (total)	5	5
Chloroform	5	5
1,2-Dichloroethane	5	5
2-Butanone	10	10
1,1,1-Trichloroethane	5	5
Carbon Tetrachloride	5	5
Vinyl Acetate	10	10
Bromodichloromethane	5	5
1,2-Dichloropropane	5	5
cis-1,2-Dichloropropene	5	5
Trichloroethene	5	5
Dibromochloromethane	5	5
1,1,2-Trichloroethane	5	5
Benzene	5	5
trans-1,3-Dichloropropene	5	5
Bromoform	5	5
4-Methyl-2-pentanone	10	10
2-Hexanone	10	10
Tetrachloroethene	5	5
Toluene	5	5
1,1,2,2-Tetrachloroethane	5	5
Chlorobenzene	5	5
Ethyl Benzene	5	5
Styrene	5	5
Xylenes (Total)	5	5

** Quantitation limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight basis as required by the contract, will be higher.

TABLE 6

CONTRACT REQUIRED QUANTITATION LIMITS
(Sheet 2 of 3)

Case No.: R09042
Laboratory: Versar Laboratories, Inc.
Reviewer: Ron Ohta, PRC
Date: June 5, 1992

	Contract Required Quantitation Limits**	
CLP SEMIVOLATILES		
Compounds	Water µg/L	Low Soil/Sediment µg/kg
Phenol	10	330
bis (2-Chloroethyl) ether	10	330
2-Chlorophenol	10	330
1,3-Dichlorobenzene	10	330
1,4-Dichlorobenzene	10	330
Benzyl alcohol	10	330
1,2-Dichlorobenzene	10	330
2-Methylphenol	10	330
bis (2-Chloroisopropyl) ether	10	330
4-Methylphenol	10	330
N-Nitroso-di-n-dipropylamine	10	330
Hexachloroethane	10	330
Nitrobenzene	10	330
Isophrone	10	330
2-Nitrophenol	10	330
2,4-Dimethylphenol	10	330
Benzoic acid	50	1600
bis(2-Chloroethoxy) methane	10	330
2,4-Dichlorophenol	10	330
1,2,4-Trichlorobenzene	10	330
Naphthalene	10	330
4-Chloroaniline	10	330
Hexachlorobutadiene	10	330
4-Chloro-3-methylphenol (para-chloro-meta-cresol)	10	330
2-Methylnaphthalene	10	330
Hexachlorocyclopentadiene	10	330
2,4,6-Trichlorophenol	10	330
2,4,5-Trichlorophenol	50	1600
2-Chloronaphthalene	10	330
2-Methylnaphthalene	50	1600
Hexachlorocyclopentadiene	10	330
2,4,6-Trichlorophenol	10	330
2,4,5-Trichlorophenol	50	1600
2-Chloronaphthalene	10	330
2-Nitroaniline	50	1600

** Quantitation limits listed for soil/sediment are based on wet weight. Quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight basis as required by the contract, will be higher.

TABLE 6

CONTRACT REQUIRED QUANTITATION LIMITS
(Sheet 3 of 3)

Case No.: R09042
Laboratory: Versar Laboratories, Inc.
Reviewer: Ron Ohta, PRC
Date: June 5, 1992

CLP SEMIVOLATILES (Cont.)	Contract Required Quantitation Limits**	
Compounds	Water µg/L	Low Soil/Sediment µg/kg
Dimethylphthalate	10	330
Acenaphthylene	10	330
2,6-Dinitrotoluene	10	330
3-Nitroaniline	50	1600
Acenaphthene	10	330
2,4-Dinitrophenol	50	1600
4-Nitrophenol	50	1600
Dibenzofuran	10	330
2,4-Dinitrotoluene	10	330
Diethylphthalate	10	330
4-Chlorophenyl-phenyl ether	10	330
Fluorene	10	330
4-Nitroaniline	50	1600
4,6-Dinitro-2-methylphenol	50	1600
N-Nitrosodiphenylamine	10	330
4-Bromophenyl-phenylether	10	330
Hexachlorobenzene	10	330
Pentachlorophenol	50	1600
Phenanthrene	10	330
Anthracene	10	330
Di-n-butylphthalate	10	330
Fluoranthene	10	330
Pyrene	10	330
Butylbenzylphthalate	10	330
3,3'-Dichlorobenzidine	10	330
Benzo(a) anthracene	10	330
Chrysene	10	330
bis (2-Ethylhexyl) phthalate	10	330
Di-n-octylphthalate	10	330
Benzo (b) fluoranthene	10	330
Benzo (k) fluoranthene	10	330
Benzo (a) pyrene	10	330
Indeno (1,2,3-cd) pyrene	10	330
Dibenz (a,h) anthracene	10	330
Benzo (g,h,i) perylene	10	330

** Quantitation limits listed for soil/sediment are based on wet weight. Quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight basis as required by the contract, will be higher.

TABLE 7

CONTRACT REQUIRED DETECTION LIMITS

Case No.: R09042
Laboratory: Versar Laboratories, Inc.
Reviewer: Ron Ohta, PRC
Date: June 5, 1992

	Contract Required Detection Limits	
CLP INORGANICS		
Analyte	Water (ug/L)	Soil (mg/kg)
Antimony	60	12
Arsenic	10	2
Beryllium	5	1
Cadmium	5	1
Chromium	10	2
Copper	25	5
Lead	5	.6
Mercury	0.2	0.04
Nickel	40	8
Selenium	5	1
Silver	10	2
Thallium	10	2
Zinc	20	4