Addendum to Report on Interim Remedial Measures: Source Area Removal

Sierra Pacific Industries
Arcata Division Sawmill
2593 New Navy Base Road
Arcata, California

Prepared for:

Sierra Pacific Industries

April 29, 2004

Project No. 9329, Task 11

Geomatrix Consultants

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GEOMATRIX

April 29, 2004
Project 9329, Task 11

Executive Officer
California Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

Attention: Dean Prat

Subject: Addendum to Report on Interim Remediation Measures: Source Area Removal
Sierra Pacific Industries
Arcata Division Sawmill
2593 New Navy Base Road
Arcata, California

Dear Mr. Prat:

As requested by Sierra Pacific Industries, we have enclosed a copy of the subject report.

Sincerely yours,
GEOMATRIX CONSULTANTS, INC.

Ross Steenson, C.HG.
Senior Hydrogeologist

Edward P. Conti, C.E.G., C.HG.
Principal Geologist

RAS/EPC/abr
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Enclosure

cc: Bob Ellery, Sierra Pacific Industries (with enclosure)
Gordie Amos, Sierra Pacific Industries (with enclosure)
David Dun, Dun and Martinek, LLP (with enclosure)
Fred Evenson, Law Offices of Frederic Evenson (with enclosure)
Jim Lamport, Ecological Rights Foundation (with enclosure)

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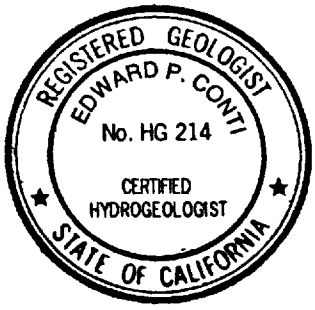
GEOMATRIX

PROFESSIONAL CERTIFICATION

ADDENDUM TO REPORT ON INTERIM REMEDIAL MEASURES: SOURCE AREA REMOVAL
Sierra Pacific Industries
Arcata Division Sawmill
2593 New Navy Base Road
Arcata, California

April 29, 2004
Project No. 9329.000, Task 11

This report was prepared by Geomatrix Consultants, Inc., under the professional supervision of Edward P. Conti. The findings, recommendations, specifications and/or professional opinions presented in this report were prepared in accordance with generally accepted professional hydrogeologic practice, and within the scope of the project. There is no other warranty, either express or implied.



Edward P. Conti, C.E.G., C.HG.
Principal Geologist

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ADDENDUM TO REPORT ON INTERIM REMEDIAL MEASURES: SOURCE AREA REMOVAL

Sierra Pacific Industries
Arcata Division Sawmill
2593 New Navy Base Road
Arcata, California

1.0 INTRODUCTION

This report is an addendum to the December 1, 2003 *Report on Interim Remedial Measures: Source Area Removal* (Geomatrix, 2003), which described the interim remedial measure (IRM) initiated by Sierra Pacific Industries (SPI) to remove soil and woody material containing elevated concentrations of wood surface protection chemicals from the SPI Arcata Division Sawmill located in Arcata, California (the site, Figures 1 and 2).

The IRM consisted of excavation and off-site disposal of soil and woody material from the former green chain area (Figure 3) where wood surface protection chemicals were used historically in a dip tank (the source area). The source of chlorinated phenols periodically detected in storm water in Drainage Ditch #2 (labeled "DD #2" on Figure 2) has been particularly difficult to determine. It is believed that this area of the former green chain is the source of chlorinated phenols detected in Drainage Ditch #2. In addition, based on elevated concentrations of wood surface protection chemicals detected in soil and woody material samples collected below the former dip tank, it is believed that this area has been an ongoing source of groundwater impact at the site. Consequently, a limited removal action as an interim remedial measure was deemed the most appropriate means of mitigation and compliance with California Regional Water Quality Control Board, North Coast Region (RWQCB) requirements.

The work was performed in accordance with the MFG, Inc. May 29, 2003 *Interim Remedial Measure Work Plan – Limited Excavation* (MFG, 2003), which was approved by the RWQCB staff on August 7, 2003. The activities completed through November 2003 were summarized in the *Report on Interim Remedial Measures: Source Area Removal* (Geomatrix, 2003; herein referred to as the IRM Report).

This addendum report summarizes additional analytical data and provides waste disposal records that were not available at the time the IRM report was produced. In addition, this addendum report documents the methods and results of post-IRM puddle sampling.

This report is organized as follows: Section 1.0 Introduction, Section 2.0 Additional Documentation, Section 3.0 Post-IRM Puddle Sampling, and Section 4.0 References.

2.0 ADDITIONAL DATA AND DOCUMENTATION

At the time of preparation for the IRM report, the regular Coastal Development Permit application had not yet been processed, dioxin testing for two soil samples had not been completed, and some final waste manifests were not available. These data and documentation are described in this section.

2.1 STATUS OF COASTAL DEVELOPMENT PERMIT

As indicated in the IRM Report, an Emergency Coastal Permit was acquired from the California Coastal Commission (CCC) before excavation activities began in the area of the former green chain. At the time the IRM Report was produced, the application for a regular Coastal Development Permit was in process with the CCC. Based on a telephone conversation with CCC staff on March 24, 2004, the regular Coastal Development Permit application has not yet been processed (Bob Merrill, personal communication, 2004).

2.2 ADDITIONAL DIOXIN AND FURAN ANALYSIS

2.2.1 Dioxin and Furan Analysis for Third Phase Excavation Soil Samples

As stated in the IRM report (IRM report Section 5.9), on November 6, 2003, additional soil was excavated from the northern portion of the excavation (third phase of excavation). At the completion of the excavation, two additional confirmation soil samples were collected for laboratory chemical analysis (S-30-1.5 [north sidewall] and S-31-5.5 [excavation base]). These samples were analyzed for chlorinated phenols, and the results indicated that chlorinated phenols were not detected (Table 1).

Soil samples S-30-1.5 and S-31-5.5 were forwarded by Alpha Analytical Laboratories to Frontier Analytical Laboratory of El Dorado Hills, California, a California Department of Health Services-certified analytical laboratory, for analysis for dioxins and furans using U.S. Environmental Protection Agency (EPA) Method 1613. These data were not available at the time the IRM Report was produced.

Concentrations of dioxins and furans, which refers to a complex mixture of various dioxin and furan congeners, are generally summarized in terms of their 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) toxic equivalency (TEQ) based on toxic equivalency factors adopted by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (Cal-EPA, 2003). The IRM Report listed TEQ results for all of the samples analyzed for dioxins and furans, except soil samples S-30-1.5 and S-31-5.5. Table 2 of this addendum includes the analytical results for all of the reported dioxin and furan congeners and respective TEQ concentrations for all of the samples analyzed for dioxins and furans.

For soil sample S-30-1.5, dioxins and furans were detected at 18.0 picograms per gram (pg/g dry weight; parts per trillion) TEQ. For soil sample S-31-5.5, dioxins and furans were detected at 5.59 pg/g dry weight TEQ. A copy of the laboratory analytical report is included in Appendix A.

2.2.2 Dioxins and Furans Wet Weight Addendum Reports

EPA Method 1613 specifies that dioxin and furan results for solids samples be reported in dry weight format. However, for most environmental analyses, including analyses for chlorinated phenols, the results for solids samples are reported in wet weight format. Geomatrix requested that Frontier Analytical Laboratory provide addenda for all of the IRM sample reports showing the dioxin and furan results in wet weight format so that appropriate comparison can be made with other chemical analysis data from the site. Copies of these laboratory analytical report addenda are included in Appendix A. Both the dry weight format and wet weight format results are presented in Table 2.

2.3 WASTE DISPOSAL RECORDS

As described in the IRM report, solid remediation-derived waste generated during excavation was profiled and removed from the site by Asbury Environmental Services of Richmond, California (EPA ID No. CAD028277036) for disposal at the US Ecology facility in Beatty, Nevada (EPA ID No. NVT330010000) and the Chemical Waste Management facility in Kettleman City, California (EPA ID No. CAT000646117). The liquid remediation-derived wastes were also removed from the site by Asbury for disposal at the DeMenno Kerdoon facility in Compton, California (EPA ID No. CAT080013352).

The IRM report contained all the available completed Uniform Hazardous Waste Manifests or bills of lading for the waste shipments. Appendix B of this addendum contains the ten remaining completed Uniform Hazardous Waste Manifests or bills of lading received by SPI

after December 1, 2003. All of the waste disposal documentation has now been provided, either in the IRM Report or this addendum.

3.0 POST-IRM PUDDLE SAMPLING

On February 5, 2004, MFG collected grab water samples from two water puddles, located north and south of the former green chain area (Figure 5). These samples were intended to assess whether chlorinated phenols were present at the surface near the former green chain area following the IRM. One sample was collected directly south of the middle of the excavation area (sample labeled Puddle-S) and the second was near the location of well MW-7 (sample labeled Puddle-N). The sampling locations are illustrated on Figure 5. The sections below describe the field methods, laboratory methods, and results.

3.1 METHODS

3.1.1 Field Methods

Prior to sampling, MFG observed the site conditions and the puddles. The southern puddle (Puddle-S) was flowing, and the northern puddle (Puddle-N) appeared to be stagnant.

The puddle samples were collected by submerging laboratory-supplied, 125-milliliter glass bottles. After filling, the bottles were sealed with Teflon®-lined screw caps. The bottles were placed in an ice-cooled chest for transport to the laboratory. A chain-of-custody record was completed for the samples and accompanied the samples until receipt by the laboratory.

3.1.2 Laboratory Methods

Samples were collected for laboratory chemical analysis of chlorinated phenols using the Canadian Pulp Method. Samples were delivered under chain-of-custody to Alpha Analytical of Ukiah, California (Alpha Analytical), a California Department of Health Services-certified analytical laboratory.

A laboratory analytical report is included in Appendix A.

3.2 LABORATORY ANALYTICAL RESULTS

Chlorinated phenols were not detected at or above the laboratory reporting limits in either the puddle sample located directly south of the middle of the excavation area (Puddle-S) or the puddle sample located near well MW-7 (Puddle-N). The laboratory analytical results for the two puddle samples are summarized in Table 3.

These data suggest that chlorinated phenols are not present at the surface in the former green chain area.

4.0 REFERENCES

Cal-EPA, 2003, *Adoption of the Revised Toxic Equivalency Factors (TEFWHO-97) for PCDDs, PCDFs, and Dioxin-like PCBs* (memorandum), Office of Environmental Health Hazard Assessment, August 29.

Geomatrix Consultants, Inc., 2003, *Report on Interim Remedial Measures: Source Area Removal*, Sierra Pacific Industries, Arcata Division Sawmill, 2593 New Navy Base Road, Arcata, California, December 1.

MFG, 2003, *Interim Remedial Measure Work Plan – Limited Excavation*, Sierra Pacific Industries, Arcata Division Sawmill, 2593 New Navy Base Road, Arcata, California, May 29.

TABLES

TABLE 1
SUMMARY OF LABORATORY ANALYTICAL
RESULTS FOR SAMPLES COLLECTED DURING IRM ACTIVITIES

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Sample ID	Date Sampled	Depth (feet) bgs	Matrix	2,4,6-TCP mg/kg (µg/l)	2,3,5,6-TCP mg/kg (µg/l)	2,3,4,6-TCP mg/kg (µg/l)	2,3,4,5-TCP mg/kg (µg/l)	PCP mg/kg (µg/l)
	units for soil, sediment, concrete samples [1]							
		units for water samples						
STORM WATER AND STORM WATER SOLIDS SAMPLES								
S-Near B-14 Water	01-May-03	--	Storm water	<1.0	<1.0	<1.0	<1.0	<1.0
S-Near B-14 Sediment	01-May-03	--	Solids	<1.0	<1.0	<1.0	<1.0	<1.0
S-Near B-33 Water	01-May-03	--	Storm water	<1.0	<1.0	<1.0	<1.0	<1.0
S-Near B-33 Sediment	01-May-03	--	Solids	<1.0	<1.0	<1.0	<1.0	<1.0
S-Near B-36 Water	01-May-03	--	Storm water	<1.0	<1.0	<1.0	<1.0	2.1
S-Near B-36 Sediment	01-May-03	--	Solids	<1.0	<1.0	<1.0	<1.0	<1.0
S-Near MW-7 Water	01-May-03	--	Storm water	<1.0	<1.0	8.1	2.6	28
S-Near MW-7 Sediment	01-May-03	--	Solids	<1.0	<1.0	<1.0	<1.0	<1.0
S-Near MW-8 Water	01-May-03	--	Storm water	<1.0	<1.0	<1.0	<1.0	<1.0
S-Near MW-8 Sediment	01-May-03	--	Solids	<1.0	<1.0	<1.0	<1.0	<1.0
SS-Near B-37 Water	01-May-03	--	Storm water	2.0	<1.0	7,900	110	33,000
SS-Near B-37 Sediment	01-May-03	--	Solids	<1.0	<1.0	11	1.3	94
SAMPLES FROM THE SHALLOW PIT BENEATH THE SOUTH CATWALK								
UCW-South-Water	05-May-03	--	Pit Water	<1.0	< 8.5	1,100	69	11,000
UCW-South Sand	06-May-03	(0.5) [2]	Soil	<1.0	<1.0	<1.0	<1.0	1.4
UCW-South Wood	06-May-03	(0.5) [2]	Wood	<1.0	<25	1400	<25	4600
CONCRETE AND UPPER FILL MATERIAL SAMPLES								
C-1	19-Jun-03	--	Concrete	--	--	--	--	--
C-2	19-Jun-03	--	Concrete	--	--	--	--	--
S-1-1'	19-Jun-03	0.0	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
S-2-1'	19-Jun-03	0.0	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
FIRST PHASE OF EXCAVATION—CONFIRMATION SOIL SAMPLES								
Pit Bottom	09-Jul-03	1.3	Soil	<1.0	<1.0	100	1.7	380
Pit Under 2nd Slab	09-Jul-03	1.3	Soil	<1.0	<1.0	<1.0	<1.0	2.3
LOWER FILL MATERIAL SAMPLE								
4" Under 2nd Slab	17-Jul-03	1.3	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
DRAINAGE DITCH #2 SAMPLE								
#2 (second separator)	04-Aug-03	--	Surface water	na	<1.0	<1.0	<1.0	<0.3

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Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Sample ID	Date Sampled	Depth (feet) bgs	Matrix	2,4,6-TCP	2,3,5,6-TCP	2,3,4,6-TCP	2,3,4,5-TCP	PCP
	units for soil, sediment, concrete samples [1]			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		units for water samples		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
SOIL BORINGS NEAR MONITORING WELL MW-7								
B-61-Concrete Upper	29-Aug-03	0 to 0.3	Concrete	<1.0	<1.0	12	<1.0	15
B-61-Concrete Lower	29-Aug-03	0.6 to 1.1	Concrete	<1.0	<1.0	<1.0	<1.0	1.2
B-61-1.2'	29-Aug-03	1.2	Soil	<1.0	<1.0	<1.0	<1.0	2.5
B-61-3'	29-Aug-03	3.0	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
B-62-Concrete Upper	29-Aug-03	0 to 0.3	Concrete	<1.0	<1.0	<1.0	<1.0	<1.0
B-62-Concrete Lower	29-Aug-03	0.4 to 0.9	Concrete	<1.0	<1.0	<1.0	<1.0	<1.0
B-62-1'	29-Aug-03	1.0	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
B-62-3'	29-Aug-03	3.0	Soil	<1.0	<1.0	<1.0	<1.0	21
B-63-1'	29-Aug-03	1.0	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
B-63-3'	29-Aug-03	3.0	Soil	<1.0	<1.0	<1.0	<1.0	17
SECOND PHASE OF EXCAVATION—WOOD, WATER, AND CONFIRMATION SOIL SAMPLES								
Sample of Buried Railroad								
RR-Ties	16-Sep-03	1.5	Wood	<2.5	<2.5	170	3.1	260
Excavation Water Sample								
Pit Water	17-Sep-03	--	Pit Water	19	<1.0	18,000	52	35,000
Excavation Sidewall Soil Samples								
S-1E-2.5'	14-Sep-03	2.5	Soil	<1.0	<1.0	<1.0	<1.0	2.1
S-2E-2.5'	14-Sep-03	2.5	Soil	<1.0	<1.0	18	<1.0	32
S-3S-2.5'	14-Sep-03	2.5	Soil	<1.0	<1.0	4.6	<1.0	33
S-4N-2.5'	14-Sep-03	2.5	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
S-5N-2.5'	15-Sep-03	2.5	Soil	<1.0	<1.0	1.1	<1.0	3.2
S-6N-1.5'	16-Sep-03	1.5	Soil	<1.0	<1.0	560	1.7	850
S-7E-3'	16-Sep-03	3.0	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
S-8W-1.5'	16-Sep-03	1.5	Soil	<1.0	<1.0	6.5	<1.0	19
S-9W-2.5'	16-Sep-03	2.5	Soil	<1.0	<1.0	1.6	<1.0	3.2
S-10S-0.5'	16-Sep-03	0.5	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
S-11S-2.5'	16-Sep-03	2.5	Soil	<1.0	<1.0	3.1	<1.0	9.2
S-12S-2.5'	16-Sep-03	2.5	Soil	<1.0	<1.0	4.5	<1.0	7.1

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SUMMARY OF LABORATORY ANALYTICAL
RESULTS FOR SAMPLES COLLECTED DURING IRM ACTIVITIES

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Sample ID	Date Sampled	Depth (feet) bgs	Matrix	2,4,6-TCP mg/kg (µg/l)	2,3,5,6-TCP mg/kg (µg/l)	2,3,4,6-TCP mg/kg (µg/l)	2,3,4,5-TCP mg/kg (µg/l)	PCP mg/kg (µg/l)
	units for soil, sediment, concrete samples [1]							
		units for water samples						
Excavation Base Soil Samples								
B-1-South	14-Sep-03	6.5	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
B-2-East	14-Sep-03	4.0	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
B-3-East	14-Sep-03	4.0	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
B-4-West	15-Sep-03	4.0	Soil	<1.0	<1.0	170	<1.0	640
B-5-West	16-Sep-03	4.0	Soil	<1.0	<1.0	2.2	<1.0	4.9
THIRD PHASE OF EXCAVATION—CONFIRMATION SOIL SAMPLES								
Excavation Sidewall Soil Samples								
S-30-1.5'	06-Nov-03	1.5	Soil	<1.0	<1.0	<1.0	<1.0	<1.0
Excavation Base Soil Samples								
S-31-5.5'	06-Nov-03	5.5	Soil	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 1
SUMMARY OF LABORATORY ANALYSIS
RESULTS FOR SAMPLES COLLECTED DURING IRM ACTIVITIES
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Abbreviations

Shading = indicates that the material represented by the sample was removed.
na = not analyzed
-- = not measured
< = Target analyte was not detected at or above the laboratory reporting limit shown.
bgs = Below ground surface measured from the surrounding grade in the former green chain area; not from the top of the elevated concrete slab.
mg/kg = milligrams per kilogram (parts per million)
µg/l = micrograms per liter (parts per billion)
PCP = pentachlorophenol
2,3,4,5-TCP = 2,3,4,5-tetrachlorophenol
2,3,4,6-TCP = 2,3,4,6-tetrachlorophenol
2,3,5,6-TCP = 2,3,5,6-tetrachlorophenol
2,4,6-TCP = 2,4,6-trichlorophenol

Notes:

1. Alpha Analytical reported the chlorinated phenol data for solids samples in wet-weight format. Frontier Analytical reported the dioxins/furans data for solids samples in dry-weight format.
2. Samples collected beneath the elevated concrete pad of the former green chain, but approximately 0.5 feet above the surrounding grade.

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TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR DIOXINS AND FURANS
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in picograms per gram (pg/g; parts per trillion).

Sample ID	Date Sampled	Depth (feet) bgs	Matrix	Basis	2, 3, 7, 8-TCDD	1, 2, 3, 7, 8-PeCDD	1, 2, 3, 4, 7, 8-HxCDD	1, 2, 3, 6, 7, 8-HxCDD	1, 2, 3, 7, 8, 9-HxCDD	1, 2, 3, 4, 6, 7, 8-HpCDD	OCDD	Total Dioxins	2, 3, 7, 8-TCDF	1, 2, 3, 7, 8-PeCDF	2, 3, 4, 7, 8-PeCDF	1, 2, 3, 4, 7, 8-HxCDF	1, 2, 3, 6, 7, 8-HxCDF	2, 3, 4, 6, 7, 8-HxCDF	1, 2, 3, 7, 8, 9-HxCDF	1, 2, 3, 4, 6, 7, 8-HpCDF	1, 2, 3, 4, 7, 8, 9-HpCDF	OCDF	Total Furans	Total Dioxins/Furans TEQ [1]	PERCENT 2,3,7,8-TCDD[4]
SAMPLES FROM THE SHALLOW PIT BENEATH THE SOUTH CATWALK																									
UCW-South Sand	06-May-03	(0.5) [3]	Soil	Dry Weight	2.87	119	112	15,200	1,550	119,000	263,000	203,068	227 F	155	519 M,X	1610	643	2,140	361	102,000	6,390	302,000	646,610 D,M,X	4,910	0.06%
UCW-South Sand	06-May-03	(0.5) [3]	Soil	Wet Weight	2.33	97	90.8	12,400	1,260	96,900	214,000	165,629	185 F	126	422 M,X	1310	523	1,740	294	83,400	5,190	246,000	525,340 D,M,X	4,000	0.06%
UCW-South Wood	06-May-03	(0.5) [3]	Wood	Dry Weight	651	37,300	860,000	5,180,000	162,000	43,400,000	109,000,000	73,583,380 M	323,000 F	295,000	835,000	482,000	214,000	960,000	519,000	14,300,000	522,000	15,300,000	113,150,000 D,M,X	1,940,000	0.03%
UCW-South Wood	06-May-03	(0.5) [3]	Wood	Wet Weight	194	11,100	257,000	1,550,000	48,300	13,000,000	32,800,000	22,004,700 M	96300 F	88,000	249,000 M, X	144,000	64,000	287,000	155,000	4,280,000	156,000	4,590,000	33,743,000 D,M,X	578,000	0.03%
CONCRETE AND UPPER FILL MATERIAL SAMPLES																									
C-1	19-Jun-03	--	Concrete	Dry Weight	24.9	282	230	14,800	4,740	64,700	137,000 B	174,419 B	38.5 F	49.6	51.3	89.2	156	242	46.9	2,290	98.6	3,100	16,140	3,050	0.82%
C-1	19-Jun-03	--	Concrete	Wet Weight	22.2	252	206	13,300	4,230	57,800	122,000 B	155,802 B	34.4 F	44.3	45.9	79.7	139	216	41.9	2,040	88.1	2,770	14,400	2,740	0.81%
C-2	19-Jun-03	--	Concrete	Dry Weight	57.5	1,030	1,580	232,000	31,100	1,940,000	10,500,000 B	4,841,220 B	2,100 F	2,420	3,350	4,260	3,390	9,220	3,830	79,000	3,170	76,800	848,000 D,M	52,900	0.11%
C-2	19-Jun-03	--	Concrete	Wet Weight	54.7	982	1,500	221,000	29,500	1,840,000	10,000,000 B	4,610,640 B	2,000 F	2,300	3,180	4,050	3,230	8,780	3,650	75,200	3,020	73,100	805,700 D,M	50,300	0.11%
S-1-1'	19-Jun-03	0.0	Soil	Dry Weight	1.12	26.1	48.6	4,720	190	58,500	387,000 B	111,518 B	146 F	123	168	257	151	454	261	4,780	169	5,960	45,340 D,M	1,410	0.08%
S-1-1'	19-Jun-03	0.0	Soil	Wet Weight	0.904	21.2	39.4	3,830	154	47,500	313,000 B	90,366 B	118 F	99.8	136	208	122	368	211	3,870	137	4,830	36,800 D,M	1,150	0.08%
S-2-1'	19-Jun-03	0.0	Soil	Dry Weight	9.24	59.0	76.2	2,060	234	25,400	130,000 B	53,007 B	67.2 F	44.2	56.3	132	87.5	212	98.9	5,240	213	11,600	34,900	720	1.28%
S-2-1'	19-Jun-03	0.0	Soil	Wet Weight	7.57	48.4	62.5	1,690	192	20,800	107,000 B	43,443 B	55.1 F	36.3	46.2	109	71.7	173	81	4,300	175	9,550	28,582	589	1.29%
FIRST PHASE OF EXCAVATION—CONFIRMATION SOIL SAMPLES																									
Pit Bottom	09-Jul-03	1.3	Soil	Dry Weight	100	632	1,160	23,600	1,600	449,000	2,070,000 B	765,257	249 F	374	511	2,090	818	2,310	913	154,000	11,900	580,000	1,054,470 D,M	10,700	0.93%
Pit Bottom	09-Jul-03	1.3	Soil	Wet Weight	80	505	931	18,800	1,280	359,000	1,650,000 B	611,317	199 F	299	409	1,670	654	1,840	730	123,000	9,500	463,000	843,350 D,M	8,540	0.94%
Pit Under 2nd Slab	09-Jul-03	1.3	Soil	Dry Weight	24.1	240	287	3940	295	135,000	1,280,000 B	261,513.2	0.915	3.42	5.76	309	80.7	257	74.3	26,200	2,990	128,000	188,731.9 D,M	2,570	0.94%
Pit Under 2nd Slab	09-Jul-03	1.3	Soil	Wet Weight	18.5	185	221	3030	227	104,000	988,000 B	201,608	0.704	2.63	4.43	238	62.1	198	57.2	20,200	2,300	98,400	145,255.4 D,M	1,980	0.93%
LOWER FILL MATERIAL SAMPLE																									
4" Under 2nd Slab	17-Jul-03	1.3	Soil	Dry Weight	1.53	46.2	302	9,090	2,710	150,000	545,000	387,654	29.3 F	29.6	38.5	192	82.4	198	62.3	11,800	512	36,700	70,171 D,M	3,020	0.05%
4" Under 2nd Slab	17-Jul-03	1.3	Soil	Wet Weight	1.32	39.8	260	7,840	2,330	129,000	470,000	334,295	25.2 F	25.5	33.2	165	71	171	53.6	10,200	442	31,700	60,432 D,M	2,600	0.05%
SOIL BORINGS NEAR MONITORING WELL MW-7																									
B-61-Concrete Upper	29-Aug-03	0 to 0.3	Concrete	Dry Weight	103	1,290	744	60,300	17,100	576,000	2,220,000	2,753,286 M	2,030 F	790	1,750	1,260	1,560	3,540	624	34,200	940	27,700	312,100	17,400	0.59%
B-61-Concrete Upper	29-Aug-03	0 to 0.3	Concrete	Wet Weight	96.5	1,210	696	56,400	16,000	540,000	2,080,000	2,574,692 M	1900 F	740	1,640	1,180	1,460	3,320	584	32,000	880	26,000	188,500	16,300	0.59%
B-61-Concrete Lower	29-Aug-03	0.6 to 1.1	Concrete	Dry Weight	21.7	439	344	44,300	10,000	457,000	3,740,000	1,208,987	755 F	348	685	764	504	1,610	368	20,000	1060	56,800	147,190	11,800	0.18%
B-61-Concrete Lower	29-Aug-03	0.6 to 1.1	Concrete	Wet Weight	20	404	316	40,700	9,210	420,000	3,440,000	1,110,662	694 F	319	629	702	463	1,480	339	18,400	970	52,100	135,280	10,900	0.18%
B-61-1.2'	29-Aug-03	1.2	Soil	Dry Weight	12.1	102	131	11,500	2,750	170,000	1,020,000	398,687	23.7 F	21.2	35.2	511	198	438	107	28,400	1,540	88,500	148,901	3,820	0.32%
B-61-1.2'	29-Aug-03	1.2	Soil	Wet Weight	11.1	93.5	120	10,600	2,520	156,000	938,000	365,789	21.7 F	19.4	32.2	468	182	402	97.8	26,000	1,410	81,100	135,681	3,500	0.32%
B-62-Concrete Upper	29-Aug-03	0 to 0.3	Concrete	Dry Weight	<0.431	6.54	9.02	391	103	4,150	18,000	12,733.8	2.40 F	3.10	3.25	10.0	12.0	20.3	<2.14	564	20.8	1,560	2,943.3	112	0.00%
B-62-Concrete Upper	29-Aug-03	0 to 0.3	Concrete	Wet Weight	<0.395	6	8.27	359	94.3	3,810	16,500	11,685.1	2.21 F	2.84	2.98	9.21	11.0	18.6	<1.97	517	19.1	1,430	2,695.1	103	0.00%
B-62-Concrete Lower	29-Aug-03	0.4 to 0.9	Concrete	Dry Weight	<0.979	72.4	139	21,200	7,470	192,000	368,000	534,710	1.39 F	3.42	2.74	24.1	18.8	34.7	7.68	1,950	95.0	6,130	9,698.7	4,940	0.00%
B-62-Concrete Lower	29-Aug-03	0.4 to 0.9	Concrete	Wet Weight	<0.919	68	130	19,900	7,010	180,000	346,000	501,720	1.3 F	3.21	2.58	22.6	17.6	32.6	7.21	1,830	89.2	5,750	9,108.6	4,640	0.00%
B-62-1'	29-Aug-03	1.0	Soil	Dry Weight	<0.600	12.1	19.7	2,360	711	22,900	51,400	63,950	0.696	1.95 J	1.64 J	22.4	13.5	27.8	6.13	2,310	99.1	7,700	11,648.1	589	0.00%
B-62-1'	29-Aug-03	1.0	Soil	Wet Weight	<0.512	10.3	16.8	2,010	606	19,600	43,800	54,537	0.594	1.66 J	1.4 J	19.1	11.5	23.7	5.23	1,970	84.5	6,570	9,927.6	502	0.00%
B-63-1'	29-Aug-03	1.0	Soil	Dry Weight	0.488 J	8.46	21.6	922	298	8840	14800	23,452	0.369 J	0.594 J	0.522 J	4.62	2.89	7.84	<0.887	608	21.9	2520	3,039.6	231	0.21%
B-63-1'	29-Aug-03	1.0	Soil	Wet Weight	0.41 J	7.1	18.2	774	250	7430	12400	19,672.4	0.31 J	0.499 J	0.439 J	3.88	2.43	6.59	<0.745	511	18.4	2120	2,554.8	194	0.21%
SECOND PHASE OF EXCAVATION—WOOD, WATER, AND CONFIRMATION SOIL SAMPLES																									
Sample of Buried Railroad																									
RR-Ties	16-Sep-03	1.5	Wood	Dry Weight	89.6	1,200	1,190	21,300	1,590	425,000	2,910,000	833,916	65.2 F	155	184	2,370	645	2,060	647	159,000	12,400	459,000	869,742	10,700	0.84%
RR-Ties	16-Sep-03	1.5	Wood	Wet Weight	36.6	491	488	8,720	649	174,000	1,190,000	341,349	26.7 F	63.2	75.5	969	264	844	265	65,100	5,090	188,000	354,942	4,370	0.84%
Excavation Sidewall Soil Samples																									
S-1E-2.5'	14-Sep-03	2.5	Soil	Dry Weight	<0.442	4.80	17.7	695	78.2	13,300	74,600	22,628.43	<0.352	2.36 J	1.57 J	39.1	14.1	40.5	13.5	4,350	281	19,400	20,339.16	284	0.00%
S-1E-2.5'	14-Sep-03	2.5	Soil	Wet Weight	<0.367	3.99	14.8	578	65	11,000	62,100	18,788.65	<0.293	1.97 J	1.31 J	32.5	11.7	33.7	11.2	3,620	234	16,200	16,902.66	236	0.00%
S-5N-2.5'	15-Sep-03	2.5	Soil	Dry Weight	<0.324	2.45 J	3.98	285	14.4	3,840	23,900	7,972.33	7.13 F	8.59	11.0	21.4	10.2	33.2	15.3	960	55.2	4,420	5,578.2	98.8	0.00%
S-5N-2.5'	15-Sep-03	2.5	Soil	Wet Weight	<0.281	2.12 J	3.45	247	12.5	3,330	20,700	6,905.22	6.18 F	7.45	9.55	18.6	8.84	28.7	13.2	832	47.9	3,830	4,840.8	85.7	0.00%
S-6N-1.5'	16-Sep-03	1.5	Soil	Dry Weight	48.3	533	1,030	29,500	2,520	444,000	1,500,000	792,051	310 F	427	639	3,370	1,150	3,390	1,090	160,000	10,900	459,000	928,050 D,M	11,500	0.42%
S-6N-1.5'	16-Sep-03	1.5	Soil	Wet Weight	41.6	459	887	25,400	2,170	382,000	1,290,000	681,974	267 F	367	550	2,900	993	2,920	938	138,000	9,350	395,000	799,680 D,M	9,900	0.42%
S-7E-3'	16-Sep-03	3.0	Soil	Dry Weight	22.5	373	352	8,270	574	202,000	1,070,000	366,917.4	31.9 F	194	214	1,580	399	906	569	59,600	3,950	216,000	339,952 D,M	4,560	0.49%
S-7E-3'	16-Sep-03	3.0	Soil	Wet Weight	20.9	347	327	7,690	534	188,000	988,000	341,366.8	29.7 F	180	199	1,470	371	843	529	55,400	3,670	201,000	316,069 D,M	4,250	0.49%
S-9W-2.5'	16-Sep-03	2.5	Soil	Dry Weight	2.76	22.3	35.0	546	42.5	10,100	46,800	18,242.03	<0.480	3.03	3.20	53.4	13.7	37.8	19.2	2720	284	9,530	16,282.02 D,M	238	1.16%
S-9W-2.5'	16-Sep-03	2.5	Soil	Wet Weight	2.34	18.9	29.5	462	35.9	8,500	39,500	15,403.95	<0.405	2.56	2.70	45.1	11.6	31.9	16.2	2300	240	8,050	13,790.8 D,M	201	1.16%
S-11S-2.5'	16-Sep-03	2.5	Soil	Dry Weight	18.3	66.3	64.6	1,280	97.1	27,400	144,000	48,331.0	2.94 F	14.5	16.1	146	46.6	117	55	7,750	653	32,900	49,278.3	650	2.82%
S-11S-2.5'	16-Sep-03	2.5	Soil	Wet Weight	15.5	56	54.5	1,080	82	23,200	121,000	40,779.1	2.48 F	12.3	13.6	123	39.4	98.4	46.4	6,550	551	27,800	41,652.1	549	2.82%
S-12S-2.5'	16-Sep-03	2.5	Soil	Dry Weight	15.8	128	124	2,400	199	43,800	286,000	83,732.5	10 F	38.8	49.6	309	88.6	234	156	13,900	1,100	59,400	87,805	1,150	1.37%
S-12S-2.5'	16-Sep-03	2.5	Soil	Wet Weight	14.7	119	116	2,240	186	40,900	267,000	78,221.3	9.38 F	36.2	46.3	289	82.7	219	146	13,000	1,020	55,500	82,046	1,070	1.37%
Excavation Base Soil Samples																									
B-1-South	14-Sep-03	6.5	Soil	Dry Weight	6.10	27.3	19.6	318	24.6	7,320	43,900	14,223.2	0.379 J	2.25 J	2.63	29.5	8.79	24.5	12.2	1,430	165	6,880	9,678.41	173	3.53%
B-1-South	14-Sep-03	6.5	Soil	Wet Weight	5.05	22.6	16.3	264	20.4	6,060	36,400	11,760.4	0.314 J	1.86 J	2.18	24.5	7.28	20.3	10.1	1,180	137	5,700	8,026.65	143	3.53%
B-4-West	15-Sep-03	4.0	Soil	Dry Weight	55.1	996	1,090	55,500	2,440	575,000	2,280,000	1,013,852	1,500 F	1,260	2,030	4,320	1,760	6,190	2,210	179,000	10,800	429,000	1,100,800 D,M	17,600	0.31%
B-4-West	15-Sep-03	4.0	Soil	Wet Weight	43.3	783	855	43,600	1,920	452,000	1,790,000	796,726	1,180 F	992	1,600	3,400	1,390	4,870	1,730	141,000	8,460	337,000	865,300 D,M	13,800	0.31%
THIRD PHASE OF EXCAVATION—CONFIRMATION SOIL SAMPLES																									
Excavation Sidewall Soil Samples																									
S-30-1.5'	06-Nov-03	1.5	Soil	Dry Weight	<0.232	<0.495	0.968 J	20.3	2.88	997	13,200	2,998.90	<0.193	<0.757	<0.457	3.15	1.43 J	3.50	<0.561	301	22.9	1,970	1,657.46 M	18.0	0.00%
S-30-1.5'	06-Nov-03	1.5	Soil	Wet Weight	<0.202	<0.432	0.844 J	17.7	2.51	870	11,500	2,610.54	<0.168	<0.660	<0.399	2.75	1.25 J	3.05	<0.49	263	19.9	1,720	1439.82 M	15.7	0.00%

GEOMATRIX

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR DIOXINS AND FURANS
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in picograms per gram (pg/g; parts per trillion).

Sample ID	Date Sampled	Depth (feet) bgs	Matrix	Basis	2, 3, 7, 8-TCDD	1, 2, 3, 7, 8-PeCDD	1, 2, 3, 4, 7, 8-HxCDD	1, 2, 3, 6, 7, 8-HxCDD	1, 2, 3, 7, 8, 9-HxCDD	1, 2, 3, 4, 6, 7, 8-HpCDD	OCDD	Total Dioxins	2, 3, 7, 8-TCDF	1, 2, 3, 7, 8-PeCDF	2, 3, 4, 7, 8-PeCDF	1, 2, 3, 4, 7, 8-HxCDF	1, 2, 3, 6, 7, 8-HxCDF	2, 3, 4, 6, 7, 8-HxCDF	1, 2, 3, 7, 8, 9-HxCDF	1, 2, 3, 4, 6, 7, 8-HpCDF	1, 2, 3, 4, 7, 8, 9-HpCDF	OCDF	Total Furans	Total Dioxins/Furans TEQ [1]	PERCENT 2,3,7,8-TCDD[4]
Excavation Base Soil Samples																									
S-31-5.5'	06-Nov-03	5.5	Soil	Dry Weight	<0.147	<0.374	<0.656	5.99	1.12 J	352	4,960	1,040.20	<0.196	<0.624	<0.600	<0.435	<0.482	1.79 J	<0.741	58.4	5.54	406	271.51	5.59	0.00%
S-31-5.5'	06-Nov-03	5.5	Soil	Wet Weight	<0.130	<0.330	<0.579	5.28	0.988 J	310	4,380	916.79	<0.173	<0.550	<0.529	<0.384	<0.425	1.58 J	<0.653	51.5	4.89	358	239.9	4.93	0.00%
			TEF [5]:		1	1	0.1	0.1	0.1	0.01	0.0001	--	0.1	0.05	0.5	0.1	0.1	0.1	0.1	0.01	0.01	0.0001	--	--	--

Notes:
1. Frontier Analytical Laboratory, of El Dorado Hills, California, analyzed these samples for dioxins and furans in accordance with EPA Method 1613.
2. Calculated as the sum of congener concentrations after each has been multiplied by its TEF.
3. Concentrations not detected above the laboratory reporting limit were assigned a concentration of 0 pg/g to calculate TEQ.
4. Calculated by dividing the concentration of 2,3,7,8-TCDD by the Total TEQ (multiplied by 100). When the concentration of 2,3,7,8-TCDD was not detected, it was assigned a concentration of 0 pg/g for this calculation.
5. TEF (unitless) from the World Health Organization, 1997 (WHO-97), adopted from F.X.R. van Leeuwen, 1997.
Shading = indicates that the material represented by the sample was subsequently removed during excavation.

Abbreviations:
TCDD = tetrachlorodibenzo-p-dioxin
PeCDD = pentachlorodibenzo-p-dioxin
HxCDD = hexachlorodibenzo-p-dioxin
HpCDD = heptachlorodibenzo-p-dioxin
OCDD = octachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
PeCDF = pentachlorodibenzofuran
HxCDF = hexachlorodibenzofuran
HpCDF = heptachlorodibenzofuran
OCDF = octachlorodibenzofuran

TEQ = toxicity equivalents
TEF = toxicity equivalency factor (unitless)
EPA = U.S. Environmental Protection Agency
bgs = below ground surface
-- = not applicable
< = target analyte was not detected at or above the laboratory reporting limit shown
J = concentration detected was below the instrument calibration range
F = analyted confirmation on secondary column.
M = maximum possible concentration.
X = matrix interferences
B = analyte is present in method blank

TABLE 3
LABORATORY ANALYTICAL RESULTS FOR PUDDLE SAMPLES
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

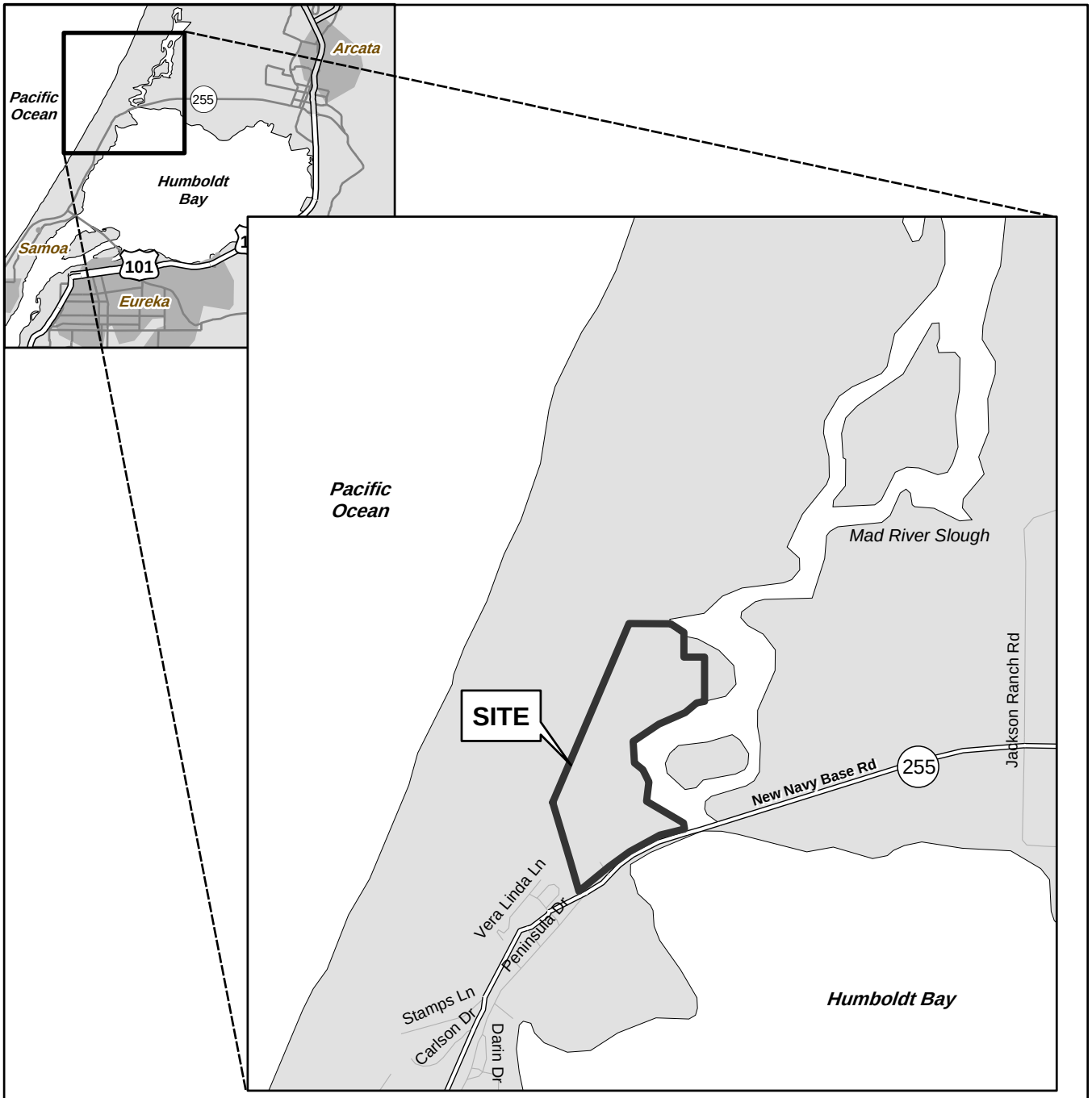
Concentrations in micrograms per liter (ug/l; parts per billion)

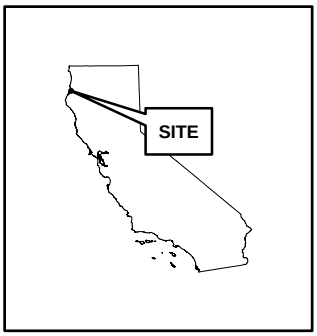
Sample ID	Date Sampled	2,4,6-TCP	2,3,5,6-TCP	2,3,4,6-TCP	2,3,4,5-TCP	PCP
Puddle - N	05-Feb-04	<1.0	<1.0	<1.0	<1.0	<1.0
Puddle - S	05-Feb-04	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
1. Alpha Analytical Laboratories of Ukiah, California, analyzed these samples for chlorinated phenols in accordance with the Canadian Pulp method.

Abbreviations:
< = target analyte was not detected at or above the laboratory reporting limit shown.
2,4,6-TCP = 2,4,6-trichlorophenol
2,3,5,6-TCP = 2,3,5,6-tetrachlorophenol
2,3,4,6-TCP = 2,3,4,6-tetrachlorophenol
2,3,4,5-TCP = 2,3,4,5-tetrachlorophenol
PCP = pentachlorophenol

FIGURES





California

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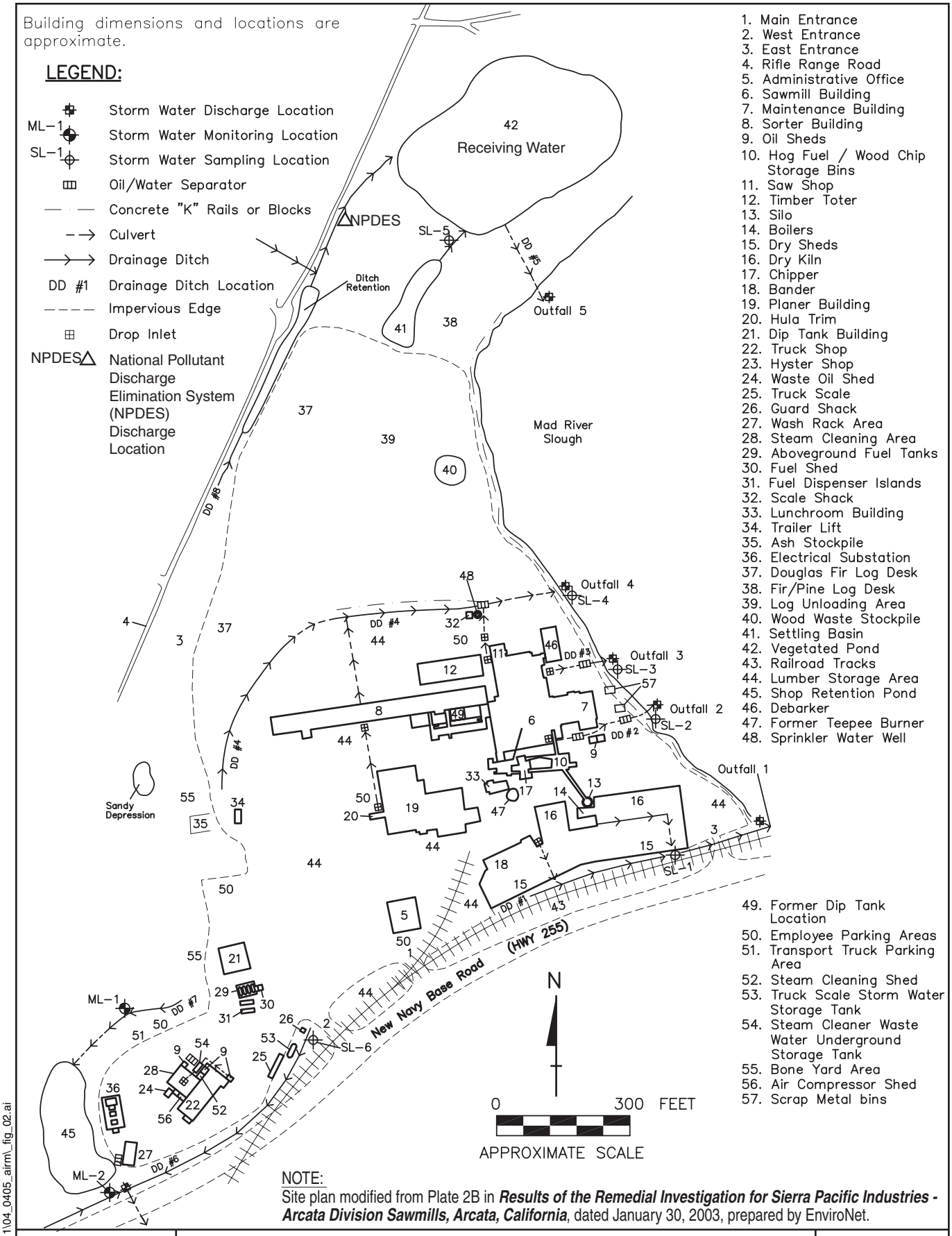
GEOMATRIX

SITE LOCATION MAP
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Project No.
9329

Figure No.
1



NOTE:
Site plan modified from Plate 2B in ***Results of the Remedial Investigation for Sierra Pacific Industries - Arcata Division Sawmills, Arcata, California***, dated January 30, 2003, prepared by EnviroNet.

GEOMATRIX

SITE PLAN
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Project No.
9329

Figure
2

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SETTLING BASIN

STORMWATER DISCHARGE - OUTFALL 4

SD

SCALE SHACK

WELL HOUSE

MAD RIVER SLOUGH BOUNDARY

MAD RIVER SLOUGH

MW-3

MW-15D

MW-4

MW-19D

MW-5

MW-6

MW-21

MW-7

SAW MILL BUILDING

MW-1

MW-2

MW-13D

STORMWATER DISCHARGE - OUTFALL 3

SETTLING BASIN

FORMER GREEN CHAIN AREA

SORTER

MAINTENANCE BUILDING

MW-20

MW-8

MW-9

MW-18

MW-10

MW-12

MW-14

STORMWATER DISCHARGE - OUTFALL 2

SETTLING BASIN

OIL SHED

MW-17

MW-11

MW-16D

CHIPPER

PLANER BUILDING

EXPLANATION

MW-1 MONITORING WELL (D = DEEP)

SITE BEST MANAGEMENT PRACTICES

APPROXIMATE LIMIT OF INTERIM REMEDIAL MEASURES SOURCE AREA REMOVAL (June - November 2003)

STORM DRAIN

N

0 50

SCALE IN FEET

BASEMAP SOURCE:
"SITE PLAN, SPI Arcata Mill" Sheet C-3 by Carlton Engineering, dated 5/6/02.

SAMPLE LOCATION DATA SOURCES:
Monitoring wells MW-20 and MW-21 surveyed and monitoring wells MW-1 through MW-19 re-surveyed on February 13, 2004 by Omsberg & Company Surveyors of Eureka, California. Horizontal and vertical control surveyed to North American Datum (NAD) of 1983 and National Geodetic Vertical Datum (NGVD) of 1929, respectively.

FORMER GREEN CHAIN AREA PLAN
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

GEOMATRIX

Project No. 9329

Figure 3

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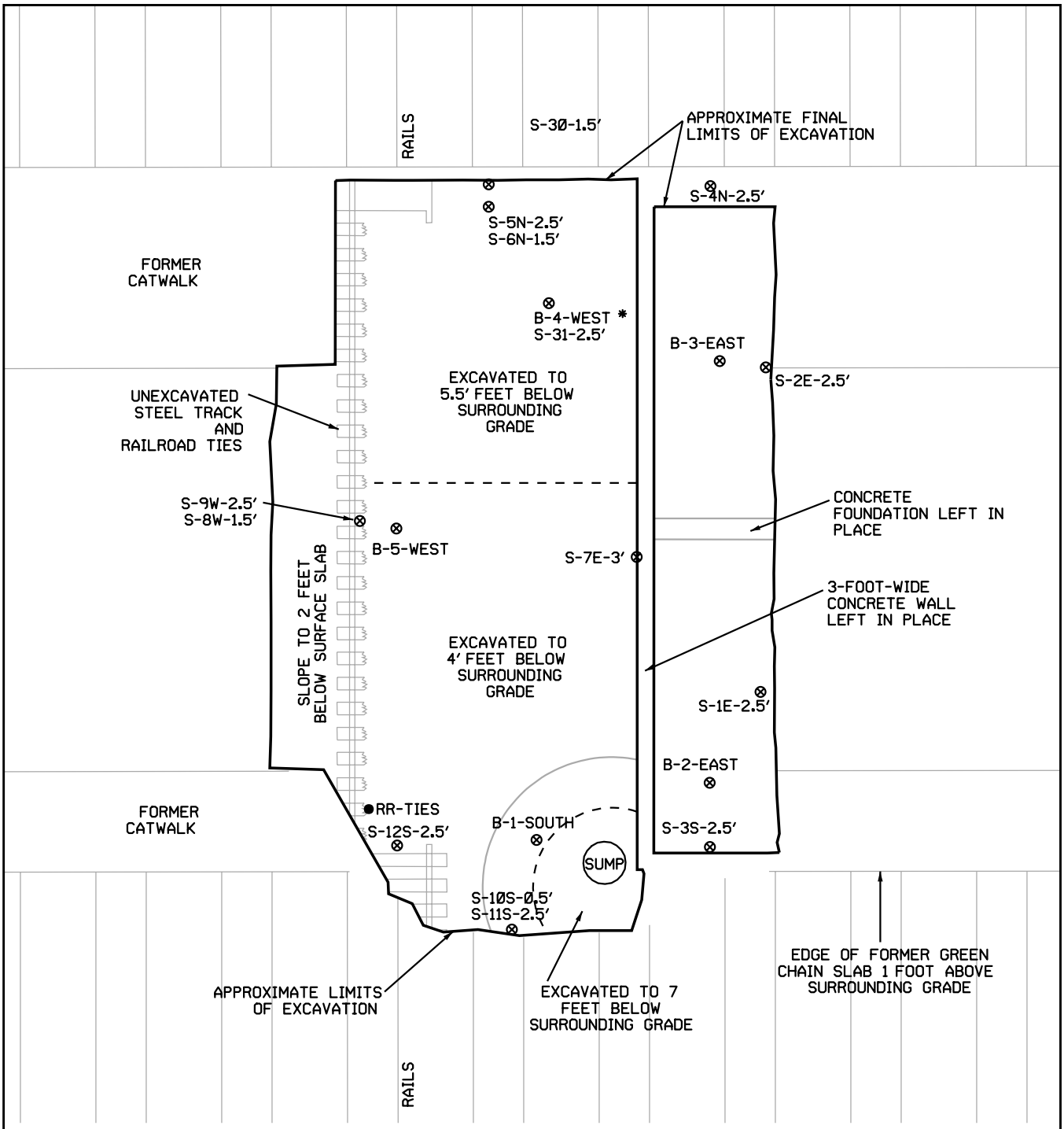

EXPLANATION

B-5-WEST ⊗ SOIL SAMPLE LOCATION AND DESIGNATION

RR-TIES ● WOOD SAMPLE LOCATION AND DESIGNATION

* MATERIAL REPRESENTED BY SAMPLE WAS REMOVED THROUGH SUBSEQUENT EXCAVATION IN THIS AREA

NOTE:
Base map provided by MFG, Inc., on 11/19/2003.

N

0 6

SCALE IN FEET

GEOMATRIX

FINAL SOURCE AREA EXCAVATION PLAN WITH CONFIRMATION SAMPLE LOCATIONS
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Project No. 9329

Figure 4

27-APR-2004 13:09 kuber
s:\9300\9329\task_11\04_0405_dirm_fig_04.dgn
\\OAKPRNT1\Splash_hold geomtrx.ctb

MAP_4mv.pen

27-APR-2004 13:08 kuber
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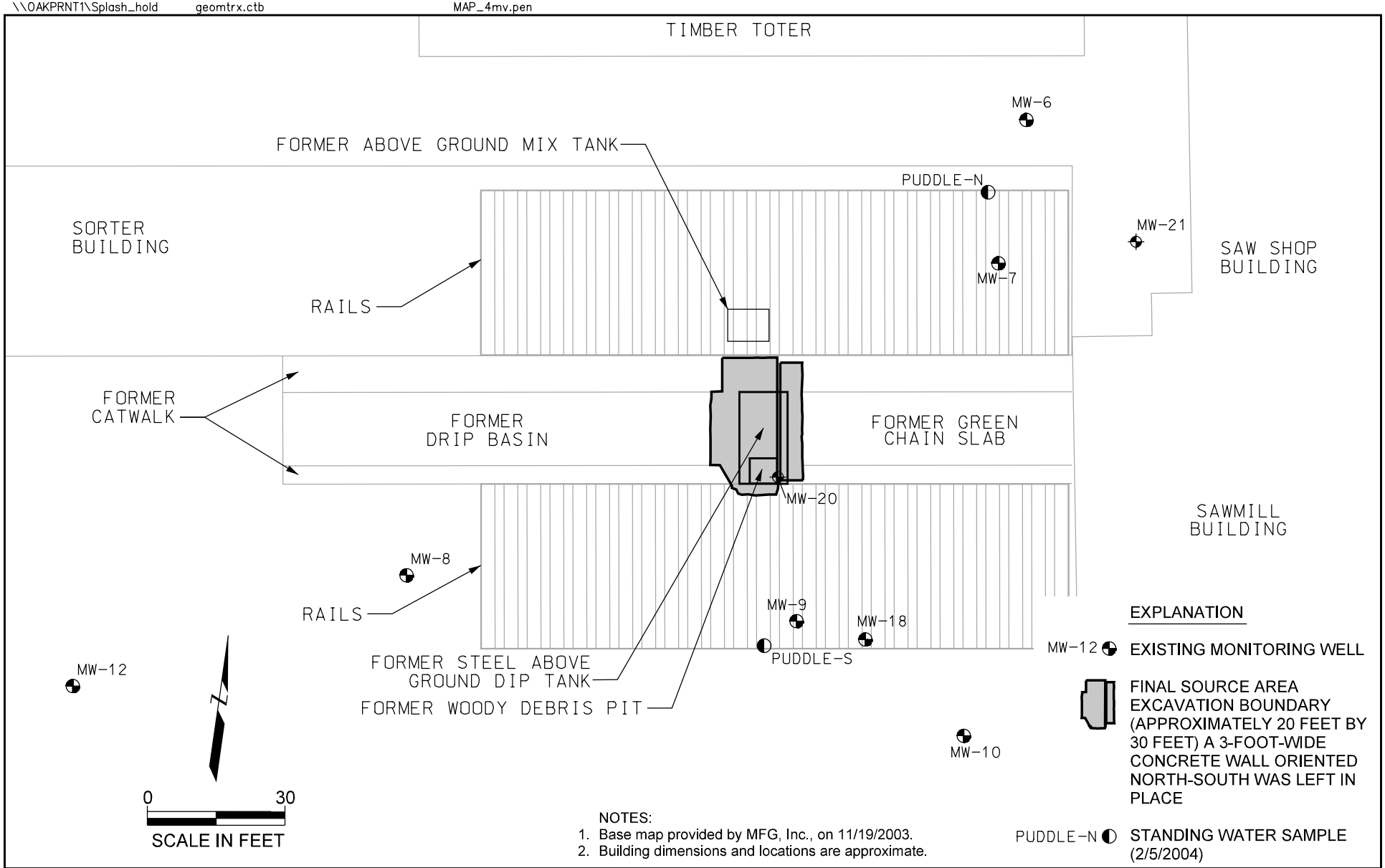
\\OAKPRNT1\Splash_hold geomtrx.ctb MAP_4mv.pen



NOTES:
1. Base map provided by MFG, Inc., on 11/19/2003.
2. Building dimensions and locations are approximate.

GEOMATRIX

FINAL SOURCE AREA EXCAVATION BOUNDARY AND POST-IRM PUDDLE SAMPLING LOCATIONS
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Project No. 9329

Figure 5

APPENDIX A

Laboratory Analytical Reports

A-1 Third Phase Excavation Samples
A-2 Wet Weight Dioxin and FuranAddendum Reports
A-3 Puddle Samples

A-1 Third Phase Excavation Samples

FILE 9329
TH

FRONTIER
ANALYTICAL LABORATORY

December 18, 2003

FAL Project ID: 2346

IRM 3rd Phase Excavation
SOIL SAMPLES
S-30-1.5
S-31-5.5

Mr. Ross Steenson
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

Dear Mr. Steenson,

Enclosed are the results for Frontier Analytical Laboratory project **2346**. This corresponds to Alpha Analytical Laboratories, Inc. subcontract order # A312032. The two soil samples received on 12/4/03 were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. Alpha Analytical Laboratories, Inc. requested a turnaround time of ten business days for project **2346**. Frontier Analytical Laboratory successfully fulfilled this request.

The following report consists of an Analytical Data section and a Sample Receipt section. The Analytical Data section contains the project-sample tracking log, qualifier reference guide, ML/MDL form and the analytical results. The Sample Receipt section contains the chain of custody, sample login form and sample photo. Also included is the Electronic Disk Deliverable (EDD) you requested.

If you have any questions regarding project **2346**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Bradley B. Silverbush
Director of Operations

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
dioxin@frontieranalytical.com

Analytical Data

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: 2346

Received on: **12/04/2003** Project Due: **12/19/2003** Storage: **R1**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
2346-001-SA	0	A312032	S-30-1.5 (ref. A311137-01)	EPA 1613 D/F	Soil	11/06/2003	10:10 am	11/05/2004
2346-002-SA	0	A312032	S-31-5.5 (ref. A311137-02)	EPA 1613 D/F	Soil	11/06/2003	10:45 am	11/05/2004

Qualifier Reference Guide

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J‡	Analyte concentration is below calibration range
M	Maximum possible concentration
NP	Not Provided
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection
-	Analyte Not Detected

‡ "J" values are equivalent to DNQ (detected but not quantified) for California Toxics Rule (CTR)/National Pollutant Discharge Elimination System (NPDES) samples

EPA Method 1613/8290 Solid MDL
(Sox/SDS Extraction)

FRONTIER ANALYTICAL LABORATORY

Analyte	ML	MDL
2,3,7,8-TCDD	0.500	0.132
1,2,3,7,8-PeCDD	2.50	0.223
1,2,3,4,7,8-HxCDD	2.50	0.346
1,2,3,6,7,8-HxCDD	2.50	0.381
1,2,3,7,8,9-HxCDD	2.50	0.343
1,2,3,4,6,7,8-HpCDD	2.50	0.318
OCDD	5.00	1.20
2,3,7,8-TCDF	0.500	0.100
1,2,3,7,8-PeCDF	2.50	0.232
2,3,4,7,8-PeCDF	2.50	0.217
1,2,3,4,7,8-HxCDF	2.50	0.114
1,2,3,6,7,8-HxCDF	2.50	0.106
1,2,3,7,8,9-HxCDF	2.50	0.117
2,3,4,6,7,8-HxCDF	2.50	0.147
1,2,3,4,6,7,8-HpCDF	2.50	0.140
1,2,3,4,7,8,9-HpCDF	2.50	0.155
OCDF	5.00	0.498

Project **1370**, Extracted 11/04/02; analyzed 11/08/02. Based on 10g sample, pg/g.

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2346-001-MB
Client ID: Method Blank
Matrix: Soil
Extraction Batch No.: X0143

Date Extracted: 12/8/03
Date Received: NA
Amount: 10.00 g
% Solids: NA

ICal: PCDDFAL2-9-07-03 Acquired: 9-DEC-03
GC Column: db5
Units: pg/g WHO TEQ: 0.00
MS/MSD Batch No.: X0121

Compound	Conc	DL	Qual	WHO Tox
2,3,7,8-TCDD	-	0.204		-
1,2,3,7,8-PeCDD	-	0.261		-
1,2,3,4,7,8-HxCDD	-	0.227		-
1,2,3,6,7,8-HxCDD	-	0.234		-
1,2,3,7,8,9-HxCDD	-	0.200		-
1,2,3,4,6,7,8-HpCDD	-	0.389		-
OCDD	-	0.970		-
2,3,7,8-TCDF	-	0.0943		-
1,2,3,7,8-PeCDF	-	0.319		-
2,3,4,7,8-PeCDF	-	0.318		-
1,2,3,4,7,8-HxCDF	-	0.0949		-
1,2,3,6,7,8-HxCDF	-	0.113		-
2,3,4,6,7,8-HxCDF	-	0.118		-
1,2,3,7,8,9-HxCDF	-	0.141		-
1,2,3,4,6,7,8-HpCDF	-	0.122		-
1,2,3,4,7,8,9-HpCDF	-	0.142		-
OCDF	-	0.552		-

Compound	Conc	DL	Qual	#Hom
Total Tetra-Dioxins	-	0.204		0
Total Penta-Dioxins	-	0.261		0
Total Hexa-Dioxins	-	0.234		0
Total Hepta-Dioxins	-	0.389		0
Total Tetra-Furans	-	0.0943		0
Total Penta-Furans	-	0.324		0
Total Hexa-Furans	-	0.141		0
Total Hepta-Furans	-	0.142		0

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	92.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	84.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	98.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	101	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	84.1	23.0 - 140	
13C-OCDD	74.8	17.0 - 157	
13C-2,3,7,8-TCDF	103	24.0 - 169	
13C-1,2,3,7,8-PeCDF	98.8	24.0 - 185	
13C-2,3,4,7,8-PeCDF	95.7	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	99.7	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	99.9	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	90.6	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	84.4	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	90.6	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	89.7	26.0 - 138	
13C-OCDF	70.4	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	109	35.0 - 197

Analyst: _____
Date: 12/11/03

Reviewed by: _____
Date: 12/16/03

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2346-001-OPR
Client ID: OPR
Matrix: Soil
Extraction Batch No.: X0143

Date Extracted: 12/8/03
Date Received: NA
Amount: 10.00 g
% Solids: NA

ICal: PCDDFAL2-9-07-03 Acquired: 9-DEC-03
GC Column: db5
Units: ng/mL WHO TEQ: NA
MS/MSD Batch No.: X0121

Compound	Conc	QC Limits
2,3,7,8-TCDD	8.87	6.70 - 15.8
1,2,3,7,8-PeCDD	49.4	35.0 - 71.0
1,2,3,4,7,8-HxCDD	47.6	35.0 - 82.0
1,2,3,6,7,8-HxCDD	47.3	38.0 - 67.0
1,2,3,7,8,9-HxCDD	45.2	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	49.8	35.0 - 70.0
OCDD	92.2	78.0 - 144
2,3,7,8-TCDF	9.28	7.50 - 15.8
1,2,3,7,8-PeCDF	47.2	40.0 - 67.0
2,3,4,7,8-PeCDF	47.5	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50.1	36.0 - 67.0
1,2,3,6,7,8-HxCDF	49.3	42.0 - 65.0
2,3,4,6,7,8-HxCDF	49.3	39.0 - 65.0
1,2,3,7,8,9-HxCDF	46.4	35.0 - 78.0
1,2,3,4,6,7,8-HpCDF	47.9	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	48.3	39.0 - 69.0
OCDF	97.5	63.0 - 170

Internal Standards	% Rec	QC Limits
13C-2,3,7,8-TCDD	111	20.0 - 175
13C-1,2,3,7,8-PeCDD	92.0	21.0 - 227
13C-1,2,3,4,7,8-HxCDD	115	21.0 - 193
13C-1,2,3,6,7,8-HxCDD	118	25.0 - 163
13C-1,2,3,4,6,7,8-HpCDD	93.6	26.0 - 166
13C-OCDD	83.9	13.0 - 198
13C-2,3,7,8-TCDF	114	22.0 - 152
13C-1,2,3,7,8-PeCDF	102	21.0 - 192
13C-2,3,4,7,8-PeCDF	97.2	13.0 - 328
13C-1,2,3,4,7,8-HxCDF	120	19.0 - 202
13C-1,2,3,6,7,8-HxCDF	123	21.0 - 159
13C-2,3,4,6,7,8-HxCDF	111	17.0 - 205
13C-1,2,3,7,8,9-HxCDF	105	22.0 - 176
13C-1,2,3,4,6,7,8-HpCDF	100	21.0 - 158
13C-1,2,3,4,7,8,9-HpCDF	100	20.0 - 186
13C-OCDF	81.2	13.0 - 198

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	103	31.0 - 191

Analyst: _____
Date: 12/11/03

Reviewed by: _____
Date: 12/16/03

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2346-001-SA
Client ID: S-30-1.5 (A311137-01)
Matrix: Soil
Extraction Batch No.: X0143

Date Extracted: 12/8/03
Date Received: 12/4/03
Amount: 10.01 g
% Solids: 87.2

ICal: PCDDFAL2-9-07-03 Acquired: 10-DEC-03
GC Column: DB5
Units: pg/g WHO TEQ: 18.0
MS/MSD Batch No.: X0121

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	-	0.232		-					
1,2,3,7,8-PeCDD	-	0.495		-					
1,2,3,4,7,8-HxCDD	0.968	-	J	0.0968					
1,2,3,6,7,8-HxCDD	20.3	-		2.03	Total Tetra-Dioxins	10.9	-		2
1,2,3,7,8,9-HxCDD	2.88	-		0.288	Total Penta-Dioxins	139	-		3
1,2,3,4,6,7,8-HpCDD	997	-		9.97	Total Hexa-Dioxins	619	-		6
OCDD	13200	-		1.32	Total Hepta-Dioxins	2230	-		2
2,3,7,8-TCDF	-	0.193		-					
1,2,3,7,8-PeCDF	-	0.757		-					
2,3,4,7,8-PeCDF	-	0.457		-					
1,2,3,4,7,8-HxCDF	3.15	-		0.315					
1,2,3,6,7,8-HxCDF	1.43	-	J	0.143					
2,3,4,6,7,8-HxCDF	3.50	-		0.350					
1,2,3,7,8,9-HxCDF	-	0.561		-	Total Tetra-Furans	3.46	-	M	3
1,2,3,4,6,7,8-HpCDF	301	-		3.01	Total Penta-Furans	72.0	-		3
1,2,3,4,7,8,9-HpCDF	22.9	-		0.229	Total Hexa-Furans	372	-		7
OCDF	1970	-		0.197	Total Hepta-Furans	1210	-		4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	105	25.0 - 164	
13C-1,2,3,7,8-PeCDD	84.7	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	104	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	110	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	81.8	23.0 - 140	
13C-OCDD	66.8	17.0 - 157	
13C-2,3,7,8-TCDF	97.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	85.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	81.6	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	94.6	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	98.9	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	87.5	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	82.2	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	74.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	72.2	26.0 - 138	
13C-OCDF	57.8	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	104	35.0 - 197

Analyst: _____
Date: 12/11/03

Reviewed by: _____
Date: 12/16/03

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2346-002-SA
Client ID: S-31-5.5 (A311137-02)
Matrix: Soil
Extraction Batch No.: X0143

Date Extracted: 12/8/03
Date Received: 12/4/03
Amount: 10.03 g
% Solids: 88.2

ICal: PCDDFAL2-9-07-03 Acquired: 10-DEC-03
GC Column: DB5
Units: pg/g WHO TEQ: 5.59
MS/MSD Batch No.: X0121

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	-	0.147		-					
1,2,3,7,8-PeCDD	-	0.374		-					
1,2,3,4,7,8-HxCDD	-	0.656		-					
1,2,3,6,7,8-HxCDD	5.99	-		0.599	Total Tetra-Dioxins	2.60	-		2
1,2,3,7,8,9-HxCDD	1.12	-	J	0.112	Total Penta-Dioxins	13.2	-		1
1,2,3,4,6,7,8-HpCDD	352	-		3.52	Total Hexa-Dioxins	97.4	-		5
OCDD	4960	-		0.496	Total Hepta-Dioxins	927	-		2
2,3,7,8-TCDF	-	0.196		-					
1,2,3,7,8-PeCDF	-	0.624		-					
2,3,4,7,8-PeCDF	-	0.600		-					
1,2,3,4,7,8-HxCDF	-	0.435		-					
1,2,3,6,7,8-HxCDF	-	0.482		-					
2,3,4,6,7,8-HxCDF	1.79	-	J	0.179					
1,2,3,7,8,9-HxCDF	-	0.741		-	Total Tetra-Furans	-	0.350		0
1,2,3,4,6,7,8-HpCDF	58.4	-		0.584	Total Penta-Furans	2.61	-		1
1,2,3,4,7,8,9-HpCDF	5.54	-		0.0554	Total Hexa-Furans	27.9	-		4
OCDF	406	-		0.0406	Total Hepta-Furans	241	-		3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	99.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	80.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	112	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	117	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	87.0	23.0 - 140	
13C-OCDD	73.9	17.0 - 157	
13C-2,3,7,8-TCDF	99.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	83.9	24.0 - 185	
13C-2,3,4,7,8-PeCDF	78.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	101	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	104	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	93.1	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	85.2	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	78.4	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	76.7	26.0 - 138	
13C-OCDF	62.8	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	99.3	35.0 - 197

Analyst: _____
Date: 12/14/03

Reviewed by: _____
Date: 12/16/03

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2297-001-MS/MSD
Client ID: S3J0097-05
Matrix: Soil
Extraction Batch No.: X0121

Date Extracted: 10/29/03
Date Received: 10/21/03
Sample Amount: 10.02 g
MS Amount: 10.02 g
MSD Amount: 10.02 g

ICal: PCDDFAL2-9-07-03
GC Column: db5
Units: pg
MS/MSD Batch No.: X0121

MS Acquired: 30-OCT-03
MSD Acquired: 30-OCT-03
WHO TEQ: NA
% Solids: 98.2

Compound	Amount Spiked	Sample Amount	MS Amount	MSD Amount	% RSD	Qual
2,3,7,8-TCDD	200	-	194	185	4.75	
1,2,3,7,8-PeCDD	1000	-	992	988	0.400	
1,2,3,4,7,8-HxCDD	1000	-	946	960	1.47	
1,2,3,6,7,8-HxCDD	1000	-	965	935	3.16	
1,2,3,7,8,9-HxCDD	1000	-	935	926	0.970	
1,2,3,4,6,7,8-HpCDD	1000	-	1040	1020	1.94	
OCDD	2000	-	1840	1890	2.68	
2,3,7,8-TCDF	200	-	185	191	3.19	
1,2,3,7,8-PeCDF	1000	-	976	988	1.22	
2,3,4,7,8-PeCDF	1000	-	946	961	1.57	
1,2,3,4,7,8-HxCDF	1000	-	1000	979	2.12	
1,2,3,6,7,8-HxCDF	1000	-	999	976	2.33	
2,3,4,6,7,8-HxCDF	1000	-	1020	1000	1.98	
1,2,3,7,8,9-HxCDF	1000	-	967	989	2.25	
1,2,3,4,6,7,8-HpCDF	1000	-	956	959	0.310	
1,2,3,4,7,8,9-HpCDF	1000	-	950	968	1.88	
OCDF	2000	-	1950	1870	4.19	

Internal Standards		% Rec	% Rec	% Rec	QC Limits
13C-2,3,7,8-TCDD	2000	105	106	108	25.0 - 150
13C-1,2,3,7,8-PeCDD	2000	96.7	98.1	101	25.0 - 150
13C-1,2,3,4,7,8-HxCDD	2000	111	109	111	25.0 - 150
13C-1,2,3,6,7,8-HxCDD	2000	110	108	112	25.0 - 150
13C-1,2,3,4,6,7,8-HpCDD	2000	85.6	91.8	94.7	25.0 - 150
13C-OCDD	4000	64.3	73.5	70.6	25.0 - 150
13C-2,3,7,8-TCDF	2000	106	105	108	25.0 - 150
13C-1,2,3,7,8-PeCDF	2000	96.2	98.0	105	25.0 - 150
13C-2,3,4,7,8-PeCDF	2000	92.7	98.2	102	25.0 - 150
13C-1,2,3,4,7,8-HxCDF	2000	106	107	113	25.0 - 150
13C-1,2,3,6,7,8-HxCDF	2000	104	109	113	25.0 - 150
13C-2,3,4,6,7,8-HxCDF	2000	99.9	98.8	103	25.0 - 150
13C-1,2,3,7,8,9-HxCDF	2000	97.0	100	99.7	25.0 - 150
13C-1,2,3,4,6,7,8-HpCDF	2000	84.8	95.6	89.5	25.0 - 150
13C-1,2,3,4,7,8,9-HpCDF	2000	89.4	103	100	25.0 - 150
13C-OCDF	4000	61.5	70.4	70.3	25.0 - 150
Cleanup Surrogate					
37Cl-2,3,7,8-TCDD	800	97.9	103	106	25.0 - 150

Analyst: [signature]
Date: 12/11/03

Reviewed by: [signature]
Date: 12/16/03

Sample Receipt

2346/4°

SUBCONTRACT ORDER

Alpha Analytical Laboratories, Inc.

A312032

BILLING SPI

SENDING LABORATORY:

Alpha Analytical Laboratories, Inc.
P.O. Box 1508 (208 Mason St.)
Ukiah, CA 95482
Phone: (707)468-0401
Fax: (707)468-5267
Project Manager: Sheri L. Speaks

RECEIVING LABORATORY:

Forensic Analytical
3777 Depot Rd., Ste 409
Hayward, CA 94545
Phone :(510) 887-8828
Fax: -
Terms: Net 30

Analysis	Due	Expires	Comments
A312032-01 S-30-1.5 (ref. A311137-01) [Soil]		**Sampled 11/06/03 10:10 Pacific**	
Dioxins Full List	12/16/03 12:00	11/05/04 10:10	
Containers Supplied:			
Other (A)			
A312032-02 S-31-5.5 (ref. A311137-02) [Soil]		**Sampled 11/06/03 10:45 Pacific**	
Dioxins Full List	12/16/03 12:00	11/05/04 10:45	
Containers Supplied:			
Other (A)			

Method EPA 1613 please

☐ *Report to State*

System Name: _____ **Employed by:** _____

User ID: _____ **Sampler:** _____

System Number: _____

12/4/03. Confirmed w/ Sheri to use number circled in red as sample ID. KL.

Released By	Date	Received By	Date
[signature]	12/2/03	[signature]	12/4/03 @ 1110
Melissa Cornea	12/2/03		
Released By	Date	Received By	Date

Frontier Analytical Laboratory

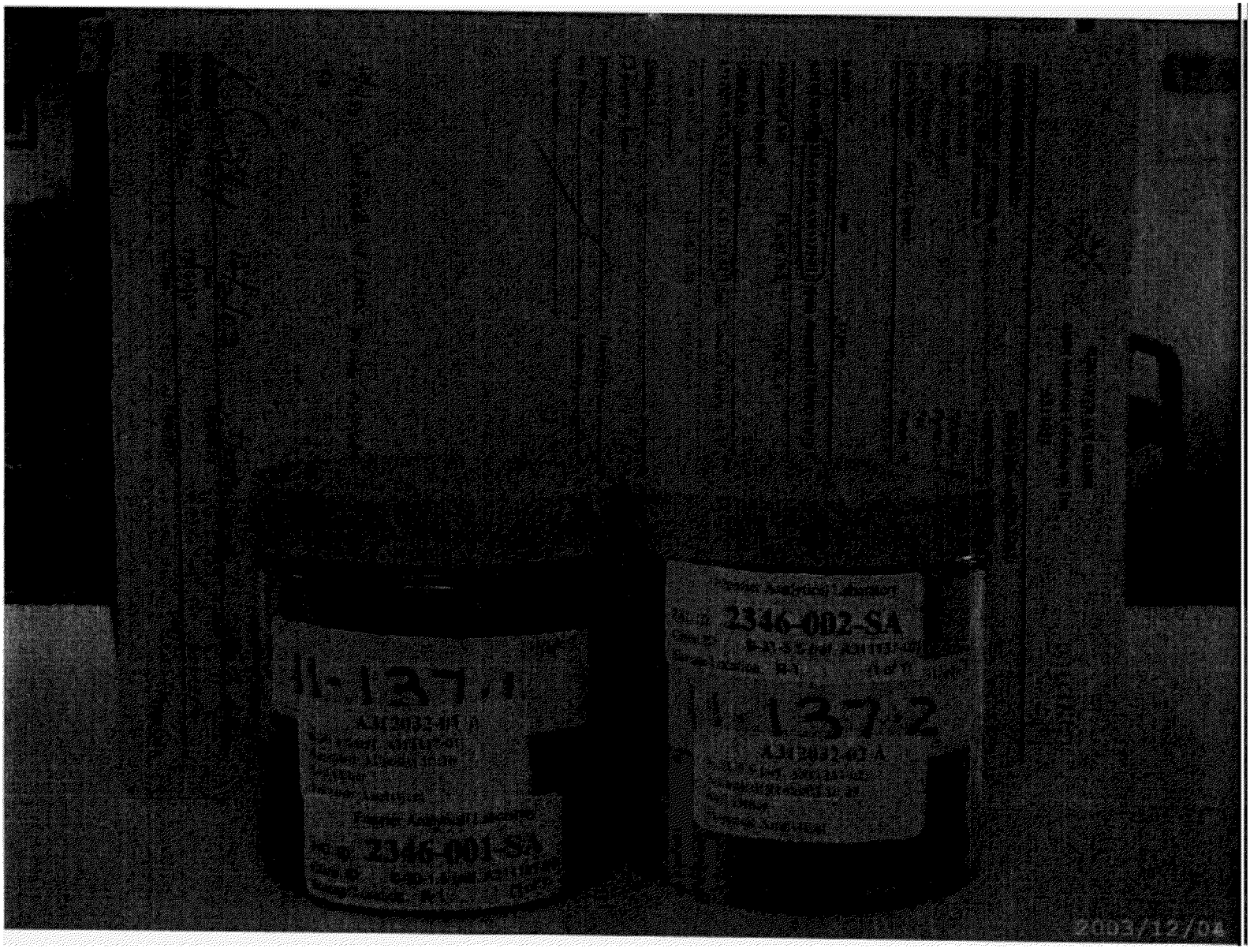
Sample Login Form

FAL Project ID: **2346**

Client:	Geomatrix Consultants, Inc.
Client Project ID:	A312032
Date Received:	12/04/2003
Time Received:	11:10 am
Received By:	NM
Logged In By:	KZ
# of Samples Received:	2
Duplicates:	0
Storage Location:	R1

Method of Delivery:	Courier
Tracking Number:	
Shipping Container Received Intact	Yes
Custody seals(s) present?	No
Custody seals(s) intact?	No
Sample Arrival Temperature (C)	4
Cooling Method	Blue Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	No
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	11/05/2004
Adequate Sample Volume	Yes

Anomalies or additional comments:


2346-002-SA
2346-001-SA
2003/12/04

A-2 Wet Weight Dioxin and Furan Addendum Reports

FILE 9329

FRONTIER
ANALYTICAL LABORATORY

April 8, 2004

FAL Project ID: 1759 (Addendum)

RECEIVED 4/12/2004

TASK 11 IRM
Samples from Shallow Pit
Beneath the South Catwalk

Mr. Ross Steenson
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

Dear Mr. Steenson,

Enclosed are the addendum results for Frontier Analytical Laboratory project **1759**. The addendum report contains the wet weight results that you requested on 3/31/2004. This project consisted of two solid samples that we received on 5/9/2003 from Alpha Analytical. The wet weight data sheets have been marked as "Wet Weight" and do not have a % Solids field on them.

If you have any questions regarding the addendum to project **1759**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Dan Vickers

Dan Vickers
Director of Air Toxics

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
dioxin@frontieranalytical.com

EPA Method 1613
PCDD/F

UCW - South Wood

FRONTIER ANALYTICAL LABORATORY

FAL ID: 1759-01-SA | Date Extracted: 5/19/03 | ICal: PCDDFAL1-3-8 | Acquired: 21-MAY-03
Client ID: A305156-01 | Date Received: 5/9/03 | GC Column: db5
Matrix: Solid | Amount: 3.35 g | Units: pg/g | WHO TEQ: 578000
Extraction Batch No.: 1759 | Wet Weight | MS/MSD Batch No.: 1769 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	194	-		194					
1,2,3,7,8-PeCDD	11100	-		11100					
1,2,3,4,7,8-HxCDD	257000	-	*	25700					
1,2,3,6,7,8-HxCDD	1550000	-	*	155000	Total Tetra-Dioxins	1900	-		16
1,2,3,7,8,9-HxCDD	48300	-	*	4830	Total Penta-Dioxins	52800	-	M	12
1,2,3,4,6,7,8-HpCDD	13000000	-	*	130000	Total Hexa-Dioxins	3250000	-	*	7
OCDD	32800000	-	*	3280	Total Hepta-Dioxins	18700000	-	*	2
2,3,7,8-TCDF	96300	-	F	9630					
1,2,3,7,8-PeCDF	88000	-	*	4400					
2,3,4,7,8-PeCDF	249000	-	*,M,X	124000					
1,2,3,4,7,8-HxCDF	144000	-	*	14400					
1,2,3,6,7,8-HxCDF	64000	-	*	6400					
2,3,4,6,7,8-HxCDF	287000	-	*	28700					
1,2,3,7,8,9-HxCDF	155000	-	*	15500	Total Tetra-Furans	493000	-	D,M	18
1,2,3,4,6,7,8-HpCDF	4280000	-	*	42800	Total Penta-Furans	3250000	-	*,M,X	12
1,2,3,4,7,8,9-HpCDF	156000	-	*	1560	Total Hexa-Furans	13500000	-	*	9
OCDF	4590000	-	*	459	Total Hepta-Furans	16500000	-	*	3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	96.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	82.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	136	32.0 - 141	*
13C-1,2,3,6,7,8-HxCDD	111	28.0 - 130	*
13C-1,2,3,4,6,7,8-HpCDD	107	23.0 - 140	*
13C-OCDD	116	17.0 - 157	*
13C-2,3,7,8-TCDF	86.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	107	24.0 - 185	*
13C-2,3,4,7,8-PeCDF	113	21.0 - 178	*
13C-1,2,3,4,7,8-HxCDF	131	26.0 - 152	*
13C-1,2,3,6,7,8-HxCDF	104	26.0 - 123	*
13C-2,3,4,6,7,8-HxCDF	87.4	29.0 - 147	*
13C-1,2,3,7,8,9-HxCDF	78.6	28.0 - 136	*
13C-1,2,3,4,6,7,8-HpCDF	97.0	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	108	26.0 - 138	*
13C-OCDF	106	17.0 - 157	*

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	110	35.0 - 197	

* = Dilution

Acquired: 21-MAY-03
Acquired: 23-MAY-03

F = DB225 Confirmation

Acquired: 23-MAY-03

Analyst: _____
Date: 4/9/04

Reviewed by: DPV
Date: 4/9/2004

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EPA Method 1613
PCDD/F

UCW - South Sand

FRONTIER ANALYTICAL LABORATORY

FAL ID: 1759-02-SA | Date Extracted: 5/12/03 | ICal: PCDDFAL1-3-8 | Acquired: 13-MAY-03
Client ID: A305156-02 | Date Received: 5/9/03 | GC Column: db5
Matrix: Solid | Amount: 12.62 g | Units: pg/g | WHO TEQ: 4000
Extraction Batch No.: 1745 | Wet Weight | MS/MSD Batch No.: 1769 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	2.33	-		2.33					
1,2,3,7,8-PeCDD	97.0	-		97.0					
1,2,3,4,7,8-HxCDD	90.8	-		9.08					
1,2,3,6,7,8-HxCDD	12400	-		1240	Total Tetra-Dioxins	104	-		17
1,2,3,7,8,9-HxCDD	1260	-		126	Total Penta-Dioxins	925	-		10
1,2,3,4,6,7,8-HpCDD	96900	-	*	969	Total Hexa-Dioxins	31600	-		8
OCDD	214000	-	*	21.4	Total Hepta-Dioxins	133000	-		2
2,3,7,8-TCDF	185	-	F	18.5					
1,2,3,7,8-PeCDF	126	-		6.28					
2,3,4,7,8-PeCDF	422	-	M,X	211					
1,2,3,4,7,8-HxCDF	1310	-		131					
1,2,3,6,7,8-HxCDF	523	-		52.3					
2,3,4,6,7,8-HxCDF	1740	-		174					
1,2,3,7,8,9-HxCDF	294	-		29.4					
1,2,3,4,6,7,8-HpCDF	83400	-	*	834	Total Tetra-Furans	1850	-	D,M	20
1,2,3,4,7,8,9-HpCDF	5190	-		51.9	Total Penta-Furans	7590	-	D,M,X	15
OCDF	246000	-	*	24.6	Total Hexa-Furans	95900	-	*,D,M	11
					Total Hepta-Furans	420000	-	*	3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	88.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	112	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	91.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	95.2	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	98.3	23.0 - 140	*
13C-OCDD	92.6	17.0 - 157	*
13C-2,3,7,8-TCDF	96.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	113	24.0 - 185	
13C-2,3,4,7,8-PeCDF	96.4	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	89.7	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	89.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	81.2	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	77.9	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	99.4	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	81.5	26.0 - 138	
13C-OCDF	109	17.0 - 157	*

* = Dilution

Acquired: 21-MAY-03

F = DB225 Confirmation

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	94.3	35.0 - 197	*

Acquired: 23-MAY-03

Analyst: [signature]
Date: 4/7/04

Reviewed by: [signature]
Date: 4/9/2004

FILE 7327

FRONTIER
ANALYTICAL LABORATORY

April 8, 2004

RECEIVED 4/12/2004

FAL Project ID: 2102 (Addendum)

TASK 11 IRM

CONCRETE AND UPPER FILL MATERIAL SAMPLES

Mr. Ross Steenson
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

Dear Mr. Steenson,

Enclosed are the addendum results for Frontier Analytical Laboratory project **2102**. The addendum report contains the wet weight results that you requested on 3/31/2004. This project consisted of four solid samples that we received on 6/24/2003 from MFG, Incorporated. The wet weight data sheets have been marked as "Wet Weight" and do not have a % Solids field on them.

If you have any questions regarding the addendum to project **2102**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Dan Vickers

Dan Vickers
Director of Air Toxics

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
dioxin@frontieranalytical.com

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2102-001-SA
Client ID: S-1-1
Matrix: Solid
Extraction Batch No.: 0035

Date Extracted: 6/24/03
Date Received: 6/24/03
Amount: 12.56 g
Wet Weight

ICal: pcddfal1-3-8
GC Column: db5
Units: pg/g
MS/MSD Batch No.: 1769

Acquired: 25-JUN-03
WHO TEQ: 1150
Wet Weight

Compound	Conc	DL	Qual	WHO Tox
2,3,7,8-TCDD	0.904	-		0.904
1,2,3,7,8-PeCDD	21.2	-		21.2
1,2,3,4,7,8-HxCDD	39.4	-	*	3.94
1,2,3,6,7,8-HxCDD	3830	-	*	383
1,2,3,7,8,9-HxCDD	154	-	*	15.4
1,2,3,4,6,7,8-HpCDD	47500	-	*	475
OCDD	313000	-	B,*	31.3
2,3,7,8-TCDF	118	-	F	11.8
1,2,3,7,8-PeCDF	99.8	-		4.99
2,3,4,7,8-PeCDF	136	-		68.2
1,2,3,4,7,8-HxCDF	208	-		20.8
1,2,3,6,7,8-HxCDF	122	-		12.2
2,3,4,6,7,8-HxCDF	368	-		36.8
1,2,3,7,8,9-HxCDF	211	-		21.1
1,2,3,4,6,7,8-HpCDF	3870	-		38.7
1,2,3,4,7,8,9-HpCDF	137	-		1.37
OCDF	4830	-	*	0.483

Compound	Conc	DL	Qual	#Hom
Total Tetra-Dioxins	412	-		14
Total Penta-Dioxins	984	-		10
Total Hexa-Dioxins	9970	-	B,*	7
Total Hepta-Dioxins	79000	-	*	2
Total Tetra-Furans	1850	-	D,M	22
Total Penta-Furans	6050	-		14
Total Hexa-Furans	14600	-		11
Total Hepta-Furans	14300	-		3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	91.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	86.5	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	87.0	32.0 - 141	*
13C-1,2,3,6,7,8-HxCDD	81.5	28.0 - 130	*
13C-1,2,3,4,6,7,8-HpCDD	103	23.0 - 140	*
13C-OCDD	154	17.0 - 157	*
13C-2,3,7,8-TCDF	90.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	95.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	96.6	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	122	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	115	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	105	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	95.0	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	118	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	113	26.0 - 138	
13C-OCDF	99.7	17.0 - 157	*

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	101	35.0 - 197	

* = Dilution

Acquired: 26-JUN-03

F = DB225 Confirmation

Acquired: 26-JUN-03

Analyst: _____
Date: 4/7/04

Reviewed by: DN
Date: 4/7/2004

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2102-002-SA | Date Extracted: 6/24/03 | ICal: pcddfal1-3-8 | Acquired: 25-JUN-03
Client ID: S-2-1 | Date Received: 6/24/03 | GC Column: db5
Matrix: Solid | Amount: 12.37 g | Units: pg/g | WHO TEQ: 589
Extraction Batch No.: 0035 | Wet Weight | MS/MSD Batch No.: 1769 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	7.57	-		7.57					
1,2,3,7,8-PeCDD	48.4	-		48.4					
1,2,3,4,7,8-HxCDD	62.5	-	*	6.25					
1,2,3,6,7,8-HxCDD	1690	-	*	169	Total Tetra-Dioxins	473	-		18
1,2,3,7,8,9-HxCDD	192	-	*	19.2	Total Penta-Dioxins	1270	-		10
1,2,3,4,6,7,8-HpCDD	20800	-	*	208	Total Hexa-Dioxins	6700	-	B,*	8
OCDD	107000	-	B,*	10.7	Total Hepta-Dioxins	35000	-	*	2
2,3,7,8-TCDF	55.1	-	F	5.51					
1,2,3,7,8-PeCDF	36.3	-		1.81					
2,3,4,7,8-PeCDF	46.2	-		23.1					
1,2,3,4,7,8-HxCDF	109	-		10.9					
1,2,3,6,7,8-HxCDF	71.7	-		7.17					
2,3,4,6,7,8-HxCDF	173	-		17.3					
1,2,3,7,8,9-HxCDF	81.0	-		8.10	Total Tetra-Furans	932	-		17
1,2,3,4,6,7,8-HpCDF	4300	-	*	43.0	Total Penta-Furans	2910	-		15
1,2,3,4,7,8,9-HpCDF	175	-	*	1.75	Total Hexa-Furans	8640	-		11
OCDF	9550	-	*	0.955	Total Hepta-Furans	16100	-	*	4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	94.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	91.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	111	32.0 - 141	*
13C-1,2,3,6,7,8-HxCDD	105	28.0 - 130	*
13C-1,2,3,4,6,7,8-HpCDD	95.9	23.0 - 140	*
13C-OCDD	99.7	17.0 - 157	*
13C-2,3,7,8-TCDF	93.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	100	24.0 - 185	
13C-2,3,4,7,8-PeCDF	98.6	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	126	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	121	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	110	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	102	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	122	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	113	26.0 - 138	*
13C-OCDF	102	17.0 - 157	*

* = Dilution

Acquired: 26-JUN-03

F = DB225 Confirmation

Acquired: 26-JUN-03

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	102	35.0 - 197	

Analyst: [signature]
Date: 4/7/04

Reviewed by: [signature]
Date: 4/9/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2102-003-SA
Client ID: C-1
Matrix: Solid
Extraction Batch No.: 0035

Date Extracted: 6/24/03
Date Received: 6/24/03
Amount: 11.35 g
Wet Weight

ICal: pcddfal1-3-8
GC Column: db5
Units: pg/g
MS/MSD Batch No.: 1769

Acquired: 25-JUN-03
WHO TEQ: 2740
Wet Weight

Compound	Conc	DL	Qual	WHO Tox
2,3,7,8-TCDD	22.2	-		22.2
1,2,3,7,8-PeCDD	252	-		252
1,2,3,4,7,8-HxCDD	206	-	*	20.6
1,2,3,6,7,8-HxCDD	13300	-	*	1330
1,2,3,7,8,9-HxCDD	4230	-	*	423
1,2,3,4,6,7,8-HpCDD	57800	-	*	578
OCDD	122000	-	B,*	12.2
2,3,7,8-TCDF	34.4	-	F	3.44
1,2,3,7,8-PeCDF	44.3	-		2.22
2,3,4,7,8-PeCDF	45.9	-		22.9
1,2,3,4,7,8-HxCDF	79.7	-		7.97
1,2,3,6,7,8-HxCDF	139	-		13.9
2,3,4,6,7,8-HxCDF	216	-		21.6
1,2,3,7,8,9-HxCDF	41.9	-		4.19
1,2,3,4,6,7,8-HpCDF	2040	-		20.4
1,2,3,4,7,8,9-HpCDF	88.1	-		0.881
OCDF	2770	-	*	0.277

Compound	Conc	DL	Qual	#Hom
Total Tetra-Dioxins	392	*		18
Total Penta-Dioxins	2310	*		10
Total Hexa-Dioxins	67000	*	B,*	7
Total Hepta-Dioxins	86100	*	*	2
Total Tetra-Furans	1230	-		17
Total Penta-Furans	2600	-		14
Total Hexa-Furans	5040	-		11
Total Hepta-Furans	5530	-		3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	93.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	92.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	92.1	32.0 - 141	*
13C-1,2,3,6,7,8-HxCDD	102	28.0 - 130	*
13C-1,2,3,4,6,7,8-HpCDD	112	23.0 - 140	*
13C-OCDD	110	17.0 - 157	*
13C-2,3,7,8-TCDF	85.9	24.0 - 169	
13C-1,2,3,7,8-PeCDF	96.0	24.0 - 185	
13C-2,3,4,7,8-PeCDF	90.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	102	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	113	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	86.6	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	82.8	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	99.5	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	100	26.0 - 138	
13C-OCDF	94.6	17.0 - 157	*

* = Dilution

Acquired: 26-JUN-03

F = DB225 Confirmation

Acquired: 26-JUN-03

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	102	35.0 - 197	

Analyst: [signature]
Date: 4/7/04

Reviewed by: DPV
Date: 4/9/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2102-004-SA
Client ID: C-2
Matrix: Solid
Extraction Batch No.: 0035

Date Extracted: 6/24/03
Date Received: 6/24/03
Amount: 10.49 g
Wet Weight

ICal: pcddfal1-3-8
GC Column: db5
Units: pg/g
MS/MSD Batch No.: 1769

Acquired: 25-JUN-03
WHO TEQ: 50300
Wet Weight

Compound	Conc	DL	Qual	WHO Tox
2,3,7,8-TCDD	54.7	-		54.7
1,2,3,7,8-PeCDD	982	-		982
1,2,3,4,7,8-HxCDD	1500	-	*	150
1,2,3,6,7,8-HxCDD	221000	-	*	22100
1,2,3,7,8,9-HxCDD	29500	-	*	2950
1,2,3,4,6,7,8-HpCDD	1840000	-	*	18400
OCDD	10000000	-	B,*	1000
2,3,7,8-TCDF	2000	-	F	200
1,2,3,7,8-PeCDF	2300	-		115
2,3,4,7,8-PeCDF	3180	-		1590
1,2,3,4,7,8-HxCDF	4050	-	*	405
1,2,3,6,7,8-HxCDF	3230	-	*	323
2,3,4,6,7,8-HxCDF	8780	-	*	878
1,2,3,7,8,9-HxCDF	3650	-	*	365
1,2,3,4,6,7,8-HpCDF	75200	-	*	752
1,2,3,4,7,8,9-HpCDF	3020	-	*	30.2
OCDF	73100	-	*	7.31

Compound	Conc	DL	Qual	#Hom
Total Tetra-Dioxins	1070	-		16
Total Penta-Dioxins	9570	-		10
Total Hexa-Dioxins	1220000	-	B,*	7
Total Hepta-Dioxins	3380000	-	*	2
Total Tetra-Furans	24700	-	D,M	22
Total Penta-Furans	161000	-	*	13
Total Hexa-Furans	338000	-	*	13
Total Hepta-Furans	282000	-	*	4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	102	25.0 - 164	
13C-1,2,3,7,8-PeCDD	98.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	126	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	127	28.0 - 130	*
13C-1,2,3,4,6,7,8-HpCDD	70.9	23.0 - 140	*
13C-OCDD	6.70	17.0 - 157	A,*
13C-2,3,7,8-TCDF	99.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	107	24.0 - 185	
13C-2,3,4,7,8-PeCDF	106	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	149	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	116	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	126	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	135	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	104	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	138	26.0 - 138	*
13C-OCDF	48.6	17.0 - 157	*

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	113	35.0 - 197	

* = Dilution

Acquired: 26-JUN-03

F = DB225 Confirmation

Acquired: 26-JUN-03

Analyst: [signature]
Date: 4/7/04

Reviewed by: [signature]
Date: 4/9/2004

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FILE 9329

FRONTIER
ANALYTICAL LABORATORY

April 8, 2004

RECEIVED 4/12 2004

FAL Project ID: 2133 (Addendum)

TASK 11 IRM

FIRST PHASE OF EXCAVATION SAMPLES

Mr. Ross Steenson
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

Dear Mr. Steenson,

Enclosed are the addendum results for Frontier Analytical Laboratory project **2133**. The addendum report contains the wet weight results that you requested on 3/31/2004. This project consisted of two soil samples that were received on 7/15/2003 from Alpha Analytical Laboratories. The wet weight data sheets have been marked as "Wet Weight" and do not have a % Solids field on them.

If you have any questions regarding the addendum to project **2133**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Dan Vickers

Dan Vickers
Director of Air Toxics

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
dioxin@frontieranalytical.com

EPA Method 1613
PCDD/F

PIT UNDER 2ND SLAB

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2133-001-SA | Date Extracted: 7/22/03 | ICal: PCDDFAL1-6-13 | Acquired: 24-JUL-03
Client ID: A307302-01 | Date Received: 7/15/03 | GC Column: db5
Matrix: Soil | Amount: 13.12 g | Units: pg/g | WHO TEQ: 1980
Extraction Batch No.: 0056 | Wet Weight | MS/MSD Batch No.: 0038 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	18.5	-		18.5					
1,2,3,7,8-PeCDD	185	-		185					
1,2,3,4,7,8-HxCDD	221	-		22.1					
1,2,3,6,7,8-HxCDD	3030	-		303	Total Tetra-Dioxins	34.0	-		8
1,2,3,7,8,9-HxCDD	227	-		22.7	Total Penta-Dioxins	284	-		8
1,2,3,4,6,7,8-HpCDD	104000	-	*	1040	Total Hexa-Dioxins	9290	-		6
OCDD	988000	-	B,*	98.8	Total Hepta-Dioxins	192000	-	*	2
2,3,7,8-TCDF	0.704	-		0.0704					
1,2,3,7,8-PeCDF	2.63	-		0.132					
2,3,4,7,8-PeCDF	4.43	-		2.22					
1,2,3,4,7,8-HxCDF	238	-		23.8					
1,2,3,6,7,8-HxCDF	62.1	-		6.21					
2,3,4,6,7,8-HxCDF	198	-		19.8					
1,2,3,7,8,9-HxCDF	57.2	-		5.72	Total Tetra-Furans	38.4	-		12
1,2,3,4,6,7,8-HpCDF	20200	-	*	202	Total Penta-Furans	217	-	D,M	14
1,2,3,4,7,8,9-HpCDF	2300	-	*	23.0	Total Hexa-Furans	18000	-	D,M	11
OCDF	98400	-	*	9.84	Total Hepta-Furans	127000	-	*	4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	101	25.0 - 164	
13C-1,2,3,7,8-PeCDD	99.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	102	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	116	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	85.9	23.0 - 140	*
13C-OCDD	41.8	17.0 - 157	*
13C-2,3,7,8-TCDF	98.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	93.0	24.0 - 185	
13C-2,3,4,7,8-PeCDF	92.2	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	100	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	98.9	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	97.6	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	105	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	97.6	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	96.3	26.0 - 138	*
13C-OCDF	86.3	17.0 - 157	*

* = Dilution

Acquired: 24-JUL-03

F = DB225 Confirmation

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	100	35.0 - 197	

Acquired: 24-JUL-03

Analyst: _____
Date: 4/7/04

Reviewed by: DPN
Date: 4/7/2004

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EPA Method 1613
PCDD/F

PIT BOTTOM

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2133-002-SA | Date Extracted: 7/22/03 | ICal: PCDDFAL1-6-13 | Acquired: 24-JUL-03
Client ID: A307302-02 | Date Received: 7/15/03 | GC Column: db5
Matrix: Soil | Amount: 12.70 g | Units: pg/g | WHO TEQ: 8540
Extraction Batch No.: 0056 | Wet Weight | MS/MSD Batch No.: 0038 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	80.0	-		80.0					
1,2,3,7,8-PeCDD	505	-		505					
1,2,3,4,7,8-HxCDD	931	-		93.1					
1,2,3,6,7,8-HxCDD	18800	-		1880	Total Tetra-Dioxins	157	-		14
1,2,3,7,8,9-HxCDD	1280	-		128	Total Penta-Dioxins	1160	-		10
1,2,3,4,6,7,8-HpCDD	359000	-	*	3590	Total Hexa-Dioxins	50000	-		7
OCDD	1650000	-	B,*	165	Total Hepta-Dioxins	560000	-	*	2
2,3,7,8-TCDF	199	-	F	19.9					
1,2,3,7,8-PeCDF	299	-		14.9					
2,3,4,7,8-PeCDF	409	-		204					
1,2,3,4,7,8-HxCDF	1670	-		167					
1,2,3,6,7,8-HxCDF	654	-		65.4					
2,3,4,6,7,8-HxCDF	1840	-		184					
1,2,3,7,8,9-HxCDF	730	-		73.0	Total Tetra-Furans	1650	-	D,M	23
1,2,3,4,6,7,8-HpCDF	123000	-	*	1230	Total Penta-Furans	14700	-	D,M	16
1,2,3,4,7,8,9-HpCDF	9500	-	*	95.0	Total Hexa-Furans	152000	-	D,M,*	11
OCDF	463000	-	*	46.3	Total Hepta-Furans	675000	-	*	3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	110	25.0 - 164	
13C-1,2,3,7,8-PeCDD	104	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	112	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	128	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	86.2	23.0 - 140	*
13C-OCDD	38.7	17.0 - 157	*
13C-2,3,7,8-TCDF	104	24.0 - 169	
13C-1,2,3,7,8-PeCDF	100	24.0 - 185	
13C-2,3,4,7,8-PeCDF	97.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	106	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	109	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	96.7	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	101	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	93.2	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	81.8	26.0 - 138	*
13C-OCDF	58.4	17.0 - 157	*

* = Dilution

Acquired: 24-JUL-03

F = DB225 Confirmation

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	112	35.0 - 197	

Acquired: 25-JUL-03

Analyst: _____
Date: 4/7/04

Reviewed by: DPV
Date: 4/7/2004

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FILE 9329

FRONTIER
ANALYTICAL LABORATORY

April 8, 2004

FAL Project ID: 2147 (Addendum)

RECEIVED 4/12/2004

Mr. Ross Steenson
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

TASK 11 IRM
LOWER FILL MATERIAL SAMPLES

Dear Mr. Steenson,

Enclosed are the addendum results for Frontier Analytical Laboratory project **2147**. The addendum report contains the wet weight results that you requested on 3/31/2004. This project consisted of one solid sample that was received on 7/22/2003 from Alpha Analytical Laboratories. The wet weight data sheets have been marked as "Wet Weight" and do not have a % Solids field on them.

If you have any questions regarding the addendum to project **2147**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Dan Vickers

Dan Vickers
Director of Air Toxics

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
dioxin@frontieranalytical.com

EPA Method 1613
PCDD/F

4" UNDER 2ND SLAB

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2147-002-SA | Date Extracted: 7/28/03 | ICal: PCDDFAL1-6-13 | Acquired: 30-JUL-03
Client ID: A307469-02 | Date Received: 7/22/03 | GC Column: db5
Matrix: Solid | Amount: 11.64 g | Units: pg/g | WHO TEQ: 2600
Extraction Batch No.: 0060 | Wet Weight | MS/MSD Batch No.: 0038 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	1.32	-		1.32					
1,2,3,7,8-PeCDD	39.8	-		39.8					
1,2,3,4,7,8-HxCDD	260	-		26.0					
1,2,3,6,7,8-HxCDD	7840	-		784	Total Tetra-Dioxins	245	-		14
1,2,3,7,8,9-HxCDD	2330	-		233	Total Penta-Dioxins	1350	-		10
1,2,3,4,6,7,8-HpCDD	129000	-	*	1290	Total Hexa-Dioxins	62700	-	*	7
OCDD	470000	-	*	47.0	Total Hepta-Dioxins	270000	-	*	2
2,3,7,8-TCDF	25.2	-	F	2.52					
1,2,3,7,8-PeCDF	25.5	-		1.27					
2,3,4,7,8-PeCDF	33.2	-		16.6					
1,2,3,4,7,8-HxCDF	165	-		16.5					
1,2,3,6,7,8-HxCDF	71.0	-		7.10					
2,3,4,6,7,8-HxCDF	171	-		17.1					
1,2,3,7,8,9-HxCDF	53.6	-		5.36	Total Tetra-Furans	372	-	D,M	19
1,2,3,4,6,7,8-HpCDF	10200	-		102	Total Penta-Furans	1760	-	D,M	15
1,2,3,4,7,8,9-HpCDF	442	-		4.42	Total Hexa-Furans	10300	-	D,M	13
OCDF	31700	-	*	3.17	Total Hepta-Furans	48000	-	*	3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	101	25.0 - 164	
13C-1,2,3,7,8-PeCDD	109	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	84.0	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	97.5	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	80.6	23.0 - 140	*
13C-OCDD	41.7	17.0 - 157	*
13C-2,3,7,8-TCDF	102	24.0 - 169	
13C-1,2,3,7,8-PeCDF	102	24.0 - 185	
13C-2,3,4,7,8-PeCDF	101	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	83.6	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	89.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	83.6	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	94.8	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	91.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	100	26.0 - 138	
13C-OCDF	48.8	17.0 - 157	*

* = Dilution

Acquired: 31-JUL-03

F = DB225 Confirmation

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	100	35.0 - 197	

Acquired: 30-JUL-03

Analyst: _____
Date: 4/7/04

Reviewed by: DPN
Date: 4/7/2004

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FILE 9329

FRONTIER
ANALYTICAL LABORATORY

April 9, 2004

FAL Project ID: 2217 (Addendum)

RECEIVED 4/12/2004

Mr. Ross Steenson
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

TASK 11 IRM

SOIL BORINGS NEAR MONITORING WELL MW-7

Dear Mr. Steenson,

Enclosed are the addendum results for Frontier Analytical Laboratory project **2217**. The addendum report contains the wet weight results that you requested on 3/31/2004. This project consisted of seven solid samples that were received on 9/03/2003 from MFG, Incorporated. The wet weight data sheets have been marked as "Wet Weight" and do not have a % Solids field on them.

If you have any questions regarding the addendum to project **2217**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Dan Vickers

Dan Vickers
Director of Air Toxics

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
dioxin@frontieranalytical.com

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2217-001-SA
Client ID: B-61-1.2
Matrix: Solid
Extraction Batch No.: X0086

Date Extracted: 9/10/03
Date Received: 9/3/03
Amount: 10.90 g
Wet Weight

ICal: PCDDFAL2-9-07-03 Acquired: 13-SEP-03
GC Column: db5
Units: pg/g WHO TEQ: 3500
MS/MSD Batch No.: X0079 Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	11.1	-		11.1					
1,2,3,7,8-PeCDD	93.5	-		93.5					
1,2,3,4,7,8-HxCDD	120	-		12.0					
1,2,3,6,7,8-HxCDD	10600	-		1060	Total Tetra-Dioxins	189	-		12
1,2,3,7,8,9-HxCDD	2520	-		252	Total Penta-Dioxins	3100	-		10
1,2,3,4,6,7,8-HpCDD	156000	-	*	1560	Total Hexa-Dioxins	61500	-		6
OCDD	938000	-	*	93.8	Total Hepta-Dioxins	301000	-	*	2
2,3,7,8-TCDF	21.7	-	F	2.17					
1,2,3,7,8-PeCDF	19.4	-		0.971					
2,3,4,7,8-PeCDF	32.2	-		16.1					
1,2,3,4,7,8-HxCDF	468	-		46.8					
1,2,3,6,7,8-HxCDF	182	-		18.2					
2,3,4,6,7,8-HxCDF	402	-		40.2					
1,2,3,7,8,9-HxCDF	97.8	-		9.78	Total Tetra-Furans	331	-		16
1,2,3,4,6,7,8-HpCDF	26000	-		260	Total Penta-Furans	1050	-		10
1,2,3,4,7,8,9-HpCDF	1410	-		14.1	Total Hexa-Furans	22300	-		9
OCDF	81100	-		8.11	Total Hepta-Furans	112000	-	*	4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	110	25.0 - 164	
13C-1,2,3,7,8-PeCDD	104	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	98.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	116	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	75.1	23.0 - 140	
13C-OCDD	30.1	17.0 - 157	*
13C-2,3,7,8-TCDF	104	24.0 - 169	
13C-1,2,3,7,8-PeCDF	97.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	80.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	108	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	106	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	97.0	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	103	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	112	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	110	26.0 - 138	
13C-OCDF	47.6	17.0 - 157	

* = Dilution

Acquired: 12-SEP-03

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	128	35.0 - 197	

F = DB225 Confirmation

Acquired: 16-SEP-03

Analyst: _____
Date: 9/18/03

Reviewed by: DPV
Date: 9/8/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2217-002-SA | Date Extracted: 9/10/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 13-SEP-03
Client ID: B-62-1 | Date Received: 9/3/03 | GC Column: db5
Matrix: Solid | Amount: 11.89 g | Units: pg/g | WHO TEQ: 502
Extraction Batch No.: X0086 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	-	0.512		-					
1,2,3,7,8-PeCDD	10.3	-		10.3					
1,2,3,4,7,8-HxCDD	16.8	-		1.68					
1,2,3,6,7,8-HxCDD	2010	-		201	Total Tetra-Dioxins	537	-		8
1,2,3,7,8,9-HxCDD	606	-		60.6	Total Penta-Dioxins	6500	-		9
1,2,3,4,6,7,8-HpCDD	19600	-		196	Total Hexa-Dioxins	12600	-		6
OCDD	43800	-		4.38	Total Hepta-Dioxins	34900	-		2
2,3,7,8-TCDF	0.594	-		0.0594					
1,2,3,7,8-PeCDF	1.66	-	J	0.0831					
2,3,4,7,8-PeCDF	1.40	-	J	0.699					
1,2,3,4,7,8-HxCDF	19.1	-		1.91					
1,2,3,6,7,8-HxCDF	11.5	-		1.15					
2,3,4,6,7,8-HxCDF	23.7	-		2.37					
1,2,3,7,8,9-HxCDF	5.23	-		0.523	Total Tetra-Furans	29.9	-		11
1,2,3,4,6,7,8-HpCDF	1970	-		19.7	Total Penta-Furans	87.7	-		9
1,2,3,4,7,8,9-HpCDF	84.5	-		0.845	Total Hexa-Furans	1740	-		8
OCDF	6570	-		0.657	Total Hepta-Furans	8070	-		4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	104	25.0 - 164	
13C-1,2,3,7,8-PeCDD	91.9	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	105	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	101	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	98.1	23.0 - 140	
13C-OCDD	70.1	17.0 - 157	
13C-2,3,7,8-TCDF	99.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	90.0	24.0 - 185	
13C-2,3,4,7,8-PeCDF	86.7	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	111	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	108	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	86.5	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	83.9	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	90.2	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	92.5	26.0 - 138	
13C-OCDF	78.6	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	117	35.0 - 197	

Analyst: _____
Date: 4/7/04

Reviewed by: DN
Date: 4/9/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2217-003-SA | Date Extracted: 9/10/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 13-SEP-03
Client ID: B-63-1 | Date Received: 9/3/033 | GC Column: db5
Matrix: Solid | Amount: 11.91 g | Units: pg/g | WHO TEQ: 194
Extraction Batch No.: X0086 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	0.410	-	J	0.410					
1,2,3,7,8-PeCDD	7.10	-		7.10					
1,2,3,4,7,8-HxCDD	18.2	-		1.82					
1,2,3,6,7,8-HxCDD	774	-		77.4	Total Tetra-Dioxins	85.4	-		11
1,2,3,7,8,9-HxCDD	250	-		25.0	Total Penta-Dioxins	857	-		10
1,2,3,4,6,7,8-HpCDD	7430	-		74.3	Total Hexa-Dioxins	5230	-		6
OCDD	12400	-		1.24	Total Hepta-Dioxins	13500	-		2
2,3,7,8-TCDF	0.310	-	J,*	0.0310					
1,2,3,7,8-PeCDF	0.499	-	J,*	0.0250					
2,3,4,7,8-PeCDF	0.439	-	J,*	0.220					
1,2,3,4,7,8-HxCDF	3.88	-		0.388					
1,2,3,6,7,8-HxCDF	2.43	-		0.243					
2,3,4,6,7,8-HxCDF	6.59	-		0.659					
1,2,3,7,8,9-HxCDF	-	0.745		-	Total Tetra-Furans	13.4	-	*	11
1,2,3,4,6,7,8-HpCDF	511	-		5.11	Total Penta-Furans	27.4	-	*	9
1,2,3,4,7,8,9-HpCDF	18.4	-		0.184	Total Hexa-Furans	454	-		8
OCDF	2120	-		0.212	Total Hepta-Furans	2060	-		4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	104	25.0 - 164	
13C-1,2,3,7,8-PeCDD	81.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	104	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	104	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	97.9	23.0 - 140	
13C-OCDD	58.0	17.0 - 157	
13C-2,3,7,8-TCDF	102	24.0 - 169	*
13C-1,2,3,7,8-PeCDF	87.7	24.0 - 185	*
13C-2,3,4,7,8-PeCDF	83.7	21.0 - 178	*
13C-1,2,3,4,7,8-HxCDF	109	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	109	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	88.6	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	88.0	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	94.9	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	96.1	26.0 - 138	
13C-OCDF	61.1	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	120	35.0 - 197	

Analyst: _____
Date: 4/7/04

Reviewed by: SN
Date: 4/9/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2217-007-SA | Date Extracted: 9/10/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 13-SEP-03
Client ID: B-61-Concrete Upper | Date Received: 9/3/03 | GC Column: db5
Matrix: Solid | Amount: 10.53 g | Units: pg/g | WHO TEQ: 16300
Extraction Batch No.: X0086 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	96.5	-		96.5					
1,2,3,7,8-PeCDD	1210	-		1210					
1,2,3,4,7,8-HxCDD	696	-		69.6					
1,2,3,6,7,8-HxCDD	56400	-		5640	Total Tetra-Dioxins	652	-		16
1,2,3,7,8,9-HxCDD	16000	-		1600	Total Penta-Dioxins	8040	-	M	11
1,2,3,4,6,7,8-HpCDD	540000	-	*	5400	Total Hexa-Dioxins	566000	-	*	7
OCDD	2080000	-	*	208	Total Hepta-Dioxins	2000000	-	*	2
2,3,7,8-TCDF	1900	-	F	190					
1,2,3,7,8-PeCDF	740	-		37.0					
2,3,4,7,8-PeCDF	1640	-		818					
1,2,3,4,7,8-HxCDF	1180	-	*	118					
1,2,3,6,7,8-HxCDF	1460	-	*	146					
2,3,4,6,7,8-HxCDF	3320	-	*	332					
1,2,3,7,8,9-HxCDF	584	-	*	58.4	Total Tetra-Furans	18400	-		17
1,2,3,4,6,7,8-HpCDF	32000	-	*	320	Total Penta-Furans	68700	-	*	13
1,2,3,4,7,8,9-HpCDF	880	-	*	8.80	Total Hexa-Furans	11500	-	*	11
OCDF	26000	-	*	2.60	Total Hepta-Furans	89900	-	*	4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	106	25.0 - 164	
13C-1,2,3,7,8-PeCDD	89.7	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	103	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	104	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	82.1	23.0 - 140	*
13C-OCDD	20.8	17.0 - 157	*
13C-2,3,7,8-TCDF	104	24.0 - 169	
13C-1,2,3,7,8-PeCDF	87.0	24.0 - 185	
13C-2,3,4,7,8-PeCDF	83.1	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	136	26.0 - 152	*
13C-1,2,3,6,7,8-HxCDF	148	26.0 - 123	A,M,*
13C-2,3,4,6,7,8-HxCDF	119	29.0 - 147	*
13C-1,2,3,7,8,9-HxCDF	118	28.0 - 136	*
13C-1,2,3,4,6,7,8-HpCDF	127	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	115	26.0 - 138	*
13C-OCDF	80.8	17.0 - 157	*

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	126	35.0 - 197	

* = Dilution

Acquired: 12-SEP-03

F = DB225 Confirmation

Acquired: 16-SEP-03

Analyst: [signature] Date: 4/8/04

Reviewed by: JPV Date: 4/8/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2217-008-SA | Date Extracted: 9/10/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 13-SEP-03
Client ID: B-61-Concrete Lower | Date Received: 9/3/03 | GC Column: db5
Matrix: Solid | Amount: 10.84 g | Units: pg/g | WHO TEQ: 10900
Extraction Batch No.: X0086 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	20.0	-		20.0					
1,2,3,7,8-PeCDD	404	-		404					
1,2,3,4,7,8-HxCDD	316	-		31.6					
1,2,3,6,7,8-HxCDD	40700	-		4070	Total Tetra-Dioxins	162	-		12
1,2,3,7,8,9-HxCDD	9210	-		921	Total Penta-Dioxins	3500	-		11
1,2,3,4,6,7,8-HpCDD	420000	-	*	4200	Total Hexa-Dioxins	250000	-	*	7
OCDD	3440000	-	*	344	Total Hepta-Dioxins	857000	-	*	2
2,3,7,8-TCDF	694	-	F	69.4					
1,2,3,7,8-PeCDF	319	-		16.0					
2,3,4,7,8-PeCDF	629	-		315					
1,2,3,4,7,8-HxCDF	702	-		70.2					
1,2,3,6,7,8-HxCDF	463	-		46.3					
2,3,4,6,7,8-HxCDF	1480	-		148					
1,2,3,7,8,9-HxCDF	339	-		33.9	Total Tetra-Furans	6880	-		18
1,2,3,4,6,7,8-HpCDF	18400	-		184	Total Penta-Furans	17000	-		14
1,2,3,4,7,8,9-HpCDF	970	-		9.70	Total Hexa-Furans	41300	-		11
OCDF	52100	-		5.21	Total Hepta-Furans	70100	-	*	3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	117	25.0 - 164	
13C-1,2,3,7,8-PeCDD	93.5	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	118	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	112	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	68.8	23.0 - 140	*
13C-OCDD	13.6	17.0 - 157	A,*
13C-2,3,7,8-TCDF	109	24.0 - 169	
13C-1,2,3,7,8-PeCDF	83.2	24.0 - 185	
13C-2,3,4,7,8-PeCDF	76.6	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	121	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	137	26.0 - 123	A
13C-2,3,4,6,7,8-HxCDF	111	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	112	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	122	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	128	26.0 - 138	
13C-OCDF	38.3	17.0 - 157	

* = Dilution

Acquired: 12-SEP-03

F = DB225 Confirmation

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	136	35.0 - 197	

Acquired: 16-SEP-03

Analyst: [signature] Date: 4/8/04

Reviewed by: DPV Date: 4/8/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2217-009-SA | Date Extracted: 9/10/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 13-SEP-03
Client ID: B-62-Concrete Upper | Date Received: 9/3/03 | GC Column: db5
Matrix: Solid | Amount: 10.91 g | Units: pg/g | WHO TEQ: 103
Extraction Batch No.: X0086 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	-	0.395		-					
1,2,3,7,8-PeCDD	6.00	-		6.00					
1,2,3,4,7,8-HxCDD	8.27	-		0.827					
1,2,3,6,7,8-HxCDD	359	-		35.9	Total Tetra-Dioxins	30.1	-		6
1,2,3,7,8,9-HxCDD	94.3	-		9.43	Total Penta-Dioxins	845	-		5
1,2,3,4,6,7,8-HpCDD	3810	-		38.1	Total Hexa-Dioxins	2250	-		6
OCDD	16500	-		1.65	Total Hepta-Dioxins	8560	-		2
2,3,7,8-TCDF	2.21	-	F,*	0.221					
1,2,3,7,8-PeCDF	2.84	-	*	0.142					
2,3,4,7,8-PeCDF	2.98	-	*	1.49					
1,2,3,4,7,8-HxCDF	9.21	-		0.921					
1,2,3,6,7,8-HxCDF	11.0	-		1.10					
2,3,4,6,7,8-HxCDF	18.6	-		1.86					
1,2,3,7,8,9-HxCDF	-	1.97		-	Total Tetra-Furans	47.1	-	*	13
1,2,3,4,6,7,8-HpCDF	517	-		5.17	Total Penta-Furans	175	-	*	8
1,2,3,4,7,8,9-HpCDF	19.1	-		0.191	Total Hexa-Furans	653	-		6
OCDF	1430	-		0.143	Total Hepta-Furans	1820	-		4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	113	25.0 - 164	
13C-1,2,3,7,8-PeCDD	90.7	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	113	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	106	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	113	23.0 - 140	
13C-OCDD	71.7	17.0 - 157	
13C-2,3,7,8-TCDF	103	24.0 - 169	*
13C-1,2,3,7,8-PeCDF	90.4	24.0 - 185	*
13C-2,3,4,7,8-PeCDF	83.8	21.0 - 178	*
13C-1,2,3,4,7,8-HxCDF	119	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	118	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	96.5	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	97.8	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	113	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	105	26.0 - 138	
13C-OCDF	82.5	17.0 - 157	

* = Dilution

Acquired: 15-SEP-03

F = DB225 Confirmation

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	135	35.0 - 197	

Acquired: 16-SEP-03

Analyst: [signature] Date: 4/8/04

Reviewed by: DPN Date: 4/8/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2217-010-SA | Date Extracted: 9/10/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 13-SEP-03
Client ID: B-62-Concrete Lower | Date Received: 9/3/03 | GC Column: db5
Matrix: Solid | Amount: 10.63 g | Units: pg/g | WHO TEQ: 4640
Extraction Batch No.: X0086 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	-	0.919		-					
1,2,3,7,8-PeCDD	68.0	-		68.0					
1,2,3,4,7,8-HxCDD	130	-		13.0					
1,2,3,6,7,8-HxCDD	19900	-		1990	Total Tetra-Dioxins	1420	-		9
1,2,3,7,8,9-HxCDD	7010	-		701	Total Penta-Dioxins	14300	-		10
1,2,3,4,6,7,8-HpCDD	180000	-	*	1800	Total Hexa-Dioxins	132000	-	*	6
OCDD	346000	-	*	34.6	Total Hepta-Dioxins	354000	-	*	2
2,3,7,8-TCDF	1.30	-	F,*	0.130					
1,2,3,7,8-PeCDF	3.21	-	*	0.160					
2,3,4,7,8-PeCDF	2.58	-	*	1.29					
1,2,3,4,7,8-HxCDF	22.6	-		2.26					
1,2,3,6,7,8-HxCDF	17.6	-		1.76					
2,3,4,6,7,8-HxCDF	32.6	-		3.26					
1,2,3,7,8,9-HxCDF	7.21	-		0.721	Total Tetra-Furans	46.6	-	*	12
1,2,3,4,6,7,8-HpCDF	1830	-		18.3	Total Penta-Furans	112	-	*	9
1,2,3,4,7,8,9-HpCDF	89.2	-		0.892	Total Hexa-Furans	1700	-		11
OCDF	5750	-		0.575	Total Hepta-Furans	7250	-		3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	111	25.0 - 164	
13C-1,2,3,7,8-PeCDD	101	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	107	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	113	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	104	23.0 - 140	*
13C-OCDD	82.3	17.0 - 157	*
13C-2,3,7,8-TCDF	112	24.0 - 169	*
13C-1,2,3,7,8-PeCDF	102	24.0 - 185	*
13C-2,3,4,7,8-PeCDF	94.9	21.0 - 178	*
13C-1,2,3,4,7,8-HxCDF	103	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	106	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	88.8	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	91.8	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	97.3	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	91.5	26.0 - 138	
13C-OCDF	66.0	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	119	35.0 - 197	

* = Dilution

Acquired: 12-SEP-03

F = DB225 Confirmation

Acquired: 16-SEP-03

Analyst: [signature]
Date: 4/8/04

Reviewed by: DPN
Date: 4/8/2004

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FILE 7529

FRONTIER
ANALYTICAL LABORATORY

April 8, 2004

FAL Project ID: 2245 (Addendum)

RECEIVED 4/12/2004

Mr. Ross Steenson
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

TASK 11 IRM
SECOND PHASE OF ~~INVESTIGATION~~ EXCAVATION
SAMPLES

Dear Mr. Steenson,

Enclosed are the addendum results for Frontier Analytical Laboratory project **2245**. The addendum report contains the wet weight results that you requested on 3/31/2004. This project consisted of four solid samples that were received on 9/18/2003 from MFG, Incorporated. The wet weight data sheets have been marked as "Wet Weight" and do not have a % Solids field on them.

If you have any questions regarding the addendum to project **2245**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Dan Vickers

Dan Vickers
Director of Air Toxics

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
dioxin@frontieranalytical.com

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2245-001-SA | Date Extracted: 9/25/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 27-SEP-03
Client ID: S-1E-2.5 | Date Received: 9/18/03 | GC Column: db5
Matrix: Soil | Amount: 11.93 g | Units: pg/g | WHO TEQ: 236
Extraction Batch No.: X0096 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	-	0.367		-					
1,2,3,7,8-PeCDD	3.99	-		3.99					
1,2,3,4,7,8-HxCDD	14.8	-		1.48					
1,2,3,6,7,8-HxCDD	578	-		57.8	Total Tetra-Dioxins	4.85	-		4
1,2,3,7,8,9-HxCDD	65.0	-		6.50	Total Penta-Dioxins	43.8	-		8
1,2,3,4,6,7,8-HpCDD	11000	-		110	Total Hexa-Dioxins	1640	-		7
OCDD	62100	-		6.21	Total Hepta-Dioxins	17100	-		2
2,3,7,8-TCDF	-	0.293		-					
1,2,3,7,8-PeCDF	1.97	-	J	0.0983					
2,3,4,7,8-PeCDF	1.31	-	J	0.655					
1,2,3,4,7,8-HxCDF	32.5	-		3.25					
1,2,3,6,7,8-HxCDF	11.7	-		1.17					
2,3,4,6,7,8-HxCDF	33.7	-		3.37					
1,2,3,7,8,9-HxCDF	11.2	-		1.12	Total Tetra-Furans	2.46	-		2
1,2,3,4,6,7,8-HpCDF	3620	-		36.2	Total Penta-Furans	30.2	-		9
1,2,3,4,7,8,9-HpCDF	234	-		2.34	Total Hexa-Furans	2170	-		9
OCDF	16200	-		1.62	Total Hepta-Furans	14700	-		3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	107	25.0 - 164	
13C-1,2,3,7,8-PeCDD	87.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	111	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	113	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	101	23.0 - 140	
13C-OCDD	82.4	17.0 - 157	
13C-2,3,7,8-TCDF	111	24.0 - 169	
13C-1,2,3,7,8-PeCDF	97.9	24.0 - 185	
13C-2,3,4,7,8-PeCDF	91.7	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	125	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	122	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	106	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	98.7	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	102	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	106	26.0 - 138	
13C-OCDF	78.7	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	92.5	35.0 - 197

Analyst: [illegible]
Date: 4/7/04

Reviewed by: DN
Date: 4/9/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2245-005-SA | Date Extracted: 9/25/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 27-SEP-03
Client ID: S-5N-2.5 | Date Received: 9/18/03 | GC Column: db5
Matrix: Soil | Amount: 11.44 g | Units: pg/g | WHO TEQ: 85.7
Extraction Batch No.: X0096 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	-	0.281		-					
1,2,3,7,8-PeCDD	2.12	-	J	2.12					
1,2,3,4,7,8-HxCDD	3.45	-		0.345					
1,2,3,6,7,8-HxCDD	247	-		24.7	Total Tetra-Dioxins	7.22	-		2
1,2,3,7,8,9-HxCDD	12.5	-		1.25	Total Penta-Dioxins	133	-		5
1,2,3,4,6,7,8-HpCDD	3330	-		33.3	Total Hexa-Dioxins	955	-		6
OCDD	20700	-		2.07	Total Hepta-Dioxins	5810	-		2
2,3,7,8-TCDF	6.18	-	F	0.618					
1,2,3,7,8-PeCDF	7.45	-		0.372					
2,3,4,7,8-PeCDF	9.55	-		4.77					
1,2,3,4,7,8-HxCDF	18.6	-		1.86					
1,2,3,6,7,8-HxCDF	8.84	-		0.884					
2,3,4,6,7,8-HxCDF	28.7	-		2.87					
1,2,3,7,8,9-HxCDF	13.2	-		1.32	Total Tetra-Furans	47.8	-		15
1,2,3,4,6,7,8-HpCDF	832	-		8.32	Total Penta-Furans	323	-		10
1,2,3,4,7,8,9-HpCDF	47.9	-		0.479	Total Hexa-Furans	1320	-		8
OCDF	3830	-		0.383	Total Hepta-Furans	3150	-		4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	90.9	25.0 - 164	
13C-1,2,3,7,8-PeCDD	75.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	96.8	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	94.5	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	90.7	23.0 - 140	
13C-OCDD	73.4	17.0 - 157	
13C-2,3,7,8-TCDF	95.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	82.0	24.0 - 185	
13C-2,3,4,7,8-PeCDF	80.6	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	105	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	103	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	94.9	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	88.4	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	90.6	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	102	26.0 - 138	
13C-OCDF	70.5	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	81.4	35.0 - 197

F = DB225 Confirmation

Acquired: 01-OCT-03

Analyst: _____
Date: 4/7/04

Reviewed by: _____
Date: 4/9/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2245-006-SA | Date Extracted: 9/25/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 27-SEP-03
Client ID: S-6N-1.5 | Date Received: 9/18/03 | GC Column: db5
Matrix: Soil | Amount: 11.74 g | Units: pg/g | WHO TEQ: 9900
Extraction Batch No.: X0096 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	41.6	-		41.6					
1,2,3,7,8-PeCDD	459	-		459					
1,2,3,4,7,8-HxCDD	887	-		88.7					
1,2,3,6,7,8-HxCDD	25400	-		2540	Total Tetra-Dioxins	164	-		16
1,2,3,7,8,9-HxCDD	2170	-		217	Total Penta-Dioxins	1510	-		10
1,2,3,4,6,7,8-HpCDD	382000	-	*	3820	Total Hexa-Dioxins	66300	-		8
OCDD	1290000	-	*	129	Total Hepta-Dioxins	614000	-	*	2
2,3,7,8-TCDF	267	-	F	26.7					
1,2,3,7,8-PeCDF	367	-		18.4					
2,3,4,7,8-PeCDF	550	-		275					
1,2,3,4,7,8-HxCDF	2900	-		290					
1,2,3,6,7,8-HxCDF	993	-		99.3					
2,3,4,6,7,8-HxCDF	2920	-		292					
1,2,3,7,8,9-HxCDF	938	-		93.8	Total Tetra-Furans	2280	-	D,M	22
1,2,3,4,6,7,8-HpCDF	138000	-	*	1380	Total Penta-Furans	12400	-	D,M	15
1,2,3,4,7,8,9-HpCDF	9350	-		93.5	Total Hexa-Furans	160000	-	D,M,*	11
OCDF	395000	-	*	39.5	Total Hepta-Furans	625000	-	*	4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	109	25.0 - 164	
13C-1,2,3,7,8-PeCDD	99.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	113	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	121	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	104	23.0 - 140	*
13C-OCDD	105	17.0 - 157	*
13C-2,3,7,8-TCDF	108	24.0 - 169	
13C-1,2,3,7,8-PeCDF	102	24.0 - 185	
13C-2,3,4,7,8-PeCDF	97.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	117	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	120	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	107	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	108	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	116	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	119	26.0 - 138	
13C-OCDF	114	17.0 - 157	*

* = Dilution

Acquired: 29-SEP-03

F = DB225 Confirmation

Acquired: 01-OCT-03

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	89.9	35.0 - 197	

Analyst: [signature] Date: 4/8/04

Reviewed by: EN Date: 4/8/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2245-007-SA | Date Extracted: 9/25/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 27-SEP-03
Client ID: S-7E-3 | Date Received: 9/18/03 | GC Column: db5
Matrix: Soil | Amount: 10.84 g | Units: pg/g | WHO TEQ: 4250
Extraction Batch No.: X0096 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	20.9	-		20.9					
1,2,3,7,8-PeCDD	347	-		347					
1,2,3,4,7,8-HxCDD	327	-		32.7					
1,2,3,6,7,8-HxCDD	7690	-		769	Total Tetra-Dioxins	61.8	-		8
1,2,3,7,8,9-HxCDD	534	-		53.4	Total Penta-Dioxins	605	-		10
1,2,3,4,6,7,8-HpCDD	188000	-	*	1880	Total Hexa-Dioxins	19700	-		8
OCDD	998000	-	*	99.8	Total Hepta-Dioxins	321000	-	*	2
2,3,7,8-TCDF	29.7	-	F	2.97					
1,2,3,7,8-PeCDF	180	-		9.01					
2,3,4,7,8-PeCDF	199	-		99.4					
1,2,3,4,7,8-HxCDF	1470	-		147					
1,2,3,6,7,8-HxCDF	371	-		37.1					
2,3,4,6,7,8-HxCDF	843	-		84.3					
1,2,3,7,8,9-HxCDF	529	-		52.9	Total Tetra-Furans	179	-		13
1,2,3,4,6,7,8-HpCDF	55400	-	*	554	Total Penta-Furans	2290	-		14
1,2,3,4,7,8,9-HpCDF	3670	-		36.7	Total Hexa-Furans	48600	-	D,M,*	11
OCDF	201000	-	*	20.1	Total Hepta-Furans	265000	-	*	4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	117	25.0 - 164	
13C-1,2,3,7,8-PeCDD	108	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	114	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	121	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	92.4	23.0 - 140	*
13C-OCDD	112	17.0 - 157	*
13C-2,3,7,8-TCDF	113	24.0 - 169	
13C-1,2,3,7,8-PeCDF	106	24.0 - 185	
13C-2,3,4,7,8-PeCDF	102	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	123	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	121	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	106	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	105	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	99.7	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	118	26.0 - 138	
13C-OCDF	106	17.0 - 157	*

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	104	35.0 - 197	

* = Dilution

Acquired: 29-SEP-03

F = DB225 Confirmation

Acquired: 01-OCT-03

Analyst: _____
Date: 4/8/04

Reviewed by: DPV
Date: 4/8/2004

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FILE 9329

FRONTIER
ANALYTICAL LABORATORY

April 8, 2004

FAL Project ID: 2246 (Addendum)

RECEIVED 4/12/2004

Mr. Ross Steenson
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

TASK 11 IRM
SECOND PHASE OF EXCAVATION
SAMPLES

Dear Mr. Steenson,

Enclosed are the addendum results for Frontier Analytical Laboratory project **2246**. The addendum report contains the wet weight results that you requested on 3/31/2004. This project consisted of three soil samples that were received on 9/18/2003 from MFG, Incorporated. The wet weight data sheets have been marked as "Wet Weight" and do not have a % Solids field on them.

If you have any questions regarding the addendum to project **2246**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Dan Vickers

Dan Vickers
Director of Air Toxics

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
dioxin@frontieranalytical.com

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2246-002-SA | Date Extracted: 9/25/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 29-SEP-03
Client ID: S-9W-2.5 | Date Received: 9/18/03 | GC Column: db5
Matrix: Soil | Amount: 11.78 g | Units: pg/g | WHO TEQ: 201
Extraction Batch No.: X0096 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	2.34	-		2.34					
1,2,3,7,8-PeCDD	18.9	-		18.9					
1,2,3,4,7,8-HxCDD	29.5	-		2.95					
1,2,3,6,7,8-HxCDD	462	-		46.2	Total Tetra-Dioxins	5.35	-		4
1,2,3,7,8,9-HxCDD	35.9	-		3.59	Total Penta-Dioxins	38.6	-		6
1,2,3,4,6,7,8-HpCDD	8500	-		85.0	Total Hexa-Dioxins	1260	-		7
OCDD	39500	-		3.95	Total Hepta-Dioxins	14100	-		2
2,3,7,8-TCDF	-	0.405		-					
1,2,3,7,8-PeCDF	2.56	-		0.128					
2,3,4,7,8-PeCDF	2.70	-		1.35					
1,2,3,4,7,8-HxCDF	45.1	-		4.51					
1,2,3,6,7,8-HxCDF	11.6	-		1.16					
2,3,4,6,7,8-HxCDF	31.9	-		3.19					
1,2,3,7,8,9-HxCDF	16.2	-		1.62	Total Tetra-Furans	5.00	-		3
1,2,3,4,6,7,8-HpCDF	2300	-		23.0	Total Penta-Furans	55.8	-		10
1,2,3,4,7,8,9-HpCDF	240	-		2.40	Total Hexa-Furans	2130	-	D,M	9
OCDF	8050	-		0.805	Total Hepta-Furans	11600	-		4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	110	25.0 - 164	
13C-1,2,3,7,8-PeCDD	90.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	105	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	110	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	109	23.0 - 140	
13C-OCDD	109	17.0 - 157	
13C-2,3,7,8-TCDF	105	24.0 - 169	
13C-1,2,3,7,8-PeCDF	83.6	24.0 - 185	
13C-2,3,4,7,8-PeCDF	86.5	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	126	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	123	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	110	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	103	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	115	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	114	26.0 - 138	
13C-OCDF	107	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	102	35.0 - 197	

Analyst: _____
Date: 4/8/04

Reviewed by: DPJ
Date: 4/8/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2246-004-SA | Date Extracted: 9/25/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 29-SEP-03
Client ID: S-11S-2.5 | Date Received: 9/18/03 | GC Column: db5
Matrix: Soil | Amount: 11.81 g | Units: pg/g | WHO TEQ: 549
Extraction Batch No.: X0096 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	15.5	-		15.5					
1,2,3,7,8-PeCDD	56.0	-		56.0					
1,2,3,4,7,8-HxCDD	54.5	-		5.45					
1,2,3,6,7,8-HxCDD	1080	-		108	Total Tetra-Dioxins	21.1	-		5
1,2,3,7,8,9-HxCDD	82.0	-		8.20	Total Penta-Dioxins	98.0	-		8
1,2,3,4,6,7,8-HpCDD	23200	-		232	Total Hexa-Dioxins	2860	-		7
OCDD	121000	-	*	12.1	Total Hepta-Dioxins	37800	-		2
2,3,7,8-TCDF	2.48	-	F	0.248					
1,2,3,7,8-PeCDF	12.3	-		0.613					
2,3,4,7,8-PeCDF	13.6	-		6.79					
1,2,3,4,7,8-HxCDF	123	-		12.3					
1,2,3,6,7,8-HxCDF	39.4	-		3.94					
2,3,4,6,7,8-HxCDF	98.4	-		9.84					
1,2,3,7,8,9-HxCDF	46.4	-		4.64	Total Tetra-Furans	39.1	-		12
1,2,3,4,6,7,8-HpCDF	6550	-		65.5	Total Penta-Furans	213	-		9
1,2,3,4,7,8,9-HpCDF	551	-		5.51	Total Hexa-Furans	6400	-		9
OCDF	27800	-		2.78	Total Hepta-Furans	35000	-		4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	105	25.0 - 164	
13C-1,2,3,7,8-PeCDD	88.7	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	112	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	110	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	123	23.0 - 140	
13C-OCDD	75.8	17.0 - 157	*
13C-2,3,7,8-TCDF	103	24.0 - 169	
13C-1,2,3,7,8-PeCDF	91.0	24.0 - 185	
13C-2,3,4,7,8-PeCDF	86.0	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	132	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	123	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	113	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	99.0	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	121	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	116	26.0 - 138	
13C-OCDF	125	17.0 - 157	

* = Dilution

Acquired: 26-SEP-03

F = DB225 Confirmation

Acquired: 01-OCT-03

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	93.7	35.0 - 197	

Analyst: _____
Date: 9/9/04

Reviewed by: DPV
Date: 9/9/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2246-005-SA | Date Extracted: 9/25/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 27-SEP-03
Client ID: S-12S-2.5 | Date Received: 9/18/03 | GC Column: db5
Matrix: Soil | Amount: 10.64 g | Units: pg/g | WHO TEQ: 1070
Extraction Batch No.: X0096 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	14.7	-		14.7					
1,2,3,7,8-PeCDD	119	-		119					
1,2,3,4,7,8-HxCDD	116	-		11.6					
1,2,3,6,7,8-HxCDD	2240	-		224	Total Tetra-Dioxins	73.3	-		7
1,2,3,7,8,9-HxCDD	186	-		18.6	Total Penta-Dioxins	518	-		7
1,2,3,4,6,7,8-HpCDD	40900	-		409	Total Hexa-Dioxins	6630	-		8
OCDD	267000	-	*	26.7	Total Hepta-Dioxins	71000	-		2
2,3,7,8-TCDF	9.38	-	F	0.938					
1,2,3,7,8-PeCDF	36.2	-		1.81					
2,3,4,7,8-PeCDF	46.3	-		23.2					
1,2,3,4,7,8-HxCDF	289	-		28.9					
1,2,3,6,7,8-HxCDF	82.7	-		8.27					
2,3,4,6,7,8-HxCDF	219	-		21.9					
1,2,3,7,8,9-HxCDF	146	-		14.6	Total Tetra-Furans	109	-		12
1,2,3,4,6,7,8-HpCDF	13000	-		130	Total Penta-Furans	737	-		12
1,2,3,4,7,8,9-HpCDF	1020	-		10.2	Total Hexa-Furans	14900	-		11
OCDF	55500	-		5.55	Total Hepta-Furans	66300	-	*	4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	104	25.0 - 164	
13C-1,2,3,7,8-PeCDD	93.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	105	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	109	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	102	23.0 - 140	
13C-OCDD	91.4	17.0 - 157	*
13C-2,3,7,8-TCDF	108	24.0 - 169	
13C-1,2,3,7,8-PeCDF	104	24.0 - 185	
13C-2,3,4,7,8-PeCDF	102	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	116	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	115	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	102	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	102	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	102	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	110	26.0 - 138	
13C-OCDF	80.9	17.0 - 157	

* = Dilution

Acquired: 26-SEP-03

F = DB225 Confirmation

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	87.5	35.0 - 197	

Acquired: 01-OCT-03

Analyst: [signature] Date: 4/8/04

Reviewed by: [signature] Date: 4/8/2004

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FILE 9329

FRONTIER
ANALYTICAL LABORATORY

April 8, 2004

FAL Project ID: 2247 (Addendum)

RECEIVED 4/12/2004

Mr. Ross Steenson
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

TASK 11 IRM
SECOND PHASE OF EXCAVATION
SAMPLES

Dear Mr. Steenson,

Enclosed are the addendum results for Frontier Analytical Laboratory project **2247**. The addendum report contains the wet weight results that you requested on 3/31/2004. This project consisted of three solid samples that were received on 9/18/2003 from MFG, Incorporated. The wet weight data sheets have been marked as "Wet Weight" and do not have a % Solids field on them.

If you have any questions regarding the addendum to project **2247**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Dan Vickers

Dan Vickers
Director of Air Toxics

FRONTIER ANALYTICAL LABORATORY
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Tel (916) 934-0900 • Fax (916) 934-0999
dioxin@frontieranalytical.com

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2247-001-SA | Date Extracted: 9/25/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 29-SEP-03
Client ID: B-1-SOUTH | Date Received: 9/18/03 | GC Column: db5
Matrix: Soil | Amount: 12.09 g | Units: pg/g | WHO TEQ: 143
Extraction Batch No.: X0096 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	5.05	-		5.05					
1,2,3,7,8-PeCDD	22.6	-		22.6					
1,2,3,4,7,8-HxCDD	16.3	-		1.63					
1,2,3,6,7,8-HxCDD	264	-		26.4	Total Tetra-Dioxins	23.4	-		6
1,2,3,7,8,9-HxCDD	20.4	-		2.04	Total Penta-Dioxins	187	-		7
1,2,3,4,6,7,8-HpCDD	6060	-		60.6	Total Hexa-Dioxins	1050	-		6
OCDD	36400	-		3.64	Total Hepta-Dioxins	10500	-		2
2,3,7,8-TCDF	0.314	-	J	0.0314					
1,2,3,7,8-PeCDF	1.86	-	J	0.0932					
2,3,4,7,8-PeCDF	2.18	-		1.09					
1,2,3,4,7,8-HxCDF	24.5	-		2.45					
1,2,3,6,7,8-HxCDF	7.28	-		0.728					
2,3,4,6,7,8-HxCDF	20.3	-		2.03					
1,2,3,7,8,9-HxCDF	10.1	-		1.01	Total Tetra-Furans	8.05	-		8
1,2,3,4,6,7,8-HpCDF	1180	-		11.8	Total Penta-Furans	48.6	-		11
1,2,3,4,7,8,9-HpCDF	137	-		1.37	Total Hexa-Furans	1460	-		8
OCDF	5700	-		0.570	Total Hepta-Furans	6510	-		4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	107	25.0 - 164	
13C-1,2,3,7,8-PeCDD	95.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	111	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	106	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	107	23.0 - 140	
13C-OCDD	117	17.0 - 157	
13C-2,3,7,8-TCDF	103	24.0 - 169	
13C-1,2,3,7,8-PeCDF	94.4	24.0 - 185	
13C-2,3,4,7,8-PeCDF	89.9	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	129	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	125	26.0 - 123	A
13C-2,3,4,6,7,8-HxCDF	112	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	104	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	110	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	117	26.0 - 138	
13C-OCDF	100	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	101	35.0 - 197

Analyst: _____
Date: 4/8/04

Reviewed by: _____
Date: 4/8/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2247-004-SA | Date Extracted: 9/25/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 27-SEP-03
Client ID: B-4-WEST | Date Received: 9/18/03 | GC Column: db5
Matrix: Soil | Amount: 12.66 g | Units: pg/g | WHO TEQ: 13800
Extraction Batch No.: X0096 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	43.3	-		43.3					
1,2,3,7,8-PeCDD	783	-		783					
1,2,3,4,7,8-HxCDD	855	-		85.5					
1,2,3,6,7,8-HxCDD	43600	-	*	4360	Total Tetra-Dioxins	316	-		16
1,2,3,7,8,9-HxCDD	1920	-		192	Total Penta-Dioxins	2710	-		10
1,2,3,4,6,7,8-HpCDD	452000	-	*	4520	Total Hexa-Dioxins	93700	-	*	8
OCDD	1790000	-	*	179	Total Hepta-Dioxins	700000	-	*	2
2,3,7,8-TCDF	1180	-	F	118					
1,2,3,7,8-PeCDF	992	-		49.6					
2,3,4,7,8-PeCDF	1600	-		799					
1,2,3,4,7,8-HxCDF	3400	-		340					
1,2,3,6,7,8-HxCDF	1390	-		139					
2,3,4,6,7,8-HxCDF	4870	-		487					
1,2,3,7,8,9-HxCDF	1730	-		173	Total Tetra-Furans	9500	-		18
1,2,3,4,6,7,8-HpCDF	141000	-	*	1410	Total Penta-Furans	36800	-	*	15
1,2,3,4,7,8,9-HpCDF	8460	-		84.6	Total Hexa-Furans	228000	-	D,M,*	12
OCDF	337000	-	*	33.7	Total Hepta-Furans	591000	-	*	4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	125	25.0 - 164	
13C-1,2,3,7,8-PeCDD	117	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	126	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	121	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	93.6	23.0 - 140	*
13C-OCDD	36.2	17.0 - 157	*
13C-2,3,7,8-TCDF	116	24.0 - 169	
13C-1,2,3,7,8-PeCDF	109	24.0 - 185	
13C-2,3,4,7,8-PeCDF	108	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	119	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	123	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	106	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	109	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	106	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	99.7	26.0 - 138	
13C-OCDF	70.2	17.0 - 157	*

* = Dilution

Acquired: 26-SEP-03

F = DB225 Confirmation

Acquired: 01-OCT-03

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	113	35.0 - 197	

Analyst: _____
Date: 4/8/04

Reviewed by: DPV
Date: 4/8/2004

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2247-006-SA | Date Extracted: 9/25/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 27-SEP-03
Client ID: RR-TIES | Date Received: 9/18/03 | GC Column: db5
Matrix: Solid | Amount: 12.22 g | Units: pg/g | WHO TEQ: 4370
Extraction Batch No.: X0096 | Wet Weight | MS/MSD Batch No.: X0079 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	36.6	-		36.6					
1,2,3,7,8-PeCDD	491	-		491					
1,2,3,4,7,8-HxCDD	488	-		48.8					
1,2,3,6,7,8-HxCDD	8720	-		872	Total Tetra-Dioxins	129	-		14
1,2,3,7,8,9-HxCDD	649	-		64.9	Total Penta-Dioxins	1020	-		10
1,2,3,4,6,7,8-HpCDD	174000	-	*	1740	Total Hexa-Dioxins	24200	-		8
OCDD	1190000	-	*	119	Total Hepta-Dioxins	316000	-	*	2
2,3,7,8-TCDF	26.7	-	F	2.67					
1,2,3,7,8-PeCDF	63.2	-		3.16					
2,3,4,7,8-PeCDF	75.5	-		37.7					
1,2,3,4,7,8-HxCDF	969	-		96.9					
1,2,3,6,7,8-HxCDF	264	-		26.4					
2,3,4,6,7,8-HxCDF	844	-		84.4					
1,2,3,7,8,9-HxCDF	265	-		26.5	Total Tetra-Furans	402	-		19
1,2,3,4,6,7,8-HpCDF	65100	-		651	Total Penta-Furans	1540	-		15
1,2,3,4,7,8,9-HpCDF	5090	-		50.9	Total Hexa-Furans	61000	-	*	12
OCDF	188000	-		18.8	Total Hepta-Furans	292000	-	*	4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	112	25.0 - 164	
13C-1,2,3,7,8-PeCDD	101	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	125	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	128	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	97.2	23.0 - 140	*
13C-OCDD	40.2	17.0 - 157	*
13C-2,3,7,8-TCDF	112	24.0 - 169	
13C-1,2,3,7,8-PeCDF	104	24.0 - 185	
13C-2,3,4,7,8-PeCDF	104	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	117	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	117	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	107	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	111	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	102	28.0 - 143	*
13C-1,2,3,4,7,8,9-HpCDF	112	26.0 - 138	
13C-OCDF	78.7	17.0 - 157	*

* = Dilution

Acquired: 27-SEP-03

F = DB225 Confirmation

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	105	35.0 - 197	

Acquired: 01-OCT-03

Analyst: [signature]
Date: 4/7/04

Reviewed by: [signature]
Date: 4/9/2004

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FILE 9329

FRONTIER
ANALYTICAL LABORATORY

April 8, 2004

FAL Project ID: 2346 (Addendum)

RECEIVED 4/12/2004

Mr. Ross Steenson
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

TASK 11 IRM
3rd Phase Excavation

Dear Mr. Steenson,

Enclosed are the addendum results for Frontier Analytical Laboratory project **2346**. The addendum report contains the wet weight results that you requested on 3/31/2004. This project consisted of two soil samples that were received on 12/04/2003 from Alpha Analytical Laboratories. The wet weight data sheets have been marked as "Wet Weight" and do not have a % Solids field on them.

If you have any questions regarding the addendum to project **2346**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Dan Vickers

Dan Vickers
Director of Air Toxics

FRONTIER ANALYTICAL LABORATORY
5172 Hillsdale Circle • El Dorado Hills, CA 95762
Tel (916) 934-0900 • Fax (916) 934-0999
dioxin@frontieranalytical.com

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2346-001-SA | Date Extracted: 12/8/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 10-DEC-03
Client ID: S-30-1.5 (A311137-01) | Date Received: 12/4/03 | GC Column: db5
Matrix: Soil | Amount: 11.48 g | Units: pg/g | WHO TEQ: 15.7
Extraction Batch No.: X0143 | Wet Weight | MS/MSD Batch No.: X0121 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	-	0.202		-					
1,2,3,7,8-PeCDD	-	0.432		-					
1,2,3,4,7,8-HxCDD	0.844	-	J	0.0844					
1,2,3,6,7,8-HxCDD	17.7	-		1.77	Total Tetra-Dioxins	9.54	-		2
1,2,3,7,8,9-HxCDD	2.51	-		0.251	Total Penta-Dioxins	121	-		3
1,2,3,4,6,7,8-HpCDD	870	-		8.70	Total Hexa-Dioxins	540	-		6
OCDD	11500	-		1.15	Total Hepta-Dioxins	1940	-		2
2,3,7,8-TCDF	-	0.168		-					
1,2,3,7,8-PeCDF	-	0.660		-					
2,3,4,7,8-PeCDF	-	0.399		-					
1,2,3,4,7,8-HxCDF	2.75	-		0.275					
1,2,3,6,7,8-HxCDF	1.25	-	J	0.125					
2,3,4,6,7,8-HxCDF	3.05	-		0.305					
1,2,3,7,8,9-HxCDF	-	0.490		-	Total Tetra-Furans	3.02	-	M	3
1,2,3,4,6,7,8-HpCDF	263	-		2.63	Total Penta-Furans	62.8	-		3
1,2,3,4,7,8,9-HpCDF	19.9	-		0.199	Total Hexa-Furans	324	-		7
OCDF	1720	-		0.172	Total Hepta-Furans	1050	-		4

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	105	25.0 - 164	
13C-1,2,3,7,8-PeCDD	84.7	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	104	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	110	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	81.8	23.0 - 140	
13C-OCDD	66.8	17.0 - 157	
13C-2,3,7,8-TCDF	97.7	24.0 - 169	
13C-1,2,3,7,8-PeCDF	85.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	81.6	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	94.6	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	98.9	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	87.5	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	82.2	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	74.1	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	72.2	26.0 - 138	
13C-OCDF	57.8	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	104	35.0 - 197

Analyst: _____
Date: 4/8/04

Reviewed by: DN
Date: 4/8/2004

5172 Hillsdale Circle • El Dorado Hills, CA 95762 • Tel (916) 934-0900 • Fax (916) 934-0999 • www.frontieranalytical.com

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 2346-002-SA | Date Extracted: 12/8/03 | ICal: PCDDFAL2-9-07-03 | Acquired: 10-DEC-03
Client ID: S-31-5.5 (A311137-02) | Date Received: 12/4/03 | GC Column: db5
Matrix: Soil | Amount: 11.37 g | Units: pg/g | WHO TEQ: 4.93
Extraction Batch No.: X0143 | Wet Weight | MS/MSD Batch No.: X0121 | Wet Weight

Compound	Conc	DL	Qual	WHO Tox	Compound	Conc	DL	Qual	#Hom
2,3,7,8-TCDD	-	0.130		-					
1,2,3,7,8-PeCDD	-	0.330		-					
1,2,3,4,7,8-HxCDD	-	0.579		-					
1,2,3,6,7,8-HxCDD	5.28	-		0.528	Total Tetra-Dioxins	2.29	-		2
1,2,3,7,8,9-HxCDD	0.988	-	J	0.0988	Total Penta-Dioxins	11.6	-		1
1,2,3,4,6,7,8-HpCDD	310	-		3.10	Total Hexa-Dioxins	85.9	-		5
OCDD	4380	-		0.438	Total Hepta-Dioxins	817	-		2
2,3,7,8-TCDF	-	0.173		-					
1,2,3,7,8-PeCDF	-	0.550		-					
2,3,4,7,8-PeCDF	-	0.529		-					
1,2,3,4,7,8-HxCDF	-	0.384		-					
1,2,3,6,7,8-HxCDF	-	0.425		-					
2,3,4,6,7,8-HxCDF	1.58	-	J	0.158					
1,2,3,7,8,9-HxCDF	-	0.653		-	Total Tetra-Furans	-	0.309		0
1,2,3,4,6,7,8-HpCDF	51.5	-		0.515	Total Penta-Furans	2.30	-		1
1,2,3,4,7,8,9-HpCDF	4.89	-		0.0489	Total Hexa-Furans	24.6	-		4
OCDF	358	-		0.0358	Total Hepta-Furans	213	-		3

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	99.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	80.8	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	112	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	117	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	87.0	23.0 - 140	
13C-OCDD	73.9	17.0 - 157	
13C-2,3,7,8-TCDF	99.4	24.0 - 169	
13C-1,2,3,7,8-PeCDF	83.9	24.0 - 185	
13C-2,3,4,7,8-PeCDF	78.8	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	101	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	104	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	93.1	29.0 - 147	
13C-1,2,3,7,8,9-HxCDF	85.2	28.0 - 136	
13C-1,2,3,4,6,7,8-HpCDF	78.4	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	76.7	26.0 - 138	
13C-OCDF	62.8	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	99.3	35.0 - 197

Analyst: [signature] Date: 4/8/04

Reviewed by: BN Date: 4/8/2004

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A-3 Puddle Samples

HLE 9329

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208 Mason St. Ukiah, California 95482
e-mail: clientservices@alpha-labs.com • Phone (707) 468-0401 • Fax (707) 468-5267

TASK 11 IRM
2/5/04 PUDDLE SAMPLING

20 February 2004

Geomatrix Consultants
Attn: Ross Steenson
2101 Webster Street, 12th Floor
Oakland, CA 94612
RE: SPI - (GeoMatrix)
Work Order: A402243

Enclosed are the results of analyses for samples received by the laboratory on 02/09/04 13:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Melanie B. Neece

Melanie B. Neece For Karen A. Daly
Project Manager

Alpha Analytical Laboratories Inc.
208 Mason St. Ukiah, California 95482
e-mail: clientservices@alpha-labs.com • Phone (707) 468-0401 • Fax (707) 468-5267

CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612
Attn: Ross Steenson

Report Date: 02/20/04 08:11
Project No: 030275.11
Project ID: SPI - (GeoMatrix)

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A402243	02/09/2004 13:30	GEOMAT	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Puddle - S	A402243-01	Water	02/05/04 15:55	02/09/04 13:30
Puddle - N	A402243-02	Water	02/05/04 16:05	02/09/04 13:30

Melanie B. Neece For Karen A. Daly
Project Manager

2/20/2004

Alpha Analytical Laboratories Inc.
208 Mason St. Ukiah, California 95482
e-mail: clientservices@alpha-labs.com • Phone (707) 468-0401 • Fax (707) 468-5267

CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612
Attn: Ross Steenson

Report Date: 02/20/04 08:11
Project No: 030275.11
Project ID: SPI - (GeoMatrix)

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A402243	02/09/2004 13:30	GEOMAT	

Alpha Analytical Laboratories, Inc.

	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
Puddle - S (A402243-01)			**Sample Type: Water**			**Sampled: 02/05/04 15:55**		
Chlorinated Phenols by Canadian Pulp Method								
2,4,6-Trichlorophenol	EnvCan	AB41815	02/12/04	02/19/04	1	ND ug/l	1.0	
2,3,5,6-Tetrachlorophenol	"	"	"	"	"	ND "	1.0	
2,3,4,6-Tetrachlorophenol	"	"	"	"	"	ND "	1.0	
2,3,4,5-Tetrachlorophenol	"	"	"	"	"	ND "	1.0	
Pentachlorophenol	"	"	"	"	"	ND "	1.0	
Surrogate: Tribromophenol	"	"	"	"		*99.6 %*	*79-119*	
Puddle - N (A402243-02)			**Sample Type: Water**			**Sampled: 02/05/04 16:05**		
Chlorinated Phenols by Canadian Pulp Method								
2,4,6-Trichlorophenol	EnvCan	AB41815	02/12/04	02/19/04	1	ND ug/l	1.0	
2,3,5,6-Tetrachlorophenol	"	"	"	"	"	ND "	1.0	
2,3,4,6-Tetrachlorophenol	"	"	"	"	"	ND "	1.0	
2,3,4,5-Tetrachlorophenol	"	"	"	"	"	ND "	1.0	
Pentachlorophenol	"	"	"	"	"	ND "	1.0	
Surrogate: Tribromophenol	"	"	"	"		*98.0 %*	*79-119*	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Melanie B. Neece For Karen A. Daly
Project Manager

2/20/2004

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CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612
Attn: Ross Steenson

Report Date: 02/20/04 08:11
Project No: 030275.11
Project ID: SPI - (GeoMatrix)

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A402243	02/09/2004 13:30	GEOMAT	

SourceResult

Chlorinated Phenols by Canadian Pulp Method - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch AB41815 - Solvent Extraction										
Blank (AB41815-BLK1)				Prepared: 02/12/04 Analyzed: 02/18/04						
2,4,6-Trichlorophenol	ND	1.0	ug/l							
2,3,5,6-Tetrachlorophenol	ND	1.0	"							
2,3,4,6-Tetrachlorophenol	ND	1.0	"							
2,3,4,5-Tetrachlorophenol	ND	1.0	"							
Pentachlorophenol	ND	1.0	"							
Surrogate: Tribromophenol	*26.4*		"	*25.0*		*106*	*79-119*			
LCS (AB41815-BS1)				Prepared: 02/12/04 Analyzed: 02/18/04						
2,4,6-Trichlorophenol	4.88	1.0	ug/l	5.00		97.6	81-120			
2,3,5,6-Tetrachlorophenol	5.12	1.0	"	5.00		102	78-108			
2,3,4,6-Tetrachlorophenol	5.05	1.0	"	5.00		101	76-108			
2,3,4,5-Tetrachlorophenol	5.25	1.0	"	5.00		105	80-116			
Pentachlorophenol	5.48	1.0	"	5.00		110	86-109			QL-03
Surrogate: Tribromophenol	*29.3*		"	*25.0*		*117*	*79-119*			
Matrix Spike (AB41815-MS1)	**Source: A402225-01**			Prepared: 02/12/04 Analyzed: 02/18/04						
2,4,6-Trichlorophenol	4.78	1.0	ug/l	5.00	ND	95.6	75-125			
2,3,5,6-Tetrachlorophenol	4.97	1.0	"	5.00	ND	99.4	69-115			
2,3,4,6-Tetrachlorophenol	4.93	1.0	"	5.00	ND	98.6	66-117			
2,3,4,5-Tetrachlorophenol	5.03	1.0	"	5.00	ND	101	70-115			
Pentachlorophenol	5.36	1.0	"	5.00	ND	107	55-124			
Surrogate: Tribromophenol	*27.8*		"	*25.0*		*111*	*79-119*			
Matrix Spike Dup (AB41815-MSD1)	**Source: A402225-01**			Prepared: 02/12/04 Analyzed: 02/18/04						
2,4,6-Trichlorophenol	4.96	1.0	ug/l	5.00	ND	99.2	75-125	3.70	20	
2,3,5,6-Tetrachlorophenol	5.10	1.0	"	5.00	ND	102	69-115	2.58	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Melanie B. Neece For Karen A. Daly
Project Manager

2/20/2004

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CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612
Attn: Ross Steenson

Report Date: 02/20/04 08:11
Project No: 030275.11
Project ID: SPI - (GeoMatrix)

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A402243	02/09/2004 13:30	GEOMAT	

Chlorinated Phenols by Canadian Pulp Method - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch AB41815 - Solvent Extraction										
Matrix Spike Dup (AB41815-MSD1)	**Source: A402225-01**			Prepared: 02/12/04		Analyzed: 02/18/04				
2,3,4,6-Tetrachlorophenol	5.04	1.0	"	5.00	ND	101	66-117	2.21	20	
2,3,4,5-Tetrachlorophenol	5.06	1.0	"	5.00	ND	101	70-115	0.595	20	
Pentachlorophenol	5.47	1.0	"	5.00	ND	109	55-124	2.03	20	
Surrogate: Tribromophenol	*28.8*		"	*25.0*		*115*	*79-119*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Melanie B. Neece For Karen A. Daly
Project Manager

2/20/2004

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CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612
Attn: Ross Steenson

Report Date: 02/20/04 08:11
Project No: 030275.11
Project ID: SPI - (GeoMatrix)

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A402243	02/09/2004 13:30	GEOMAT	

Notes and Definitions

QL-03	Although the LCS/LCSD recovery for this analyte is outside of in-house developed control limits, it is within the EPA recommended range of 70-130%.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
PQL	Practical Quantitation Limit

MFG, INC.

CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

COC No. 46239

Arcata Office
775 Crescent Way
Arcata, CA 95521-6741
Phone (707) 826-8430- FAX (707) 826-8437

☐ CA - Irvine
17770 Cartwright Rd.
Ste. 500
Irvine, CA 92614
Tel (949) 253-2951
Fax (949) 253-2954

☐ CA - San Francisco
180 Howard St., Ste. 209
San Francisco, CA 94105
Tel (415) 495-7116
Fax (415) 495-7107

☐ CO - Boulder
4900 Pearl East Cir.
Ste. 300W
Boulder, CO 80301
Tel (303) 447-1323
Fax (303) 447-1836

☐ D - Osburn
PO Box 30
Wallace, ID 83873
Tel (208) 556-6811
Fax (208) 556-7271

☐ MT - Missoula
PO Box 7158
Missoula, MT 59807
Tel (406) 728-4600
Fax (406) 728-4698

☐ NJ - Edison
1090 King Georges Post Rd.
Ste. 703
Edison, NJ 08837
Tel (732) 738-5707
Fax (732) 738-5711

☐ OR - Portland
1020 SW Taylor St.
Ste. 530
Portland, OR 97205
Tel (503) 226-8616
Fax (503) 226-8691

☐ PA - Pittsburgh
830 Vinial St., Bldg. A
Pittsburgh, PA 15212
Tel (412) 321-2278
Fax (412) 321-2283

☐ TX - Austin
4807 Spicewood Springs Rd.
Bldg. IV, 1st Floor
Austin, TX 78759
Tel (512) 338-1667
Fax (512) 338-1331

☐ TX - Houston
12337 Jones Rd.
Ste. 230
Houston, TX 77070
Tel (281) 890-5068
Fax (281) 890-5044

☐ TX - Port Lavaca
320 East Main
Port Lavaca, TX 77979
Tel (361) 552-8839
Fax (361) 553-6115

☐ TX - Texarkana
4532 Summerhill Rd.
Texarkana, TX 75503
Tel (903) 794-0625
Fax (903) 794-0626

☐ WA - Seattle
19203 36th Ave. W
Ste. 100
Lynnwood, WA 98036
Tel (425) 921-4000
Fax (425) 921-4040

x Geomatrix
2101 Webster St, 12th Floor
Oakland, CA 94612

PROJECT NO: 030275.11 PROJECT NAME: SPI Arcata PAGE: 1 OF: 1

SAMPLER (Signature): Matt Hillyard PROJECT MANAGER: Ross Steenson DATE: 2/6/04

METHOD OF SHIPMENT: Courier CARRIER/WAYBILL NO: _____ DESTINATION: Alpha

Field Sample Identification	SAMPLES: Sample DATE	TIME	Matrix*	Preservation: HCl	HNO_3	H_2SO_4	COLD		FILTRATION*	Containers: VOLUME (ml/oz)	TYPE*	NO.	ANALYSIS REQUEST: Constituents/Method: PCP/TCP					Handling: HOLD	RUSH	STANDARD	Remarks
Puddle-S	2/5	1555	AQ				x		U	125mL	G	2	x	A462243-01						x	chlorophenols by
Puddle-N	2/5	1605	AQ				x		U	125mL	G	2	x				-02			x	canadian pulp mthd

TOTAL NUMBER OF CONTAINERS

LABORATORY COMMENTS/CONDITION OF SAMPLES Cooler Temp: 1.0°C

RELINQUISHED BY: SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	RECEIVED BY: SIGNATURE	PRINTED NAME	COMPANY
Matt Hillyard	Matt Hillyard	MFG	2/9/04	9:30	John Taylor	John Taylor	ALPHA
John Taylor	John Taylor	Alpha	2/9/04	13:30	K Daly	K Daly	Alpha LABORATORY

*KEY: Matrix: AQ - aqueous, NA - nonaqueous, SO - soil, SL - sludge, P - petroleum, A - air, OT - other; Containers: P - plastic, G - glass, T - teflon, B - brass, OT - other; Filtration: F - filtered, U - unfiltered

DISTRIBUTION: PINK: Field Copy YELLOW: Lab's Copy WHITE: Return to Originator

APPENDIX B

Waste Disposal Documentation

Form Approved OMB No 2050-0039 (Expires 9-30-99)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD047403696
Manifest Document No: 18294
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
SIERRA PACIFIC INDUSTRIES - ARCATA
P.O. BOX 1189
ARCATA CA 95518
SITE: 2593 NEW NAVY BASE RD

4. Generator's Phone ( ) 707 443-3111

A. State Manifest Document Number: 22818294

B. State Generator's ID

5. Transporter 1 Company Name: ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAD028277036
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (800)974-4495

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT (KETTLEMAN FACILITY)
35251 OLD SKYLINE ROAD
KETTLEMAN CITY CA 93239
10. US EPA ID Number: CAT000646117
G. State Facility's ID: CAT000646117
H. Facility's Phone: (800)222-2964

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE PENTACHLOROPHENOL)	001	CM	16220	P	State 611; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
11A) EC-2228, BIN # 593

K. Handling Codes for Wastes Listed Above
a. 03 b.
c. d.

15. Special Handling Instructions and Additional Information
USE PPE
NAERG #: 11A. 171
SITE: 2593 NEW NAVY BASE ROAD, ARCATA, CA 95518
EMERGENCY CONTACT: CHEMTREC 1-800-424-9300
PROJ#3326317316 PO#N080024330

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: William C Rozzi | Signature: [signature] | Month 12 Day 11 Year 03

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Glen Williams | Signature: Glen Williams | Month 12 Day 11 Year 03

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: G Barber | Signature: [signature] | Month 12 Day 12 Year 03

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

22818294

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD047403696 | Manifest Document No.: 18297
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
SIERRA PACIFIC INDUSTRIES - ARCATA
P.O. BOX 1189
ARCATA CA 95518
SITE 2593 NEW NAVY BASE RD

4. Generator's Phone (707 443-3111

A. State Manifest Document Number: 22818297

B. State Generator's ID

5. Transporter 1 Company Name: ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAD028277036

C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (800)974-4495

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT (KETTLEMAN FACILITY)
35251 OLD SKYLINE ROAD
KETTLEMAN CITY CA 93239

10. US EPA ID Number: CAT000646117

G. State Facility's ID: CAT000646117
H. Facility's Phone: (800)222-2964

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE PENTACHLOROPHENOL)	001	CM	25360	P	State 611; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
11A) EC-2228, BIN # 577

K. Handling Codes for Wastes Listed Above
a. 03
b.
c.
d.

15. Special Handling Instructions and Additional Information
USE PPE
NAERG #: 11A. 171
SITE: 2593 NEW NAVY BASE ROAD, ARCATA, CA 95518
EMERGENCY CONTACT :CHEMTREC 1-800-424-9300
P.O.# 32263026 PC#1058024330

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Jay Nancey | Signature: [signature] | Month 1 Day 1 Year 03

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Glen Williams. | Signature: Glen Williams | Month 1 Day 1 Year 03

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Villa Schmidt | Signature: [signature] | Month 1 Day 1 Year 2003

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD047403696 — Manifest Document No. 18299
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
SIERRA PACIFIC INDUSTRIES - ARCATA
P.O. BOX 1189
ARCATA CA 95518
SITE : 2593 NEW NAVY BASE RD
4. Generator's Phone (707 443-3111

A. State Manifest Document Number **22818299**
B. State Generator's ID

5. Transporter 1 Company Name: ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAD028277036
C. State Transporter's ID [Reserved.]
D. Transporter's Phone (800)974-4495

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT (KETTLEMAN FACILITY)
35251 OLD SKYLINE ROAD
KETTLEMAN CITY CA 93239
10. US EPA ID Number: CAT000646117
G. State Facility's ID: CAT000646117
H. Facility's Phone (800)222-2964

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE PENTACHLOROPHENOL)	001	CM	26061	P	State 611; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
11A) EC-2228, BIN # _____

K. Handling Codes for Wastes Listed Above
a. 03 b. c. d.

15. Special Handling Instructions and Additional Information
USE PPE
EMERGENCY CONTACT :CHEMTREC 1-800-424-9300
NAERG #: 11A. 171
SITE: 2593 NEW NAVY BASE ROAD, ARCATA, CA 95518 Prof# 53303026 PO# 008C024330

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Jay Chaney — Signature: [signature] — Month/Day/Year: 10/29/03

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Glen Williams — Signature: [signature] — Month/Day/Year: 10/29/03

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: ~~Jay Chaney~~ — Signature: — Month/Day/Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: S Barbo — Signature: [signature] — Month/Day/Year: 10/31/03

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR / TRANSPORTER / FACILITY

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD047403696 — Manifest Document No. 20609 — 2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
SIERRA PACIFIC INDUSTRIES - ARCATA
P.O. BOX 1189
ARCATA CA 95518
4. Generator's Phone (707 443-3111

A. State Manifest Document Number 22820609
B. State Generator's ID

5. Transporter 1 Company Name: ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAD028277036
C. State Transporter's ID [Reserved.]
D. Transporter's Phone (800)974-4495

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address
US ECOLOGY
HWY. 95, 12 MILES SO. OF BEATTY
BEATTY NV 89003
10. US EPA ID Number: NVT330010000
G. State Facility's ID
H. Facility's Phone (800)239-3943

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE SOLID (DEBRIS WITH TRACE PENTACHLOROPHENOL)	007	DM	02100	P	State 352 / EPA/Other NONE
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
11A) 07-013-0419, 6 x 55 G, 1 x 85 G dP

K. Handling Codes for Wastes Listed Above
a. 03 b. c. d.

15. Special Handling Instructions and Additional Information
USE PPE
EMERGENCY CONTACT CHEMTREC 1-800-424-9300
NAERG # 11A. 171
SITE: 2593 NEW NAVY BASE ROAD, ARCATA, CA 95518 PO# AC800025917 Proj# 3302 6A15

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR — Printed/Typed Name: Jay Hancey — Signature: Jay Hancey — Month 11 Day 10 Year 03

TRANSPORTER
17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: GREGG ARANDA — Signature: Gregg Aranda — Month 11 Day 10 Year 03
18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY
19. Discrepancy Indication Space
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Lamar Walter — Signature — Month 11 Day 26 Year 03

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
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See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CAD047403962	06 11		

3. Generator's Name and Mailing Address
SIERRA PACIFIC INDUSTRIES - ARCATA
P.O. BOX 1189
ARCATA CA 95518
4. Generator's Phone (707 443-3111

A. State Manifest Document Number 22820611
B. State Generator's ID

5. Transporter 1 Company Name ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number CAD028277036
C. State Transporter's ID [Reserved.]
D. Transporter's Phone (800)974-4495

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address
DEMENNO / KERDOON
2000 NORTH ALAMEDA STREET
COMPTON CA 90222
10. US EPA ID Number CAT080013352
G. State Facility's ID CA1CE000133S2
H. Facility's Phone (310)537-7100

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE LIQUID (WATER WITH TRACE PENTACHLOROPHENOL)	005	DM	00215	G	State 343 / EPA/Other NONE
b. Non RCRA Hazardous Waste Liquid (Water with trace pentachlorophenol)	014	TP	03850	G	State 343 / EPA/Other None
c.					State / EPA/Other
d.					State / EPA/Other

THIS WASTE STREAM HAS BEEN QUALIFIED FOR RECYCLING/TREATMENT AT THE DeMENNO/KERDOON FACILITY IN COMPTON, CALIFORNIA. THIS FACILITY HAS THE NECESSARY PERMITS TO RECEIVE YOUR WASTE STREAM AS QUALIFIED. OUR EPA NUMBER IS CAT080013352.

J. Additional Descriptions for Materials Listed Above
11A) 208829, 5 X 55 G
11B) 208829 14 X 275 G TOTES

K. Handling Codes for Wastes Listed Above
a. 01 b. 01
c. d.

15. Special Handling Instructions and Additional Information
USE PPE
EMERGENCY CONTACT: CHEMTREC 1-800-424-9300
NAERG #: 11A. 171
SITE: 2593 NEW NAVY BASE ROAD, ARCATA, CA 95518 PO # 3302 GA15

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month	Day	Year
Jay Nancy	Jay Nancy	11	10	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
GABRIEL ARANDA	Gabriel Aranda	11	10	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Oscar Gamiaka		11	12	03

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

GENERATOR

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

TTC07077

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
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See Instructions on back of page 6.

Department of Toxic Substanc
Sacramento, Californ

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

6621822

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD047406966 — Manifest Document No. 21359
2. Page 1 of 1
Information in the shaded area is not required by Federal law.

3. Generator's Name and Mailing Address: SIERRA PACIFIC INDUSTRIES - ARCATA, P.O. BOX 1189, ARCATA CA 95518
4. Generator's Phone (707 443-3111

A. State Manifest Document Number **228213**
B. State Generator's ID

5. Transporter 1 Company Name: ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAD028277036
C. State Transporter's ID [Reserved.]
D. Transporter's Phone (800)974-4495

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address: DEMENNO / KERDOON, 2000 NORTH ALAMEDA STREET, COMPTON CA 90222
10. US EPA ID Number: CAT080013352
G. State Facility's ID: CAT080013352
H. Facility's Phone (310)537-7100

GENERATOR

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE LIQUID (WATER WITH TRACE PENTACHLOROPHENOL)	006	TP	01650	G	State 343; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

THIS WASTE STREAM HAS BEEN QUALIFIED FOR RECYCLING/TREATMENT AT THE DeMENNO/KERDOON FACILITY IN COMPTON, CALIFORNIA. THIS FACILITY HAS THE NECESSARY PERMITS TO RECEIVE YOUR WASTE STREAM AS QUALIFIED. OUR EPA NUMBER IS CAT080013352.

J. Additional Descriptions for Materials Listed Above: 11A) 208829, 6 X 275 G

K. Handling Codes for Wastes Listed Above: a. 01 b. c. d.

15. Special Handling Instructions and Additional Information
USE PPE
EMERGENCY CONTACT :CHEMTREC 1-800-424-9300
NAERG #: 11A 171
SITE: 2593 NEW NAVY BASE ROAD, ARCATA, CA 95518 Proj # 33026A15 PO# N/A

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: Jay Chancey — Signature: Jay Chancey — Month 11 Day 25 Year 03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: GABRIEL ARANDA — Signature: Gabriel Aranda — Month 11 Day 25 Year 03

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Joseph Gilbert — Signature — Month 12 Day [illegible] Year [illegible]

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CAD074036961761 5			

3. Generator's Name and Mailing Address
SIERRA PACIFIC INDUSTRIES - ARCATA
P.O. BOX 1189
ARCATA CA 95518
SITE: 2593 NEW NAVY BASE RD.
4. Generator's Phone (707 443-3111

A. State Manifest Document Number: 22817615

B. State Generator's ID:

5. Transporter 1 Company Name: ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAD028277036

C. State Transporter's ID [Reserved.]:

D. Transporter's Phone: (800)974-4495

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Transporter's ID [Reserved.]:

F. Transporter's Phone:

9. Designated Facility Name and Site Address:
DEMENNO / KERDOON
2000 NORTH ALAMEDA STREET
COMPTON CA 90222
10. US EPA ID Number: CAT080013352

G. State Facility's ID: CAT080013352

H. Facility's Phone: (310)537-7100

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE LIQUID (WATER WITH TRACE PENTACHLOROPHENOL)	005	DM	00230	G	State 343 / EPA/Other NONE
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

THIS WASTE STREAM HAS BEEN QUALIFIED FOR RECYCLING/TREATMENT AT THE DeMENNO/KERDOON FACILITY IN COMPTON, CALIFORNIA. THIS FACILITY HAS THE NECESSARY PERMITS TO RECEIVE YOUR WASTE STREAM AS QUALIFIED. OUR EPA NUMBER IS CAT080013352.

J. Additional Descriptions for Materials Listed Above:
11A) 208829, 5 X 55 G

K. Handling Codes for Wastes Listed Above:
a. D1: b.
c. d.

15. Special Handling Instructions and Additional Information:
USE PPE
EMERGENCY CONTACT CHEMTREC 1-800-424-9300
NAERG #: 11A. 171
SITE: 2593 NEW NAVY BASE ROAD, ARCATA, CA 95518 Veg# 3121515

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Printed/Typed Name	Signature	Month	Day	Year
Jay Nancey	J Nancey	09	12	03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
William Pohl		09	12	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Jose Ito Collado		09	23	03

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

GENERATOR
TRANSPORTER
FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

22817615

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

22820666

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD047403696 — Manifest Document No.: 20666
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: 22820666

3. Generator's Name and Mailing Address:
SIERRA PACIFIC INDUSTRIES - ARCATA
P.O. BOX 1189
ARCATA CA 95518

4. Generator's Phone (707 443-3111

B. State Generator's ID:

5. Transporter 1 Company Name: ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAD028277036

C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (800)974-4495

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Transporter's ID [Reserved.]
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
CHEMICAL WASTE MANAGEMENT (KETTLEMAN FACILITY)
35251 OLD SKYLINE ROAD
KETTLEMAN CITY CA 93239

10. US EPA ID Number: CAT000646117

G. State Facility's ID: CAT000646117
H. Facility's Phone: (800)222-2964

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE PENTACHLOROPHENOL)	001	CM	00012	Y	State 611; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
11A) EC-2226, BIN # ~~593~~ 602

K. Handling Codes for Wastes Listed Above
a. 150 b. c. d.

15. Special Handling Instructions and Additional Information
USE PPE
NAERG #: 11A. 171
SITE: 2593 NEW NAVY BASE ROAD, ARCATA, CA 95518
EMERGENCY CONTACT :CHEMTREC 1-800-424-9300
L10# 32263A26 PO# N080024330

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Steve Jacobsen	[signature]	1	1	2003

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
BRIAN MCKINLEY	Brian McKinley	1	1	2003

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Vicki Schmidt	V	1	12	[illegible]

GENERATOR / TRANSPORTER / FACILITY

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD047403696
Manifest Document No.: 20668
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: 22820668

3. Generator's Name and Mailing Address: SIERRA PACIFIC INDUSTRIES - ARCATA, P.O. BOX 1189, ARCATA CA 95518
4. Generator's Phone: 707 443-3111

B. State Generator's ID

5. Transporter 1 Company Name: ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAD028277036
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (800)974-4495

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address: CHEMICAL WASTE MANAGEMENT (KETTLEMAN FACILITY), 35251 OLD SKYLINE ROAD, KETTLEMAN CITY CA 93239
10. US EPA ID Number: CAT000646117
G. State Facility's ID: CAT000646117
H. Facility's Phone: (800)222-2964

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE PENTACHLOROPHENOL)	001	CM	266BP	P	State 611; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
11A) EC-2228, BIN #575

K. Handling Codes for Wastes Listed Above
a. 03
b.
c.
d.

15. Special Handling Instructions and Additional Information
USE PPE
EMERGENCY CONTACT :CHEMTREC 1-800-424-9300
NAERG #: 11A. 171
SITE: 2593 NEW NAVY BASE ROAD, ARCATA, CA 95518 DM# 32263+726 PO# A080021330

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Jay Chancey | Signature: Jay Chancey | Month 12 Day 02 Year 03

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Glen Williams | Signature: Glen Williams | Month 12 Day 02 Year 03

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: T. Stephens | Signature: [illegible] | Month 12 Day 09 Year 03

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD047403696
Manifest Document No.: 20669
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
SIERRA PACIFIC INDUSTRIES - ARCATA
P.O. BOX 1189
ARCATA CA 95518
4. Generator's Phone (707 443-3111

A. State Manifest Document Number: 22820669
B. State Generator's ID

5. Transporter 1 Company Name: ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAD028277036
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (800)974-4495

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT (KETTLEMAN FACILITY)
35251 OLD SKYLINE ROAD
KETTLEMAN CITY CA 93239
10. US EPA ID Number: CAT000646117
G. State Facility's ID: CAT000646117
H. Facility's Phone: (800)222-2964

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE PENTACHLOROPHENOL)	001	CM	~~37040~~ 34120	P	State 611; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
11A) EC-2228, BIN #511

K. Handling Codes for Wastes Listed Above
a. 03 b. c. d.

15. Special Handling Instructions and Additional Information
USE PPE
NAERG #: 11A 171
SITE: 2593 NEW NAVY BASE ROAD, ARCATA, CA 95518 Prj#32263426 PO#A080024330
EMERGENCY CONTACT :CHEMTREC 1-800-424-9300

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: Steve Jacobson | Signature: [signature] | Month/Day/Year: 11 19 03

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Glen Williams | Signature: Glen Williams | Month/Day/Year: 11 19 03

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Vicki Schwardt | Signature: [signature] | Month/Day/Year: 11/21/2003

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

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