

# Characterization of the Geology and Contaminant Distribution at the Six Phase Heating Demonstration Site at the Savannah River Site<sup>(U)</sup>

C. A. Eddy-Dilek, T. R. Jarosch, M. A. Keenan,  
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**MASTER**

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June 30, 1994

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## Abstract

The objective of the Volatile Organic Compounds in Non-arid Soils Integrated Demonstration at the Savannah River Site is to evaluate innovative remediation, characterization, and monitoring systems to facilitate restoration of contaminated sites. The focus of the third phase of the Integrated Demonstration is to evaluate the use of heating technologies, both radio frequency and ohmic heating, to enhance the removal of contamination from clay layers.

This report documents characterization data collected in support of the ohmic heating demonstration performed by researchers from PNL. The data presented and discussed in this report include a general description of the site including location of piezometers and sensors installed to monitor the remedial process, and detailed geologic cross sections of the study site, sampling and analysis procedures for sediment samples, tabulations of moisture and VOC content of the sediments, models of the distribution of contamination before and after the test, and a comparison of the volume estimations of contaminated material before and after the test.

Moisture content of soil water ( $\theta_g$ ) was determined for duplicate samples collected from sediment cores. Calculated values of volumetric moisture content ( $\theta$ ) ranged

from 0.07 to 0.80 for pretest samples and 0.01 to 0.45 for post test samples. Two general observations can be made about distribution of soil moisture in the study area. First, in any given core, the clay rich zones have higher moisture contents than the sandy zones. Second, the pretest moisture content of sediments in the target clay zone were significantly reduced during the heating.

Chemical analysis of the core material shows that the pretest distribution of solvent in the study area was governed by the heterogeneity inherent in the interbedded clays and sands. The pretest models of the distribution of PCE and TCE show that the solvent was concentrated in the clay-rich sediments located in the clayey zone that were targeted in the demonstration. There is also a east to west increase in the contaminant concentrations, the boring with the highest measured concentrations is MHV-34 (181  $\mu\text{g/g}$  TCE, 4500  $\mu\text{g/g}$  PCE) which is the westernmost boring. This boring has solvent accumulations in the shallow as well as in the deeper clay layers. The boring that was closest to the leaking process sewer line that was the source of the contamination in this area. The post-test models show almost complete removal of solvent from the heated zone. The inventory calculations support this conclusion. The results show that the heating process was successful mobilizing and removing solvent from the heated interval.

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## 1.0 Objective

The overall objective of the Volatile Organic Compounds in Non-arid Soils Integrated Demonstration (ID) at SRS is to evaluate innovative remediation, characterization, and monitoring systems to facilitate restoration of contaminated sites. The first phase of the ID focused on applying and developing *in situ* air stripping technologies to remediate sediments and groundwater contaminated with VOCs. The second phase of field demonstration focused on enhancing the *in situ* air stripping process by adding nutrients selected to stimulate naturally occurring microorganisms to degrade the contaminants. The purpose of the third phase is to evaluate the use of heating technologies—radio frequency and ohmic heating—to enhance the removal of contamination from clay layers.

The objective of this report is to document characterization data collected in support of the ohmic heating demonstration. The data include a general description of the site (including location of piezometers and sensors installed to monitor the remedial process), detailed geologic cross sections of the study site, sampling and analysis procedures for sediment samples, tabulations of moisture and VOC content of the sediments, models of the distribution of contamination before and after the test, and a comparison of the volume estimations of contaminated material before and after the test.

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## 2.0 Introduction

Vadose zone characterization data, collected previously as part of the Integrated Demonstration project at SRS, identified a shallow clay layer (30 to 45 feet depth) that contains significant quantities of VOCs (Eddy-Dilek et al., 1993; Looney et al., 1991). Analysis of sediment samples collected identified a clay layer in the unsaturated zone that contains trichloroethylene (TCE) and perchloroethylene (PCE) at elevated levels. The slow release of solvent from this clay provides a long-term source of contamination to the underlying groundwater. While vacuum extraction can be used to remove the contaminants in the unsaturated zone before they reach the groundwater, the method is limited by the relatively slow mass transfer out of the clay, resulting in unacceptably long remedial scenarios. Heating the clays to increase the removal of the volatile contaminants in conjunction with vacuum extraction is one of the most promising *in situ* treatment options. By selectively heating the clays to temperatures at or above 100°C, the release and transport of TCE and PCE from the clay during vacuum extraction will be enhanced due to the following:

- an increase in the contaminant vapor pressure and diffusivity
- an increase in the effective porosity of the sediment with the release of water vapor and contaminant
- enhanced removal from *in situ* steam stripping by the water vapor generated from heating. Other methods of subsurface heating (e. g., hot air or steam injection) are poorly suited to heat clay layers because of the low permeability of clay.

The purpose of this field demonstration was to test and evaluate the enhanced removal of chlorinated VOC from subsurface sediments using ohmic heating. To assess the effectiveness of the heating technology, pre- and post-demonstration sediment cores were collected from boreholes within the heated zone. Samples from the cores were analyzed for concentrations of chlorinated VOCs (TCE and PCE) used to determine changes in the residual contaminant concentrations and moisture content to determine potential changes in effective permeability to gas flow and to aid in calculating heating efficiency. The performance of the six phase ohmic heating demonstration is discussed and documented in Gauglitz et al. (1994).

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### 3.0 Geology and Stratigraphy

The Savannah River Site (SRS) is located on the Atlantic Coastal Plain. The Coastal Plain sediments are approximately 1000-feet-thick and composed of stratified clay, sand, and gravel. In general, these sediments dip gently to the southeast. Brief lithologic descriptions of the stratigraphic units from the surface to 200 feet depth at the Integrated Demonstration Site are available in Eddy-Dilek et al. (1993). The unsaturated sediments within the top 60 feet are of interest to this study. They consist of sands, sandy clays, clayey sands, and clays deposited in the Late Eocene to Miocene periods.

The lithostratigraphic units identified in the cores from this study include the "upland unit" and Tobacco Road sand. The sediment of the Tobacco Road sand consists of light grayish purple to moderate grayish purple, medium to fine-grained sand to clayey sand with approximately 10%–15% interstitial mud. The top of the Tobacco Road sand is marked by a moderate grayish purple clay to clayey sand approximately 10-feet-thick in the study area. This clay unit was targeted in the field demonstration. The sandy portion of the unit tends to contain more clay (up to 30%) at the base. The unconformable contact with the overlying upland unit is irregular, suggesting heavy scouring of the Tobacco Road sand during deposition of the "upland unit".

The "upland unit" is composed of sediments that are reddish orange to brown to purple, with a highly variable lithology. The unit ranges from poorly sorted, gravely sand to clay containing virtually no sand. It has a distinctive speckled appearance in sandier layers. The contact of this

unit with the underlying Tobacco Road sand is unconformable and highly irregular.

Core samples were described in the Westinghouse Savannah River Company's core logging facility using a standardized procedure for describing core material. A sample of core material is homogenized over a one foot interval and described (Procedure ESSOP-2-15: *Microscopic Examination of Sediment Cores*). Descriptions made using this procedure ignore lithologic features less than a foot in thickness and reflect a "whole-rock" lithologic classification of the sediment. For example, an interval containing 40% sand-sized material and 60% mud-sized material in discrete interbeds would be classified as a sandy clay. An interval containing the same percentage distributions, but with the mud fraction dispersed throughout the interval as a matrix would also be classified as a sandy clay. These intervals may appear identical on a geologic cross-section despite their differences in depositional environment and hydrologic properties.

A geologic cross section across the demonstration site was constructed along a north-south trend, including wells MHV-30, MHV-37, MHB-38, MHV-39 (Plate 1) and an east-west including, wells MHV-34, MHV-30, MHV-31 (Plate 2) trends. These cross sections intersect at well MHV-30, the central vent well. These cross-sections clearly delineate the distribution of the clay layer targeted in this demonstration and the heterogeneous nature of the interlayered sediments at the demonstration site. Continuous core description and core samples are available for the wells (see Appendix C).

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## 4.0 Demonstration Site Description

Core samples were collected to characterize the six phase heating demonstration site (**I did not understand the change you wanted, see attached**). Figure 1 shows the location of the electrode array used during the heating demonstration, and the observation wells used to monitor the remedial progress. During pretest characterization, continuous core samples were collected at locations MHV-30 (central vent), MHV-31 and MHV-34 (electrodes), and MHV-37, MHV-38, and MHV-39 (observation wells). Since the top of the target clay layer is located at a depth of approximately 30 feet and approximately 10-feet-thick, the borings were drilled to a 60-foot-depth to characterize contamination above, within, and below the clay.

Continuous sediment cores were collected by a hollow stem auger with a split spoon sampler starting at approximately 25 feet to total depth. Samples were collected at one-foot-intervals from the cores in the field for chemical and moisture content determination. Geologic descriptions of the core were prepared in the field.

Post-test characterization at the site consisted of borings adjacent to each location of the pretest borings. Five continuous cores were collected two weeks after the heat source was turned off (MHB-30, -31, -37, -38, and -39) and two continuous cores were collected two months after the ground cooled (MHB-34VD and MHB-37VD).

**Table 1.** Geographic Coordinates of Electrodes, Observation Wells, and Post-Test Borings

Well ID	East	North	Well ID	East	North
MHV-30	48703.2	102460.3	MHB-30	48707.09	102456.9
MHV-31	48718.0	102456.1	MHB-31	48716.24	102453.7
MHV-32	48706.6	102445.5	MHB-34	48689.37	102461.6
MHV-33	48693.1	102450.1	MHB-37	48704.06	102452.5
MHV-34	48689.0	102464.6	MHB-37D	48701.35	102450.9
MHV-35	48699.8	102475.1	MHB-38	48702.26	102446
MHV-36	48713.8	102470.5	MHB-39e	48699.36	102437.1
MHV-37	48701.0	102453.3			
MHV-38	48699.6	102448.1			
MHV-39	48696.5	102438.6			
MHV-40	48699.5	102466.8			
MHV-41	48710.4	102462.6			

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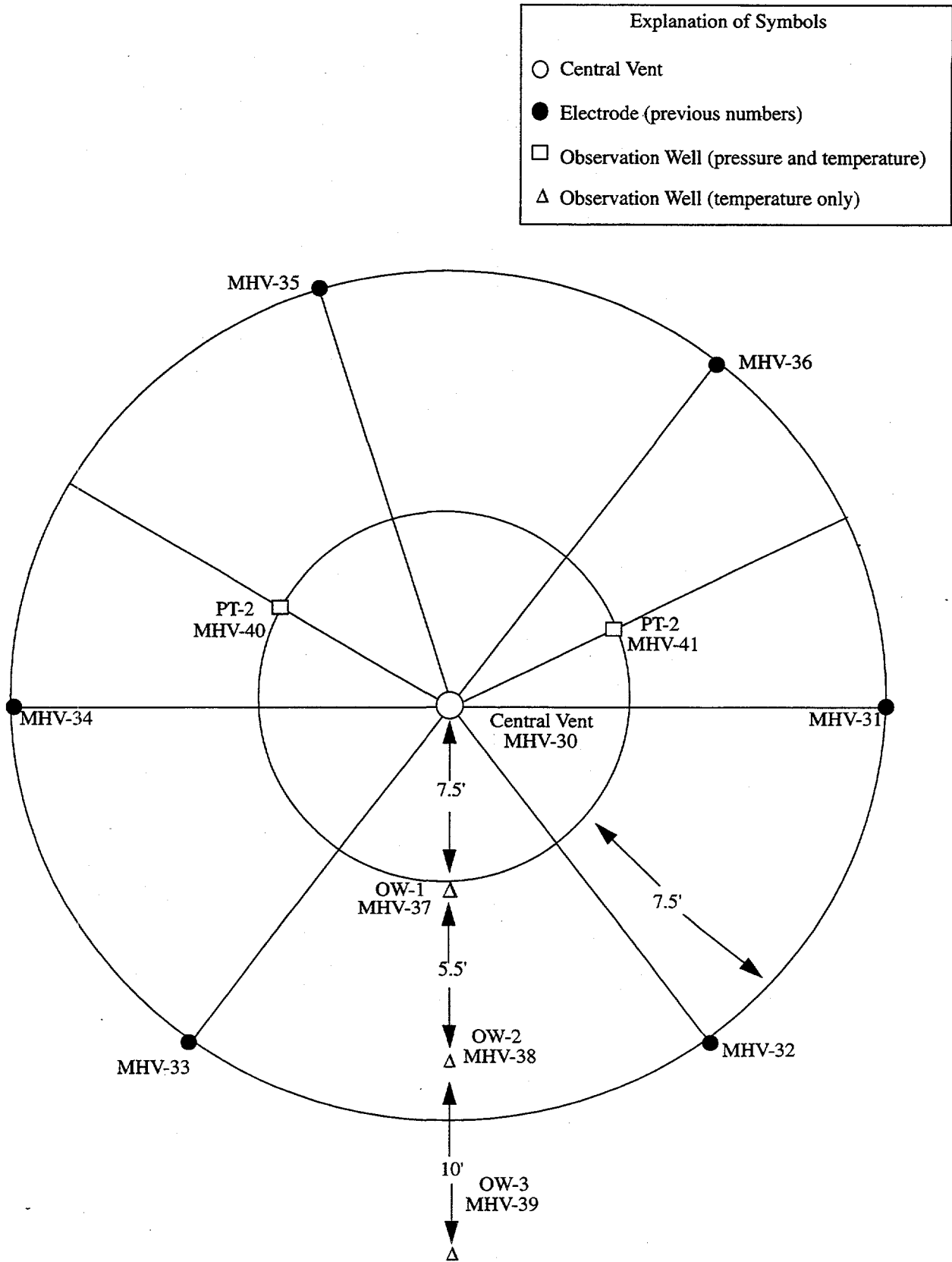


Figure 1. Map of the Ohmic Heating Demonstration Site

## 5.0 Sediment Sampling and Analysis

Sediment samples were collected during characterization activities using the protocol summarized below and detailed in Eddy et al. (1991) and Looney et al. (1993).

Sediment samples for VOC analysis and moisture content determination were collected in the **held (Is this the correct word? See attached.)**. A sample was collected immediately after the split spoon was opened using a syringe with the end cut off. For moisture content samples, the sediment plug was extruded in a preweighed vial that was then sealed. In the lab, the vials were weighed, opened, and placed into a drying oven and dried at 60°C. The samples were reweighed daily until the variance between the individual weighings was small.

Samples for VOC analysis were extruded into headspace vials, sealed, and packed on ice, taken to the lab daily, and stored in a refrigerator until analyzed. VOC analyses were performed on a Hewlett-Packard (HP) 5890 gas chromatograph with electron capture and flame ionization detectors, an HP 19395A Headspace Sampler, an HP 3392A Networking Integrator, and a 60 m 0.75 mm inner-diameter Supelco VOCOL wide bore capillary column coated with a 1.5 mm film. The instrument was calibrated using samples spiked with standard solution. Analytical techniques used are presented in detail in Eddy et al. (1991) and Looney et al. (1993).

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## 6.0 *In Situ* Moisture Contents

Moisture content ( $\theta_g$ ), or soil water, was determined for duplicate samples collected from sediment cores, six from the pretest characterization (MHV -30, -31, -34, -37, -38, and -39) and three collected approximately two weeks after the heat source was turned off (MHB -30, -31, -37, -38, and -39), and two additional cores were collected approximately two months after the heat was turned off (MHB-34VD and MHB-37VD). The results are tabulated in Appendix A.

The gravimetric moisture content of a sediment (g water/ g soil) is the most straight-forward expression of soil water content. Gravimetric moisture is the difference in weight between the dry and moist sediment expressed as a fraction of the moist weight. The preferred expression of soil moisture is volumetric moisture content. Since the volumes of each sample were not measured in this study, the volumetric moisture content ( $\theta$ ) of the sediments can only be estimated. Several assumptions were made in these calculations to estimate the volumes of the samples: 48% porosity for the clay fraction, 35% for the sand fraction, 2.6 for the density of clay, and 2.65 for the sand and gravel. These estimated values are based on geotechnical measurements made on nearby cores from the demonstration site (Eddy et al., 1993). Grain size distribution estimates were made by microscopic

examination of each the sample after drying. It is important to recognize that the result of the volumetric moisture content calculation is sensitive to the value assumed for porosity.

Calculated values of volumetric moisture content ( $\theta$ ) ranged from 0.07 to 0.80 for pretest samples and 0.01 to 0.45 for post test samples. Two general observations can be made about distribution of soil moisture in the study area. First, in any given core, the clay rich zones have higher moisture contents than the sandy zones. Second, the pretest moisture content of sediments in the target clay zone was significantly reduced during the heating. Figures 2 and 3 show results obtained from pretest and post-test borings for the electrodes (MHV-31 and MHV-34). In the zone, located at depths of 30 to 40 feet targeted during the heating, the samples collected two weeks (MHB-31) after the heat was turned off are lower in moisture content than in the analogous pretest samples. Similarly, most of the samples collected two months (MHB-34VD) after the heat was turned off are lower in moisture content than in the analogous pretest samples. In the overlying and underlying zones, the moisture contents vary significantly and a clear relationship between pretest and post-test values is not evident. Deviations from the general trends at nearby depths may also result from sampling a different lithology in the pretest and post-test sampling.

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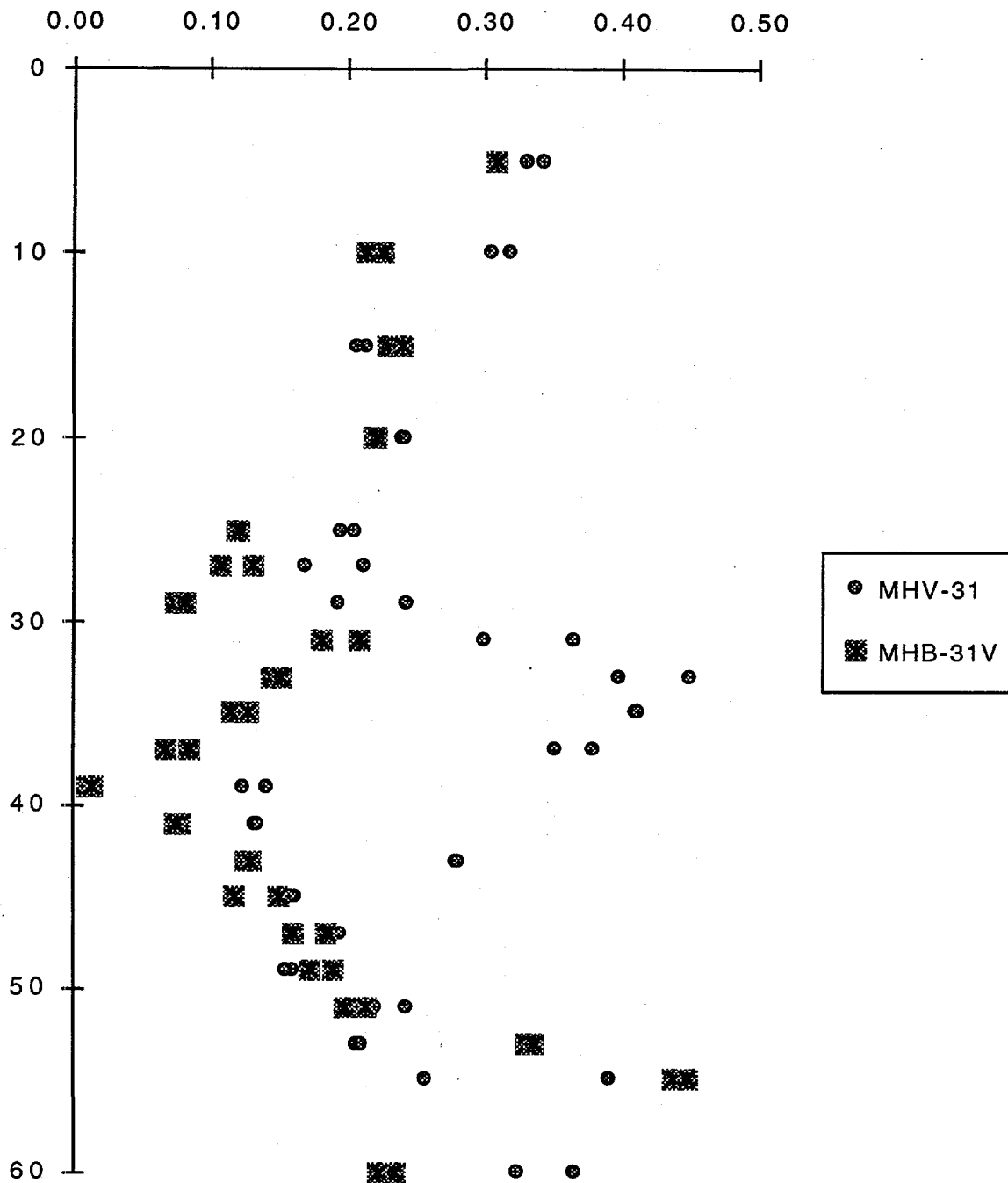


Figure 2. Comparison of Volumetric Moisture Content Measured in MHV-31 and MHB-31V

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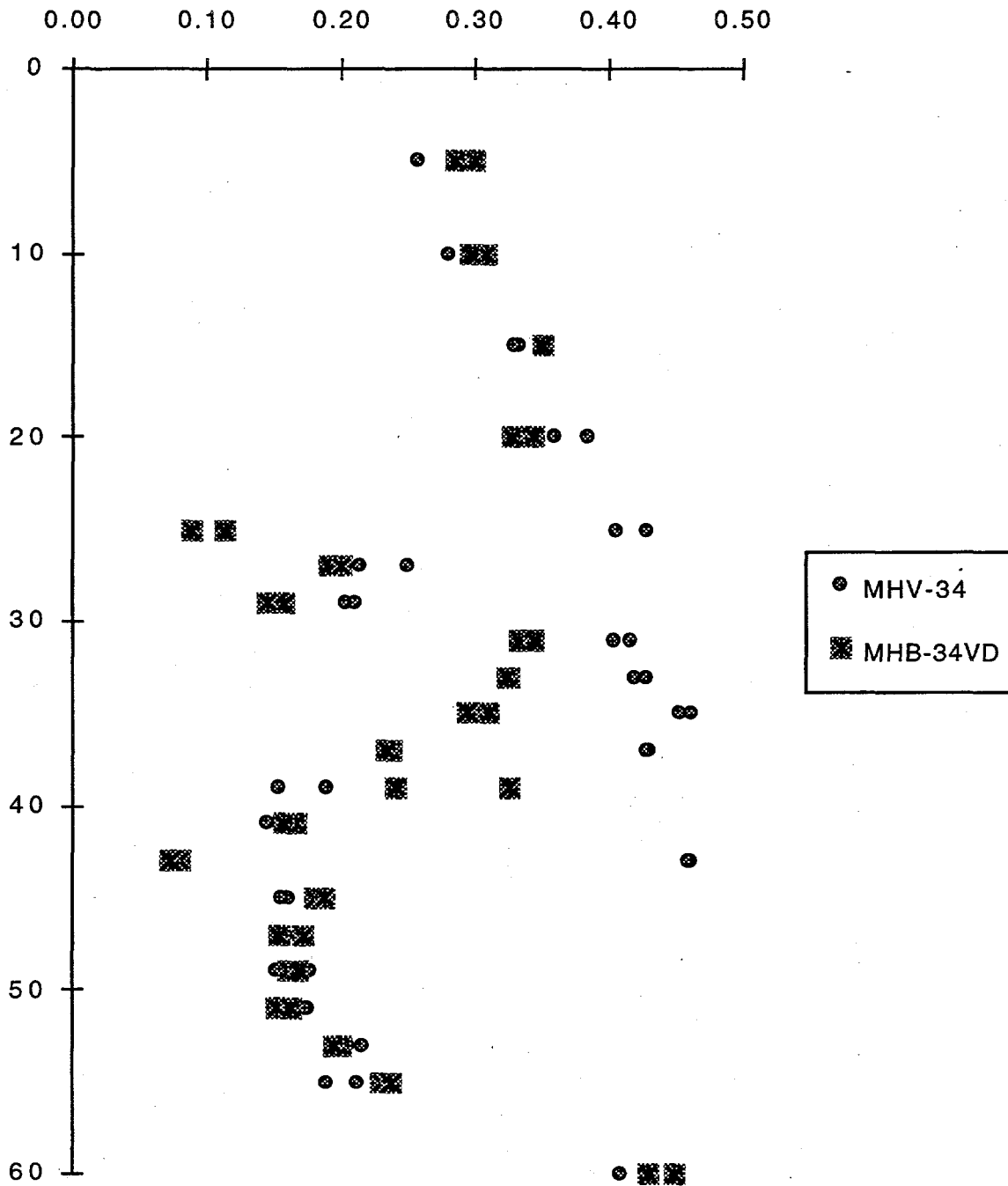


Figure 3. Comparison of Volumetric Moisture Content Measured in MHV-34 and MHB-34VD

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## 7.0 Volatile Organic Compound Results

Chemical analyses of the core samples were done to determine TCE and PCE content. Samples were collected from the sediment cores: six cores from the pretest characterization (MHV-30, -31, -34, -37, -38, and -39); five cores collected two weeks after the heat source was turned off (MHB-30, -31, -37, -38, and -39); and two cores after the ground had cooled for two months (MHB-34VD and MHB-37VD). The analytical results are tabulated in Appendix B and graphed in Appendix D.

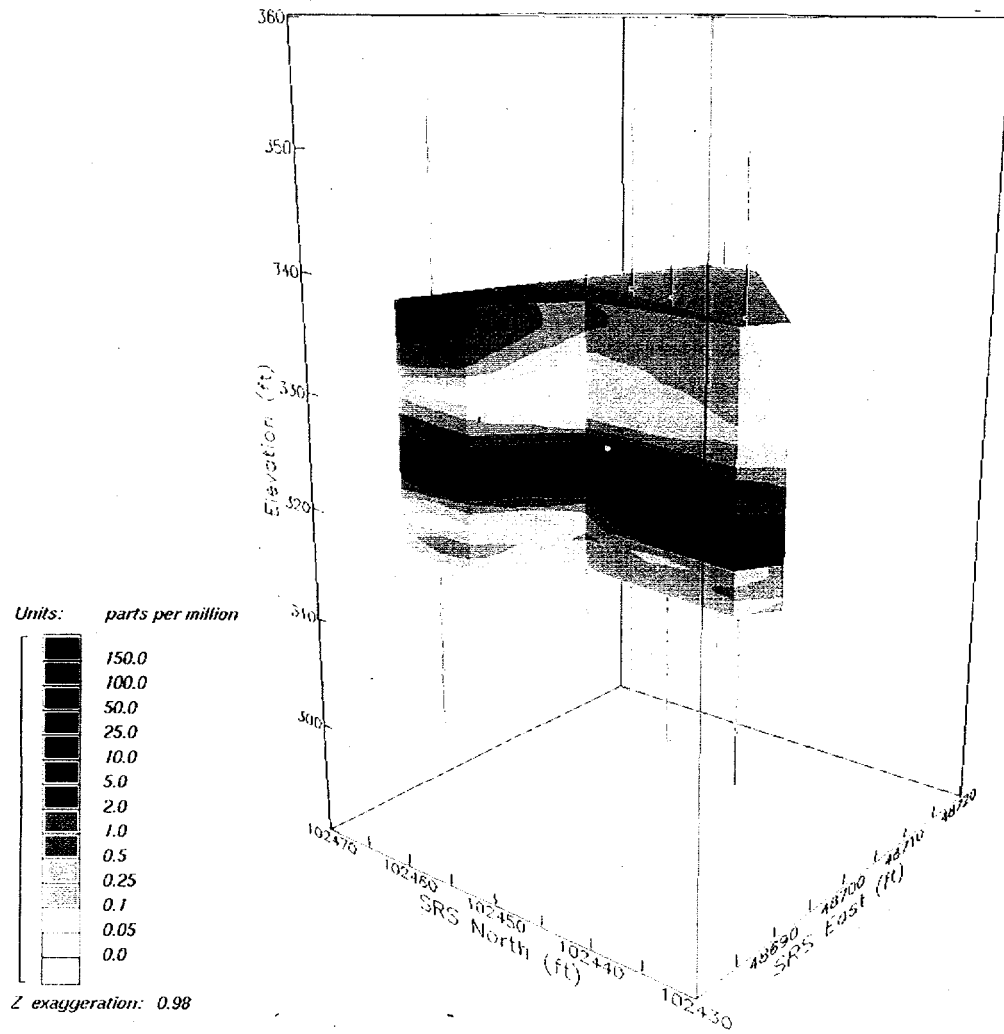
Figures 4, 5, 6, and 7 show the three-dimensional distribution of TCE and PCE in the sediment before and after the ohmic heating test. As expected, the pretest distribution of solvent in the study area was governed by the heterogeneity inherent in the interbedded clays and sands. The pretest models of the TCE and PCE show that the highest concentrations of solvent are found in the zone between 330 and 318 feet elevation. The images of the distribution of PCE and TCE show that the stratified sediments contributed to anisotropic distribution of sediment, e.g., the solvent is concentrated in the clay-rich sediments in the clayey zone targeted in the demonstration. There is also an east to west gradient in the contaminant concentrations—the boring with the highest measured concentrations is MHV-34 (181 µg/g TCE, 4500 µg/g PCE), which is the westernmost boring. This boring has solvent accumulations in the shallow and the deeper clay layers. This boring that was closest to the leaking process sewer line that was the source of the contamination in this area.

The post-test models (Figures 6 and 7) show almost complete removal of solvent from the heated zone. The only core with significant concentrations of solvent remaining was MHB-34. This clay layer was very shallow and was not heated in the demonstration.

The volumes of pretest and post-test TCE and PCE were estimated from the three-dimensional grids. Contaminant inventories are based on determining the volume between specified isoconcentration surfaces. For the volumetric calculations, the models were clipped to only include the clay directly impacted by heating, specifically, the tops of the models were clipped at elevation 337 and the bottoms were clipped at 313 feet. This excludes the shallow zone at location MHV/MHB-34. The contaminant inventory is estimated by assigning a mass to each volume and the resulting masses are summed. The assumptions made in these calculations include 1.6 for the bulk density, 40% for the porosity, and the average of the two bounding isoconcentration surfaces is used for the solvent concentration. The same gridding parameters and bounding surfaces are used to calculate the grids.

The inventory calculations show that the concentration of TCE and PCE decreased significantly after heating. TCE decreased 98% and PCE increased by 99% in the modeled area (Table 2). The results show that the heating process successfully mobilized and removed solvent from the heated interval.

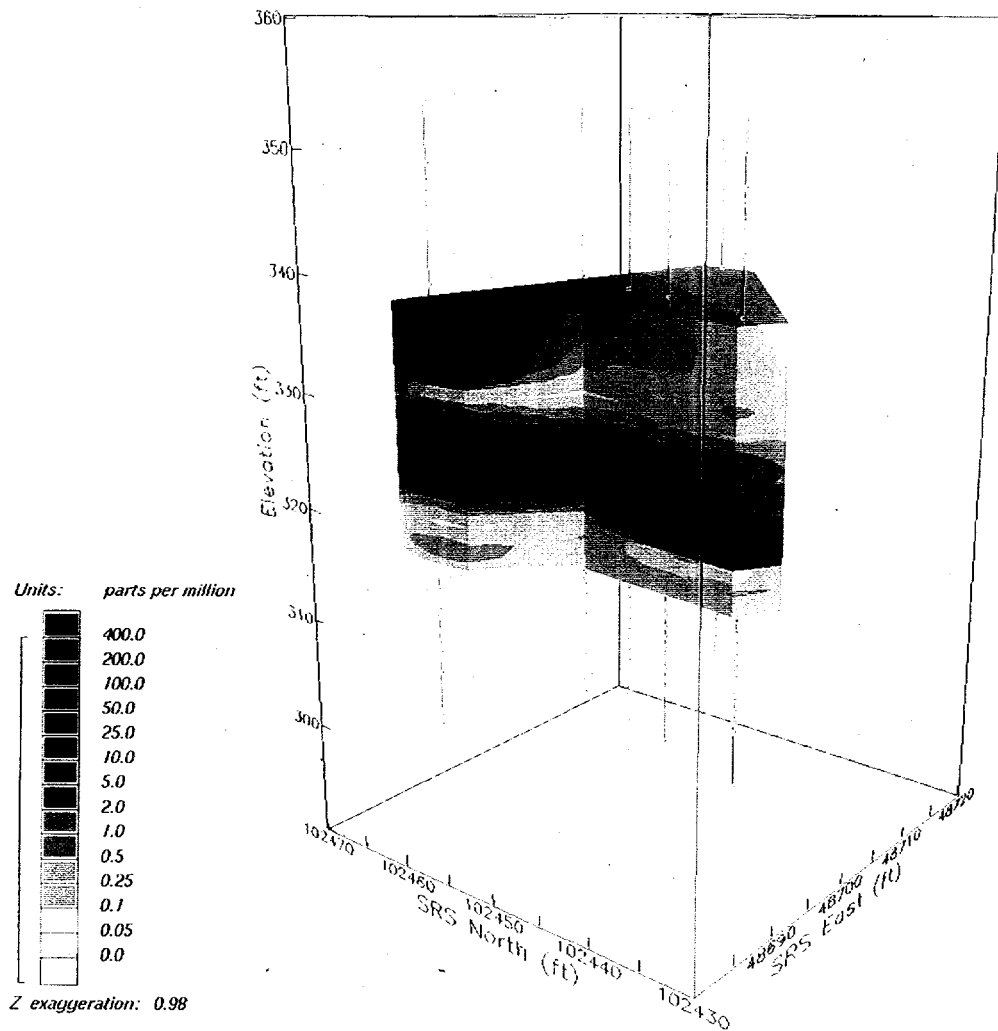
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Figure 4. Pretest Distribution of Trichloroethylene

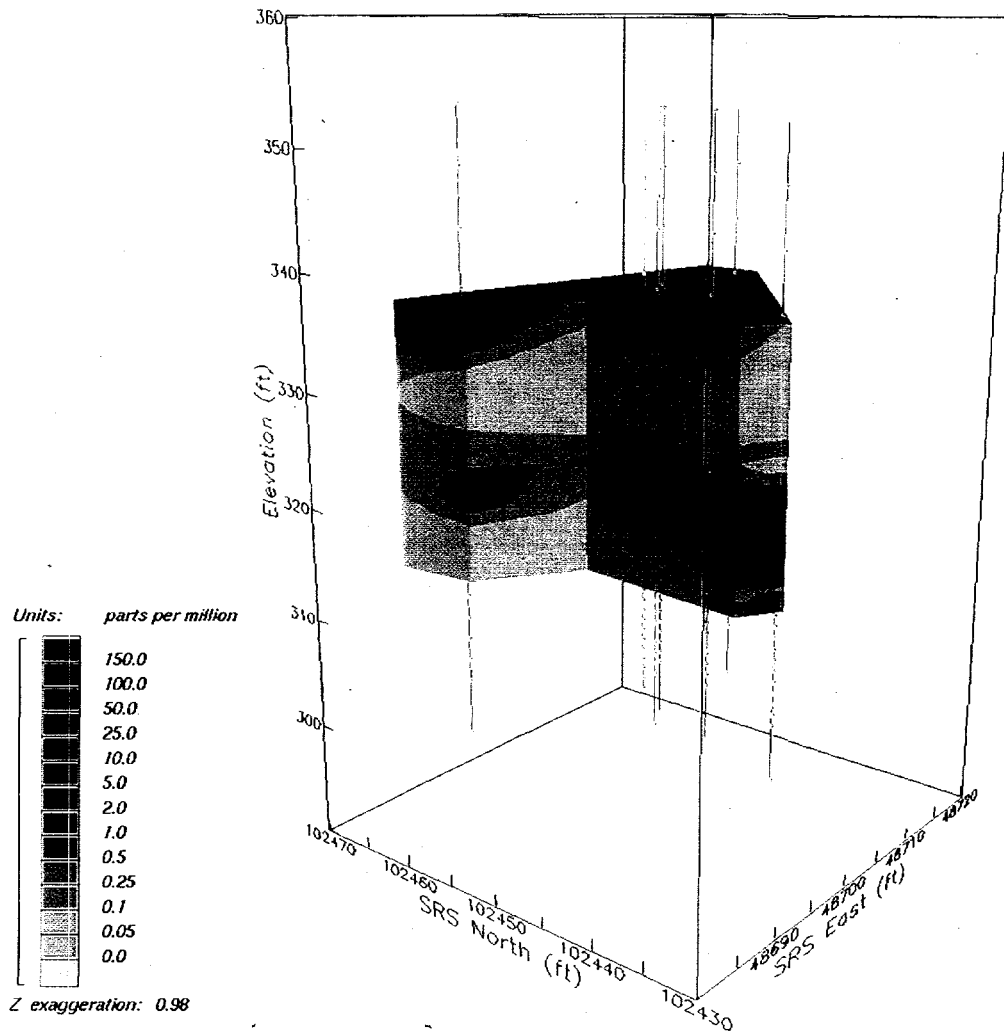
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Figure 5. Pretest Distribution of Tetrachloroethylene

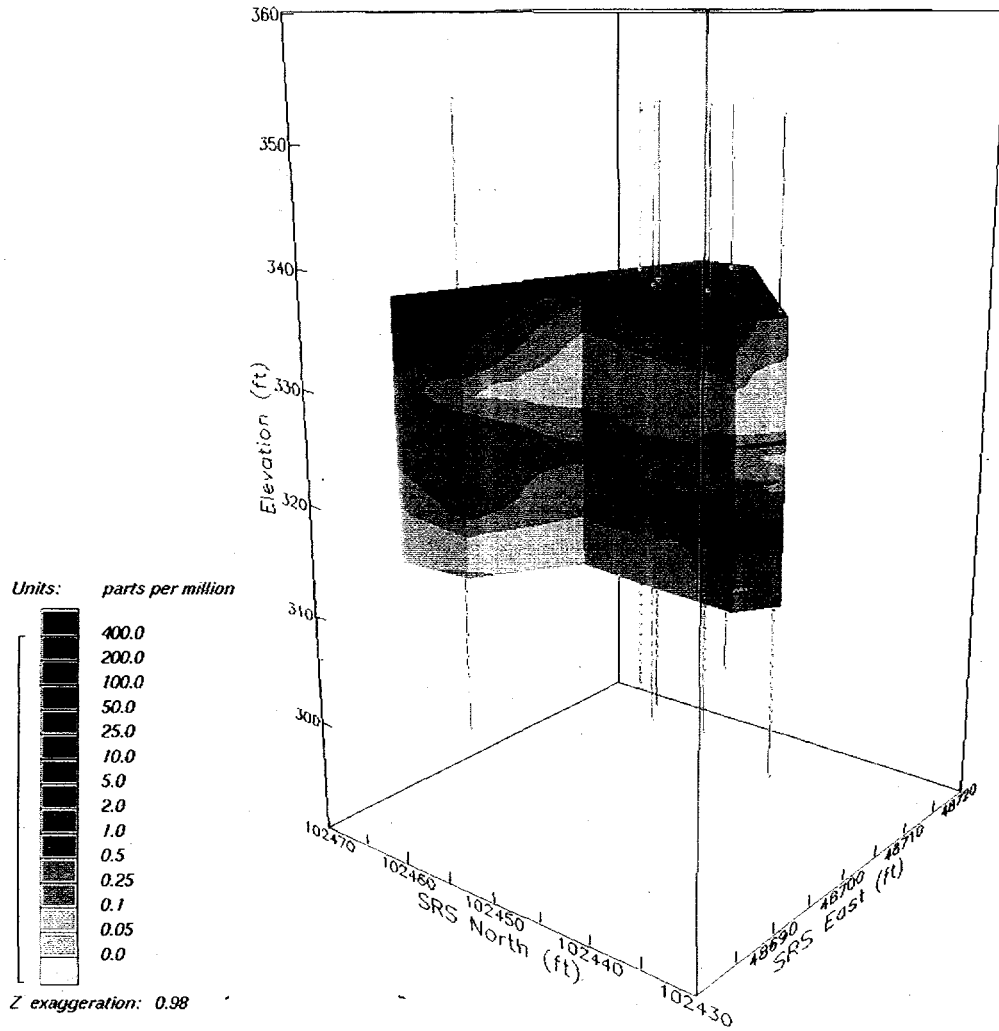
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Figure 6. Post-Test Distribution of Trichloroethylene

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Figure 7. Post-Test Distribution of Tetrachloroethylene

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**Table 2.** Volumetric Estimation of Pretest and Post-Test Contaminant Inventories  
(Concentrations are expressed in ppm, volumes in cubic feet, mass in grams.)

Concentration Interval Avg (ppm)	Pretest		Post-Test		Pretest		Post-Test	
	PCE	TCE	PCE	TCE	PCE	TCE	PCE	TCE
0.025	782	3304	7145	9557	1	4	8	11
0.075	1034	1408	1576	983	4	5	5	3
0.175	2413	1861	1583	976	19	15	13	8
0.375	1985	1469	965	412	34	25	16	7
0.75	971	752	672	211	33	26	23	7
1.5	635	574	242	150	43	39	16	10
3.5	830	839	84	32	132	133	13	5
7.5	628	607	42	0	214	206	14	0
17.5	863	696	13	0	684	551	10	0
37.5	624	492	0.05	0	1059	835	0.09	0
75	557	258	0	0	1892	875	0	0
125	300	53	0	0	1700	300	0	0
175	192	11			1519	84		
250	224	0.36			2533	4		
350	124				1966	0		
450	82				1670	0		
550	14				346	0		
650	9				273	0		
750	6				214	0		
<b>Totals</b>	<b>12272</b>	<b>12323</b>	<b>12321</b>	<b>12321</b>	<b>14335</b>	<b>3101</b>	<b>120</b>	<b>51</b>
						Removal Efficiency	0.99	0.98

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Appendix A

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Init. % Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	Vw/Vt
MHV-30	9/20	5'	0.1	40	60	SDCL	41.3146	41.3037	9.3545	43.1465	31.9547	11.1918	16	0.4284	6.2395	69	0.2945
MHV-30	9/20	5'	0.1	40	60	SDCL	42.4631	42.4524	9.7755	44.5828	32.6823	11.9005	18	0.4284	6.5203	76	0.3259
MHV-30	9/20	10'	0	70	30	CLSD	43.1841	43.1758	10.6004	45.1948	32.5796	12.6152	16	0.3890	6.5841	79	0.3060
MHV-30	9/20	10'	0	70	30	CLSD	44.0550	44.0517	10.6213	46.1205	33.4521	12.6884	16	0.3890	6.5971	81	0.3133
MHV-30	9/20	15'	0	75	25	CLSD	44.5362	44.5318	11.8640	46.9288	32.6700	14.2588	17	0.3825	7.2845	86	0.3288
MHV-30	9/20	15'	0	75	25	CLSD	42.3934	42.3916	9.5002	44.3334	32.8923	11.4411	17	0.3825	5.8332	87	0.3327
MHV-30	9/20	20'	1	79	20	SD	44.0824	44.0794	11.2070	45.7860	32.8739	12.9121	13	0.3760	6.8030	67	0.2506
MHV-30	9/20	20'	1	79	20	SD	45.0415	45.0441	12.4698	46.9922	32.5730	14.4192	14	0.3760	7.5696	68	0.2575
MHV-30	9/20	25'	10	75	15	SD	46.3111	46.3156	13.3739	47.7950	32.9395	14.8555	10	0.3695	8.0271	50	0.1846
MHV-30	9/20	25'	10	75	15	SD	43.6858	43.6900	10.3414	44.9216	33.3465	11.5751	11	0.3695	6.2070	54	0.1988
MHV-30	9/20	27'	5	85	10	SD	49.1010	49.1052	16.3796	51.0179	32.7235	18.2944	10	0.3630	9.7216	54	0.1970
MHV-30	9/20	27'	5	85	10	SD	50.0524	50.0543	17.8076	52.1905	32.2458	19.9447	11	0.3630	10.5691	56	0.2022
MHV-30	9/20	29'	10	80	10	SD	48.0875	48.0856	15.7614	50.4202	32.3252	18.0950	13	0.3630	9.3547	69	0.2495
MHV-30	9/20	29'	10	80	10	SD	47.7106	47.7135	15.7159	49.8643	31.9962	17.8681	12	0.3630	9.3277	64	0.2307
MHV-30	9/20	31'	25	65	10	PBSD	50.2992	50.3037	17.3927	52.7332	32.9088	19.8244	12	0.3630	10.3229	65	0.2356
MHV-30	9/20	31'	25	65	10	PBSD	49.5286	49.5342	17.1563	51.8535	32.3751	19.4784	12	0.3630	10.1826	63	0.2280
MHV-30	9/20	33'	0	75	25	CLSD	43.0031	43.0041	10.5201	45.4362	32.4835	12.9527	19	0.3825	6.4594	98	0.3766
MHV-30	9/20	33'	0	75	25	CLSD	46.5042	46.5036	13.5391	49.6742	32.9648	16.7094	19	0.3825	8.3130	100	0.3814
MHV-30	9/20	35'	0	80	20	SD	49.4806	49.4844	16.7083	53.1650	32.7742	20.3908	18	0.3760	10.1425	97	0.3631
MHV-30	9/20	35'	0	80	20	SD	48.2152	48.2127	15.7963	52.4013	32.4177	19.9836	21	0.3760	9.5888	116	0.4367
MHV-30	9/20	37'	0	80	20	SD	48.4380	48.4315	16.0476	51.9406	32.3872	19.5534	18	0.3760	9.7414	96	0.3599
MHV-30	9/20	37'	0	80	20	SD	49.9743	49.9700	17.2623	53.7747	32.7099	21.0648	18	0.3760	10.4787	97	0.3629
MHV-30	9/20	39'	1	79	20	SD	47.9241	47.9217	15.6665	51.0715	32.2564	18.8151	17	0.3760	9.5101	88	0.3311
MHV-30	9/20	39'	1	79	20	SD	48.0188	48.0135	15.4794	50.5447	32.5367	18.0080	14	0.3760	9.3965	72	0.2691
MHV-30	9/20	41'	2	83	15	SD	44.1402	44.1412	11.7239	45.6886	32.4168	13.2718	12	0.3695	7.0367	60	0.2200
MHV-30	9/20	41'	2	83	15	SD	47.1719	47.1678	14.8677	49.3718	32.3022	17.0696	13	0.3695	8.9236	67	0.2468
MHV-30	9/20	43'	1	84	15	SD	49.3288	49.3302	17.9155	51.9447	31.4140	20.5307	13	0.3695	10.7530	66	0.2432
MHV-30	9/20	43'	1	84	15	SD	49.9652	49.9670	17.6611	52.5931	32.3050	20.2881	13	0.3695	10.6003	67	0.2478
MHV-30	9/20	45'	0.1	90	10	SD	46.1896	46.1908	13.5898	47.9620	32.6004	15.3616	12	0.3634	8.0622	60	0.2198
MHV-30	9/20	45'	0.1	90	10	SD	46.1171	46.1216	13.6976	47.8316	32.4218	15.4098	11	0.3634	8.1261	58	0.2107
MHV-30	9/20	47'	0.1	90	10	SD	42.4216	41.4251	9.5925	42.3288	32.3309	9.9979	4	0.3634	5.6907	20	0.0712
MHV-30	9/20	47'	0.1	90	10	SD	41.5823	41.5868	8.9687	42.5769	32.6158	9.9611	10	0.3634	5.3207	51	0.1865
MHV-30	9/20	49'	0	90	10	SD	43.3796	43.3837	12.1118	44.5916	31.2699	13.3217	9	0.3630	7.1886	46	0.1683
MHV-30	9/20	49'	0	90	10	SD	46.2956	46.2980	15.0455	47.8410	31.2513	16.5897	9	0.3630	8.9298	48	0.1729
MHV-30	9/20	51'	0	90	10	SD	41.5708	41.5743	9.2053	42.6314	32.3673	10.2641	10	0.3630	5.4635	53	0.1938

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Init. % Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	Vw/Vt
MHV-30	9/20	51'	0	90	10	SD	42.6973	42.7013	10.1906	43.8609	32.5087	11.3522	10	0.3630	6.0483	53	0.19
MHV-30	9/20	53'	0	90	10	SD	44.9729	44.9741	13.0761	46.8427	31.8974	14.9453	13	0.3630	7.7609	66	0.24
MHV-30	9/20	53'	0	90	10	SD	46.0940	46.0926	13.4826	47.9881	32.6107	15.3774	12	0.3630	8.0022	65	0.24
MHV-30	9/20	55'	0	90	10	SD	41.0581	41.0601	8.6235	42.2719	32.4356	9.8363	12	0.3630	5.1182	65	0.24
MHV-30	9/20	55'	0	90	10	SD	40.8953	40.8972	8.6318	42.2451	32.2644	9.9807	14	0.3630	5.1232	73	0.26
MHV-30	9/20	60'	0	90	10	SD	46.2601	46.2650	13.7194	49.1850	32.5432	16.6418	18	0.3630	8.1427	99	0.36
MHV-30	9/20	60'	0	90	10	SD	47.4982	47.4984	14.9523	50.7753	32.5460	18.2293	18	0.3630	8.8745	102	0.37
MHV-34	9/22	5'	1	64	35	CLSD	48.1318	48.1270	16.5134	50.8057	31.6160	19.1897	14	0.3955	10.3770	65	0.26
MHV-34	9/22	5'	1	64	35	CLSD	47.8396	47.8351	14.9105	50.5765	32.9269	17.6496	16	0.3955	9.3697	74	0.29
MHV-34	9/22	10'	0.1	55	45	CLSD	52.0234	52.0209	18.6158	55.3740	33.4064	21.9676	15	0.4089	11.9730	68	0.28
MHV-34	9/22	10'	0.1	55	45	CLSD	47.1473	47.1516	14.3481	49.7296	32.8014	16.9282	15	0.4089	9.2282	68	0.28
MHV-34	9/22	15'	0	55	45	CLSD	50.5570	50.5550	17.7116	54.3484	32.8444	21.5040	18	0.4085	11.3962	81	0.33
MHV-34	9/22	15'	0	55	45	CLSD	48.5533	48.5558	16.1721	51.9758	32.3825	19.5933	17	0.4085	10.4056	80	0.33
MHV-34	9/22	20'	1	64	35	CLSD	47.4388	47.4409	15.2685	50.8883	32.1714	18.7169	18	0.3955	9.5947	91	0.36
MHV-34	9/22	20'	1	64	35	CLSD	47.3024	47.3035	15.1118	50.9548	32.1912	18.7636	19	0.3955	9.4962	97	0.38
MHV-34	9/22	25'	0	15	85	CLSD	49.0434	49.0403	16.8940	54.1932	32.1479	22.0453	23	0.4605	12.0092	93	0.43
MHV-34	9/22	25'	0	15	85	CLSD	47.8981	47.8931	15.6522	52.4032	32.2434	20.1598	22	0.4605	11.1265	88	0.41
MHV-34	9/22	27'	3	77	20	CL	52.0259	52.0294	19.6367	54.5836	32.3910	22.1926	12	0.3760	11.9201	57	0.21
MHV-34	9/22	27'	3	77	20	CL	51.3086	51.3103	18.7928	54.1634	32.5167	21.6467	13	0.3760	11.4078	67	0.25
MHV-34	9/22	29'	3	77	20	SD	48.9291	48.9301	17.1712	51.0610	31.7584	19.3026	11	0.3760	10.4235	54	0.20
MHV-34	9/22	29'	3	77	20	SD	49.0080	49.0068	16.3384	51.0938	32.6690	18.4248	11	0.3760	9.9179	56	0.21
MHV-34	9/22	31'	0	60	40	SD	48.9305	48.9224	16.6311	53.3245	32.2954	21.0291	21	0.4020	10.5746	103	0.42
MHV-34	9/22	31'	0	60	40	SD	49.4789	49.4120	17.1080	53.8368	32.3375	21.4993	20	0.4020	10.8778	100	0.40
MHV-34	9/22	33'	0	55	45	CLSD	49.8395	49.8351	17.4576	54.5494	32.3797	22.1697	21	0.4085	11.2328	103	0.42
MHV-34	9/22	33'	0	55	45	CLSD	46.5204	46.5163	15.1199	50.6848	31.3985	19.2863	22	0.4085	9.7286	105	0.43
MHV-34	9/22	35'	0	65	35	CLSD	51.1028	51.0935	18.6213	56.3975	32.4769	23.9206	22	0.3955	11.7016	115	0.45
MHV-34	9/22	35'	0	65	35	CLSD	49.3174	49.3138	18.2159	54.5988	31.0997	23.4991	22	0.3955	11.4468	117	0.46
MHV-34	9/22	37'	0	65	35	CLSD	48.1827	48.1825	16.1362	52.5530	32.0464	20.5066	21	0.3955	10.1400	109	0.43
MHV-34	9/22	37'	0	65	35	CLSD	50.5255	50.5216	18.1842	55.4252	32.3394	23.0858	21	0.3955	11.4269	108	0.43
MHV-34	9/22	39'	0.1	85	15	SD	49.7802	49.7819	16.8161	51.3359	32.9650	18.3709	8	0.3699	10.0886	42	0.15
MHV-34	9/22	39'	0.1	85	15	SD	47.3477	47.3507	15.0683	49.0729	32.2809	16.7920	10	0.3699	9.0400	52	0.19
MHV-34	9/22	41'	3	77	20	SD	48.3128	48.3158	15.2981	49.6737	33.0162	16.6575	8	0.3760	9.2864	39	0.15
MHV-34	9/22	41'	3	77	20	SD	48.7164	48.7174	15.8468	50.2117	32.8701	17.3416	9	0.3760	9.6195	41	0.16
MHV-34	9/22	43'	0	60	40	CLSD	47.6423	47.6366	15.5292	52.2056	32.1103	20.0953	23	0.4020	9.8739	115	0.46
MHV-34	9/22	43'	0	60	40	CLSD	47.8815	47.8764	16.3698	52.6616	31.5092	21.1524	23	0.4020	10.4084	114	0.46

Appendix A

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Init. Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	θ Vw/Vt
MHV-34	9/22	45'	0.1	85	15	SD	47.1443	47.1488	15.9551	48.6515	31.1915	17.4600	9	0.3699	9.5720	43	0.16
MHV-34	9/22	47'	0	85	15	SD	48.1900	48.1935	16.5206	49.7859	31.6712	18.1147	9	0.3695	9.9157	44	0.16
MHV-34	9/22	47'	0	85	15	SD	48.0816	48.0874	16.1841	49.7387	31.9004	17.8383	9	0.3695	9.7138	46	0.17
MHV-34	9/22	49'	0	85	15	SD	47.1654	47.1680	15.3891	48.8095	31.7776	17.0319	10	0.3695	9.2366	48	0.18
MHV-34	9/22	49'	0	85	15	SD	48.1303	48.1328	15.4772	49.5500	32.6544	16.8956	8	0.3695	9.2895	41	0.15
MHV-34	9/22	51'	0	85	15	SD	49.3896	49.3902	16.5492	51.1329	32.8407	18.2922	10	0.3695	9.9329	47	0.18
MHV-34	9/22	51'	0	85	15	SD	48.9262	48.9340	15.9849	50.6041	32.9452	17.6589	9	0.3695	9.5942	47	0.17
MHV-34	9/22	53'	0	85	15	SD	47.1720	47.1743	15.6633	49.1007	31.5099	17.5908	11	0.3695	9.4012	55	0.21
MHV-34	9/22	53'	0	85	15	SD	47.9265	47.9281	15.3626	49.9282	32.5647	17.3635	12	0.3695	9.2207	59	0.22
MHV-34	9/22	55'	0	85	15	SD	47.2666	47.2722	14.4206	49.1065	32.8488	16.2577	11	0.3695	8.6553	57	0.21
MHV-34	9/22	55'	0	85	15	SD	47.2013	47.2060	13.8895	48.7913	33.3142	15.4771	10	0.3695	8.3365	52	0.19
MHV-34	9/22	60'	0	75	25	CLSD	46.8597	46.8624	14.3707	50.4718	32.4904	17.9814	20	0.3825	8.8236	107	0.41
MHV-34	9/22	60'	0	75	25	CLSD	46.2624	46.2645	13.9371	49.9228	32.3264	17.5964	21	0.3825	8.5574	112	0.43
MHV-31	9/22	31'	3	72	25	CLSD	50.1333	50.1346	16.8350	53.2346	33.2990	19.9356	16	0.3825	10.3367	78	0.30
MHV-31	9/22	33'	0	70	30	CLSD	52.1033	52.0961	19.3290	56.8759	32.7707	24.1052	20	0.3890	12.0057	102	0.40
MHV-31	9/22	33'	0	70	30	CLSD	49.8646	49.8610	17.7271	54.8128	32.1357	22.6771	22	0.3890	11.0107	116	0.45
MHV-31	9/22	5'	0	70	30	CLSD	49.3079	49.2997	17.0272	52.9403	32.2766	20.6637	18	0.3890	10.5760	88	0.34
MHV-31	9/22	5'	0	70	30	CLSD	48.6769	48.6700	16.4303	52.0429	32.2432	19.7997	17	0.3890	10.2052	85	0.33
MHV-31	9/22	10'	0.1	75	25	CLSD	48.9358	48.9317	16.8469	52.2303	32.0869	20.1434	16	0.3829	10.3395	83	0.32
MHV-31	9/22	10'	0.1	75	20	CLSD	49.3689	49.3656	17.2149	52.6268	32.1524	20.4744	16	0.3589	10.6966	85	0.30
MHV-31	9/22	15'	5	75	20	SD	49.8494	49.8455	17.4988	52.1113	32.3487	19.7626	11	0.3760	10.6223	57	0.21
MHV-31	9/22	15'	5	75	20	SD	49.5665	49.5722	16.7018	51.6692	32.8676	18.8016	11	0.3760	10.1385	55	0.21
MHV-31	9/22	20'	5	75	20	SD	51.3412	51.3471	18.3655	54.0095	32.9787	21.0308	13	0.3760	11.1484	64	0.24
MHV-31	9/22	20'	5	75	20	SD	50.1521	50.1483	17.9392	52.7874	32.2110	20.5764	13	0.3760	10.8897	64	0.24
MHV-31	9/22	25'	10	75	15	SD	48.0489	48.0502	15.9991	50.0286	32.0504	17.9782	11	0.3695	9.6028	56	0.21
MHV-31	9/22	25'	10	75	15	SD	50.0962	50.0991	17.8384	52.1841	32.2593	19.9248	10	0.3695	10.7067	53	0.19
MHV-31	9/22	27'	5	80	15	SD	50.8266	50.8269	18.6028	53.2003	32.2240	20.9763	11	0.3695	11.1655	58	0.21
MHV-31	9/22	27'	5	80	15	SD	51.4425	51.4467	19.2013	53.3871	32.2433	21.1438	9	0.3695	11.5247	46	0.17
MHV-31	9/22	29'	2	83	15	SD	47.1078	47.1101	14.5268	48.7948	32.5822	16.2126	10	0.3695	8.7190	52	0.19
MHV-31	9/22	29'	2	83	15	SD	48.9256	48.9303	17.0660	51.4223	31.8620	19.5603	13	0.3695	10.2431	66	0.24
MHV-31	9/22	31'	3	72	25	CLSD	48.4480	48.4477	15.9438	52.0249	32.5041	19.5208	18	0.3825	9.7895	96	0.37
MHV-31	9/22	35'	0	65	35	CLSD	50.9850	50.9792	18.3955	55.7145	32.5866	23.1279	20	0.3955	11.5597	104	0.41
MHV-31	9/22	35'	0	65	35	CLSD	50.2738	50.2630	17.8642	54.9016	32.4042	22.4974	21	0.3955	11.2258	104	0.41
MHV-31	9/22	37'	1	79	20	SD	48.6053	48.6004	17.0107	52.5192	31.5922	20.9270	19	0.3760	10.3260	101	0.38

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Init. % Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	$\theta$ Vw/Vt
MHV-31	9/22	37'	1	79	20	SD	51.2526	51.2500	19.2834	55.3705	31.9679	23.4026	18	0.3760	11.7056	94	0.35
MHV-31	9/22	39'	25	60	15	PBSD	46.7751	46.7795	14.7468	47.8825	32.0305	15.8520	7	0.3695	8.8511	34	0.12
MHV-31	9/22	39'	25	60	15	PBSD	46.0440	46.0496	13.7738	47.2144	32.2730	14.9414	8	0.3695	8.2671	38	0.14
MHV-31	9/22	41'	30	60	10	PBSD	49.3597	49.3634	17.0810	50.7140	32.2806	18.4334	7	0.3630	10.1379	37	0.13
MHV-31	9/22	41'	30	60	10	PBSD	48.3316	48.3375	16.0870	49.6151	32.2476	17.3675	7	0.3630	9.5479	37	0.13
MHV-31	9/22	43'	0.1	85	15	SD	48.9034	48.9065	16.7272	51.7090	32.1778	19.5312	14	0.3699	10.0352	76	0.28
MHV-31	9/22	43'	0.1	85	15	SD	46.7965	46.7962	15.4085	49.3998	31.3879	18.0119	14	0.3699	9.2441	76	0.28
MHV-31	9/22	45'	0	85	15	SD	49.7388	49.7449	16.2755	51.3306	33.4664	17.8642	9	0.3695	9.7686	44	0.16
MHV-31	9/22	45'	0	85	15	SD	49.1083	49.1157	15.4501	50.5997	33.6619	16.9378	9	0.3695	9.2732	43	0.16
MHV-31	9/22	47'	0	90	10	SD	49.0512	49.0598	15.5208	50.7693	33.5347	17.2346	10	0.3630	9.2119	51	0.19
MHV-31	9/22	47'	0	90	10	SD	48.5343	48.5368	15.9890	50.3847	32.5466	17.8381	10	0.3630	9.4898	54	0.19
MHV-31	9/22	49'	0	90	10	SD	48.4638	48.4671	16.3442	50.0282	32.1213	17.9069	9	0.3630	9.7006	44	0.16
MHV-31	9/22	49'	0	90	10	SD	48.2094	48.2150	16.1724	49.7012	32.0398	17.6614	8	0.3630	9.5986	43	0.16
MHV-31	9/22	51'	0	90	10	SD	49.2194	49.2199	17.0023	51.6701	32.2174	19.4527	13	0.3630	10.0912	67	0.24
MHV-31	9/22	51'	0	90	10	SD	48.0858	48.0913	16.3538	50.2262	31.7348	18.4914	12	0.3630	9.7063	61	0.22
MHV-31	9/22	53'	0	90	10	SD	49.9705	49.9735	17.9065	52.1724	32.0655	20.1069	11	0.3630	10.6279	57	0.21
MHV-31	9/22	53'	0	90	10	SD	50.0204	50.0247	17.4941	52.2089	32.5285	19.6804	11	0.3630	10.3831	58	0.21
MHV-31	9/22	55'	0	85	15	SD	51.4001	51.3996	18.4140	55.7251	32.9859	22.7392	19	0.3695	11.0522	106	0.39
MHV-31	9/22	55'	0	85	15	SD	50.8193	50.8194	18.1462	53.6261	32.6732	20.9529	13	0.3695	10.8914	70	0.26
MHV-31	9/22	60'	0	85	15	SD	49.6622	49.6650	16.5163	52.8796	33.1473	19.7323	16	0.3695	9.9132	88	0.32
MHV-31	9/22	60'	0	85	15	SD	50.5339	50.5322	17.0598	54.2710	33.4733	20.7977	18	0.3695	10.2394	99	0.37
MHV-37	9/23	5'	1	74	25	CLSD	44.8266	44.8243	12.7599	47.5271	32.0656	15.4615	17	0.3825	7.8346	90	0.34
MHV-37	9/23	5'	1	74	25	CLSD	45.7558	45.7515	13.5320	48.6585	32.2217	16.4368	18	0.3825	8.3087	91	0.35
MHV-37	9/23	10'	0	70	30	CLSD	47.7527	47.7494	15.0277	51.3660	32.7234	18.6426	19	0.3890	9.3340	100	0.39
MHV-37	9/23	10'	0	70	30	CLSD	47.1601	47.1540	15.2804	50.7250	31.8767	18.8483	19	0.3890	9.4910	97	0.38
MHV-37	9/23	15'	0	80	20	SD	48.3911	48.3975	15.7882	50.9419	32.6061	18.3358	14	0.3760	9.5839	71	0.27
MHV-37	9/23	15'	0	80	20	SD	48.5354	48.5365	16.1554	51.1484	32.3806	18.7678	14	0.3760	9.8068	71	0.27
MHV-37	9/23	20'	2	78	20	SD	49.6680	49.6709	17.6370	52.2408	32.0325	20.2083	13	0.3760	10.7062	64	0.24
MHV-37	9/23	20'	2	78	20	SD	50.1021	50.1043	18.2558	52.7637	31.8474	20.9163	13	0.3760	11.0819	64	0.24
MHV-37	9/23	25'	5	80	15	SD	46.7651	46.7678	15.2286	48.5364	31.5379	16.9985	10	0.3695	9.1403	52	0.19
MHV-37	9/23	25'	5	80	15	SD	49.5039	49.5071	16.9167	51.4754	32.5888	18.8866	10	0.3695	10.1535	53	0.19
MHV-37	9/23	27'	5	80	15	SD	48.8910	48.8970	17.4579	51.1505	31.4361	19.7144	11	0.3695	10.4783	58	0.22
MHV-37	9/23	27'	5	80	15	SD	50.4257	50.4281	17.3138	52.7178	33.1131	19.6047	12	0.3695	10.3918	60	0.22
MHV-37	9/23	29'	3	82	15	SD	48.8051	48.8135	17.1523	50.8739	31.6570	19.2169	11	0.3695	10.2949	54	0.20
MHV-37	9/23	29'	3	82	15	SD	47.6815	47.6876	15.5737	49.6064	32.1109	17.4955	11	0.3695	9.3474	56	0.21

Appendix A

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Init. % Sat. (wt)	n (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Filled	$\theta$ Vw/Vt
MHV-37	9/23	31'	5	80	70	SD	49.2974	49.3009	16.5514	51.4905	32.7478	18.7427	12	0.6335	11.0892	31	0.20
MHV-37	9/23	31'	5	80	70	SD	48.6557	48.6584	16.3033	51.8571	32.3538	19.5033	16	0.6335	10.9229	46	0.29
MHV-37	9/23	33'	0	30	70	SDCL	51.3608	51.3580	18.2985	55.8553	33.0609	22.7944	20	0.4410	12.5179	81	0.36
MHV-37	9/23	33'	0	30	70	SDCL	50.1915	50.1828	18.9213	54.6998	31.2659	23.4339	19	0.4410	12.9439	79	0.35
MHV-37	9/23	35'	0	20	80	CL	49.5817	49.5799	17.7357	54.0182	31.8451	22.1731	20	0.4540	12.4456	79	0.36
MHV-37	9/23	35'	0	20	80	CL	50.1770	50.1698	17.9136	54.6598	32.2598	22.4000	20	0.4540	12.5704	79	0.36
MHV-37	9/23	37'	0	70	30	CLSD	48.2358	48.2340	15.9615	52.0466	32.2734	19.7732	19	0.3890	9.9141	99	0.38
MHV-37	9/23	37'	0	70	30	CLSD	53.8410	53.8432	21.7919	59.0585	32.0502	27.0083	19	0.3890	13.5355	99	0.39
MHV-37	9/23	39'	0	20	80	CL	46.4424	46.4314	13.4424	50.2834	32.9945	17.2889	22	0.4540	9.4329	90	0.41
MHV-37	9/23	39'	0	20	80	CL	46.4942	46.4943	14.4345	50.2157	32.0598	18.1559	20	0.4540	10.1290	81	0.37
MHV-37	9/23	41'	7	73	20	SD	50.2998	50.3081	17.4833	52.5522	32.8207	19.7315	11	0.3760	10.6129	56	0.21
MHV-37	9/23	41'	7	73	20	SD	49.5459	49.5535	17.0609	51.4672	32.4888	18.9784	10	0.3760	10.3565	49	0.19
MHV-37	9/23	43'	0	85	15	SD	48.6208	48.6273	16.1003	51.5335	32.5238	19.0097	15	0.3695	9.6635	81	0.30
MHV-37	9/23	43'	0	85	15	SD	48.3214	48.3202	15.4891	50.9330	32.8317	18.1013	14	0.3695	9.2966	76	0.28
MHV-37	9/23	45'	0	85	15	SD	52.4960	52.5013	20.2805	54.9736	32.2182	22.7554	11	0.3695	12.1724	55	0.20
MHV-37	9/23	45'	0	85	15	SD	51.8983	51.9041	19.6796	54.2798	32.2216	22.0582	11	0.3695	11.8118	54	0.20
MHV-37	9/23	47'	0	90	10	SD	46.8708	46.8764	15.2853	48.5255	31.5883	16.9372	10	0.3634	9.0680	50	0.18
MHV-37	9/23	47'	0	90	10	SD	48.5430	48.5472	16.3866	56.3051	32.1585	24.1466	32	0.3634	9.7214	220	0.80
MHV-37	9/23	49'	0	90	10	SD	47.8188	47.8231	15.9605	49.5927	31.8605	17.7322	10	0.3630	9.4728	52	0.19
MHV-37	9/23	49'	0	90	10	SD	48.4842	48.4922	15.6849	50.0812	32.8033	17.2779	9	0.3630	9.3093	47	0.17
MHV-37	9/23	51'	0	90	10	SD	46.3760	46.3813	14.4015	47.9601	31.9772	15.9829	10	0.3630	8.5475	51	0.19
MHV-37	9/23	51'	0	90	10	SD	49.3206	49.3233	15.9392	51.0786	33.3828	17.6958	10	0.3630	9.4602	51	0.19
MHV-37	9/23	53'	0	90	10	SD	49.0304	49.0351	15.9370	50.7042	33.0958	17.6084	9	0.3630	9.4589	49	0.18
MHV-37	9/23	53'	0	90	10	SD	49.2210	49.2226	17.0457	51.2171	32.1761	19.0410	10	0.3630	10.1170	54	0.20
MHV-37	9/23	55'	0	90	10	SD	47.0008	47.0005	15.2161	49.6161	31.7846	17.8315	15	0.3630	9.0310	80	0.29
MHV-37	9/23	55'	0	90	10	SD	47.3879	47.3870	15.0233	49.4848	32.3642	17.1206	12	0.3630	8.9166	65	0.24
MHV-37	9/23	60'	0	85	15	SD	47.7448	48.7463	16.0661	52.0740	32.1795	19.8945	19	0.3695	9.6429	107	0.40
MHV-37	9/23	60'	0	85	15	SD	48.4705	48.4713	15.5876	51.4585	32.8833	18.5752	16	0.3695	9.3558	86	0.32
MHV-38	9/24	5'	1	69	30	CLSD	47.4813	47.4713	14.7657	50.3680	32.7106	17.6574	16	0.3890	9.1713	81	0.32
MHV-38	9/24	5'	1	69	30	CLSD	49.1099	49.1012	16.2462	52.2258	32.8594	19.3664	16	0.3890	10.0909	79	0.31
MHV-38	9/24	10'	1	74	25	CLSD	47.2711	47.2702	15.0178	50.2920	32.2529	18.0391	17	0.3825	9.2209	86	0.33
MHV-38	9/24	10'	1	74	25	CLSD	47.6218	47.6195	15.1233	50.5051	32.4974	18.0077	16	0.3825	9.2857	81	0.31
MHV-38	9/24	15'	0	80	20	SD	47.9142	47.9122	15.6979	50.1043	32.2153	17.8890	12	0.3760	9.5291	61	0.23
MHV-38	9/24	15'	0	80	20	SD	47.3044	47.3083	15.5457	49.5818	31.7607	17.8211	13	0.3760	9.4367	64	0.24
MHV-38	9/24	20'	5	75	20	SD	51.2673	51.2686	18.7344	53.3712	32.5336	20.8376	10	0.3760	11.3723	49	0.18

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Init. % Sat. (wt)	Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Filled	Vw/Vt
MHV-38	9/24	20'	5	75	20	SD	52.5227	52.5196	20.2943	54.9000	32.2269	22.6731	10	0.3760	12.3193	51	0.19
MHV-38	9/24	25'	25	60	15	PBSD	48.9300	48.9270	16.4353	50.7464	32.4932	18.2532	10	0.3695	9.8646	50	0.18
MHV-38	9/24	25'	25	60	15	PBSD	47.8739	47.8789	15.1604	49.8922	32.7160	17.1762	12	0.3695	9.0994	60	0.22
MHV-38	9/24	27'	15	70	15	SD	54.3870	54.3916	21.4156	57.1368	32.9737	24.1631	11	0.3695	12.8538	58	0.21
MHV-38	9/24	27'	15	70	15	SD	54.2763	54.2828	21.3793	56.6798	32.9003	23.7795	10	0.3695	12.8319	51	0.19
MHV-38	9/24	29'	5	80	15	SD	50.9475	50.9541	19.3375	53.5500	31.6133	21.9367	12	0.3695	11.6065	61	0.22
MHV-38	9/24	29'	5	80	15	SD	50.0907	50.0942	18.2212	52.2940	31.8713	20.4227	11	0.3695	10.9364	54	0.20
MHV-38	9/24	31'	15	70	15	SD	56.2358	56.2440	24.3130	60.1631	31.9269	28.2362	14	0.3695	14.5928	73	0.27
MHV-38	9/24	31'	15	70	15	SD	53.1615	53.1676	20.7052	56.3283	32.4594	23.8689	13	0.3695	12.4273	69	0.25
MHV-38	9/24	33'	0	40	60	SDCL	52.2232	52.2181	19.7972	57.1193	32.4235	24.6958	20	0.4280	13.2101	87	0.37
MHV-38	9/24	33'	0	40	60	SDCL	57.9658	57.9595	25.1545	63.5574	32.8082	30.7492	18	0.4280	16.7849	78	0.33
MHV-38	9/24	35'	0	35	65	SDCL	51.9988	51.9976	19.4049	56.8584	32.5933	24.2651	20	0.4345	13.1097	85	0.37
MHV-38	9/24	35'	0	35	65	SDCL	50.1506	50.1492	17.2664	54.4390	32.8835	21.5555	20	0.4345	11.6649	85	0.37
MHV-38	9/24	37'	0	40	60	SDCL	51.4389	51.4372	18.9338	56.5288	32.5043	24.0245	21	0.4280	12.6340	94	0.40
MHV-38	9/24	37'	0	40	60	SDCL	53.0252	53.0218	20.9027	58.7070	32.1208	26.5862	21	0.4280	13.9478	95	0.41
MHV-38	9/24	39'	0	20	80	CL	52.1202	52.1173	19.3441	57.4210	32.7747	24.6463	22	0.4540	13.5742	86	0.39
MHV-38	9/24	39'	0	20	80	CL	51.7676	51.7604	18.5353	56.9032	33.2287	23.6745	22	0.4540	13.0067	87	0.40
MHV-38	9/24	41'	3	82	15	SD	52.1902	52.1994	19.4548	54.4346	32.7400	21.6946	10	0.3695	11.6769	52	0.19
MHV-38	9/24	41'	3	82	15	SD	52.2708	52.2780	19.6846	53.8696	32.5898	21.2798	7	0.3695	11.8148	37	0.14
MHV-38	9/24	43'	3	77	20	SD	48.6838	48.6889	17.3352	51.3712	31.3512	20.0200	13	0.3760	10.5230	68	0.26
MHV-38	9/24	43'	3	77	20	SD	49.4068	49.4099	16.8904	52.0342	32.5180	19.5162	13	0.3760	10.2530	68	0.26
MHV-38	9/24	45'	3	82	15	SD	52.2456	52.2496	20.8044	55.0239	31.4432	23.5807	12	0.3695	12.4869	60	0.22
MHV-38	9/24	45'	3	82	15	SD	56.0188	56.0260	24.4003	59.1835	31.6221	27.5614	11	0.3695	14.6452	58	0.22
MHV-38	9/24	47'	0	90	10	SD	53.2300	53.2306	20.3466	55.7136	32.8837	22.8299	11	0.3630	12.0761	57	0.21
MHV-38	9/24	47'	0	90	10	SD	52.6666	52.6720	20.5020	55.0614	32.1673	22.8941	10	0.3630	12.1683	54	0.20
MHV-38	9/24	49'	0	95	5	SD	47.5290	47.5313	15.0326	49.1331	32.4976	16.6355	10	0.3565	8.8236	51	0.18
MHV-38	9/24	49'	0	95	5	SD	47.0610	47.0592	14.7991	48.7960	32.2610	16.5350	10	0.3565	8.6866	56	0.20
MHV-38	9/24	51'	0	90	10	SD	53.6717	53.6820	21.8270	55.9960	31.8499	24.1461	10	0.3630	12.9547	49	0.18
MHV-38	9/24	51'	0	90	10	SD	51.6875	51.6928	22.1190	60.2806	32.5712	27.7094	20	0.3630	13.1280	117	0.43
MHV-38	9/24	53'	0	90	10	SD	52.9922	52.9982	21.1078	55.5317	31.8874	23.6443	11	0.3630	12.5279	56	0.20
MHV-38	9/24	53'	0	90	10	SD	50.8309	50.8392	18.3712	53.1756	32.4639	20.7117	11	0.3630	10.9036	59	0.21
MHV-38	9/24	55'	0	90	10	SD	55.5534	55.5548	23.3968	58.2793	32.1573	26.1220	10	0.3630	13.8865	54	0.20
MHV-38	9/24	55'	0	90	10	SD	55.4417	55.4482	23.0660	57.8215	32.3790	25.4425	9	0.3630	13.6901	48	0.17
MHV-38	9/24	60'	0	85	15	SD	52.6946	52.7082	20.3268	56.4839	32.3746	24.1093	16	0.3695	12.2003	84	0.31
MHV-38	9/24	60'	0	85	15	SD	50.9163	50.9285	18.7340	54.1804	32.1884	21.9920	15	0.3695	11.2442	78	0.29

Appendix A

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment (g)	Init. % Sat. (wt)	n (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Filled	$\theta$ Vw/Vt
MHV-39	9/27	5'	1	54	45	CLSD	49.0842	49.0766	17.1295	52.4393	31.9509	20.4884	16	0.4085	11.0217	75	0.30
MHV-39	9/27	5'	1	54	45	CLSD	46.1413	46.1401	14.7770	48.9612	31.3637	17.5975	16	0.4085	9.5080	73	0.30
MHV-39	9/27	10'	0	60	40	CLSD	49.0000	48.9950	15.7186	52.2468	33.2789	18.9679	17	0.4020	9.9944	81	0.33
MHV-39	9/27	10'	0	60	40	CLSD	48.7463	48.7463	16.8364	52.1818	31.9099	20.2719	17	0.4020	10.7051	80	0.32
MHV-39	9/27	15'	0	75	25	CLSD	48.2747	48.2796	15.8386	50.9455	32.4386	18.5069	14	0.3829	9.7207	72	0.27
MHV-39	9/27	15'	0	75	25	CLSD	47.8680	47.8650	15.4382	50.4865	32.4283	18.0582	15	0.3829	9.4750	72	0.28
MHV-39	9/27	20'	2	73	25	CLSD	48.6414	48.6454	16.5140	51.0577	32.1294	18.9283	13	0.3825	10.1396	62	0.24
MHV-39	9/27	20'	2	73	25	CLSD	50.6471	50.6567	18.3879	53.5251	32.2640	21.2611	14	0.3825	11.2902	67	0.25
MHV-39	9/27	25'	10	70	20	SD	50.9870	50.9930	18.5885	53.3624	32.4015	20.9609	11	0.3760	11.2838	56	0.21
MHV-39	9/27	25'	10	70	20	SD	50.7066	50.7201	18.4834	52.9588	32.2300	20.7288	11	0.3760	11.2200	53	0.20
MHV-39	9/27	27'	25	55	20	SD	48.1709	48.1718	15.5774	50.4114	32.5940	17.8174	13	0.3760	9.4559	63	0.24
MHV-39	9/27	27'	25	55	20	SD	48.9121	48.9115	16.6496	51.3408	32.2622	19.0786	13	0.3760	10.1068	64	0.24
MHV-39	9/27	29'	15	70	15	SD	47.9703	47.9729	15.7474	49.3400	32.2242	17.1158	8	0.3695	9.4517	39	0.14
MHV-39	9/27	29'	15	70	15	SD	48.0878	48.0930	15.6432	49.5989	32.4472	17.1517	9	0.3695	9.3891	43	0.16
MHV-39	9/27	31'	2	75	25	CLSD	47.8147	47.8096	15.8082	51.7505	32.0040	19.7465	20	0.3895	9.6242	105	0.41
MHV-39	9/27	31'	2	75	25	CLSD	48.4583	48.4531	16.6462	52.7291	31.8095	20.9196	20	0.3895	10.1344	108	0.42
MHV-39	9/27	33'	0	15	85	CL	46.1801	46.1770	14.2852	50.2663	31.8934	18.3729	22	0.4605	10.1547	87	0.40
MHV-39	9/27	33'	0	15	85	CL	50.4061	50.4160	17.4541	54.4929	32.9570	21.5359	19	0.4605	12.4074	71	0.33
MHV-39	9/27	35'	0	20	80	CL	48.3813	48.3890	16.0728	52.6018	32.3124	20.2894	21	0.4540	11.2786	82	0.37
MHV-39	9/27	35'	0	20	80	CL	50.2438	50.2438	17.7796	54.6045	32.4642	22.1403	20	0.4540	12.4764	77	0.35
MHV-39	9/27	37'	0	20	80	CL	49.8585	49.8534	17.6195	54.7666	32.2365	22.5301	22	0.4540	12.3640	87	0.40
MHV-39	9/27	37'	0	20	80	CL	51.6719	51.6706	18.9096	56.8833	32.7617	24.1216	22	0.4540	13.2693	87	0.39
MHV-39	9/27	39'	0	60	40	CLSD	51.0143	51.0110	18.2088	55.5274	32.8039	22.7235	20	0.4020	11.5777	97	0.39
MHV-39	9/27	39'	0	60	40	CLSD	49.2525	49.2535	16.3266	53.4609	32.9264	20.5345	20	0.4020	10.3810	101	0.41
MHV-39	9/27	41'	3	82	15	SD	49.6218	49.6242	16.9994	51.0743	32.6236	18.4507	8	0.3695	10.2031	38	0.14
MHV-39	9/27	41'	3	82	15	SD	40.4424	40.4479	16.0409	42.2357	24.4043	17.8314	10	0.3695	9.6278	50	0.19
MHV-39	9/27	43'	0	80	20	SD	41.2324	41.2380	16.1604	43.7452	25.0748	18.6704	13	0.3764	9.8055	68	0.26
MHV-39	9/27	43'	0	80	20	SD	42.3362	42.3413	17.6171	45.0190	24.7217	20.2973	13	0.3764	10.6894	67	0.25
MHV-39	9/27	45'	0	85	15	SD	40.7968	40.8009	16.0318	42.5315	24.7671	17.7644	10	0.3699	9.6180	49	0.18
MHV-39	9/27	45'	0	85	15	SD	40.4534	40.4581	15.3732	41.8151	25.0826	16.7325	8	0.3699	9.2229	40	0.15
MHV-39	9/27	47'	0	90	10	SD	39.5053	39.5153	14.2540	40.7759	25.2563	15.5196	8	0.3630	8.4600	41	0.15
MHV-39	9/27	47'	0	90	10	SD	39.0347	39.0401	14.1908	40.3584	24.8466	15.5118	9	0.3630	8.4225	43	0.16
MHV-39	9/27	49'	0	90	10	SD	38.5407	38.5489	13.5463	39.9762	24.9985	14.9777	10	0.3630	8.0400	49	0.18
MHV-39	9/27	49'	0	90	10	SD	40.4740	40.4811	15.2083	42.2715	25.2692	17.0023	11	0.3630	9.0265	55	0.20
MHV-39	9/27	51'	0	90	10	SD	41.6785	41.6847	16.9121	43.6321	24.7695	18.8626	10	0.3630	10.0377	54	0.19
MHV-39	9/27	51'	0	90	10	SD	40.5935	40.6009	15.3069	42.1842	25.2903	16.8939	9	0.3630	9.0849	48	0.17

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top Mass (g)	Moist Sediment Mass (g)	Init. Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	θ Vw/Vt
MHV-39	9/27	53'	0	90	10	SD	40.0306	40.0381	14.8423	41.7015	25.1921	16.5094	10	0.3630	8.8092	52	0.19
MHV-39	9/27	53'	0	90	10	SD	40.6414	40.6462	15.6917	42.4843	24.9521	17.5322	10	0.3630	9.3133	54	0.20
MHV-39	9/27	55'	0	90	10	SD	40.4313	40.4390	15.3050	42.4477	25.1302	17.3175	12	0.3630	9.0838	61	0.22
MHV-39	9/27	55'	0	90	10	SD	40.9645	40.9703	16.1716	43.0435	24.7958	18.2477	11	0.3630	9.5982	60	0.22
MHV-39	9/27	60'	0	85	15	SD	41.8354	41.8388	16.6974	45.0893	25.1397	19.9496	16	0.3695	10.0219	88	0.32
MHV-39	9/27	60'	0	85	15	SD	41.1867	41.1890	16.5315	44.0856	24.6564	19.4292	15	0.3695	9.9223	79	0.29
MHB-31V	12/13	5	1	35	64	SDCL	53.4632	53.4412	23.5403	58.3371	29.9119	28.4252	17	0.4332	15.8640	71	0.31
MHB-31V	12/13	5	1	35	64	SDCL	53.1102	53.1046	23.2756	57.9487	29.8318	28.1169	17	0.4332	15.6856	71	0.31
MHB-31V	12/13	10	5	35	60	SDCL	52.8850	52.8649	23.1928	56.3798	29.6822	26.6976	13	0.4280	15.4759	53	0.23
MHB-31V	12/13	10	5	35	60	SDCL	55.3831	55.3657	25.4887	59.0075	29.8857	29.1218	12	0.4280	17.0079	50	0.21
MHB-31V	12/13	15	1	59	40	CLSD	56.5801	56.5670	26.6825	60.4797	29.8911	30.5886	13	0.4020	16.9656	57	0.23
MHB-31V	12/13	15	1	59	40	CLSD	54.9114	54.8939	25.1217	58.7197	29.7810	28.9387	13	0.4020	15.9732	59	0.24
MHB-31V	12/13	20	2	63	35	CLSD	55.3699	55.3540	25.6625	58.8872	29.6995	29.1877	12	0.3955	16.1263	55	0.22
MHB-31V	12/13	20	2	63	35	CLSD	53.7077	53.6898	24.1678	57.0557	29.5310	27.5247	12	0.3955	15.1870	56	0.22
MHB-31V	12/13	25	2	78	20	SD	54.2884	54.2818	24.5229	56.0685	29.7622	26.3063	7	0.3760	14.8862	32	0.12
MHB-31V	12/13	25	2	78	20	SD	51.2289	51.2209	21.3711	52.7954	29.8538	22.9416	7	0.3760	12.9729	32	0.12
MHB-31V	12/13	27	5	80	15	SD	50.7065	50.7002	20.9212	52.3611	29.7822	22.5789	7	0.3695	12.5570	36	0.13
MHB-31V	12/13	27	5	80	15	SD	51.6889	51.6846	22.0627	53.1096	29.6241	23.4855	6	0.3695	13.2421	29	0.11
MHB-31V	12/13	29	5	85	10	SD	48.0867	48.0814	18.2543	48.8835	29.8298	19.0537	4	0.3630	10.8343	20	0.07
MHB-31V	12/13	29	5	85	10	SD	48.9467	48.9424	18.9750	49.8688	29.9696	19.8992	5	0.3630	11.2620	23	0.08
MHB-31V	12/13	31	0	15	85	CL	50.0750	50.0553	20.1822	52.6756	29.8830	22.7926	11	0.4605	14.3467	40	0.18
MHB-31V	12/13	31	0	15	85	CL	49.7074	49.6889	19.9386	52.6509	29.7596	22.8913	13	0.4605	14.1735	45	0.21
MHB-31V	12/13	33	0.1	85	15	SD	49.8948	49.8792	20.0359	51.6408	29.8511	21.7897	8	0.3699	12.0203	39	0.15
MHB-31V	12/13	33	0.1	85	15	SD	47.6520	47.6356	17.7273	49.2560	29.9165	19.3395	8	0.3699	10.6353	41	0.15
MHB-31V	12/13	35	0	10	90	CL	50.6494	50.6244	20.8998	52.3900	29.7371	22.6529	8	0.4670	15.0525	25	0.12
MHB-31V	12/13	35	0	10	90	CL	49.2556	49.2325	19.5149	51.0419	29.7292	21.3127	8	0.4670	14.0550	27	0.13
MHB-31V	12/13	37	5	85	10	SD	47.6184	47.6072	17.9693	48.5135	29.6435	18.8700	5	0.3630	10.6651	23	0.08
MHB-31V	12/13	37	5	85	10	SD	45.6217	45.6146	16.1980	46.2699	29.4202	16.8497	4	0.3630	9.6138	19	0.07
MHB-31V	12/13	39	10	80	10	SD	49.3475	49.3386	19.4317	49.4771	29.9114	19.5657	1	0.3630	11.5331	3	0.01
MHB-31V	12/13	39	10	80	10	SD	49.9834	49.9736	20.1300	50.1448	29.8485	20.2963	1	0.3630	11.9475	4	0.01
MHB-31V	12/13	41	3	87	10	SD	48.7322	48.7273	18.9225	49.6021	29.8073	19.7948	4	0.3630	11.2308	21	0.08
MHB-31V	12/13	41	3	87	10	SD	45.8831	45.8761	16.0154	46.5876	29.8642	16.7234	4	0.3630	9.5054	21	0.07
MHB-31V	12/13	43	1	91	8	SD	52.7360	52.7257	23.0288	54.4404	29.7021	24.7383	7	0.3604	13.6073	35	0.13
MHB-31V	12/13	43	1	91	8	SD	52.7472	52.7359	22.9821	54.5106	29.7595	24.7511	7	0.3604	13.5797	36	0.13
MHB-31V	12/13	45	0.1	93	7	SD	50.4974	50.4916	20.7269	51.9265	29.7676	22.1589	6	0.3595	12.2145	33	0.12

Appendix A

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Init. % Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	$\theta$ Vw/Vt
MHB-31V	12/13	45	0.1	93	7	SD	51.7463	51.7344	22.0535	53.6881	29.6869	24.0012	8	0.3595	12.9962	42	0.15
MHB-31V	12/13	47	0	93	7	SD	52.3527	52.3442	22.5298	54.4766	29.8187	24.6579	9	0.3591	13.2829	45	0.16
MHB-31V	12/13	47	0	93	7	SD	53.1693	53.1578	23.7694	55.7406	29.3942	26.3464	10	0.3591	14.0138	51	0.18
MHB-31V	12/13	49	0	93	7	SD	48.0827	48.0745	18.1402	50.1015	29.9384	20.1631	10	0.3591	10.6950	53	0.19
MHB-31V	12/13	49	0	93	7	SD	48.4561	48.4456	18.7436	50.3567	29.7073	20.6494	9	0.3591	11.0507	48	0.17
MHB-31V	12/13	51	0	93	7	SD	53.5995	53.5884	23.6464	56.3632	29.9476	26.4156	10	0.3591	13.9413	55	0.20
MHB-31V	12/13	51	0	93	7	SD	53.2006	53.1908	23.2913	56.1287	29.9044	26.2243	11	0.3591	13.7319	59	0.21
MHB-31V	12/13	53	0	90	10	SD	49.2836	49.2712	19.4845	53.1022	29.7929	23.3093	16	0.3630	11.5644	91	0.33
MHB-31V	12/13	53	0	90	10	SD	48.0933	48.0783	18.0781	51.7013	30.0077	21.6936	17	0.3630	10.7297	93	0.34
MHB-31V	12/13	55	0.1	85	15	SD	49.0900	49.0716	19.3271	54.1642	29.7537	24.4105	21	0.3699	11.5950	119	0.44
MHB-31V	12/13	55	0.1	85	15	SD	47.4885	47.4708	17.7346	52.2412	29.7451	22.4961	21	0.3699	10.6396	121	0.45
MHB-31V	12/13	60	0	90	10	SD	52.6228	52.6108	22.9080	55.8145	29.7088	26.1057	12	0.3630	13.5963	65	0.24
MHB-31V	12/13	60	0	90	10	SD	51.6395	51.6296	22.0027	54.5336	29.6319	24.9017	12	0.3630	13.0590	61	0.22
MHB-30V	12/14	1'	0.1	20	80	CL	44.4582	44.4505	14.6620	47.7241	29.7924	17.9317	18	0.4544	10.2848	70	0.32
MHB-30V	12/14	1'	0.1	20	80	CL	46.1891	46.1795	16.6435	50.0591	29.5408	20.5183	19	0.4544	11.6748	73	0.33
MHB-30V	12/14	5'	0.1	15	85	CL	46.0164	46.0037	16.2243	49.4602	29.7858	19.6744	18	0.4609	11.5289	65	0.30
MHB-30V	12/14	5'	0.1	15	85	CL	45.6117	45.5979	15.7412	48.9612	29.8636	19.0976	18	0.4609	11.1857	65	0.30
MHB-30V	12/14	10'	0	80	20	SD	47.1220	47.1049	17.1805	49.9055	29.9330	19.9725	14	0.3760	10.4291	71	0.27
MHB-30V	12/14	10'	0	80	20	SD	46.3279	46.3136	16.4188	49.0383	29.9020	19.1363	14	0.3760	9.9667	73	0.27
MHB-30V	12/14	15'	1	64	35	CLSD	49.5822	49.5715	19.9543	52.8076	29.6226	23.1850	14	0.3955	12.5392	65	0.26
MHB-30V	12/14	15'	1	64	35	CLSD	48.3941	48.3784	18.7435	51.6340	29.6428	21.9912	15	0.3955	11.7784	70	0.28
MHB-30V	12/14	20'	0	5	95	CL	44.4116	44.4100	14.6787	48.7576	29.7321	19.0255	23	0.4735	10.7127	86	0.41
MHB-30V	12/14	20'	0	5	95	CL	42.6917	42.6806	12.7409	46.2872	29.9453	16.3419	22	0.4735	9.2984	82	0.39
MHB-30V	12/14	25'	5	80	15	SD	44.1471	44.1373	14.7683	45.7713	29.3739	16.3974	10	0.3695	8.8640	50	0.18
MHB-30V	12/14	25'	5	80	15	SD	44.0017	43.9937	14.1989	45.5503	29.7988	15.7515	10	0.3695	8.5223	49	0.18
MHB-30V	12/14	27'	5	80	15	SD	46.4329	46.4195	16.5982	48.3705	29.8280	18.5425	10	0.3695	9.9623	53	0.20
MHB-30V	12/14	27'	5	80	15	SD	45.0342	45.0270	15.3772	46.2815	29.6534	16.6281	8	0.3695	9.2295	37	0.14
MHB-30V	12/14	29'	15	70	15	SD	46.6789	46.6629	16.7650	48.9508	29.9059	19.0449	12	0.3695	10.0624	61	0.23
MHB-30V	12/14	29'	15	70	15	SD	45.6282	45.6170	16.1542	47.2605	29.4684	17.7921	9	0.3695	9.6958	46	0.17
MHB-30V	12/14	31'	0	10	90	CL	44.2487	44.2315	14.7447	48.0244	29.4954	18.5290	20	0.4670	10.6194	76	0.36
MHB-30V	12/14	31'	0	10	90	CL	44.9021	44.8850	15.1492	48.5184	29.7444	18.7740	19	0.4670	10.9107	71	0.33
MHB-30V	12/14	33'	0	5	95	CL	54.8501	55.4589	25.4137	60.0379	29.7408	30.2971	16	0.4735	18.5472	56	0.26
MHB-30V	12/14	33'	0	5	95	CL	51.8058	51.8201	21.9985	56.6447	29.8145	26.8302	18	0.4735	16.0547	64	0.30
MHB-30V	12/14	35'	0	5	95	CL	49.1202	49.1030	19.4927	52.6617	29.6189	23.0428	15	0.4735	14.2260	53	0.25
MHB-30V	12/14	35'	0	5	95	CL	49.0357	49.0174	19.0990	52.5364	29.9276	22.6088	16	0.4735	13.9386	53	0.25

Well ID	Date	Depth (feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Init. % Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	$\theta$ Vw/Vt
MHB-30V	12/14	37'	2	88	10	SD	52.7025	52.6934	22.8765	54.5849	29.8215	24.7634	8	0.3630	13.5776	38	0.14
MHB-30V	12/14	37'	2	88	10	SD	53.3303	53.3179	23.4597	55.8057	29.8644	25.9413	10	0.3630	13.9238	49	0.18
MHB-30V	12/14	39'	1	84	15	SD	49.4737	49.4698	19.7325	50.8703	29.7393	21.1310	7	0.3695	11.8435	32	0.12
MHB-30V	12/14	39'	1	84	15	SD	46.7755	46.7685	16.9278	47.9596	29.8442	18.1154	7	0.3695	10.1602	32	0.12
MHB-30V	12/14	41'	0	65	35	SD	50.3571	50.3459	20.6439	53.4876	29.7076	23.7800	13	0.3955	12.9726	61	0.24
MHB-30V	12/14	41'	0	65	35	SD	50.6461	50.6362	20.8215	53.4489	29.8197	23.6292	12	0.3955	13.0842	54	0.21
MHB-30V	12/14	43'	0	90	10	SD	50.6756	50.6679	20.8173	52.0441	29.8545	22.1896	6	0.3630	12.3554	31	0.11
MHB-30V	12/14	43'	0	90	10	SD	50.9810	50.9717	21.2721	52.8409	29.7043	23.1366	8	0.3630	12.6254	41	0.15
MHB-30V	12/14	45'	0	93	7	SD	49.1256	49.1190	19.6900	50.7686	29.4323	21.3363	8	0.3591	11.6087	39	0.14
MHB-30V	12/14	45'	0	93	7	SD	51.0526	51.0458	21.3498	53.1433	29.6994	23.4439	9	0.3591	12.5873	46	0.17
MHB-30V	12/14	47'	0	93	7	SD	49.5757	49.5691	19.8517	51.4404	29.7207	21.7197	9	0.3591	11.7040	44	0.16
MHB-30V	12/14	47'	0	93	7	SD	50.0608	50.0542	20.4057	51.9109	29.6518	22.2591	8	0.3591	12.0307	43	0.15
MHB-30V	12/14	49'	0	90	10	SD	57.6221	57.6117	27.7066	60.5673	29.9103	30.6570	10	0.3630	16.4444	49	0.18
MHB-30V	12/14	49'	0	90	10	SD	54.7528	54.7434	24.9416	57.3025	29.8065	27.4960	9	0.3630	14.8033	48	0.17
MHB-30V	12/14	51'	0	93	7	SD	51.9972	51.9881	22.3968	54.2172	29.5959	24.6213	9	0.3591	13.2045	47	0.17
MHB-30V	12/14	51'	0	93	7	SD	51.4430	51.4339	21.6493	53.6695	29.7892	23.8803	9	0.3591	12.7638	49	0.17
MHB-30V	12/14	53'	0	70	30	CLSD	48.8697	48.8745	19.0312	54.0129	29.8409	24.1720	21	0.3890	11.8207	112	0.43
MHB-30V	12/14	53'	0	70	30	CLSD	49.0531	49.0528	19.5663	54.2881	29.4867	24.8014	21	0.3890	12.1531	111	0.43
MHB-30V	12/14	55'	0	85	15	SD	53.9416	53.9420	24.1151	59.4137	29.8267	29.5870	18	0.3695	14.4740	102	0.38
MHB-30V	12/14	55'	0	85	15	SD	54.2150	54.2188	24.4937	59.7146	29.7232	29.9914	18	0.3695	14.7013	101	0.37
MHB-30V	12/14	60'	0	85	15	SD	53.7306	53.7298	24.1985	58.1187	29.5317	28.5870	15	0.3695	14.5241	82	0.30
MHB-30V	12/14	60'	0	85	15	SD	55.0215	55.0254	25.2038	59.2120	29.8197	29.3923	14	0.3695	15.1274	75	0.28
MHB-37V	12/15	5'	0	90	10	SD	54.8363	54.8436	25.0361	57.9333	29.8039	28.1294	11	0.3630	14.8594	57	0.21
MHB-37V	12/15	5'	0	90	10	SD	53.8085	53.8166	23.9768	56.8997	29.8358	27.0639	11	0.3630	14.2307	60	0.22
MHB-37V	12/15	10'	0	90	10	SD	50.6797	50.6880	20.8528	53.6961	29.8311	23.8650	13	0.3630	12.3765	67	0.24
MHB-37V	12/15	10'	0	90	10	SD	51.1830	51.1908	21.2070	54.1738	29.9799	24.1939	12	0.3630	12.5868	65	0.24
MHB-37V	12/15	15'	4	71	25	CLSD	48.2609	48.2644	18.5941	51.0992	29.6686	21.4306	13	0.3825	11.4168	65	0.25
MHB-37V	12/15	15'	4	71	25	CLSD	48.9621	48.9597	19.1370	51.7912	29.8239	21.9673	13	0.3825	11.7502	63	0.24
MHB-37V	12/15	20'	1	84	15	SD	47.7031	47.7035	17.8521	50.0253	29.8512	20.1741	12	0.3695	10.7149	59	0.22
MHB-37V	12/15	20'	1	84	15	SD	48.6470	48.6446	18.8170	51.0262	29.8288	21.1974	11	0.3695	11.2941	57	0.21
MHB-37V	12/15	25'	5	85	10	SD	47.9259	47.9203	18.3509	49.6730	29.5722	20.1008	9	0.3630	10.8916	44	0.16
MHB-37V	12/15	25'	5	85	10	SD	48.1691	48.1652	18.3371	49.7072	29.8301	19.8771	8	0.3630	10.8834	39	0.14
MHB-37V	12/15	27'	10	75	15	SD	47.0767	47.0742	17.6284	48.7715	29.4471	19.3244	9	0.3695	10.5806	43	0.16
MHB-37V	12/15	27'	10	75	15	SD	47.3402	47.3396	17.7211	48.4601	29.6188	18.8413	6	0.3695	10.6363	29	0.11
MHB-37V	12/15	29'	3	82	15	SD	47.7220	47.7197	18.1037	49.5207	29.6172	19.9035	9	0.3695	10.8659	45	0.17

Appendix A

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Init. Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	θ Vw/Vt
MHB-37V	12/15	29'	3	82	15	SD	48.8393	48.8387	19.3156	50.5995	29.5234	21.0761	8	0.3695	11.5933	41	0.15
MHB-37V	12/15	31'	2	78	20	SD	51.1866	51.1857	21.5614	53.3008	29.6248	23.6760	9	0.3760	13.0884	43	0.16
MHB-37V	12/15	31'	2	78	20	SD	50.4690	50.4676	20.6835	52.3752	29.7848	22.5904	8	0.3760	12.5555	40	0.15
MHB-37V	12/15	33'	0	10	90	CL	47.4694	47.4747	17.8193	51.0764	29.6528	21.4236	17	0.4670	12.8338	60	0.28
MHB-37V	12/15	33'	0	10	90	CL	47.6529	47.6559	18.2493	51.1285	29.4051	21.7234	16	0.4670	13.1435	57	0.26
MHB-37V	12/15	35'	0	10	90	CL	48.9476	48.9504	19.1714	52.3864	29.7776	22.6088	15	0.4670	13.8076	53	0.25
MHB-37V	12/15	35'	0	10	90	CL	47.2141	47.2171	17.3842	50.6582	29.8314	20.8268	17	0.4670	12.5204	59	0.27
MHB-37V	12/15	37'	2	83	15	SD	50.1841	50.1819	20.2427	52.2834	29.9403	22.3431	9	0.3695	12.1498	47	0.17
MHB-37V	12/15	37'	2	83	15	SD	49.6288	49.6277	19.8443	50.9966	29.7840	21.2126	6	0.3695	11.9106	31	0.11
MHB-37V	12/15	39'	0	90	10	SD	50.0593	50.0581	20.5143	52.4166	29.5444	22.8722	10	0.3630	12.1756	53	0.19
MHB-37V	12/15	39'	0	90	10	SD	50.5409	50.5405	20.5486	53.1858	29.9921	23.1937	11	0.3630	12.1960	60	0.22
MHB-37V	12/15	41'	3	82	15	SD	51.0778	51.0772	21.2543	53.4859	29.8232	23.6627	10	0.3695	12.7569	51	0.19
MHB-37V	12/15	41'	3	82	15	SD	51.3348	51.3341	21.5861	54.6263	29.7484	24.8779	13	0.3695	12.9561	69	0.25
MHB-37V	12/15	43'	0.1	90	10	SD	49.7722	49.7721	20.0376	52.2162	29.7346	22.4816	11	0.3634	11.8873	57	0.21
MHB-37V	12/15	43'	0.1	90	10	SD	49.4646	49.4633	19.5459	51.9884	29.9181	22.0703	11	0.3634	11.5956	60	0.22
MHB-37V	12/15	45'	2	83	15	SD	48.9672	48.9688	19.3607	50.5383	29.6073	20.9310	8	0.3695	11.6204	37	0.14
MHB-37V	12/15	45'	2	83	15	SD	51.4754	51.4789	21.7822	53.7518	29.6950	24.0568	9	0.3695	13.0738	47	0.17
MHB-37V	12/15	47'	0.1	85	15	SD	51.1669	51.1670	21.3257	53.3477	29.8413	23.5064	9	0.3699	12.7940	46	0.17
MHB-37V	12/15	47'	0.1	85	15	SD	52.0640	52.0640	22.2891	54.2787	29.7749	24.5038	9	0.3699	13.3721	45	0.17
MHB-37V	12/15	49'	0	93	7	SD	51.2755	51.2709	21.6462	53.2626	29.6270	23.6356	8	0.3591	12.7620	43	0.16
MHB-37V	12/15	49'	0	93	7	SD	50.5716	50.5762	20.6563	52.2356	29.9176	22.3180	7	0.3591	12.1784	38	0.14
MHB-37V	12/15	51'	0	93	7	SD	49.6710	49.6703	19.9867	52.3434	29.6840	22.6594	12	0.3591	11.7836	63	0.23
MHB-37V	12/15	51'	0	93	7	SD	52.1534	52.1566	22.2930	55.7598	29.8620	25.8978	14	0.3591	13.1434	76	0.27
MHB-37V	12/15	53'	0	90	10	SD	51.5898	51.5920	21.8312	55.1655	29.7597	25.4058	14	0.3630	12.9572	76	0.28
MHB-37V	12/15	53'	0	90	10	SD	51.0733	51.0726	21.3576	54.3984	29.7154	24.6830	13	0.3630	12.6761	72	0.26
MHB-37V	12/15	55'	0	93	7	SD	49.0909	49.0908	19.2905	52.9404	29.8004	23.1400	17	0.3591	11.3731	94	0.34
MHB-37V	12/15	55'	0	93	7	SD	49.8108	49.8118	20.2588	53.7540	29.5525	24.2015	16	0.3591	11.9440	92	0.33
MHB-37V	12/15	60'	1	96	3	SD	49.5522	49.5528	19.7563	51.2166	29.7962	21.4204	8	0.3539	11.5453	41	0.14
MHB-37V	12/15	60'	1	96	3	SD	48.9316	48.9320	19.0664	50.2672	29.8654	20.4018	7	0.3539	11.1421	34	0.12
MHB-38V	12/16	5'	0	20	80	CL	43.0677	43.0812	13.2359	46.1155	29.8386	16.2769	19	0.4540	9.2879	72	0.33
MHB-38V	12/16	5'	0	20	80	CL	43.1101	43.1205	13.2043	46.0126	29.9110	16.1016	18	0.4540	9.2658	69	0.31
MHB-38V	12/16	10'	0	15	85	CL	45.3689	45.3794	15.6842	48.8791	29.6900	19.1891	18	0.4605	11.1492	68	0.31
MHB-38V	12/16	10'	0	15	85	CL	50.5271	50.5580	20.8188	55.2571	29.7238	25.5333	18	0.4605	14.7992	69	0.32
MHB-38V	12/16	15'	5	60	35	CLSD	48.8063	48.8064	18.9423	51.7091	29.8641	21.8450	13	0.3955	11.9033	62	0.24
MHB-38V	12/16	15'	5	60	35	CLSD	48.5182	48.5181	18.7676	51.4953	29.7506	21.7447	14	0.3955	11.7935	64	0.25

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Int. % Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	$\theta$ Vw/Vt
MHB-38V	12/16	20'	3	72	25	CLSD	52.3265	52.3272	22.4019	55.2071	29.9250	25.2821	11	0.3825	13.7548	55	0.21
MHB-38V	12/16	20'	3	72	25	CLSD	52.5463	52.5439	22.6616	55.4297	29.8835	25.5462	11	0.3825	13.9143	54	0.21
MHB-38V	12/16	25'	3	77	20	SD	49.1749	49.1704	19.6362	50.9070	29.5365	21.3705	8	0.3760	11.9198	39	0.15
MHB-38V	12/16	25'	3	77	20	SD	50.2479	50.2473	20.4704	52.0666	29.7772	22.2894	8	0.3760	12.4262	39	0.15
MHB-38V	12/16	27'	7	78	15	SD	49.7491	49.7494	20.1841	51.2389	29.5652	21.6737	7	0.3695	12.1146	33	0.12
MHB-38V	12/16	27'	7	78	15	SD	47.8617	47.8600	18.0205	49.2635	29.8404	19.4231	7	0.3695	10.8160	35	0.13
MHB-38V	12/16	29'	10	70	20	SD	48.8366	48.8375	19.0973	50.4478	29.7398	20.7080	8	0.3760	11.5926	37	0.14
MHB-38V	12/16	29'	10	70	20	SD	49.1602	49.1589	19.6553	50.7823	29.5043	21.2780	8	0.3760	11.9314	36	0.14
MHB-38V	12/16	31'	7	78	15	SD	50.5770	50.5757	20.8318	52.4241	29.7446	22.6795	8	0.3695	12.5033	40	0.15
MHB-38V	12/16	31'	7	78	15	SD	49.9126	49.9123	20.0868	51.8222	29.8257	21.9965	9	0.3695	12.0562	43	0.16
MHB-38V	12/16	33'	0	5	95	CL	49.8651	49.8727	19.9914	54.4305	29.8775	24.5530	19	0.4735	14.5900	66	0.31
MHB-38V	12/16	33'	0	5	95	CL	47.3876	47.3941	17.6944	51.7130	29.6965	22.0165	20	0.4735	12.9135	71	0.33
MHB-38V	12/16	35'	0	85	15	SD	50.8987	50.9003	21.1399	53.1113	29.7596	23.3517	9	0.3695	12.6883	47	0.17
MHB-38V	12/16	35'	0	85	15	SD	49.8120	49.8158	20.1119	53.8187	29.7020	24.1167	17	0.3695	12.0713	90	0.33
MHB-38V	12/16	37'	0	15	85	CL	53.9098	53.9184	23.9403	58.3165	29.9738	28.3427	16	0.4605	17.0182	56	0.26
MHB-38V	12/16	37'	0	15	85	CL	50.2046	50.2103	20.6250	54.3102	29.5825	24.7277	17	0.4605	14.6615	61	0.28
MHB-38V	12/16	39'	1	79	20	SD	47.7975	47.7979	17.9402	50.4875	29.8575	20.6300	13	0.3760	10.8903	66	0.25
MHB-38V	12/16	39'	1	79	20	SD	49.1931	49.1987	19.4386	51.6807	29.7573	21.9234	11	0.3760	11.7998	56	0.21
MHB-38V	12/16	41'	1	89	10	SD	49.7370	49.7343	19.8006	51.1862	29.9351	21.2511	7	0.3630	11.7520	34	0.12
MHB-38V	12/16	41'	1	89	10	SD	49.3850	49.3852	19.5573	50.8465	29.8278	21.0187	7	0.3630	11.6076	35	0.13
MHB-38V	12/16	43'	0	90	10	SD	51.0738	51.0725	21.1548	53.3470	29.9184	23.4286	10	0.3630	12.5538	50	0.18
MHB-38V	12/16	43'	0	90	10	SD	49.9312	49.9302	20.3435	52.2932	29.5872	22.7060	10	0.3630	12.0743	54	0.20
MHB-38V	12/16	45'	0	93	7	SD	49.7766	49.7750	19.9943	51.3542	29.7815	21.5727	7	0.3591	11.7881	37	0.13
MHB-38V	12/16	45'	0	93	7	SD	50.6444	50.6433	20.7837	52.4620	29.8602	22.6018	8	0.3591	12.2535	41	0.15
MHB-38V	12/16	47'	0	93	7	SD	49.0012	49.0001	19.5418	50.9954	29.4589	21.5365	9	0.3591	11.5213	48	0.17
MHB-38V	12/16	47'	0	93	7	SD	48.4280	48.4265	18.6388	50.1843	29.7885	20.3958	9	0.3591	10.9889	45	0.16
MHB-38V	12/16	49'	0	93	7	SD	49.5147	49.5170	19.6311	51.4838	29.8848	21.5990	9	0.3591	11.5739	47	0.17
MHB-38V	12/16	49'	0	93	7	SD	47.9340	47.9353	18.1963	49.8719	29.7384	20.1335	10	0.3591	10.7280	50	0.18
MHB-38V	12/16	51'	0	93	7	SD	49.5476	49.5508	19.6502	51.8055	29.8990	21.9065	10	0.3591	11.5852	54	0.19
MHB-38V	12/16	51'	0	93	7	SD	48.9884	48.9910	19.0319	51.0827	29.9578	21.1249	10	0.3591	11.2207	52	0.19
MHB-38V	12/16	53'	0	93	7	SD	49.6052	49.6088	20.0090	51.9584	29.5980	22.3604	11	0.3591	11.7968	56	0.20
MHB-38V	12/16	53'	0	93	7	SD	49.5840	49.5886	19.8668	52.2062	29.7195	22.4867	12	0.3591	11.7129	62	0.22
MHB-38V	12/16	55'	0	80	20	SD	49.9464	49.9595	20.2694	54.2699	29.6836	24.5863	18	0.3760	12.3041	93	0.35
MHB-38V	12/16	55'	0	80	20	SD	50.1593	50.1718	20.4056	54.8035	29.7600	25.0435	19	0.3760	12.3868	100	0.37
MHB-38V	12/16	60'	1	89	10	SD	50.1413	50.1464	20.3997	52.3780	29.7442	22.6338	10	0.3630	12.1076	51	0.18
MHB-38V	12/16	60'	1	89	10	SD	50.4631	50.4687	21.0070	53.0235	29.4589	23.5646	11	0.3630	12.4681	57	0.21

Appendix A

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Moist Sediment Mass (g)	Init. % Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	θ Vw/Vt
MHB-39V	12/16	5'	0.1	25	75	SDCL	49.7145	49.7674	20.1744	53.1343	29.5666	23.5677	14	0.4479	13.9716	54	0.24
MHB-39V	12/16	5'	0.1	25	75	SDCL	48.5997	48.6639	18.8696	52.0709	29.7622	22.3087	15	0.4479	13.0680	59	0.26
MHB-39V	12/16	10'	1	10	89	CL	43.6153	43.6424	13.8919	46.4934	29.7370	16.7564	17	0.4657	9.9789	62	0.29
MHB-39V	12/16	10'	1	10	89	CL	45.8482	45.8759	16.1333	49.1249	29.7288	19.3961	17	0.4657	11.5890	60	0.28
MHB-39V	12/16	15'	2	78	20	SD	44.7867	44.7946	14.8052	47.0298	29.9855	17.0443	13	0.3760	8.9872	66	0.25
MHB-39V	12/16	15'	2	78	20	SD	47.0467	47.0599	17.2684	49.6723	29.7849	19.8874	13	0.3760	10.4825	66	0.25
MHB-39V	12/16	20'	1	84	15	SD	49.6505	49.6556	19.9361	51.8495	29.7170	22.1325	10	0.3695	11.9657	50	0.18
MHB-39V	12/16	20'	1	84	15	SD	49.9727	49.9746	20.0706	52.2607	29.9031	22.3576	10	0.3695	12.0465	51	0.19
MHB-39V	12/16	25'	5	75	20	SD	49.8794	49.8852	19.6691	52.3841	30.2132	22.1709	11	0.3760	11.9398	56	0.21
MHB-39V	12/16	25'	5	75	20	SD	49.0944	49.1005	19.4388	52.0098	29.6587	22.3511	13	0.3760	11.7999	66	0.25
MHB-39V	12/16	27'	1	74	25	CLSD	55.1388	55.1640	25.2667	58.8750	29.8847	28.9903	13	0.3825	15.5138	63	0.24
MHB-39V	12/16	27'	1	74	25	CLSD	53.4889	53.4990	23.6339	56.6459	29.8601	26.7858	12	0.3825	14.5113	57	0.22
MHB-39V	12/16	29'	1	30	69	SDCL	48.0283	48.0663	18.2688	51.2603	29.7785	21.4818	15	0.4397	12.4662	59	0.26
MHB-39V	12/16	29'	1	30	69	SDCL	51.8458	51.8599	22.2944	55.0596	29.5585	25.5011	13	0.4397	15.2132	48	0.21
MHB-39V	12/16	31'	2	10	88	CL	44.0565	44.1047	14.0405	48.6483	30.0401	18.6082	25	0.4644	10.0593	98	0.45
MHB-39V	12/16	31'	2	10	88	CL	46.3764	46.4295	16.6546	51.3379	29.7484	21.5895	23	0.4644	11.9321	89	0.41
MHB-39V	12/16	33'	0	5	95	CL	57.2614	58.6082	28.1349	63.8626	29.7999	34.0627	17	0.4735	20.5332	61	0.29
MHB-39V	12/16	33'	0	5	95	CL	53.7447	53.8234	23.7785	59.2663	30.0056	29.2607	19	0.4735	17.3538	67	0.32
MHB-39V	12/16	35'	0	7	93	CL	48.4995	48.5400	18.5175	52.8327	30.0023	22.8304	19	0.4709	13.4427	68	0.32
MHB-39V	12/16	35'	0	7	93	CL	48.8930	48.9413	18.8836	53.9018	30.0336	23.8682	21	0.4709	13.7084	77	0.36
MHB-39V	12/16	37'	0	10	90	CL	51.6804	51.7371	22.0568	56.9699	29.6520	27.3179	19	0.4670	15.8857	71	0.33
MHB-39V	12/16	37'	0	10	90	CL	49.4382	49.5266	19.5694	54.9182	29.9130	25.0052	22	0.4670	14.0943	83	0.39
MHB-39V	12/16	39'	0	5	95	CL	55.1871	57.0000	26.6371	62.6461	29.4565	33.1896	20	0.4735	19.4400	71	0.34
MHB-39V	12/16	39'	0	5	95	CL	55.3707	56.3452	25.9982	62.5681	29.8598	32.7083	21	0.4735	18.9738	75	0.35
MHB-39V	12/16	41'	0	7	93	CL	49.2275	49.3129	19.2194	54.9335	30.0508	24.8827	23	0.4709	13.9523	86	0.41
MHB-39V	12/16	41'	0	7	93	CL	47.6384	47.6992	17.5226	52.8254	30.1462	22.6792	23	0.4709	12.7205	86	0.41
MHB-39V	12/16	43'	2	58	40	CLSD	49.7563	49.7874	19.8852	53.5811	29.8867	23.6944	16	0.4020	12.6436	75	0.30
MHB-39V	12/16	43'	2	58	40	CLSD	51.2718	51.3067	21.3657	55.2825	29.9236	25.3589	16	0.4020	13.5850	73	0.29
MHB-39V	12/16	45'	1	89	10	SD	50.5862	50.5889	20.6292	53.2499	29.9584	23.2915	11	0.3630	12.2438	60	0.22
MHB-39V	12/16	45'	1	89	10	SD	54.1973	54.2013	24.0693	57.1132	30.1300	26.9832	11	0.3630	14.2856	56	0.20
MHB-39V	12/16	47'	0	93	7	SD	52.0222	52.0252	21.7670	54.0969	30.2567	23.8402	9	0.3591	12.8332	45	0.16
MHB-39V	12/16	47'	0	93	7	SD	50.3874	50.3891	20.2008	52.3130	30.1875	22.1255	9	0.3591	11.9098	45	0.16
MHB-39V	12/16	49'	0.1	90	10	SD	56.7308	56.7359	26.7031	59.7379	30.0303	29.7076	10	0.3634	15.8416	52	0.19
MHB-39V	12/16	49'	0.1	90	10	SD	56.0035	56.0065	26.0062	58.7032	29.9988	28.7044	9	0.3634	15.4282	48	0.17
MHB-39V	12/16	51'	0	93	7	SD	52.6156	52.6180	22.5278	55.0864	30.0890	24.9974	10	0.3591	13.2818	52	0.19

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Molst Sedi-ment Mass (g)	Init. % Sat. (wt)	n Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	$\theta$ Vw/Vt
MHB-39V	12/16	51'	0	93	7	SD	50.4279	50.4276	20.5743	52.0912	29.8535	22.2377	7	0.3591	12.1300	38	0.14
MHB-39V	12/16	53'	0	93	7	SD	53.6982	53.7038	23.7323	56.8790	29.9687	26.9103	12	0.3591	13.9919	63	0.23
MHB-39V	12/16	53'	0	93	7	SD	54.9824	54.9859	24.9990	57.9306	29.9852	27.9454	11	0.3591	14.7387	56	0.20
MHB-39V	12/16	55'	0	93	7	SD	51.2271	51.2292	21.1457	53.6392	30.0825	23.5567	10	0.3591	12.4669	54	0.19
MHB-39V	12/16	55'	0	93	7	SD	52.8287	52.8321	22.2492	55.4048	30.5812	24.8236	10	0.3591	13.1175	55	0.20
MHB-39V	12/16	60'	0	90	10	SD	54.7518	54.7653	22.3635	58.7266	32.3951	26.3315	15	0.3630	13.2731	82	0.30
MHB-39V	12/16	60'	0	90	10	SD	53.0462	53.0583	20.6324	56.3359	32.4199	23.9160	14	0.3630	12.2457	74	0.27
MHB-37VD	1/25	5'	0	65	35	CLSD	57.7483	57.9756	24.8878	62.7273	32.9742	29.7531	16	0.3955	15.6394	79	0.31
MHB-37VD	1/25	5'	0	65	35	CLSD	55.4782	55.5001	22.8024	60.0885	32.6868	27.4017	17	0.3955	14.3290	81	0.32
MHB-37VD	1/25	10'	0	75	25	CLSD	58.3673	58.5395	25.8809	63.1254	32.5725	30.5529	15	0.3825	15.8910	77	0.29
MHB-37VD	1/25	10'	0	75	25	CLSD	49.7457	49.7686	23.8823	54.3106	25.8749	28.4357	16	0.3825	14.6638	81	0.31
MHB-37VD	1/25	15'	1	59	40	CLSD	50.9929	50.9952	25.9278	55.3892	30.3229	30.3229	14	0.4020	16.4857	66	0.27
MHB-37VD	1/25	15'	1	59	40	CLSD	48.7961	48.7987	23.6910	52.7844	25.0663	27.6780	14	0.4020	15.0635	66	0.26
MHB-37VD	1/25	20'	1	79	20	SD	47.4017	47.4006	22.2087	50.3609	25.1925	25.1684	12	0.3760	13.4814	58	0.22
MHB-37VD	1/25	20'	1	79	20	SD	47.4932	47.4915	22.3767	50.5074	25.1157	25.3917	12	0.3760	13.5833	59	0.22
MHB-37VD	1/25	25'	20	65	15	SD	48.7879	48.7840	23.6525	50.9982	25.1335	25.8647	9	0.3695	14.1963	42	0.16
MHB-37VD	1/25	25'	20	65	15	SD	49.4578	49.4533	24.5366	51.6867	24.9190	26.7677	8	0.3695	14.7270	41	0.15
MHB-37VD	1/25	27'	25	65	10	PBSD	50.2153	50.2108	24.9013	51.9965	25.3118	26.6847	7	0.3630	14.7794	33	0.12
MHB-37VD	1/25	27'	25	65	10	PBSD	48.0976	48.0926	22.8966	49.5305	25.1985	24.3320	6	0.3630	13.5896	29	0.11
MHB-37VD	1/25	29'	10	80	10	SD	45.7574	45.7539	20.6784	47.5308	25.0773	22.4535	8	0.3630	12.2730	40	0.14
MHB-37VD	1/25	29'	10	80	10	SD	48.4846	48.4811	23.3704	50.6374	25.1125	25.5249	8	0.3630	13.8708	43	0.16
MHB-37VD	1/25	31'	0	35	65	SDCL	49.9909	49.9957	24.6631	54.8846	25.3302	29.5544	17	0.4345	16.6620	68	0.29
MHB-37VD	1/25	31'	0	35	65	SDCL	50.5612	50.5680	25.3215	55.1863	25.2431	29.9432	15	0.4345	17.1069	62	0.27
MHB-37VD	1/25	33'	0	70	30	CLSD	52.2651	52.2802	26.9134	56.8342	25.3593	31.4749	14	0.3890	16.7165	70	0.27
MHB-37VD	1/25	33'	0	70	30	CLSD	50.4059	50.4141	25.1773	54.7345	25.2327	29.5018	15	0.3890	15.6382	71	0.28
MHB-37VD	1/25	35'	0	20	80	CL	46.7298	46.7421	21.6585	52.3242	25.0775	27.2467	21	0.4540	15.1983	81	0.37
MHB-37VD	1/25	35'	0	20	80	CL	48.2938	48.3016	23.4634	53.8867	24.8343	29.0524	19	0.4540	16.4649	75	0.34
MHB-37VD	1/25	37'	0	85	15	SD	47.6074	47.6068	22.4710	50.3804	25.1361	25.2443	11	0.3695	13.4872	56	0.21
MHB-37VD	1/25	37'	0	85	15	SD	49.2781	49.2763	24.1592	51.7582	25.1180	26.6402	9	0.3695	14.5005	46	0.17
MHB-37VD	1/25	39'	10	70	20	SD	51.0568	51.0544	25.7842	53.2011	25.2714	27.9297	8	0.3760	15.6518	36	0.14
MHB-37VD	1/25	39'	10	70	20	SD	48.3311	48.3274	23.0713	50.4250	25.2580	25.1670	8	0.3760	14.0050	40	0.15
MHB-37VD	1/25	41'	15	78	7	SD	52.5849	52.5806	27.4304	54.0087	25.1524	28.8563	5	0.3591	16.1722	25	0.09
MHB-37VD	1/25	41'	15	78	7	SD	51.8095	51.8052	26.5405	53.4207	25.2669	28.1538	6	0.3591	15.6475	29	0.10
MHB-37VD	1/25	43'	3	82	15	SD	47.4047	47.4003	22.2598	49.5496	25.1427	24.4069	9	0.3695	13.3605	43	0.16
MHB-37VD	1/25	43'	0	82	15	SD	50.4099	50.4067	25.1401	53.4952	25.2682	28.2270	11	0.3590	15.3024	56	0.20

Appendix A

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Molst Sediment Mass (g)	Init. % Sat. (wt)	Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	$\theta$ Vw/Vt
MHB-37VD	1/25	45'	0	85	15	SD	47.9829	47.9789	22.7265	50.0960	25.2544	24.8416	9	0.3695	13.6406	42	0.16
MHB-37VD	1/25	45'	0	85	15	SD	49.5248	49.5210	24.0975	51.4470	25.4254	26.0216	7	0.3695	14.4635	36	0.13
MHB-37VD	1/25	47'	0	90	10	SD	48.8628	48.8598	23.5623	50.6615	25.2990	25.3625	7	0.3630	13.9847	35	0.13
MHB-37VD	1/25	47'	0	90	10	SD	49.6443	49.6420	24.4235	51.4667	25.2197	26.2470	7	0.3630	14.4958	35	0.13
MHB-37VD	1/25	49'	0	90	10	SD	46.0148	46.0113	20.7278	47.8713	25.2853	22.5860	8	0.3630	12.3023	42	0.15
MHB-37VD	1/25	49'	0	90	10	SD	46.7550	46.7519	21.8362	48.7445	24.9173	23.8272	8	0.3630	12.9602	42	0.15
MHB-37VD	1/25	51'	0	90	10	SD	45.0751	45.0732	19.8957	47.2415	25.1785	22.0630	10	0.3630	11.8085	51	0.18
MHB-37VD	1/25	51'	0	90	10	SD	43.1899	43.1872	18.2124	45.2497	24.9762	20.2735	10	0.3630	10.8094	53	0.19
MHB-37VD	1/25	53'	0	90	10	SD	47.9028	47.9001	22.6819	50.1987	25.2196	24.9791	9	0.3630	13.4621	47	0.17
MHB-37VD	1/25	53'	0	90	10	SD	46.0763	46.0747	21.0770	48.5630	24.9985	23.5645	11	0.3630	12.5096	55	0.20
MHB-37VD	1/25	55'	0	85	15	SD	45.9806	45.9798	20.8916	49.8535	25.0886	24.7649	16	0.3695	12.5393	84	0.31
MHB-37VD	1/25	55'	0	85	15	SD	44.6516	44.6502	19.2589	48.3719	25.3920	22.9799	16	0.3695	11.5593	87	0.32
MHB-37VD	1/25	60'	0	85	15	SD	50.0609	50.0638	25.1047	55.1714	24.9577	30.2137	17	0.3695	15.0679	92	0.34
MHB-37VD	1/25	60'	0	85	15	SD	53.6092	53.6136	28.3774	59.4044	25.2340	34.1704	17	0.3695	17.0323	92	0.34
MHB-34VD	1/25	5	0	70	30	CLSD	43.4717	43.4789	18.3245	46.8800	25.1508	21.7292	16	0.3890	11.3818	77	0.30
MHB-34VD	1/25	5	0	70	30	CLSD	44.2460	44.2517	19.0649	47.6206	25.1840	22.4366	15	0.3890	11.8416	73	0.28
MHB-34VD	1/25	10	0	65	35	CLSD	43.3398	43.3441	18.2012	46.8642	25.1408	21.7234	16	0.3955	11.4376	78	0.31
MHB-34VD	1/25	10	0	65	35	CLSD	49.0111	49.0207	23.8734	53.4561	25.1425	28.3136	16	0.3955	15.0020	75	0.30
MHB-34VD	1/25	15	0	40	60	SDCL	43.3696	43.3751	18.1048	47.6073	25.2676	22.3397	19	0.4280	12.0808	82	0.35
MHB-34VD	1/25	15	0	40	60	SDCL	43.7538	43.7585	18.5547	48.0885	25.2015	22.8870	19	0.4280	12.3810	82	0.35
MHB-34VD	1/25	20	0	20	80	CL	46.1656	46.1780	21.0161	51.2515	25.1557	26.0958	19	0.4540	14.7475	76	0.34
MHB-34VD	1/25	20	0	20	80	CL	43.0280	43.0314	17.9578	47.1664	25.0719	22.0945	19	0.4540	12.6014	72	0.33
MHB-34VD	1/26	25	0	5	15	CL	44.6727	44.6831	20.4368	49.5781	24.2411	25.3370	19	0.0895	42.9583	127	0.11
MHB-34VD	1/26	25	0	5	15	CL	50.0108	50.0457	25.8787	54.8754	24.1496	30.7258	16	0.0895	54.3971	100	0.09
MHB-34VD	1/26	27	15	70	15	SD	45.9038	45.9016	20.7013	48.2830	25.2014	23.0816	10	0.3695	12.4250	52	0.19
MHB-34VD	1/26	27	15	70	15	SD	40.3436	40.3403	15.3294	42.1932	25.0126	17.1806	11	0.3695	9.2008	54	0.20
MHB-34VD	1/26	29	15	70	80	SD	48.8573	48.8546	23.8216	51.5766	25.0344	26.5422	10	0.6815	17.2632	23	0.16
MHB-34VD	1/26	29	15	70	80	SD	50.4031	50.3993	25.3345	53.0898	25.0667	28.0231	10	0.6815	18.3596	21	0.15
MHB-34VD	1/26	31	0	15	85	CL	46.4999	46.5057	21.3988	51.5729	25.1040	26.4689	19	0.4605	15.2116	72	0.33
MHB-34VD	1/26	31	0	15	85	CL	45.7579	45.7641	20.5214	50.7757	25.2396	25.5361	20	0.4605	14.5878	75	0.34
MHB-34VD	1/26	33	0	20	60	CL	43.3082	43.3095	18.0496	47.6860	25.2593	22.4267	20	0.3580	13.4519	91	0.33
MHB-34VD	1/26	33	0	20	60	CL	43.9813	43.9827	18.9473	48.5661	25.0347	23.5314	19	0.3580	14.1210	91	0.32
MHB-34VD	1/26	35	0	75	25	CLSD	45.2500	45.2508	20.0058	49.0596	25.2446	23.8150	16	0.3825	12.2836	81	0.31
MHB-34VD	1/26	35	0	75	25	CLSD	51.4675	51.4848	26.1891	56.1950	25.2871	30.9079	15	0.3825	16.0802	77	0.29
MHB-34VD	1/26	37	0	40	10	SDCL	46.2070	46.2118	21.1934	50.9227	25.0160	25.9067	18	0.1880	19.7729	127	0.24

Well ID	Date	Depth (Feet)	% Gravel	% Sand	% Clay	Name	Final t1 (g)	t2 (g)	Dry Avg. (g)	Initial (Total g)	Vial and Top (g)	Molst Sediment Mass (g)	Init. % Sat. (wt)	Porosity (Vpores/Vt)	Bulk Vol. (cc)	% of Pores Water Filled	$\theta$ Vw/Vt
MHB-34VD	1/26	37	0	40	10	SDCL	52.5420	52.5456	19.9890	56.9045	32.5548	24.3497	18	0.1880	18.6492	124	0.23
MHB-34VD	1/26	39	0	70	30	CLSD	55.6153	55.6137	25.2760	59.3929	30.3385	29.0544	13	0.3890	15.6995	62	0.24
MHB-34VD	1/26	39	0	70	30	CLSD	59.2141	59.2401	29.3147	65.1580	29.9124	35.2456	17	0.3890	18.2081	84	0.33
MHB-34VD	1/26	41	1	89	10	SD	54.1313	54.1254	24.2866	56.5341	29.8418	26.6923	9	0.3630	14.4145	46	0.17
MHB-34VD	1/26	41	1	89	10	SD	51.8935	51.8870	21.9873	53.9550	29.9030	24.0520	9	0.3630	13.0499	44	0.16
MHB-34VD	1/26	43	3	92	5	SD	57.4531	57.4503	24.4978	58.6019	32.9539	25.6480	4	0.3565	14.3795	22	0.08
MHB-34VD	1/26	43	3	92	5	SD	58.4368	58.4326	25.6570	59.5452	32.7777	26.7675	4	0.3565	15.0599	21	0.07
MHB-34VD	1/26	45	3	90	10	SD	58.0875	58.0861	25.7229	60.8278	32.3639	28.4639	10	0.3735	15.0700	49	0.18
MHB-34VD	1/26	45	3	90	10	SD	50.4802	50.4785	25.3742	53.2826	25.1052	28.1774	10	0.3735	14.8656	50	0.19
MHB-34VD	1/26	47	0	90	10	SD	48.2337	48.2291	23.1208	50.5870	25.1106	25.4764	9	0.3630	13.7226	47	0.17
MHB-34VD	1/26	47	0	90	10	SD	49.7092	49.7081	24.6484	51.9697	25.0603	26.9094	8	0.3630	14.6293	43	0.15
MHB-34VD	1/26	49	0	90	10	SD	46.7927	46.7898	21.4780	48.8446	25.3133	23.5313	9	0.3630	12.7476	44	0.16
MHB-34VD	1/26	49	0	90	10	SD	49.1260	49.1238	23.7538	51.5066	25.3711	26.1355	9	0.3630	14.0983	47	0.17
MHB-34VD	1/26	51	0	80	10	SD	48.0842	48.0813	22.8084	50.2605	25.2744	24.9861	9	0.3280	14.2609	47	0.15
MHB-34VD	1/26	51	0	80	10	SD	47.6681	47.6649	22.4787	49.9708	25.1878	24.7830	9	0.3280	14.0548	50	0.16
MHB-34VD	1/26	53	0	90	10	SD	43.7251	43.7225	18.5341	45.9259	25.1897	20.7362	11	0.3630	11.0003	55	0.20
MHB-34VD	1/26	53	0	90	10	SD	46.9582	46.9557	21.8337	49.4824	25.1233	24.3591	10	0.3630	12.9587	54	0.19
MHB-34VD	1/26	55	0	90	10	SD	47.4865	47.4856	22.3945	50.5620	25.0916	25.4704	12	0.3630	13.2915	64	0.23
MHB-34VD	1/26	55	0	90	10	SD	49.5681	49.5706	24.3783	53.0133	25.1911	27.8222	12	0.3630	14.4690	66	0.24
MHB-34VD	1/26	60	0	85	15	SD	50.6502	50.6565	25.3258	57.1892	25.3276	31.8616	21	0.3695	15.2007	116	0.43
MHB-34VD	1/26	60	0	85	15	SD	48.3824	48.3868	22.6691	54.4930	25.7155	28.7775	21	0.3695	13.6061	122	0.45

Appendix B

Well ID	North	East	Elev	TCE	PCE
MHV-30	102460.26	48703.22	352.9	0.000	0.008
MHV-30	102460.26	48703.22	347.9	0.000	0.008
MHV-30	102460.26	48703.22	342.9	0.000	0.011
MHV-30	102460.26	48703.22	337.9	0.002	0.057
MHV-30	102460.26	48703.22	332.9	0.040	0.471
MHV-30	102460.26	48703.22	331.9	0.009	0.080
MHV-30	102460.26	48703.22	330.9	0.005	0.052
MHV-30	102460.26	48703.22	329.9	0.004	0.019
MHV-30	102460.26	48703.22	328.9	0.135	4.038
MHV-30	102460.26	48703.22	327.9	0.019	0.181
MHV-30	102460.26	48703.22	326.9	0.031	0.403
MHV-30	102460.26	48703.22	325.9	0.306	3.920
MHV-30	102460.26	48703.22	324.9	12.520	76.174
MHV-30	102460.26	48703.22	323.9	21.969	103.123
MHV-30	102460.26	48703.22	322.9	24.996	187.321
MHV-30	102460.26	48703.22	321.9	38.862	200.262
MHV-30	102460.26	48703.22	320.9	35.333	167.022
MHV-30	102460.26	48703.22	319.9	0.045	0.052
MHV-30	102460.26	48703.22	318.9	0.020	0.022
MHV-30	102460.26	48703.22	317.9	0.317	0.308
MHV-30	102460.26	48703.22	316.9	0.050	0.045
MHV-30	102460.26	48703.22	315.9	0.170	0.202
MHV-30	102460.26	48703.22	314.9	0.325	0.386
MHV-30	102460.26	48703.22	313.9	0.218	0.258
MHV-30	102460.26	48703.22	312.9	0.067	0.076
MHV-30	102460.26	48703.22	311.9	0.116	0.144
MHV-30	102460.26	48703.22	310.9	0.053	0.055
MHV-30	102460.26	48703.22	309.9	0.057	0.062
MHV-30	102460.26	48703.22	308.9	0.037	0.044
MHV-30	102460.26	48703.22	307.9	0.037	0.043
MHV-30	102460.26	48703.22	306.9	0.040	0.045
MHV-30	102460.26	48703.22	305.9	0.002	0.002
MHV-30	102460.26	48703.22	304.9	0.020	0.021
MHV-30	102460.26	48703.22	303.9	0.043	0.053
MHV-30	102460.26	48703.22	302.9	0.083	0.106
MHV-30	102460.26	48703.22	301.9	0.147	0.223
MHV-30	102460.26	48703.22	300.9	0.236	0.358
MHV-30	102460.26	48703.22	299.9	0.173	0.231
MHV-30	102460.26	48703.22	298.9	0.158	0.157
MHV-30	102460.26	48703.22	297.9	0.055	0.047

Well ID	North	East	Elev	TCE	PCE
MHV-31	102456.05	48717.96	352.3	0.003	0.006
MHV-31	102456.05	48717.96	347.3	0.002	0.009
MHV-31	102456.05	48717.96	342.3	0.002	0.006
MHV-31	102456.05	48717.96	337.3	0.002	0.025
MHV-31	102456.05	48717.96	332.3	0.003	0.046
MHV-31	102456.05	48717.96	330.3	0.076	0.603
MHV-31	102456.05	48717.96	328.3	0.039	0.305
MHV-31	102456.05	48717.96	326.3	0.155	2.218
MHV-31	102456.05	48717.96	324.3	0.132	2.116
MHV-31	102456.05	48717.96	322.3	1.679	8.627
MHV-31	102456.05	48717.96	320.3	1.034	2.492
MHV-31	102456.05	48717.96	318.3	0.054	0.065
MHV-31	102456.05	48717.96	316.3	0.134	0.078
MHV-31	102456.05	48717.96	314.3	0.305	0.442
MHV-31	102456.05	48717.96	312.3	0.114	0.098
MHV-31	102456.05	48717.96	310.3	0.125	0.155
MHV-31	102456.05	48717.96	308.3	0.010	0.011
MHV-31	102456.05	48717.96	306.3	0.138	0.160
MHV-31	102456.05	48717.96	304.3	0.253	0.169
MHV-31	102456.05	48717.96	302.3	0.684	1.349
MHV-31	102456.05	48717.96	297.3	0.195	0.115

Well ID	North	East	Elev	TCE	PCE
MHV-34	102464.64	48689.02	353.6	0.011	0.097
MHV-34	102464.64	48689.02	348.6	0.000	0.011
MHV-34	102464.64	48689.02	343.6	0.158	4529.113
MHV-34	102464.64	48689.02	338.6	0.032	40.789
MHV-34	102464.64	48689.02	333.6	8.421	436.526
MHV-34	102464.64	48689.02	331.6	1.858	485.514
MHV-34	102464.64	48689.02	329.6	0.030	0.134
MHV-34	102464.64	48689.02	327.6	0.612	25.990
MHV-34	102464.64	48689.02	325.6	3.989	127.657
MHV-34	102464.64	48689.02	323.6	48.655	468.360
MHV-34	102464.64	48689.02	321.6	79.705	423.086
MHV-34	102464.64	48689.02	319.6	0.294	0.404
MHV-34	102464.64	48689.02	317.6	0.061	0.096
MHV-34	102464.64	48689.02	315.6	1.014	1.212
MHV-34	102464.64	48689.02	313.6	0.006	0.012
MHV-34	102464.64	48689.02	311.6	0.059	0.119
MHV-34	102464.64	48689.02	309.6	0.011	0.025
MHV-34	102464.64	48689.02	307.6	0.032	0.046
MHV-34	102464.64	48689.02	305.6	0.035	0.446
MHV-34	102464.64	48689.02	303.6	0.002	0.006
MHV-34	102464.64	48689.02	298.6	0.211	0.212

**Appendix B. Chemical Analyses from Pretest and Post-Test Borings (Contd)**

Appendix B

Well ID	North	East	Elev	TCE	PCE
MHV-37	102453.28	48700.98	352.8	0.000	0.021
MHV-37	102453.28	48700.98	347.8	0.000	0.083
MHV-37	102453.28	48700.98	342.8	0.001	0.133
MHV-37	102453.28	48700.98	337.8	0.034	0.493
MHV-37	102453.28	48700.98	332.8	0.029	0.154
MHV-37	102453.28	48700.98	331.8	0.019	0.133
MHV-37	102453.28	48700.98	330.8	0.051	0.313
MHV-37	102453.28	48700.98	329.8	0.044	0.345
MHV-37	102453.28	48700.98	328.8	0.005	0.041
MHV-37	102453.28	48700.98	327.8	0.063	0.544
MHV-37	102453.28	48700.98	326.8	0.031	0.238
MHV-37	102453.28	48700.98	325.8	0.257	4.324
MHV-37	102453.28	48700.98	324.8	2.033	8.193
MHV-37	102453.28	48700.98	323.8	8.157	39.181
MHV-37	102453.28	48700.98	322.8	21.546	98.750
MHV-37	102453.28	48700.98	321.8	2.779	16.538
MHV-37	102453.28	48700.98	320.8	20.898	119.184
MHV-37	102453.28	48700.98	319.8	21.479	101.748
MHV-37	102453.28	48700.98	318.8	0.513	0.425
MHV-37	102453.28	48700.98	317.8	0.944	0.588
MHV-37	102453.28	48700.98	316.8	0.687	0.429
MHV-37	102453.28	48700.98	315.8	1.024	0.980
MHV-37	102453.28	48700.98	314.8	0.173	0.155
MHV-37	102453.28	48700.98	313.8	0.159	0.153
MHV-37	102453.28	48700.98	312.8	0.062	0.069
MHV-37	102453.28	48700.98	311.8	0.067	0.070
MHV-37	102453.28	48700.98	310.8	0.012	0.011
MHV-37	102453.28	48700.98	309.8	0.070	0.074
MHV-37	102453.28	48700.98	308.8	0.019	0.020
MHV-37	102453.28	48700.98	307.8	0.037	0.032
MHV-37	102453.28	48700.98	306.8	0.026	0.025
MHV-37	102453.28	48700.98	305.8	0.038	0.039
MHV-37	102453.28	48700.98	304.8	0.010	0.012
MHV-37	102453.28	48700.98	303.8	0.051	0.049
MHV-37	102453.28	48700.98	302.8	0.017	0.013
MHV-37	102453.28	48700.98	297.8	0.176	0.163

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Well ID	North	East	Elev	TCE	PCE
MHV-38	102448.06	48699.59	352.8	0.000	0.007
MHV-38	102448.06	48699.59	347.8	0.000	0.040
MHV-38	102448.06	48699.59	342.8	0.017	0.964
MHV-38	102448.06	48699.59	337.8	0.082	0.180
MHV-38	102448.06	48699.59	332.8	0.097	0.333
MHV-38	102448.06	48699.59	331.8	0.052	0.160
MHV-38	102448.06	48699.59	330.8	0.052	0.190
MHV-38	102448.06	48699.59	329.8	0.028	0.154
MHV-38	102448.06	48699.59	328.8	0.035	0.216
MHV-38	102448.06	48699.59	327.8	0.067	0.498
MHV-38	102448.06	48699.59	326.8	0.035	0.291
MHV-38	102448.06	48699.59	325.8	0.319	2.375
MHV-38	102448.06	48699.59	324.8	7.182	27.704
MHV-38	102448.06	48699.59	323.8	12.232	42.350
MHV-38	102448.06	48699.59	322.8	15.351	53.911
MHV-38	102448.06	48699.59	321.8	39.777	145.917
MHV-38	102448.06	48699.59	320.8	71.314	233.016
MHV-38	102448.06	48699.59	319.8	181.576	399.694
MHV-38	102448.06	48699.59	318.8	73.754	105.848
MHV-38	102448.06	48699.59	317.8	9.022	6.648
MHV-38	102448.06	48699.59	316.8	0.041	0.017
MHV-38	102448.06	48699.59	315.8	0.033	0.019
MHV-38	102448.06	48699.59	314.8	0.355	0.311
MHV-38	102448.06	48699.59	313.8	0.353	0.328
MHV-38	102448.06	48699.59	312.8	0.201	0.196
MHV-38	102448.06	48699.59	311.8	0.022	0.022
MHV-38	102448.06	48699.59	310.8	0.058	0.063
MHV-38	102448.06	48699.59	309.8	0.010	0.011
MHV-38	102448.06	48699.59	308.8	0.036	0.037
MHV-38	102448.06	48699.59	307.8	0.078	0.087
MHV-38	102448.06	48699.59	306.8	0.005	0.003
MHV-38	102448.06	48699.59	305.8	0.029	0.035
MHV-38	102448.06	48699.59	304.8	0.059	0.074
MHV-38	102448.06	48699.59	303.8	0.030	0.035
MHV-38	102448.06	48699.59	302.8	0.023	0.023
MHV-38	102448.06	48699.59	297.8	0.022	0.024

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Appendix B

Well ID	North	East	Elev	TCE	PCE
MHV-39	102438.64	48696.5	352.6	0.000	0.007
MHV-39	102438.64	48696.5	347.6	0.000	0.046
MHV-39	102438.64	48696.5	342.6	0.126	3.018
MHV-39	102438.64	48696.5	337.6	1.115	10.920
MHV-39	102438.64	48696.5	332.6	0.106	0.266
MHV-39	102438.64	48696.5	331.6	0.129	0.345
MHV-39	102438.64	48696.5	330.6	0.140	0.415
MHV-39	102438.64	48696.5	329.6	0.130	0.461
MHV-39	102438.64	48696.5	328.6	0.051	0.133
MHV-39	102438.64	48696.5	327.6	0.042	0.189
MHV-39	102438.64	48696.5	326.6	0.268	3.250
MHV-39	102438.64	48696.5	325.6	0.198	2.706
MHV-39	102438.64	48696.5	324.6	2.766	4.329
MHV-39	102438.64	48696.5	323.6	2.795	3.007
MHV-39	102438.64	48696.5	322.6	4.818	8.093
MHV-39	102438.64	48696.5	321.6	7.455	7.970
MHV-39	102438.64	48696.5	320.6	37.637	25.585
MHV-39	102438.64	48696.5	319.6	43.852	26.617
MHV-39	102438.64	48696.5	318.6	68.004	64.558
MHV-39	102438.64	48696.5	317.6	27.387	16.678
MHV-39	102438.64	48696.5	316.6	0.065	0.021
MHV-39	102438.64	48696.5	315.6	1.111	0.383
MHV-39	102438.64	48696.5	314.6	0.410	0.272
MHV-39	102438.64	48696.5	313.6	0.273	0.139
MHV-39	102438.64	48696.5	312.6	0.141	0.123
MHV-39	102438.64	48696.5	311.6	0.251	0.237
MHV-39	102438.64	48696.5	310.6	0.033	0.022
MHV-39	102438.64	48696.5	309.6	0.053	0.048
MHV-39	102438.64	48696.5	308.6	0.090	0.087
MHV-39	102438.64	48696.5	307.6	0.212	0.215
MHV-39	102438.64	48696.5	306.6	0.014	0.013
MHV-39	102438.64	48696.5	305.6	0.096	0.077
MHV-39	102438.64	48696.5	304.6	0.091	0.106
MHV-39	102438.64	48696.5	303.6	0.045	0.037
MHV-39	102438.64	48696.5	302.6	0.059	0.066
MHV-39	102438.64	48696.5	297.6	0.249	0.339

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Well ID	North	East	Elev	TCE	PCE
MHB-30	102456.9	48707.09	353	0.001	0.017
MHB-30	102456.9	48707.09	348	0.003	0.024
MHB-30	102456.9	48707.09	343	0.013	0.083
MHB-30	102456.9	48707.09	338	0.006	0.057
MHB-30	102456.9	48707.09	333	0.001	0.003
MHB-30	102456.9	48707.09	332	0.001	0.006
MHB-30	102456.9	48707.09	331	0.022	0.188
MHB-30	102456.9	48707.09	330	0.014	0.101
MHB-30	102456.9	48707.09	329	0.061	0.461
MHB-30	102456.9	48707.09	328	0.002	0.006
MHB-30	102456.9	48707.09	327	0.035	0.145
MHB-30	102456.9	48707.09	326	0.005	0.004
MHB-30	102456.9	48707.09	325	0.027	0.028
MHB-30	102456.9	48707.09	324	0.021	0.028
MHB-30	102456.9	48707.09	323	0.025	0.033
MHB-30	102456.9	48707.09	322	0.045	0.063
MHB-30	102456.9	48707.09	320	0.001	0.001
MHB-30	102456.9	48707.09	319	0.001	0.002
MHB-30	102456.9	48707.09	318	0.001	0.002
MHB-30	102456.9	48707.09	317	0.001	0.001
MHB-30	102456.9	48707.09	316	0.001	0.001
MHB-30	102456.9	48707.09	315	0.038	0.043
MHB-30	102456.9	48707.09	314	0.19	0.202
MHB-30	102456.9	48707.09	313	0.008	0.011
MHB-30	102456.9	48707.09	312	0.008	0.012
MHB-30	102456.9	48707.09	311	0.002	0.003
MHB-30	102456.9	48707.09	310	0.002	0.002
MHB-30	102456.9	48707.09	309	0.002	0.003
MHB-30	102456.9	48707.09	308	0.009	0.014
MHB-30	102456.9	48707.09	307	0.006	0.009
MHB-30	102456.9	48707.09	306	0.004	0.010
MHB-30	102456.9	48707.09	305	0.104	0.158
MHB-30	102456.9	48707.09	304	0.008	0.018
MHB-30	102456.9	48707.09	303	0.029	51.817
MHB-30	102456.9	48707.09	302	0.361	0.380
MHB-30	102456.9	48707.09	301	0.145	0.151
MHB-30	102456.9	48707.09	300	0.143	0.147
MHB-30	102456.9	48707.09	299	0.095	0.191
MHB-30	102456.9	48707.09	298	0.172	0.261

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Appendix B

Well ID	North	East	Elev	TCE	PCE
MHB-31	102453.7	48716.24	352.3	0.001	0.004
MHB-31	102453.7	48716.24	347.3	0.001	0.002
MHB-31	102453.7	48716.24	342.3	0.001	0.002
MHB-31	102453.7	48716.24	337.3	0.002	0.026
MHB-31	102453.7	48716.24	332.3	0.002	0.009
MHB-31	102453.7	48716.24	330.3	0.001	0.001
MHB-31	102453.7	48716.24	328.3	0.001	0.001
MHB-31	102453.7	48716.24	326.3	0.006	0.014
MHB-31	102453.7	48716.24	324.3	0.003	0.007
MHB-31	102453.7	48716.24	322.3	0.014	0.075
MHB-31	102453.7	48716.24	320.3	0.037	0.127
MHB-31	102453.7	48716.24	318.3	0.037	0.217
MHB-31	102453.7	48716.24	316.3	0.003	0.012
MHB-31	102453.7	48716.24	314.3	0.03	0.172
MHB-31	102453.7	48716.24	312.3	0.014	0.020
MHB-31	102453.7	48716.24	310.3	0.073	0.106
MHB-31	102453.7	48716.24	308.3	0.022	0.023
MHB-31	102453.7	48716.24	306.3	0.062	0.089
MHB-31	102453.7	48716.24	304.3	0.315	0.307
MHB-31	102453.7	48716.24	302.3	0.191	0.315
MHB-31	102453.7	48716.24	297.3	0.036	0.031

Well ID	North	East	Elev	TCE	PCE
MHB-34	102461.6	48689.37	353.5	0.051	1.309
MHB-34	102461.6	48689.37	348.5	0.034	681.870
MHB-34	102461.6	48689.37	343.5	9.971	903.119
MHB-34	102461.6	48689.37	338.5	3.666	18.751
MHB-34	102461.6	48689.37	333.5	0.779	2.541
MHB-34	102461.6	48689.37	331.5	0.066	0.928
MHB-34	102461.6	48689.37	329.5	0.008	0.123
MHB-34	102461.6	48689.37	327.5	0.045	0.560
MHB-34	102461.6	48689.37	325.5	0.148	1.161
MHB-34	102461.6	48689.37	323.5	0.381	0.910
MHB-34	102461.6	48689.37	321.5	0.708	1.023
MHB-34	102461.6	48689.37	319.5	0.498	0.727
MHB-34	102461.6	48689.37	317.5	0.02	0.173
MHB-34	102461.6	48689.37	315.5	0.001	0.007
MHB-34	102461.6	48689.37	313.5	0.019	0.113
MHB-34	102461.6	48689.37	311.5	0.015	0.061
MHB-34	102461.6	48689.37	309.5	0.015	0.034
MHB-34	102461.6	48689.37	307.5	0.005	0.018
MHB-34	102461.6	48689.37	305.5	0.025	0.097
MHB-34	102461.6	48689.37	303.5	0.032	0.033
MHB-34	102461.6	48689.37	298.5	0.214	0.135

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Well ID	North	East	Elev	TCE	PCE
MHB-37	102452.5	48704.06	352.9	0.001	0.039
MHB-37	102452.5	48704.06	347.9	0.001	0.013
MHB-37	102452.5	48704.06	342.9	0.001	0.011
MHB-37	102452.5	48704.06	337.9	0.008	0.049
MHB-37	102452.5	48704.06	332.9	0.001	0.001
MHB-37	102452.5	48704.06	331.9	0.004	0.009
MHB-37	102452.5	48704.06	330.9	0.001	0.002
MHB-37	102452.5	48704.06	329.9	0.001	0.001
MHB-37	102452.5	48704.06	328.9	0.001	0.002
MHB-37	102452.5	48704.06	327.9	0.001	0.003
MHB-37	102452.5	48704.06	326.9	0.003	0.006
MHB-37	102452.5	48704.06	325.9	0.01	0.059
MHB-37	102452.5	48704.06	324.9	0.03	0.037
MHB-37	102452.5	48704.06	323.9	0.023	0.112
MHB-37	102452.5	48704.06	322.9	0.001	0.001
MHB-37	102452.5	48704.06	321.9	0.018	0.024
MHB-37	102452.5	48704.06	320.9	0.014	0.077
MHB-37	102452.5	48704.06	319.9	0.001	0.001
MHB-37	102452.5	48704.06	318.9	0.013	0.026
MHB-37	102452.5	48704.06	317.9	0.002	0.004
MHB-37	102452.5	48704.06	316.9	0.072	0.149
MHB-37	102452.5	48704.06	315.9	0.141	0.302
MHB-37	102452.5	48704.06	314.9	0.012	0.021
MHB-37	102452.5	48704.06	313.9	0.006	0.008
MHB-37	102452.5	48704.06	312.9	0.018	0.118
MHB-37	102452.5	48704.06	311.9	0.011	0.019
MHB-37	102452.5	48704.06	310.9	0.002	0.007
MHB-37	102452.5	48704.06	309.9	0.001	0.002
MHB-37	102452.5	48704.06	308.9	0.003	0.008
MHB-37	102452.5	48704.06	307.9	0.009	0.014
MHB-37	102452.5	48704.06	306.9	0.019	0.048
MHB-37	102452.5	48704.06	305.9	0.045	0.073
MHB-37	102452.5	48704.06	304.9	0.022	0.053
MHB-37	102452.5	48704.06	303.9	0.039	0.071
MHB-37	102452.5	48704.06	302.9	0.056	0.082
MHB-37	102452.5	48704.06	297.9	0.004	0.004

Appendix B

Well ID	North	East	Elev	TCE	PCE
MHB-37D	102450.9	48701.35	353	0.001	0.019
MHB-37D	102450.9	48701.35	348	0.001	0.027
MHB-37D	102450.9	48701.35	343	0.004	0.232
MHB-37D	102450.9	48701.35	338	0.648	1.750
MHB-37D	102450.9	48701.35	333	0.005	0.016
MHB-37D	102450.9	48701.35	332	0.001	0.004
MHB-37D	102450.9	48701.35	331	0.001	0.004
MHB-37D	102450.9	48701.35	330	0.001	0.006
MHB-37D	102450.9	48701.35	329	0.001	0.004
MHB-37D	102450.9	48701.35	328	0.001	0.001
MHB-37D	102450.9	48701.35	327	0.028	0.070
MHB-37D	102450.9	48701.35	326	0.013	0.029
MHB-37D	102450.9	48701.35	325	0.059	0.120
MHB-37D	102450.9	48701.35	324	0.127	0.266
MHB-37D	102450.9	48701.35	323	0.184	0.341
MHB-37D	102450.9	48701.35	322	0.101	0.188
MHB-37D	102450.9	48701.35	321	0.017	0.021
MHB-37D	102450.9	48701.35	320	0.124	0.237
MHB-37D	102450.9	48701.35	319	0.051	0.090
MHB-37D	102450.9	48701.35	318	0.123	0.237
MHB-37D	102450.9	48701.35	317	0.002	0.005
MHB-37D	102450.9	48701.35	316	0.045	0.088
MHB-37D	102450.9	48701.35	315	0.004	0.006
MHB-37D	102450.9	48701.35	314	0.01	0.016
MHB-37D	102450.9	48701.35	313	0.023	0.040
MHB-37D	102450.9	48701.35	312	0.004	0.007
MHB-37D	102450.9	48701.35	311	0.002	0.003
MHB-37D	102450.9	48701.35	310	0.015	0.027
MHB-37D	102450.9	48701.35	309	0.008	0.014
MHB-37D	102450.9	48701.35	308	0.007	0.012
MHB-37D	102450.9	48701.35	306	0.002	0.003
MHB-37D	102450.9	48701.35	305	0.01	0.012
MHB-37D	102450.9	48701.35	304	0.003	0.004
MHB-37D	102450.9	48701.35	303	0.192	0.304
MHB-37D	102450.9	48701.35	298	0.121	0.132

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Well ID	North	East	Elev	TCE	PCE
MHB-38	102446	48702.26	352.9	0.001	0.081
MHB-38	102446	48702.26	347.9	0.001	0.095
MHB-38	102446	48702.26	342.9	0.002	0.105
MHB-38	102446	48702.26	337.9	0.037	0.060
MHB-38	102446	48702.26	332.9	0.012	0.044
MHB-38	102446	48702.26	331.9	0.001	0.001
MHB-38	102446	48702.26	330.9	0.001	0.001
MHB-38	102446	48702.26	329.9	0.001	0.001
MHB-38	102446	48702.26	328.9	0.001	0.001
MHB-38	102446	48702.26	327.9	0.002	0.003
MHB-38	102446	48702.26	326.9	0.001	0.001
MHB-38	102446	48702.26	325.9	0.011	0.029
MHB-38	102446	48702.26	324.9	0.019	0.031
MHB-38	102446	48702.26	323.9	0.013	0.020
MHB-38	102446	48702.26	322.9	0.001	0.001
MHB-38	102446	48702.26	321.9	0.135	0.141
MHB-38	102446	48702.26	320.9	0.103	0.065
MHB-38	102446	48702.26	319.9	0.281	0.342
MHB-38	102446	48702.26	318.9	0.013	0.018
MHB-38	102446	48702.26	317.9	0.001	0.001
MHB-38	102446	48702.26	316.9	0.001	0.001
MHB-38	102446	48702.26	315.9	0.022	0.037
MHB-38	102446	48702.26	314.9	0.005	0.004
MHB-38	102446	48702.26	313.9	0.017	0.026
MHB-38	102446	48702.26	312.9	0.001	0.001
MHB-38	102446	48702.26	311.9	0.028	0.030
MHB-38	102446	48702.26	310.9	0.002	0.003
MHB-38	102446	48702.26	309.9	0.008	0.003
MHB-38	102446	48702.26	308.9	0.001	0.001
MHB-38	102446	48702.26	307.9	0.012	0.005
MHB-38	102446	48702.26	306.9	0.013	0.014
MHB-38	102446	48702.26	305.9	0.025	0.020
MHB-38	102446	48702.26	304.9	0.04	0.052
MHB-38	102446	48702.26	303.9	0.069	0.103
MHB-38	102446	48702.26	302.9	0.233	0.301
MHB-38	102446	48702.26	297.9	0.052	0.049

Appendix B

Well ID	North	East	Elev	TCE	PCE
MHB-39	102437.1	48699.36	352.6	0.001	0.023
MHB-39	102437.1	48699.36	347.6	0.001	0.039
MHB-39	102437.1	48699.36	342.6	0.003	0.118
MHB-39	102437.1	48699.36	337.6	0.1	0.249
MHB-39	102437.1	48699.36	332.6	0.012	0.042
MHB-39	102437.1	48699.36	331.6	0.011	0.044
MHB-39	102437.1	48699.36	330.6	0.007	0.025
MHB-39	102437.1	48699.36	329.6	0.006	0.031
MHB-39	102437.1	48699.36	328.6	0.007	0.019
MHB-39	102437.1	48699.36	327.6	0.034	0.098
MHB-39	102437.1	48699.36	326.6	0.174	0.362
MHB-39	102437.1	48699.36	325.6	0.021	0.032
MHB-39	102437.1	48699.36	324.6	0.149	0.202
MHB-39	102437.1	48699.36	323.6	0.441	0.327
MHB-39	102437.1	48699.36	322.6	1.089	0.542
MHB-39	102437.1	48699.36	321.6	1.825	1.340
MHB-39	102437.1	48699.36	320.6	2.249	1.198
MHB-39	102437.1	48699.36	319.6	3.867	3.600
MHB-39	102437.1	48699.36	318.6	2.6	2.258
MHB-39	102437.1	48699.36	317.6	1.708	0.891
MHB-39	102437.1	48699.36	316.6	1.038	0.978
MHB-39	102437.1	48699.36	315.6	0.513	0.809
MHB-39	102437.1	48699.36	314.6	0.275	0.544
MHB-39	102437.1	48699.36	313.6	1.589	1.937
MHB-39	102437.1	48699.36	312.6	0.278	0.566
MHB-39	102437.1	48699.36	311.6	0.053	0.084
MHB-39	102437.1	48699.36	310.6	0.188	0.307
MHB-39	102437.1	48699.36	309.6	0.232	0.419
MHB-39	102437.1	48699.36	308.6	0.104	0.179
MHB-39	102437.1	48699.36	307.6	0.038	0.050
MHB-39	102437.1	48699.36	306.6	0.012	0.007
MHB-39	102437.1	48699.36	305.6	0.011	0.008
MHB-39	102437.1	48699.36	304.6	0.353	0.683
MHB-39	102437.1	48699.36	303.6	0.176	0.154
MHB-39	102437.1	48699.36	302.6	0.135	0.229
MHB-39	102437.1	48699.36	297.6	0.359	0.628

Appendix B

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# Appendix C

## Pretest Core Descriptions

WELL	DEEP	R	I	COLOR	STRUCTUR	GR	SD	MD	MX	MD	R	CG	CS	CM	CT	CB	NAME	S	PR	PT	MU	GL	LI	SU	H	FOSSILS	
MHV030	1	2	2	DBRBK	BMYEBRRT	2	53	45	LP	M	3					0	CLSD	V	P	BP	0	0	3	0	0	C	
MHV030	2	4	2	MYBER	RT	.1	45	55	LP	CL	3					0	SDCL	V	P	BP	0	0	.1	0	0	C	
MHV030	3	2	2	MYEBR	BDBRBKRT	1	44	55	GR	CL	3					0	SDCL	V	P	BP	0	0	.1	0	0	C	
MHV030	4	2	2	MYEBR		.1	25	75	GR	CL	3					0	SDCL	V	P	MI	0	0	0	0	0	C	
MHV030	5	2	2	MREBR	BMBR	.1	35	65	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	0	C	
MHV030	6	3	3	MREBR	VARYE	.1	40	60	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	0	C	
MHV030	7	3	3	MREBR	VARYEBBR	.1	40	60	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	0	C	
MHV030	8	3	3	MREBR	VARYE	0	45	55	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	0	C	
MHV030	9	3	3	MREBR	VARYE	0	35	65	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	0	C	
MHV030	10	3	3	MREBR	VARYE	0	40	60	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	0	C	
MHV030	11	3	3	MREBR	VARYE	0	40	60	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	0	C	
MHV030	12	8	3	MREBR	VARYE	0	45	55	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	0	C	
MHV030	13	3	3	MREBR	VARYE	0	30	70	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	0	C	
MHV030	14	3	3	MREBR	VARYE	0	60	40	VC	M	3					0	CLSD	V	P	BP	.1	0	0	0	0	C	
MHV030	15	3	3	MREBR	IYEWHL	1	54	45	GR	M	3					0	CLSD	V	P	BP	.1	0	0	0	0	C	
MHV030	16	3	3	MREBR	VARYE	1	64	35	GR	C	2					0	CLSD	V	P	BP	1	0	0	0	0	C	
MHV030	17	3	3	MREBR	VARYECLB	5	70	25	GR	C	2					0	CLSD	P	M	BP	.1	0	0	0	0	C	
MHV030	18	3	3	MREBR	MTWHCLB	2	73	25	GR	C	2					0	CLSD	P	M	BP	.1	0	0	0	0	C	
MHV030	19	2	2	MREBR	VARYEICL	1	39	60	GR	CL	3					0	SDCL	V	P	BP	.1	0	0	0	0	C	
MHV030	20	2	2	MREBR	IPUCL	2	68	30	GR	C	3					0	CLSD	P	M	BP	.1	0	0	0	0	C	
MHV030	21	3	3	MPU	IREBRSD	.1	25	75	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	0	C	
MHV030	22	6	2	MREBR	IPUCL	3	77	20	GR	C	3					0	SD	P	G	BP	1	0	0	0	0	C	
MHV030	23	2	2	MREBR	MTWHCLB	10	60	30	GR	C	3					0	CLSD	P	P	BP	.1	0	0	0	0	C	
MHV030	24	7	1	LREBR	BMREBR	3	72	25	UP	C	3					0	CLSD	P	M	BP	1	0	0	0	0	C	
MHV030	25	1	1	LGYP		7	73	20	UP	C	3					0	SD	P	G	BP	.1	0	0	0	0	C	
MHV030	26	6	1	LGYP		10	70	20	UP	C	3					0	SD	P	G	BP	.1	0	0	0	0	C	
MHV030	27	2	2	MREBR	BLPUBMBR	3	82	15	GR	C	3					0	SD	M	E	BP	.1	0	0	0	0	C	
MHV030	28	1	2	MREBR	WSPWH	15	55	30	LP	C	3					0	CLSD	V	P	BP	.1	0	0	0	0	C	
MHV030	29	1	1	MREBR	BLGYP	10	70	20	LP	C	3					0	SD	P	G	BP	.1	0	0	0	0	C	
MHV030	30	3	2	MREBR		7	73	20	LP	C	3					0	SD	P	G	BP	.1	0	0	0	0	C	
MHV030	31	3	3	GYP	IYELREBR	5	40	55	GR	CL	3					0	SDCL	V	P	BP	1	0	0	0	0	C	
MHV030	32	0																									
MHV030	33	3	3	GYP	ILREBRSD	3	27	70	GR	CL	3					0	SDCL	V	P	MI	2	0	0	0	0	C	
MHV030	34	9	3	GYP		0	20	80	M	CL	3					0	CL	V	P	MI	3	0	0	0	0	C	
MHV030	35	3	3	GYP	VARYEOR	0	20	80	M	CL	3					0	CL	V	P	MI	2	0	0	0	0	C	
MHV030	36	3	3	GYP	BYEOR	0	20	80	C	CL	3					0	CL	V	P	MI	2	0	0	0	0	C	
MHV030	37	2	2	GYP	BYEOR	0	25	75	C	CL	3					0	SDCL	V	P	MI	2	0	0	0	0	C	

WELL	DEEP	R	I	COLOR	STRUCTUR	GR	SD	MD	MX	MD	R	CG	CS	CM	CT	CB	NAME	S	PR	PT	MU	GL	LI	SU	H	FOSSILS	
MHV030	38	8	1	LGYPU	IYEPUCL	10	50	40	LP	C	3						0	CLSD	V	P	BP	1	0	0	0	0	C
MHV030	39	2	GYP	IGRIPUCL	5	65	30	UP	C	3							0	CLSD	V	P	BP	1	0	0	0	0	C
MHV030	40	2	LGYP	BREBR	5	40	55	UP	CL	3							0	SDCL	V	P	BP	3	0	0	0	0	C
MHV030	41	1	LGYP	BREBR	20	20	60	UP	CL	3							0	SDCL	V	P	MI	1	0	0	0	0	C
MHV030	42	1	LGYP	BREBR	30	50	20	UP	C	3							0	PBSD	P	G	BP	1	0	0	0	0	C
MHV030	43	2	LGYP	BREBR	7	73	20	UP	C	3							0	SD	P	G	BP	2	0	0	0	0	C
MHV030	44	2	LGYP	BYEOR	1	64	35	GR	F	3							0	CLSD	P	P	BP	.1	0	0	0	0	C
MHV030	45	2	LGYP	BLREBR	1	59	40	GR	M	3							0	CLSD	P	P	BP	.1	0	0	0	0	C
MHV030	46	2	LGYP	BREBR	0	80	20	VC	M	3							0	SD	M	G	BP	.1	0	0	0	0	C
MHV030	47	1	LGYP	BYEOR	.1	75	25	GR	M	3							0	CLSD	P	M	BP	.1	0	0	0	0	C
MHV030	48	1	LGYP	VARREBR	0	80	20	VC	M	3							0	SD	M	G	BP	.1	0	0	0	0	C
MHV030	49	1	LGYP	VARREBR	0	70	30	GR	M	3							0	CLSD	P	M	BP	.1	0	0	0	0	C
MHV030	50	1	LGYP	BYEOR	0	85	15	C	M	3							0	SD	M	E	BP	1	0	0	0	0	C
MHV030	51	2	LGYP	VARREYE	0	80	20	VC	M	3							0	SD	M	G	BP	.1	0	0	0	0	C
MHV030	52	2	LGYP	BREBRBYE	0	75	25	VC	M	3							0	CLSD	P	M	BP	.1	0	0	0	0	C
MHV030	53	2	LGYP	VARYERE	0	70	30	VC	M	3							0	CLSD	P	P	BP	1	0	0	0	0	C
MHV030	54	2	LGYP	BLYEOR	0	55	45	VC	F	3							0	CLSD	V	P	BP	.1	0	0	0	0	C
MHV030	55	2	LGYP	BMREBR	0	85	15	VC	F	3							0	SD	M	E	BP	1	0	0	0	0	C
MHV030	56	9	2	LGYP	IREBRSD	0	60	40	VC	F	3						0	CLSD	V	P	BP	.1	0	0	0	0	C
MHV030	57	2	LPU	IWHSDBBR	0	35	65	VC	CL	3							0	SDCL	V	P	MI	.1	0	0	0	0	C
MHV030	58	2	LPU		0	45	55	VC	CL	3							0	SDCL	V	P	BP	.1	0	0	0	0	C
MHV030	59	2	MGYP	ILPUCL	0	60	40	VC	F	3							0	CLSD	V	P	BP	.1	0	0	0	0	C
MHV030	60	2	DYEOR	IWH	.1	85	15	GR	M	3							0	SD	M	E	BP	0	0	0	0	0	C

Log Sheets  
RBB, SAIC  
12-Oct-93

REFLEX  
clh, D.O  
3-Nov-93

# Appendix C

## Pretest Core Descriptions

WELL	DEEP	R	I	COLOR	STRUCTUR	GR	SD	MD	MD	MX	MD	R	CG	CS	CM	CT	CB	NAME	S	PR	PT	MU	GL	LI	SU	H	FOSSILS
MHV031	1	1	1	DBRGY		.1	90	10	GR	M	3						0	SD	W	E	BP	0	0	0	0	0	C
MHV031	2	7	2	DYEBR		1	54	45	LP	F	3						0	CLSD	V	P	BP	0	0	0	0	0	C
MHV031	3	2	2	DYEBR	BDBRGYRT	.1	45	55	GR	M	3						0	SDCL	V	P	BP	0	0	0	0	0	C
MHV031	4	0																									
MHV031	5	3	3	DREBR	VAYEBBR	1	54	45	GR	M	2						0	CLSD	V	P	BP	.1	0	0	0	0	C
MHV031	6	4	3	DREBR	VARYE	.1	60	40	GR	M	2						0	CLSD	P	P	BP	1	0	0	0	0	C
MHV031	7	3	3	DREBR	VARYEMH	0	55	45	VC	M	2						0	CLSD	V	P	BP	1	0	0	0	0	C
MHV031	8	3	3	DREBR	VARYEMH	1	59	40	GR	M	2						0	CLSD	V	P	BP	1	0	0	0	0	C
MHV031	9	3	3	DREBR	VARYEBBR	0	65	35	VC	M	2						0	CLSD	P	P	BP	1	0	0	0	0	C
MHV031	10	3	3	DREBR	VARYEMH	.1	60	40	GR	M	2						0	CLSD	P	P	BP	1	0	0	0	0	C
MHV031	11	3	3	REBR	VARYEBBR	.1	60	40	GR	M	2						0	CLSD	P	P	BP	0	0	0	0	0	C
MHV031	12	8	3	REBR	VARYEMH	1	44	55	GR	CL	2						0	SDCL	V	P	BP	0	0	0	0	0	C
MHV031	13	3	3	REOR	WHCLBBBR	1	59	40	GR	M	2						0	CLSD	V	P	BP	1	0	0	0	0	C
MHV031	14	2	2	REOR	WHCLB	.1	75	25	GR	C	2						0	CLSD	P	M	BP	0	0	0	0	0	C
MHV031	15	2	2	REOR	IWHCL	3	52	45	GR	C	2						0	CLSD	V	P	BP	0	0	0	0	0	C
MHV031	16	8	2	REOR	MTWHIWHC	.1	70	30	GR	C	2						0	CLSD	P	M	BP	.1	0	0	0	0	C
MHV031	17	2	2	REOR	MTWHBBR	2	83	15	GR	C	2						0	SD	M	G	BP	.1	0	0	0	0	R
MHV031	18	2	2	LREBR	MTWHBRE	3	72	25	UP	C	2						0	CLSD	P	M	BP	0	0	0	0	0	R
MHV031	19	2	2	REOR	IPUCLBBR	5	70	25	GR	C	2						0	CLSD	P	M	BP	.1	0	0	0	0	C
MHV031	20	6	2	REOR	MTWHIPUC	20	60	20	GR	VC	2						0	SD	M	G	BP	0	0	0	0	0	R
MHV031	21	2	2	REOR	BLBRDBBR	15	70	15	LP	C	2						0	SD	M	G	BP	.1	0	0	0	0	C
MHV031	22	2	2	LREOR	BLBRMTWH	7	73	20	LP	C	2						0	SD	M	G	BP	0	0	0	0	0	C
MHV031	23	2	2	LGYPU	BYEBR	20	60	20	UP	C	2						0	SD	M	G	BP	.1	0	0	0	0	C
MHV031	24	5	2	LGYPU	BYEBREPU	5	75	20	GR	C	2						0	SD	P	G	BP	.1	0	0	0	0	C
MHV031	25	2	2	LGYPU	BLBRMTWH	8	72	20	UP	C	2						0	SD	M	G	BP	1	0	0	0	0	R
MHV031	26	6	2	LGYPU	BREORBYE	7	73	20	UP	C	2						0	SD	P	G	BP	0	0	0	0	0	R
MHV031	27	2	2	LYEBR	BLPU	10	75	15	GR	C	2						0	SD	P	G	BP	.1	0	0	0	0	R
MHV031	28	3	2	LYEBR		15	65	20	GR	C	2						0	SD	P	G	BP	.1	0	0	0	0	R
MHV031	29	2	2	LYEBR	BMBR	10	70	20	LP	C	2						0	SD	P	G	BP	.1	0	0	0	0	C
MHV031	30	5	2	LYEBR		5	80	15	GR	C	2						0	SD	M	G	BP	.1	0	0	0	0	C
MHV031	31	2	2	REOR	ILPUBLBR	7	73	20	LP	C	2						0	SD	P	M	BP	1	0	0	0	0	C
MHV031	32	3	3	LREPU	BYEOR	0	25	75	C	CL	3						0	SDCL	V	P	MI	2	0	0	0	0	C
MHV031	33	3	3	REPU	BLBR	1	19	80	GR	CL	3						0	CL	V	P	MI	2	0	0	0	0	C
MHV031	34	2	2	REBR	IWHIGYPU	.1	65	35	GR	F	3						0	CLSD	P	P	BP	1	0	0	0	0	C
MHV031	35	3	3	REPU	BBR	0	35	65	VC	CL	3						0	SDCL	V	P	MI	1	0	0	0	0	C

WELL	DEEP	R	I	COLOR	STRUCTUR	GR	SD	MD	MX	MD	R	CG	CS	CM	CT	CB	NAME	S	PR	PT	MU	GL	LI	SU	H	FOSSILS
MHV031	36	3	REPU			0	20	80	M	CL	3					0	CL		V	P	MI	1	0	0	0	C
MHV031	37	2	LREBR	BYEORBBE		1	29	70	LP	CL	3					0	SDCL		V	P	MI	1	0	0	0	C
MHV031	38	6	1	LREPU		3	77	20	UP	C	2					0	SD		F	G	BP	.1	0	0	0	C
MHV031	39	1	REPU	IBRCL		10	55	35	UP	C	2					0	CLSD		V	P	BP	.1	0	0	0	C
MHV031	40	1	LREPU			25	60	15	UP	C	2					0	PBSD		P	G	BP	.1	0	0	0	C
MHV031	41	1	LREPU	BBR		10	80	10	GR	C	2					0	SD		P	G	BP	.1	0	0	0	C
MHV031	42	1	GYE	BBR		35	55	10	UP	C	2					0	PBSD		P	G	BP	.1	0	0	0	C
MHV031	43	2	YEOR	BREBR		2	78	20	GR	F	3					0	SD		M	G	BP	.1	0	0	0	C
MHV031	44	8	2	LGYPV	WSPREBR	.1	85	15	GR	M	3					0	SD		M	E	BP	.1	0	0	0	C
MHV031	45	2	LGYPV	BREBR		2	88	10	GR	M	3					0	SD		M	E	BP	.1	0	0	0	C
MHV031	46	9	2	LGYPV	WSPRE	0	90	10	VC	M	3					0	SD		M	E	BP	1	0	0	0	C
MHV031	47	2	LGYPV	BREBR		1	89	10	GR	M	3					0	SD		M	E	BP	.1	0	0	0	C
MHV031	48	2	LGYPV	VARYEOR		.1	90	10	GR	M	3					0	SD		W	E	BP	1	0	0	0	C
MHV031	49	2	LGYPV	BREBR		0	90	10	VC	M	3					0	SD		W	E	BP	.1	0	0	0	C
MHV031	50	2	LGYPV	VARYERE		0	90	10	VC	F	3					0	SD		W	E	BP	1	0	0	0	C
MHV031	51	2	LGYPV	BREBR		.1	80	20	GR	M	3					0	SD		M	G	BP	1	0	0	0	C
MHV031	52	2	LGYPV	BYEOR		0	80	20	VC	M	3					0	SD		M	G	BP	1	0	0	0	C
MHV031	53	2	LPU			.1	80	20	GR	M	3					0	SD		M	G	BP	1	0	0	0	C
MHV031	54	2	LPU	BBRBYE		.1	80	20	GR	M	3					0	SD		M	G	BP	1	0	0	0	C
MHV031	55	2	LPU	WSPWHBBR		0	75	25	VC	F	3					0	CLSD		P	M	BP	1	0	0	0	C
MHV031	56	2	LPU	VARREBR		.1	70	30	GR	F	3					0	CLSD		P	M	BP	.1	0	0	0	C
MHV031	57	2	LPU	BLREBR		1	74	25	GR	F	3					0	CLSD		P	M	BP	1	0	0	0	C
MHV031	58	2	YEOR	WSPWHBTA		0	80	20	VC	M	3					0	SD		M	G	BP	0	0	0	0	C
MHV031	59	2	YEOR	BBRREPU		.1	85	15	GR	M	3					0	SD		M	E	BP	0	0	0	0	C
MHV031	60	2	YEOR			1	84	15	GR	M	3					0	SD		M	E	BP	1	0	0	0	C

Log Sheets  
RBB, SAIC  
20-Oct-93

REFLEX  
clh, D.0  
5-Nov-93

# Appendix C

## Pretest Core Descriptions

WELL	DEEP	R	I	COLOR	STRUCTUR	GR	SD	MD	MX	MD	R	CG	CS	CM	CT	CB	NAME	S	PR	PT	MU	GL	LI	SU	H	FOSSILS	
MHV034	1	9	1	DGYBR	IMRECLRT	1	85	15	GR	M	2					0	SD	M	E	BP	.1	0	2	0	C		
MHV034	2	0																									
MHV034	3	2	2	DYEBR	WSPDGYBR	1	64	35	LP	CL	3					0	CLSD	P	P	BP	.1	0	.1	0	C		
MHV034	4	0																									
MHV034	5	8	2	MREBR	VARYEMBR	1	35	65	GR	CL	2					0	SDCL	V	P	MI	.1	0	.1	0	C		
MHV034	6	0																									
MHV034	7	2	2	MREBR	VARYEMH	3	22	75	UP	CL	2					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	8	2	2	MREBR	VARYEMH	0	35	65	VC	CL	2					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	9	3	3	MREBR	VARYEMH	0	40	60	VC	CL	2					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	10	3	3	MREBR	VARYEPU	0	30	70	VC	CL	2					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	11	3	3	MREBR	VARYEMPU	0	65	35	VC	M	2					0	CLSD	P	P	BP	.1	0	0	0	C		
MHV034	12	3	3	MREPU	VARREYE	0	35	65	C	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	13	2	2	MREBR	VARLPUYE	0	55	45	VC	M	2					0	CLSD	V	P	BP	.1	0	0	0	C		
MHV034	14	0																									
MHV034	15	3	3	MREBR	WSPYELPU	1	30	70	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	16	6	3	MREBR	VARYELPU	0	30	70	C	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	17	2	2	MREBR	WSPYEPU	0	25	75	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	18	2	2	LREBR	MTWH	0	75	25	VC	M	2					0	CLSD	P	M	BP	.1	0	0	0	C		
MHV034	19	9	1	LREBR	IPUTBRCL	1	69	30	GR	C	3					0	CLSD	P	M	BP	.1	0	0	0	C		
MHV034	20	0																									
MHV034	21	3	3	MREPU	VARWHBR	0	25	75	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	22	3	3	MREPU	VARWHOR	1	30	69	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	23	3	3	MREBR	BPUVARYE	0	30	70	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	24	3	3	MREPU	VARWHOR	0	15	85	VC	CL	3					0	CL	V	P	MI	.1	0	0	0	C		
MHV034	25	3	3	MREBR	BPUWSPYE	0	35	65	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	26	2	2	DYEBR	IPUCL	3	62	35	GR	C	2					0	CLSD	P	M	BP	.1	0	0	0	C		
MHV034	27	3	3	MREPU	BREBR	0	30	70	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	28	4	3	MREPU	VARWH	0	15	85	VC	CL	3					0	CL	V	P	MI	.1	0	0	0	C		
MHV034	29	2	2	MREBR	WSPWHBPU	0	45	55	VC	CL	3					0	SDCL	V	P	BP	.1	0	0	0	C		
MHV034	30	7	1	MYEOR	IMPUCI	7	73	20	LP	C	3					0	SD	P	G	BP	.1	0	0	0	C		
MHV034	31	3	3	MREPU	IYEORS	3	25	72	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	32	4	3	MREPU	EMYEER	0	20	80	VC	CL	3					0	CL	V	P	MI	.1	0	0	0	C		
MHV034	33	3	3	MREPU	EMYEER	0	20	80	VC	CL	3					0	CL	V	P	MI	.1	0	0	0	C		
MHV034	34	4	3	LREPU	BREBWH	0	40	60	M	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	35	3	3	MREPU	WSPMBR	0	25	75	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	C		
MHV034	36	6	3	MREPU	WSPMBR	0	25	75	VC	CL	3					0	SDCL	V	P	MI	.1	2	0	0	0	C	
MHV034	37	3	3	MREPU	VARWHMBR	0	30	70	M	CL	3					0	SDCL	V	P	MI	.1	2	0	0	0	C	

WELL	DEEP	R	I	COLOR	STRUCTUR	GR	SD	MD	MX	MD	CL	R	CG	CS	CM	CT	CB	NAME	S	PR	PT	MU	GL	LI	SU	H	FOSSILS	
MHV034	38	8	3	LREPU	ILREPU	0	35	65	C	CL	3						0	SDCL	V	P	MI	1	0	0	0	0	C	
MHV034	39	3	3	MREPU	IMPUSD	0	30	70	VC	CL	3						0	SDCL	V	P	MI	1	0	0	0	0	C	
MHV034	40	5	2	MREPU	IREPUSD	0	45	55	VC	CL	2						0	SDCL	V	P	MI	1	0	0	0	0	C	
MHV034	41	2	2	DYEUR	BRE	3	57	40	GR	F	2						0	CLSD	V	P	BP	1	0	0	0	0	C	
MHV034	42	6	1	LREPU		20	65	15	GR	C	2						0	SD	P	G	BP	1	0	0	0	0	C	
MHV034	43	9	2	MPU	BYEOR	4	56	40	UP	F	2						0	CLSD	V	P	BP	1	0	0	0	0	C	
MHV034	44	0																										
MHV034	45	7	2	LPU	VARYERE	0	85	15	VC	F	3						0	SD	M	E	BP	1	0	0	0	0	C	
MHV034	46	0																										
MHV034	47	1	1	LPU		.1	85	15	GR	F	3						0	SD	M	G	BP	1	0	0	0	0	C	
MHV034	48	6	1	LPU	WSPDREBR	0	85	15	VC	F	3						0	SD	M	E	BP	1	0	0	0	0	C	
MHV034	49	2	2	LPU	WSPYE	0	85	15	VC	F	3						0	SD	M	E	BP	1	0	0	0	0	C	
MHV034	50	7	2	LPU	VARYEOR	0	90	10	VC	F	3						0	SD	W	E	BP	1	0	0	0	0	C	
MHV034	51	2	2	LPU	VARREBR	0	90	10	VC	F	3						0	SD	W	E	BP	1	0	0	0	0	C	
MHV034	52	2	2	LPU	VARREYE	0	90	15	VC	F	3						0	SD	W	E	BP	1	0	0	0	0	C	
MHV034	53	2	2	LPU	VARREBR	0	85	15	VC	F	3						0	SD	M	E	BP	1	0	0	0	0	C	
MHV034	54	8	2	LPU	BYEOR	0	80	20	VC	F	3						0	SD	M	G	BP	1	0	0	0	0	C	
MHV034	55	2	2	LPU	VARREYE	0	85	15	VC	F	3						0	SD	M	E	BP	1	0	0	0	0	C	
MHV034	56	2	2	LPU	VARREYE	0	85	15	VC	F	3						0	SD	M	E	BP	1	0	0	0	0	C	
MHV034	57	2	2	LREPU	WSPGLGYCL	.1	85	15	GR	F	3						0	SD	M	E	BP	1	0	0	0	0	C	
MHV034	58	2	2	LREPU	WSPBRYE	0	70	30	VC	F	3					.1	0	CLSD	P	M	BP	1	0	0	0	0	C	
MHV034	59	2	2	LREPU	WSPBRYE	1	79	20	GR	F	3						0	SD	P	G	BP	1	0	0	0	0	C	
MHV034	60	5	2	LREPU	WSPGLGYCL	2	78	20	GR	F	3						0	SD	P	G	BP	1	0	0	0	0	C	

Log Sheets  
RBB, SAIC  
10-Oct-93

REFLEX  
clh, D.O.  
5-Nov-93

# Appendix C

## Pretest Core Descriptions

WELL	DEEP	R	I	COLOR	STRUCTUR	GR	SD	MD	MX	MD	R	CG	CS	CM	CT	CB	NAME	S	PR	PT	MU	GL	LI	SU	H	FOSSILS
MHV037	1	1	1	DGYBR		2	90	8	LP	M	3					0	SD	M	M	BP	.1	0	.1	0	C	
MHV037	2	2	2	MREBR		.1	60	40	GR	VF	3					0	CLSD	P	M	BP	.1	0	0	0	R	
MHV037	3	2	2	MREBR		.1	60	40	GR	VF	3					0	CLSD	P	M	BP	.1	0	0	0	R	
MHV037	4	2	2	MREBR	VARMREBR	.1	55	45	GR	VF	3					0	CLSD	P	M	BP	.1	0	0	0	R	
MHV037	5	2	2	MYEBR	VARLYEBR	.1	45	55	LP	CL	3					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	6	2	2	MREBR	VARLYEGY	.1	45	55	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	7	2	2	MREBR	VARLYEGY	.1	45	55	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	8	2	2	MREBR	VARLYEOR	.1	40	60	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	9	2	2	MREBR	VARLYEOR	.1	40	60	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	10	2	2	MREBR	VARLYEBR	.1	35	65	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	11	2	2	MREBR	VARLYEBR	.1	45	55	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	12	2	2	MREBR	VARLYEBR	2	40	60	GR	LP	3					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	13	2	2	MREBR	VARLYEBR	.1	40	60	GR	CL	3					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	14	2	2	MREBR	VARLYEBR	.1	40	60	GR	CL	3					0	SDCL	V	P	BP	.1	0	0	0	R	
MHV037	15	2	2	MREBR	VARLYEBR	.1	65	35	GR	M	3					0	CLSD	P	P	BP	.1	0	0	0	R	
MHV037	16	2	2	MREBR		.1	75	25	GR	M	3					0	CLSD	P	M	BP	.1	0	0	0	R	
MHV037	17	2	2	MREBR		.1	75	25	GR	M	3					0	CLSD	P	M	BP	.1	0	0	0	R	
MHV037	18	2	2	MREBR	MGYPUCLB	40	40	20	UC	VC	3					0	SDPB	P	M	BP	.1	0	0	0	R	
MHV037	19	2	2	MREBR		.1	75	25	GR	F	3					0	CLSD	P	M	BP	.1	0	0	0	R	
MHV037	20	2	2	MREBR		15	70	15	LP	C	3					0	SD	P	M	BP	.1	0	0	0	R	
MHV037	21	2	2	MREBR	MGYPUCLB	25	65	10	LC	M	3					0	PBSD	P	M	BP	.1	0	0	0	R	
MHV037	22	6	2	MREBR	WCLB	5	85	10	UP	C	3					0	SD	P	M	BP	.1	0	0	0	R	
MHV037	23	2	2	LREBR		15	75	10	UP	VC	3					0	SD	P	M	BP	.1	0	0	0	R	
MHV037	24	9	2	LREBR		25	65	10	UP	VC	3					0	PBSD	P	M	BP	.1	0	0	0	R	
MHV037	25	1	1	LGYE		25	65	10	UP	VC	3					0	PBSD	P	M	BP	.1	0	0	0	R	
MHV037	26	6	1	LGYPU		10	80	10	UP	C	3					0	SD	P	M	BP	.1	0	0	0	R	
MHV037	27	2	2	LREGY		10	75	15	UP	C	3					0	SD	P	M	BP	.1	0	0	0	R	
MHV037	28	3	2	LYE		20	70	10	UP	VC	3					0	SD	P	M	BP	.1	0	0	0	R	
MHV037	29	2	2	LREOR	LPUCLB	20	70	10	UP	VC	3					0	SD	P	M	BP	.1	0	0	0	R	
MHV037	30	6	2	LREOR	LPUCLB	25	60	15	UP	VC	3					0	PBSD	P	M	BP	.1	0	0	0	R	
MHV037	31	2	2	LYEBR	IMGYPUCL	8	67	25	LP	C	3					0	CLSD	P	M	BP	.1	0	0	0	R	
MHV037	32	2	2	MGYPU	VARLYEBR	0	45	55	C	CL	2					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	33	2	2	MGYPU		0	35	65	C	CL	2					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	34	2	2	MGYPU		0	20	80	C	CL	2					0	CL	V	P	MI	.1	0	0	0	R	
MHV037	35	2	2	MGYPU		0	15	85	C	CL	2					0	CL	V	P	MI	.1	0	0	0	R	
MHV037	36	2	2	MGYPU	IMREBRSD	0	40	60	VC	CL	3					0	SDCL	V	P	MI	.1	0	0	0	R	
MHV037	37	2	2	MGYPU	BDYEOR	0	3	97	M	CL	3					0	CL	V	P	MI	.1	0	0	0	R	



# Appendix C

## Pretest Core Descriptions

WELL	DEEP	R	I	COLOR	STRUCTUR	GR	SD	MD	MD	MX	MD	R	CG	CS	CM	CT	CB	NAME	S	PR	PT	MU	GL	LI	SU	H	FOSSILS
MHV038	1	1	1	DBRGY	RT	.1	85	15	UP	M	3							0	SD	M	E	BP	0	0	3	0	C
MHV038	2	3	3	DYEBR	BMYEBR	.1	60	40	UP	F	3							0	CLSD	V	P	BP	0	0	0	0	C
MHV038	3	3	3	DYEBR	RT	1	44	55	LP	CL	3							0	SDCL	V	P	MI	0	0	0	0	C
MHV038	4	3	3	REBR	VARYEBR	0	45	55	VC	M	3							0	SDCL	V	P	MI	0	0	0	0	C
MHV038	5	3	3	REBR	VARYEBBR	.1	55	45	GR	M	3							0	CLSD	V	P	BP	0	0	0	0	C
MHV038	6	3	3	REBR	VARYE	0	45	55	VC	CL	3							0	SDCL	V	P	MI	1	0	0	0	C
MHV038	7	3	3	REBR	VARYEWH	0	45	55	VC	CL	3							0	SDCL	V	P	MI	1	0	0	0	C
MHV038	8	3	3	REBR	VARYEWH	0	40	60	VC	CL	3							0	SDCL	V	P	MI	1	0	0	0	C
MHV038	9	3	3	REBR	VARYEWH	0	55	45	VC	F	3							0	CLSD	V	P	BP	1	0	0	0	C
MHV038	10	3	3	REBR	VARYEWH	0	45	55	VC	CL	3							0	SDCL	V	P	MI	1	0	0	0	C
MHV038	11	3	3	REBR	VARYEWH	0	60	40	VC	F	3							0	CLSD	P	P	BP	1	0	0	0	C
MHV038	12	3	3	REBR	VARYE	0	45	55	VC	CL	3							0	SDCL	V	P	MI	1	0	0	0	C
MHV038	13	2	2	MORRE	MTYEWH	.1	75	25	GR	M	2							0	CLSD	P	M	BP	1	0	0	0	C
MHV038	14	2	2	MORRE	MTWH	1	75	25	GR	M	2							0	CLSD	P	M	BP	1	0	0	0	C
MHV038	15	2	2	MORRE	BMREBR	2	68	30	GR	C	2							0	CLSD	P	M	BP	1	0	0	0	C
MHV038	16	7	2	MORRE	MTWH	2	78	20	GR	C	2							0	SD	M	G	BP	1	0	0	0	C
MHV038	17	2	2	MORRE	MTWH	3	67	30	GR	C	2							0	CLSD	P	M	BP	1	0	0	0	C
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Log Sheets  
RBB, SAIC  
14-Oct-93

REFLEX  
whp  
4-Jan-94

# Appendix C

## Pretest Core Descriptions

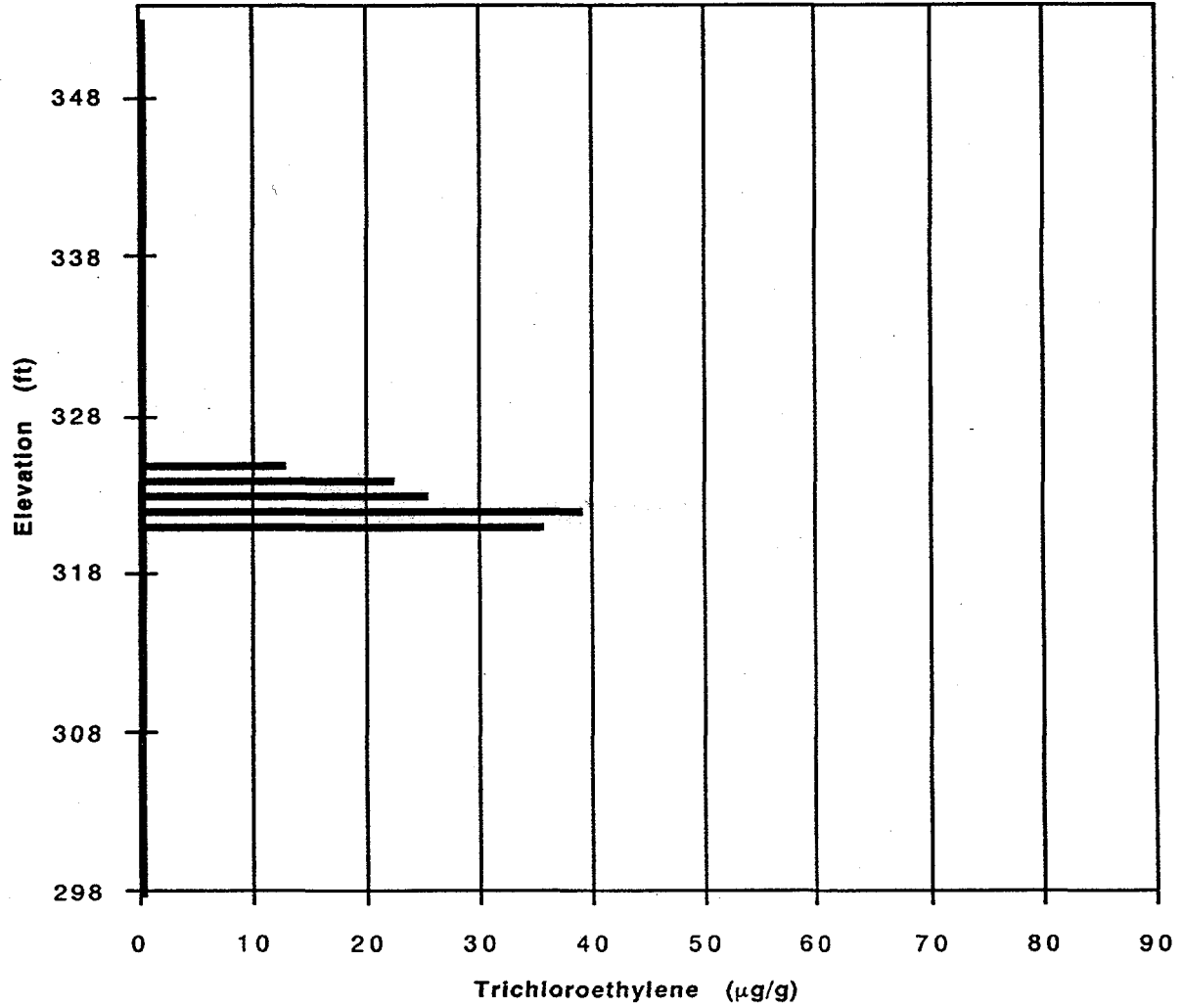
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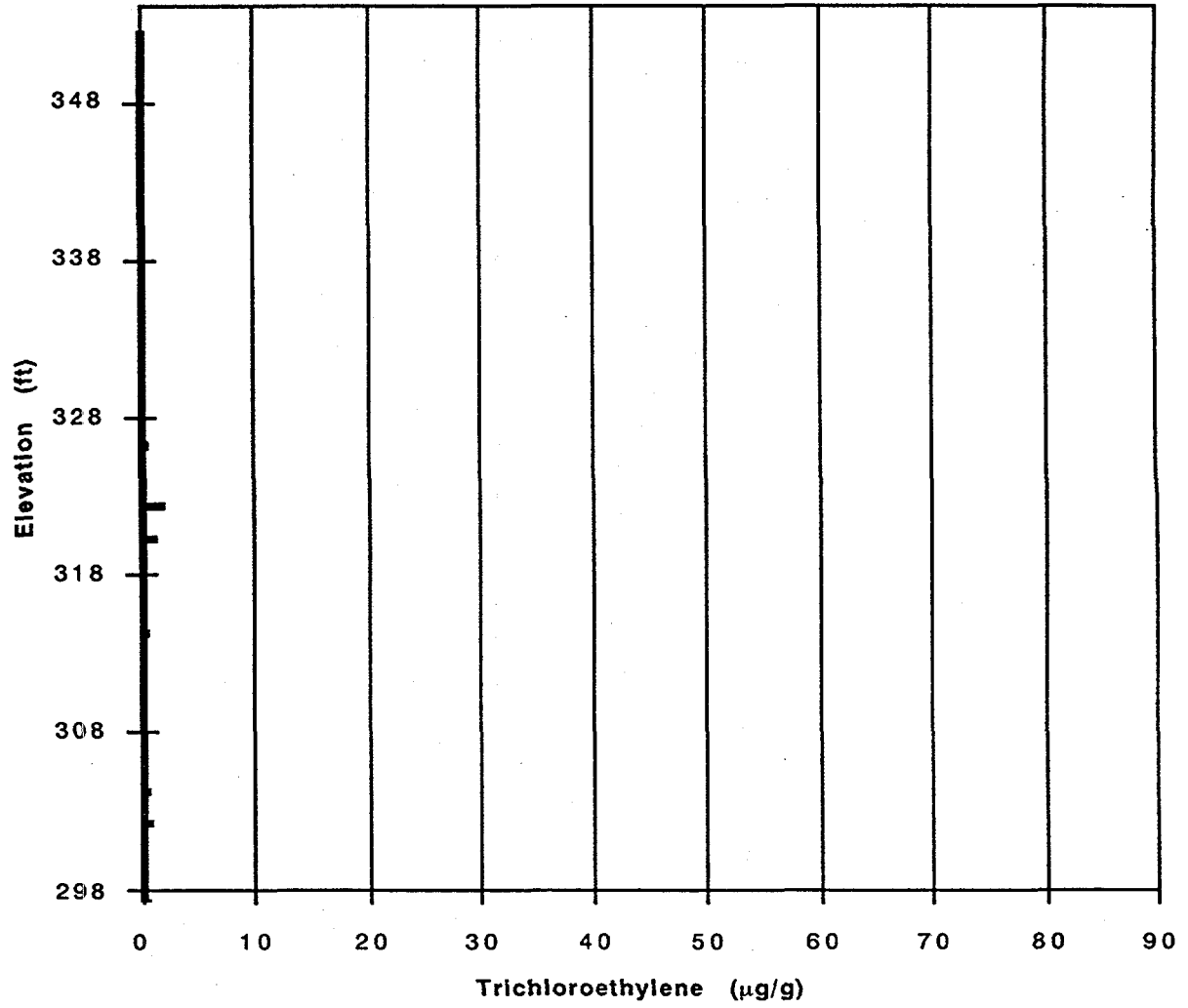
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25-Oct-93

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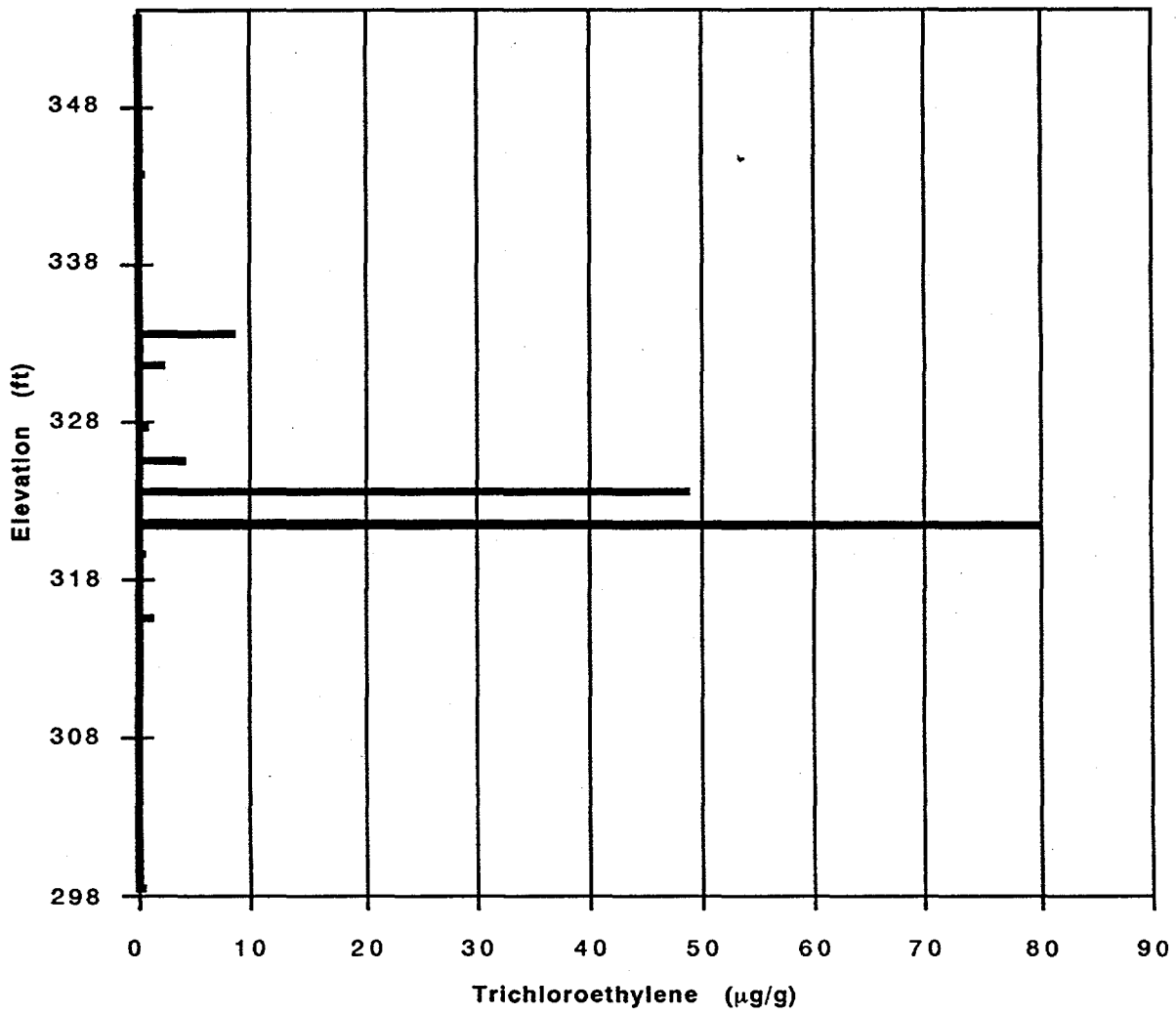
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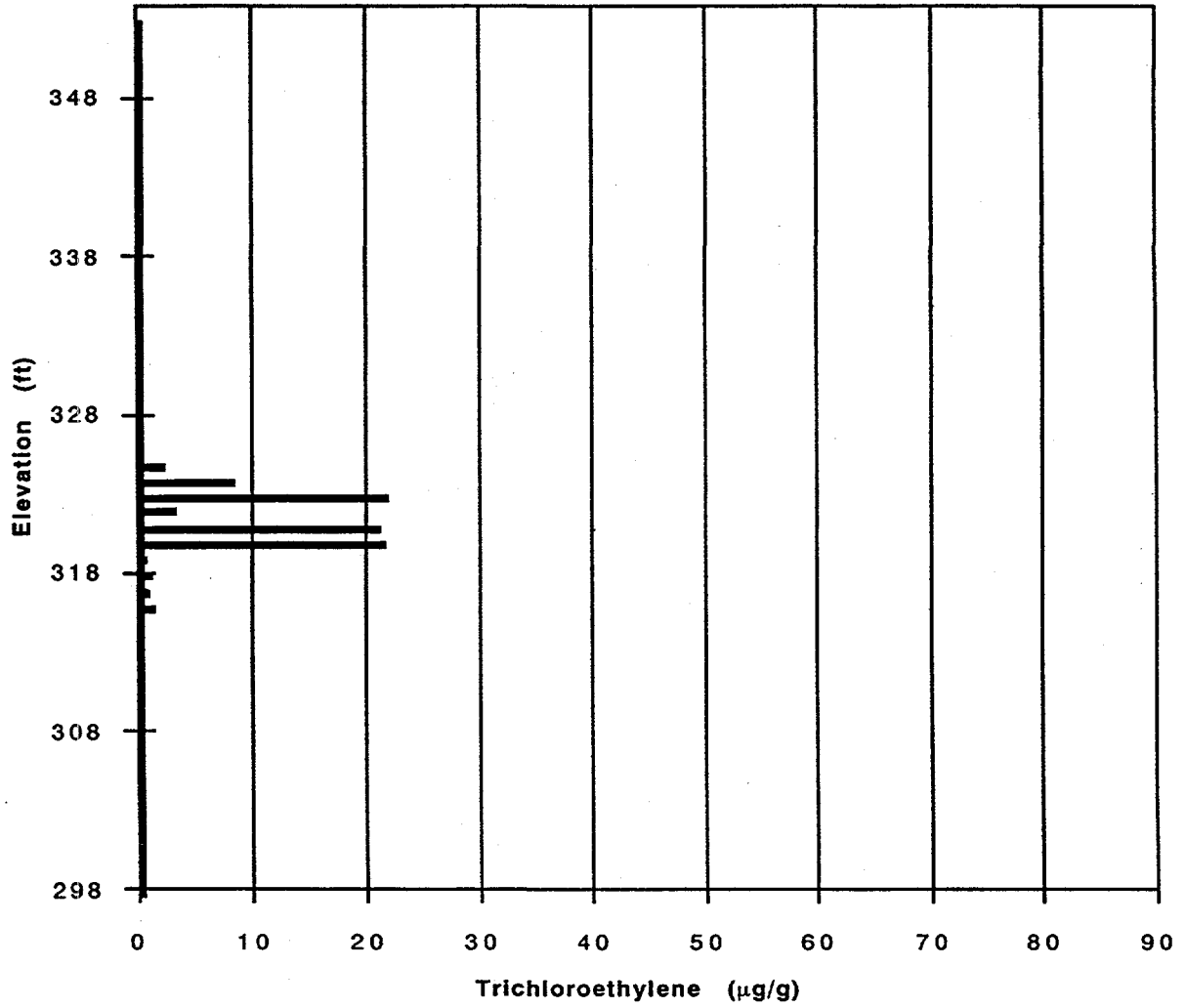
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MHV-34 TCE Concentration

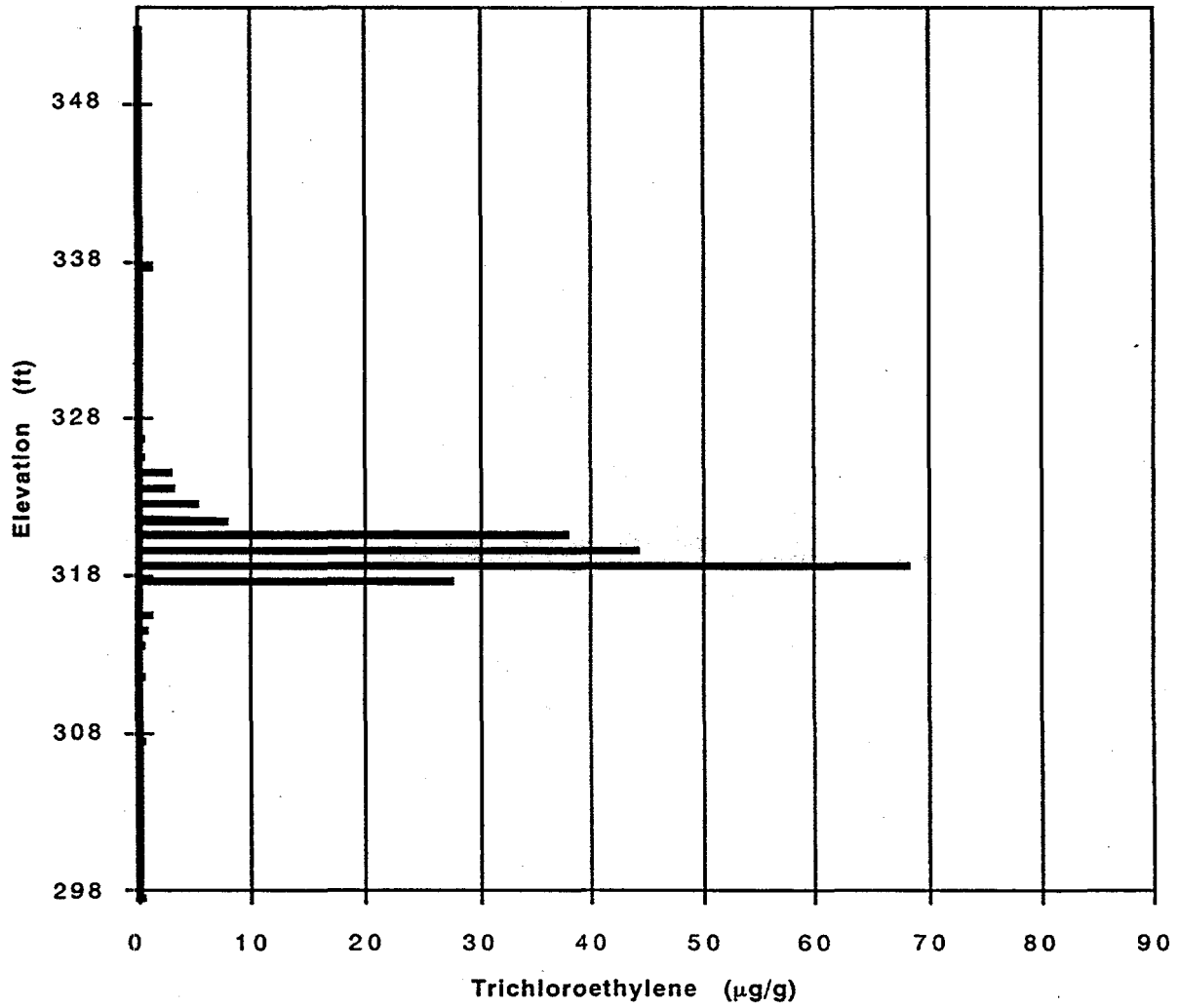


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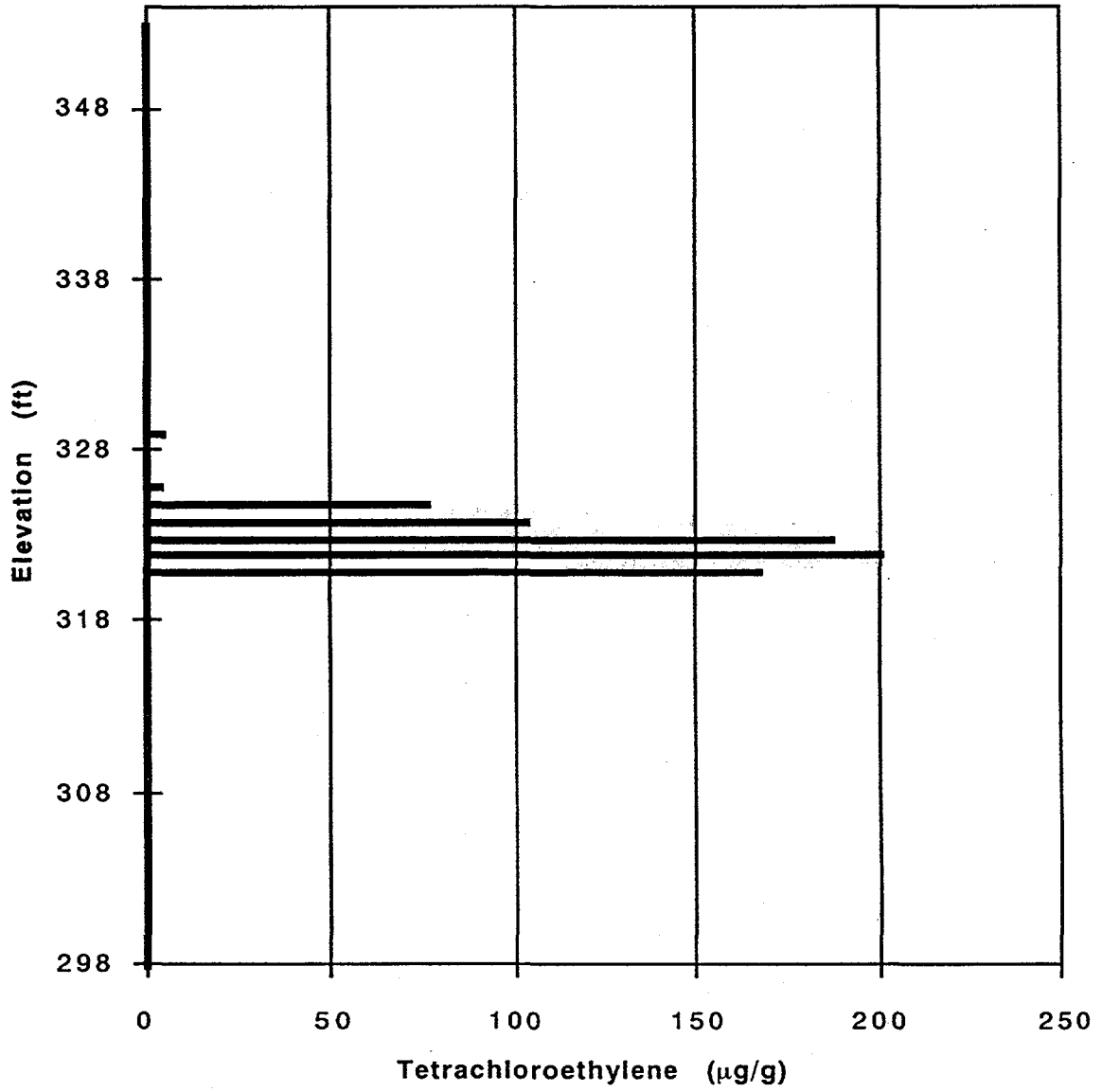




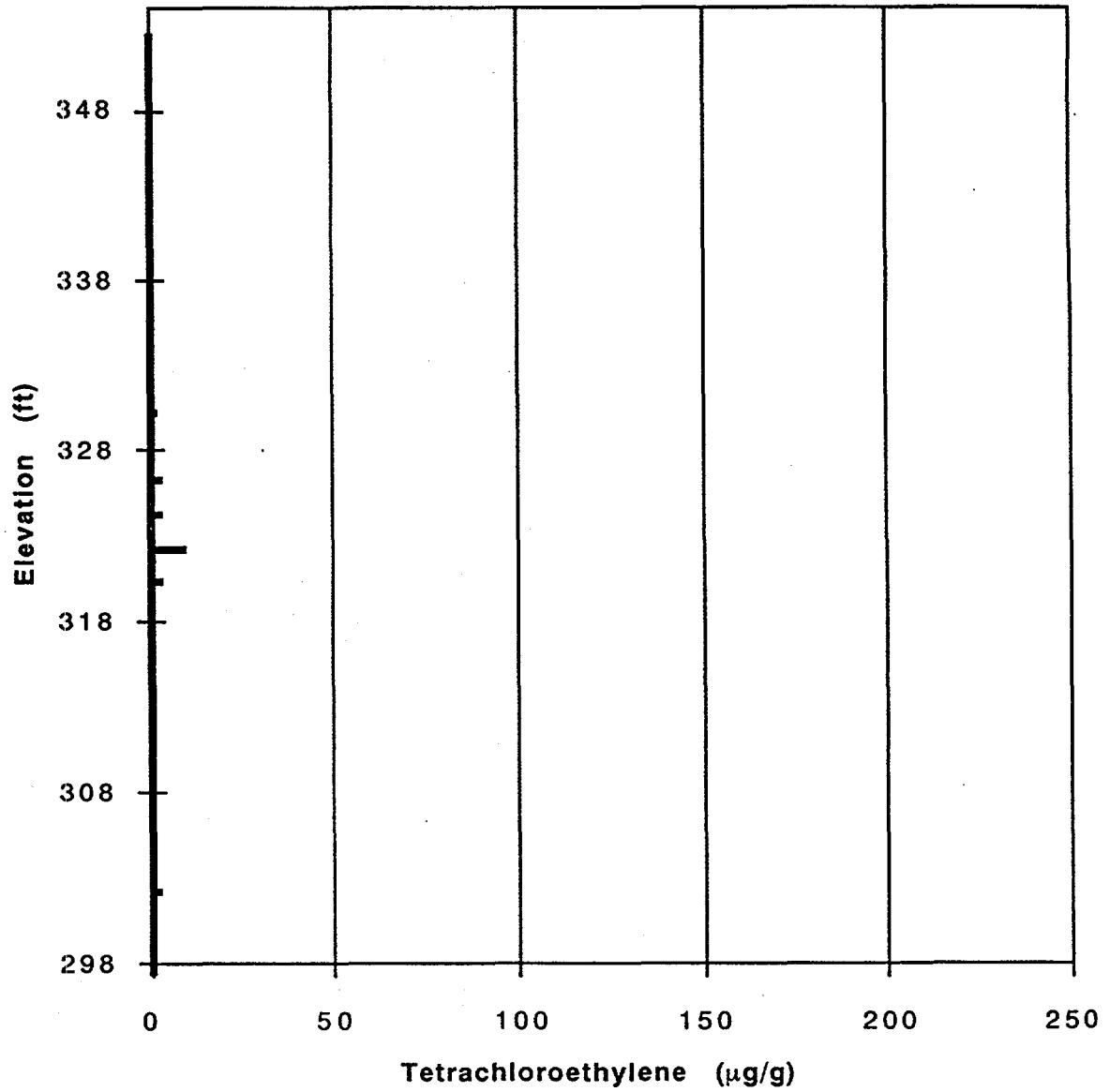
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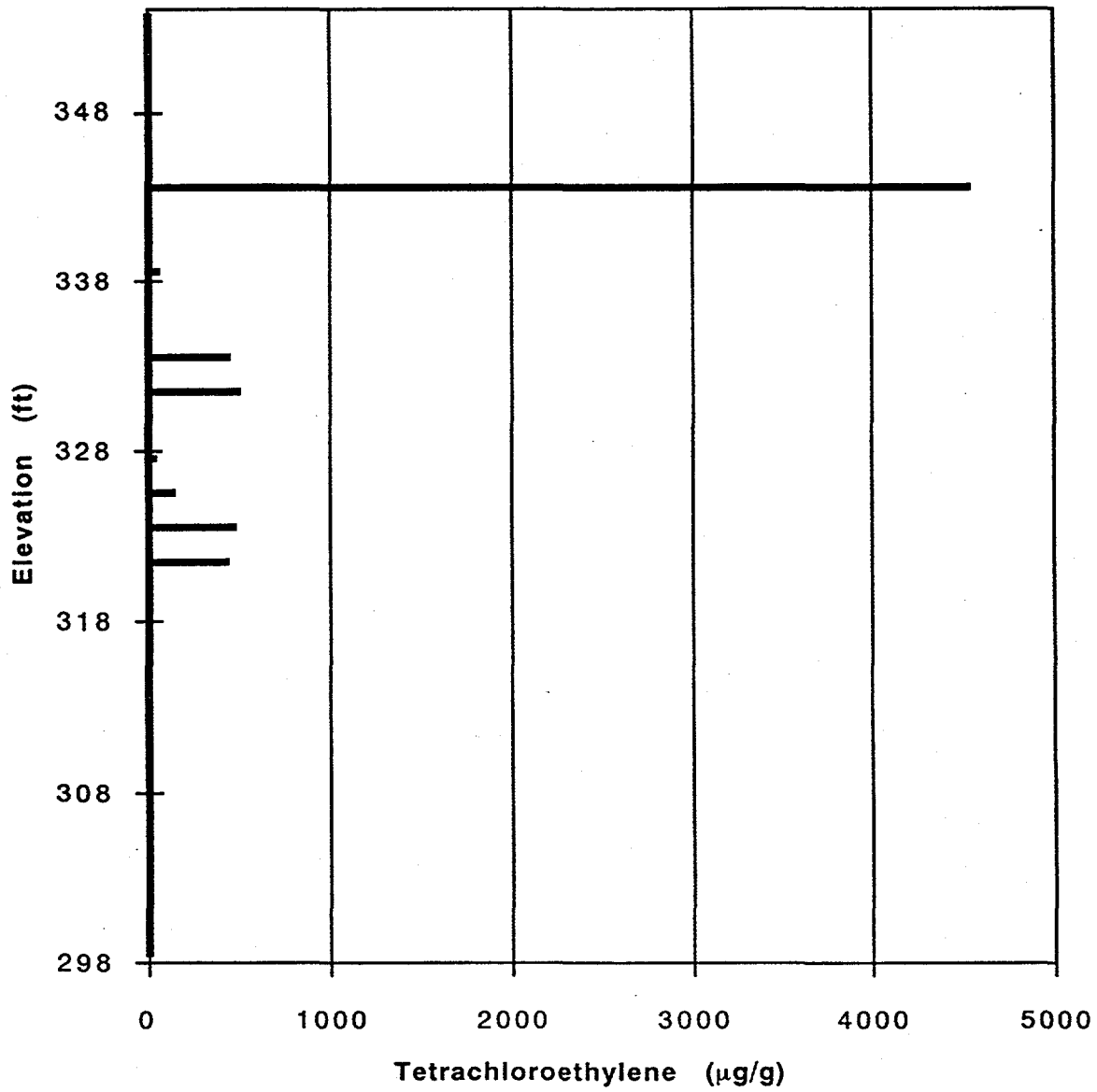
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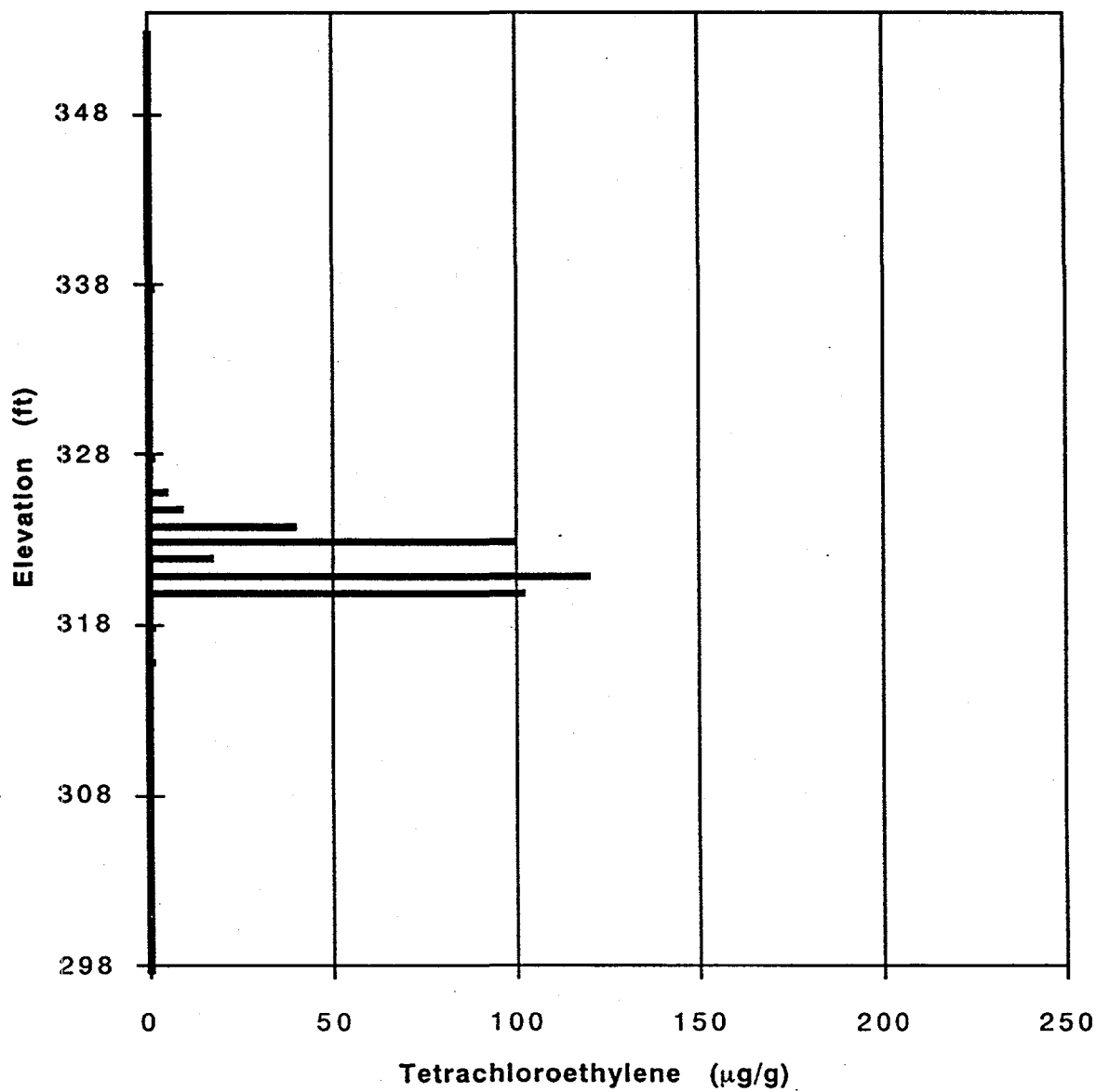
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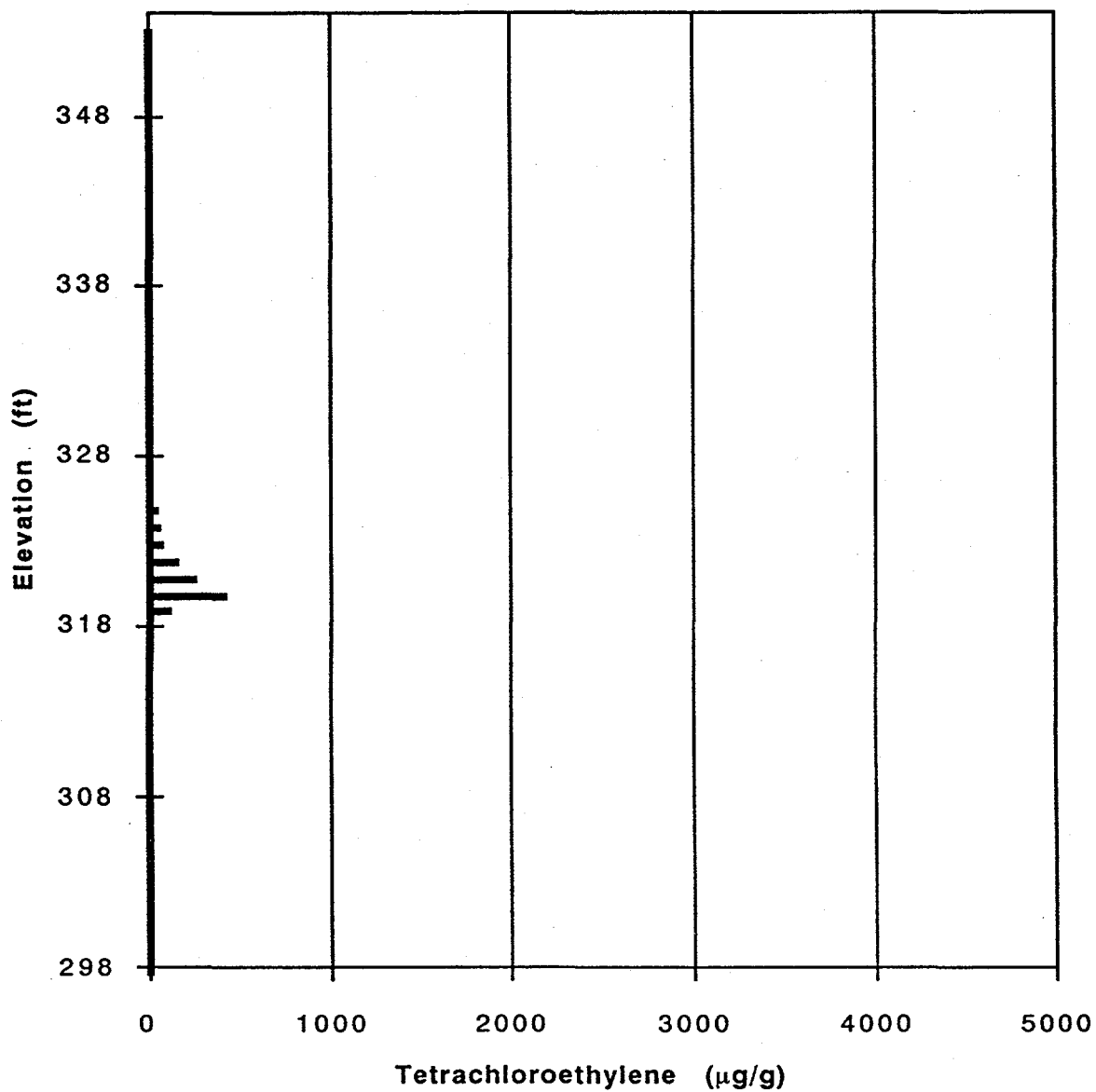
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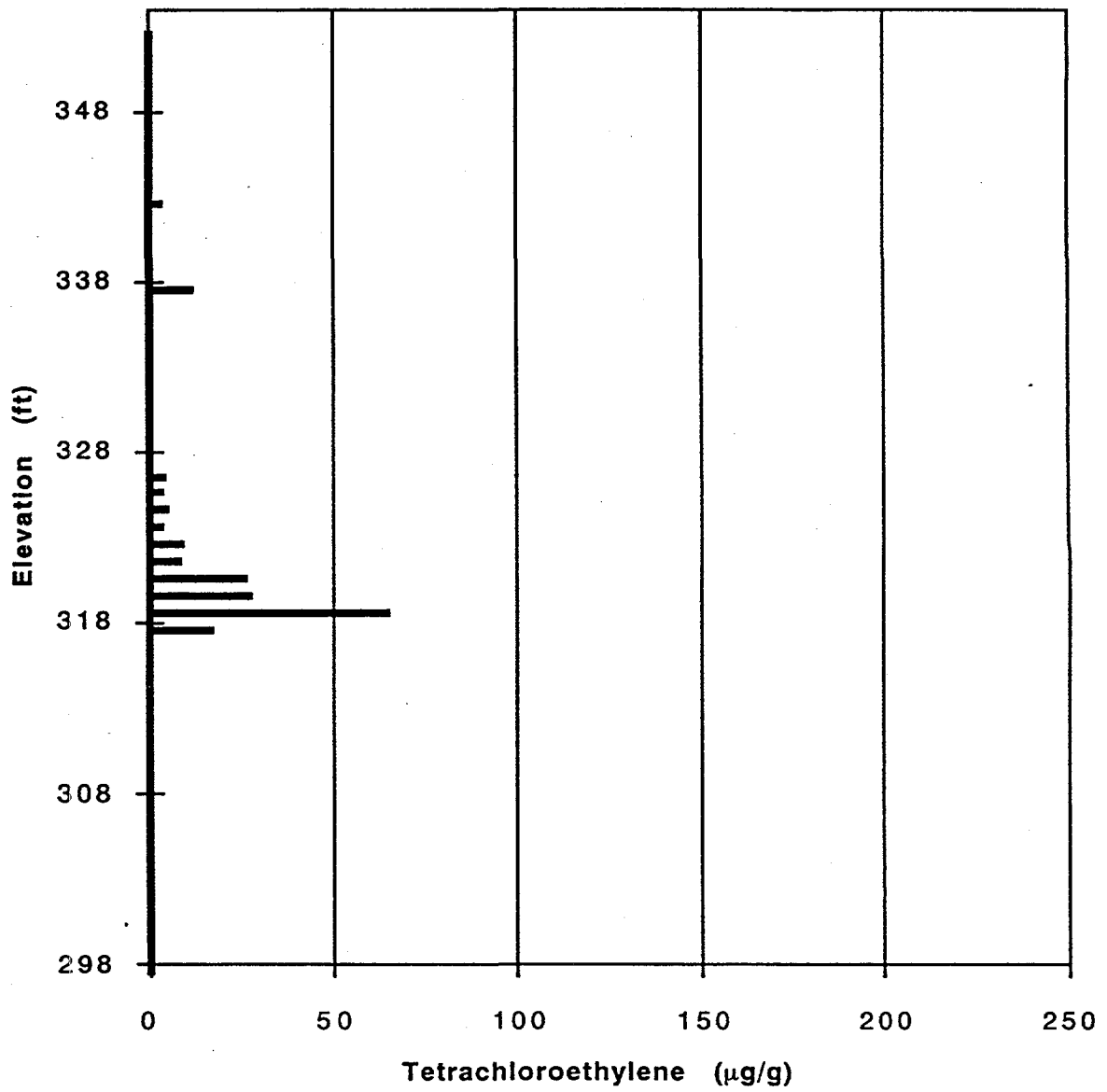
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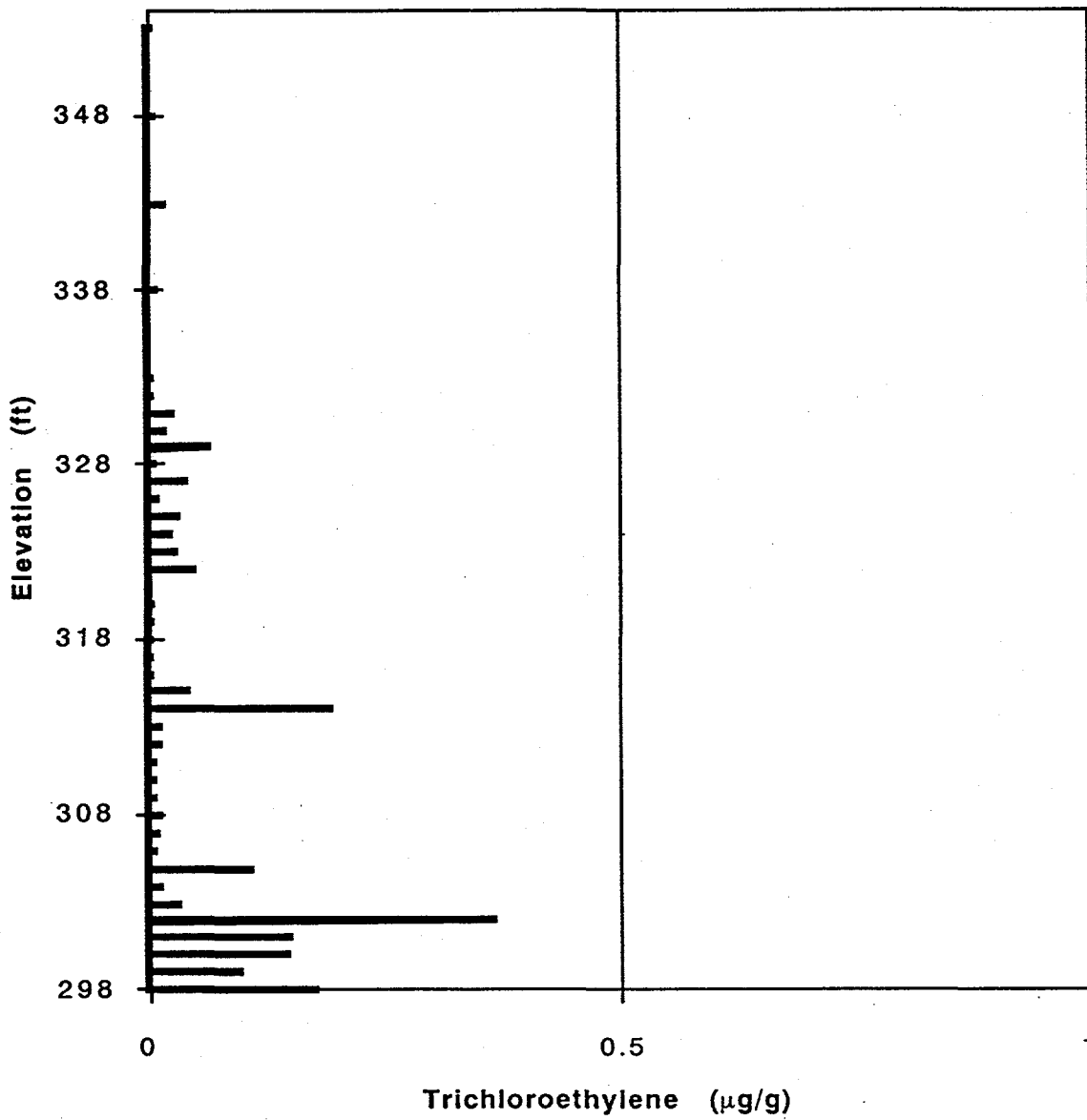
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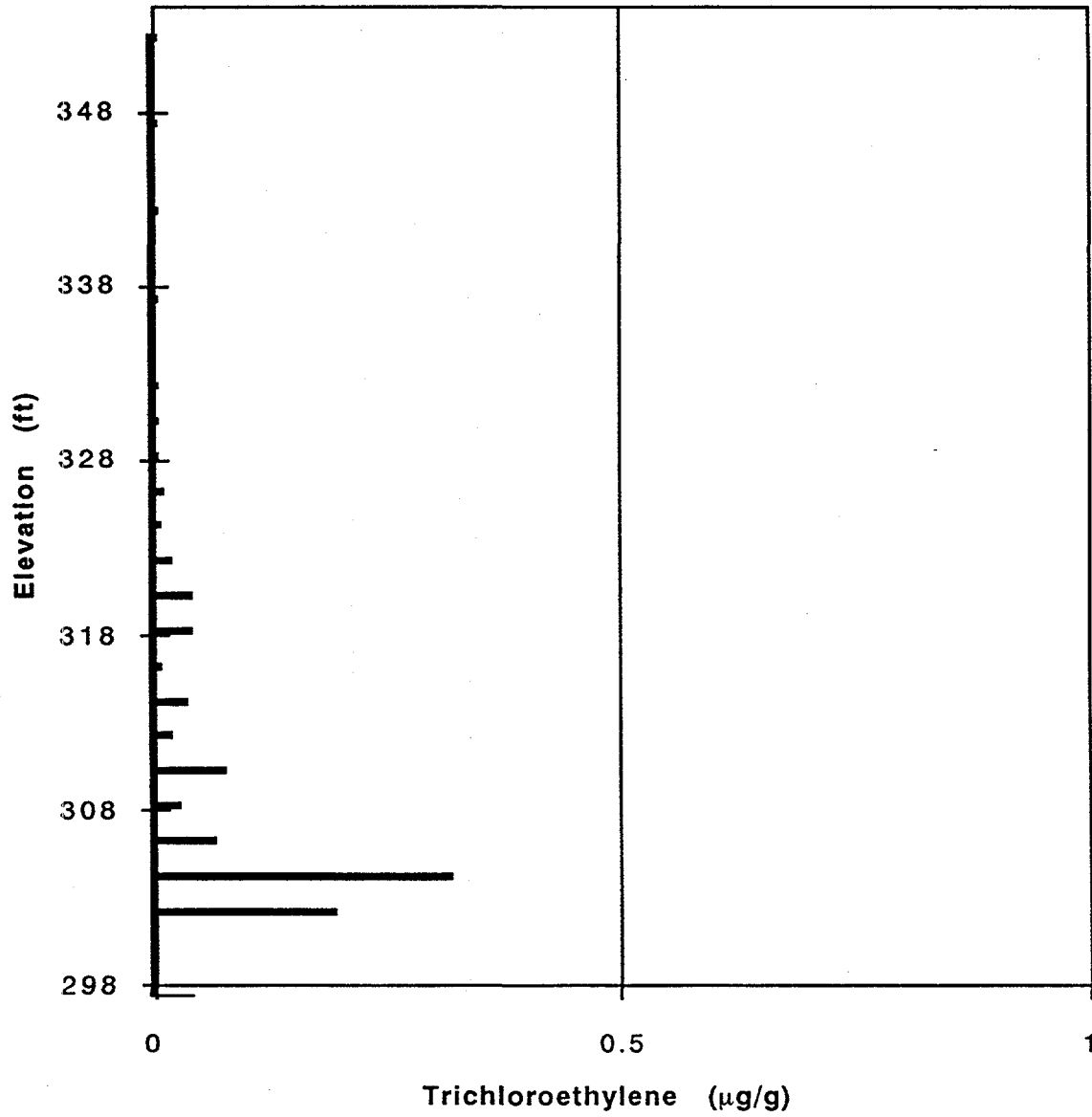
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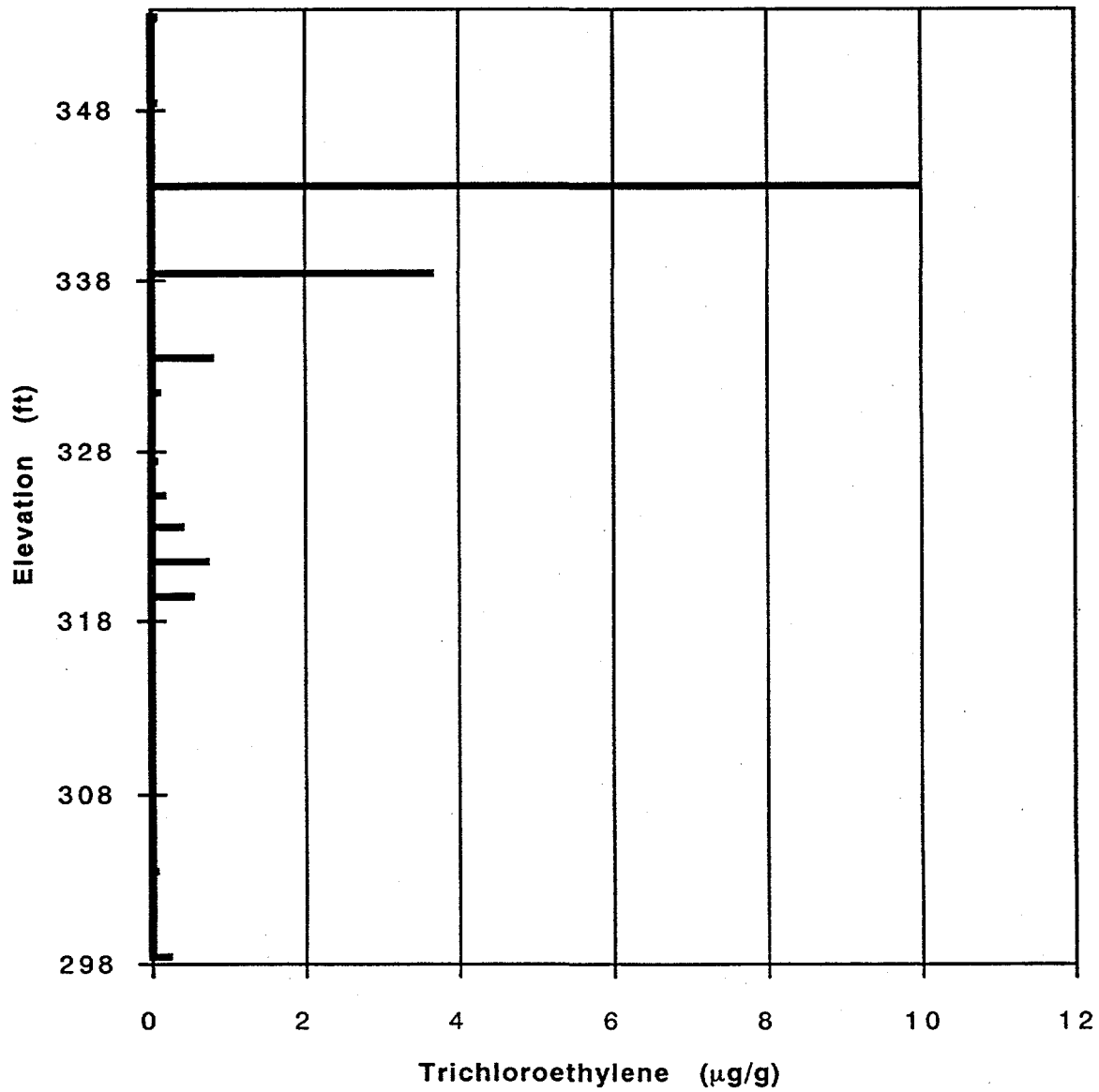
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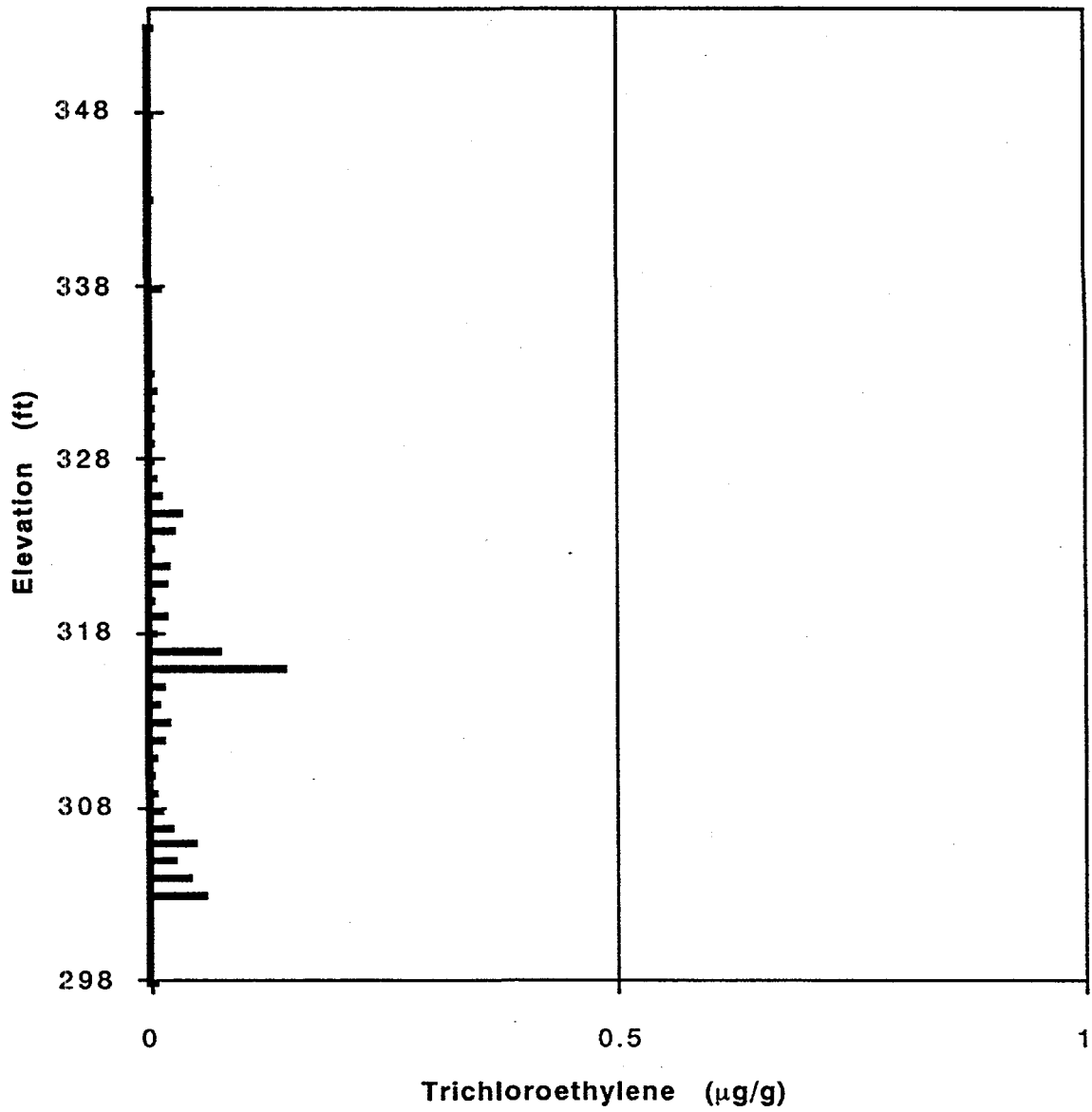
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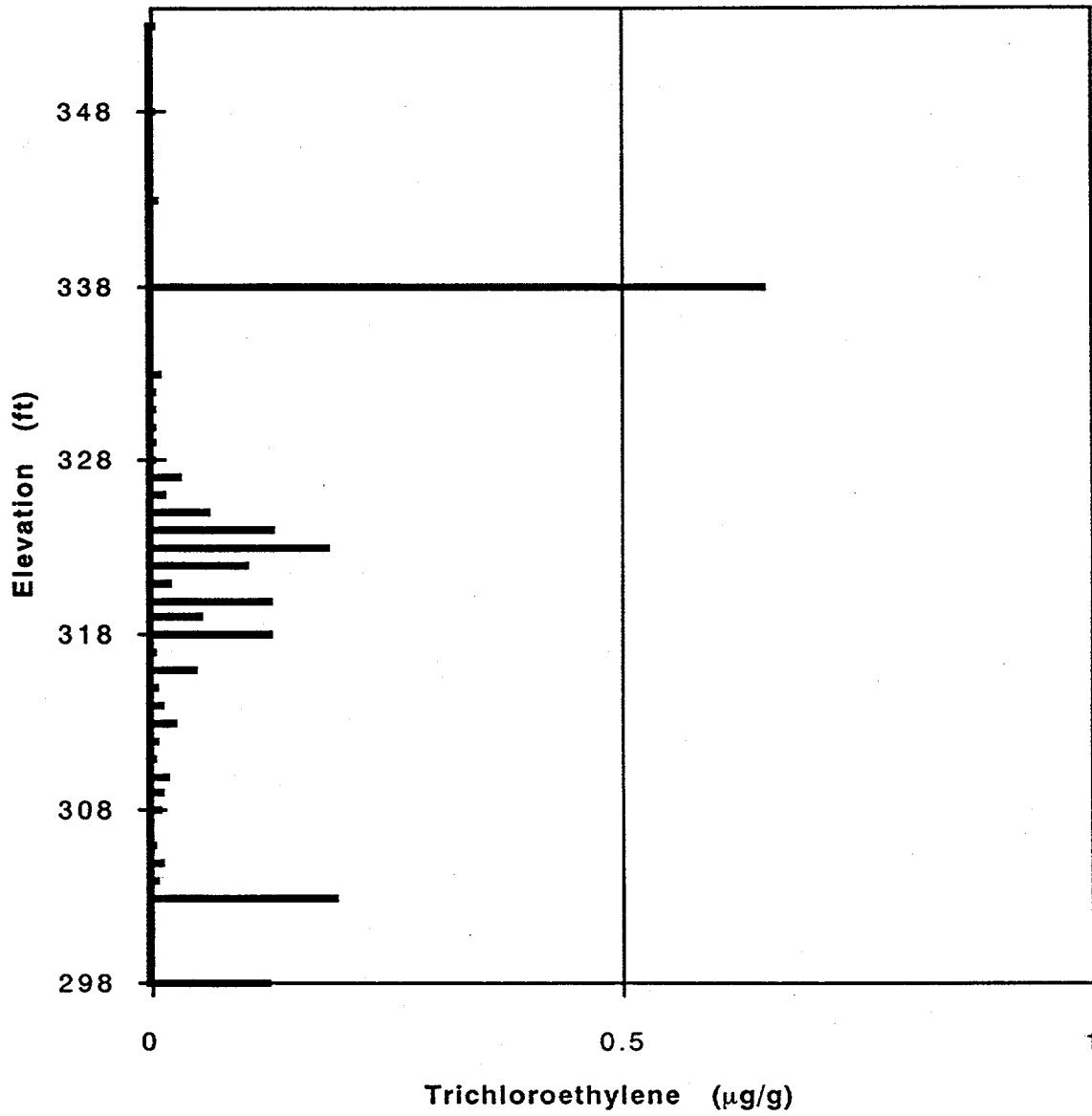
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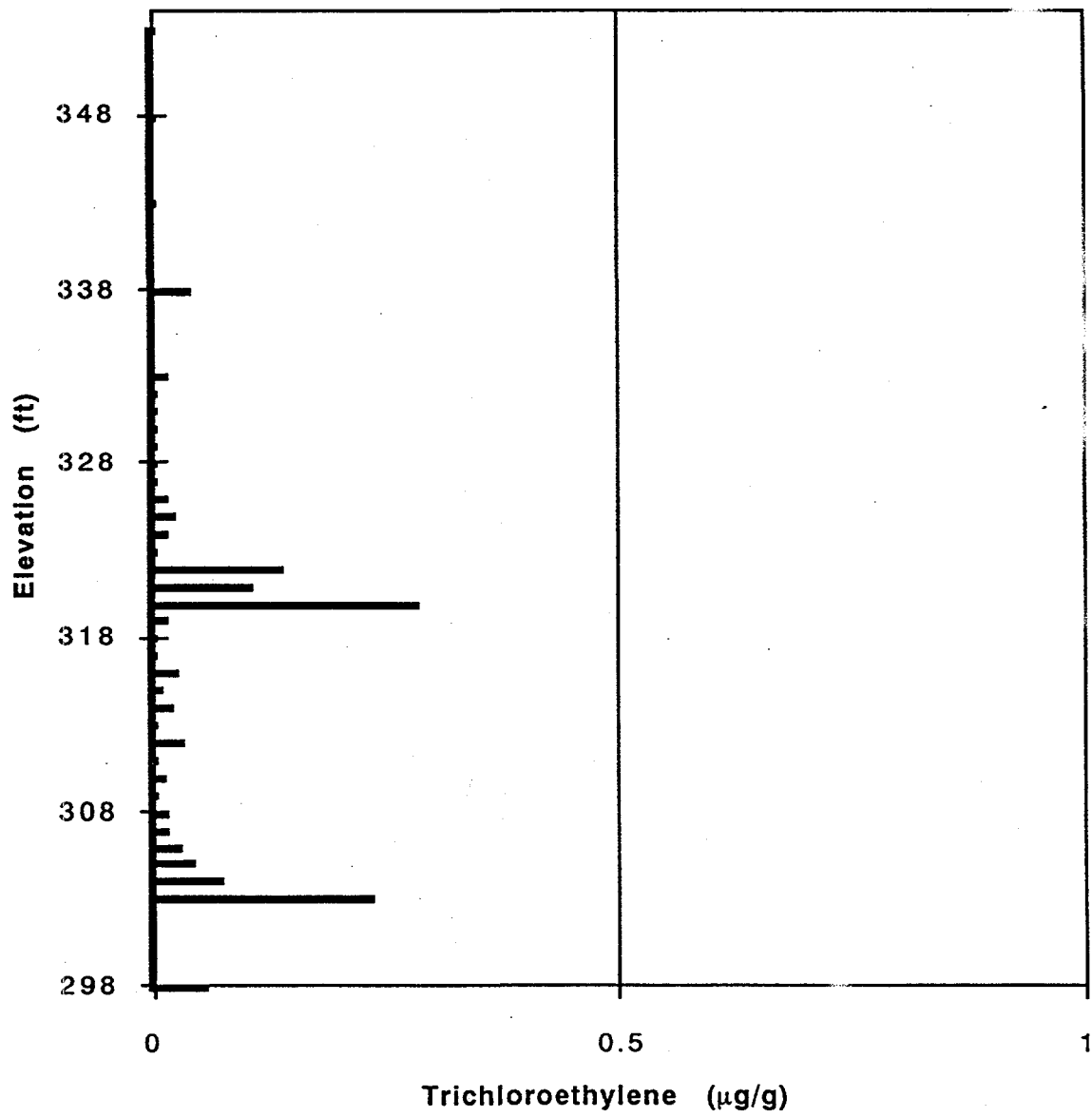
MHB-37 TCE Concentration



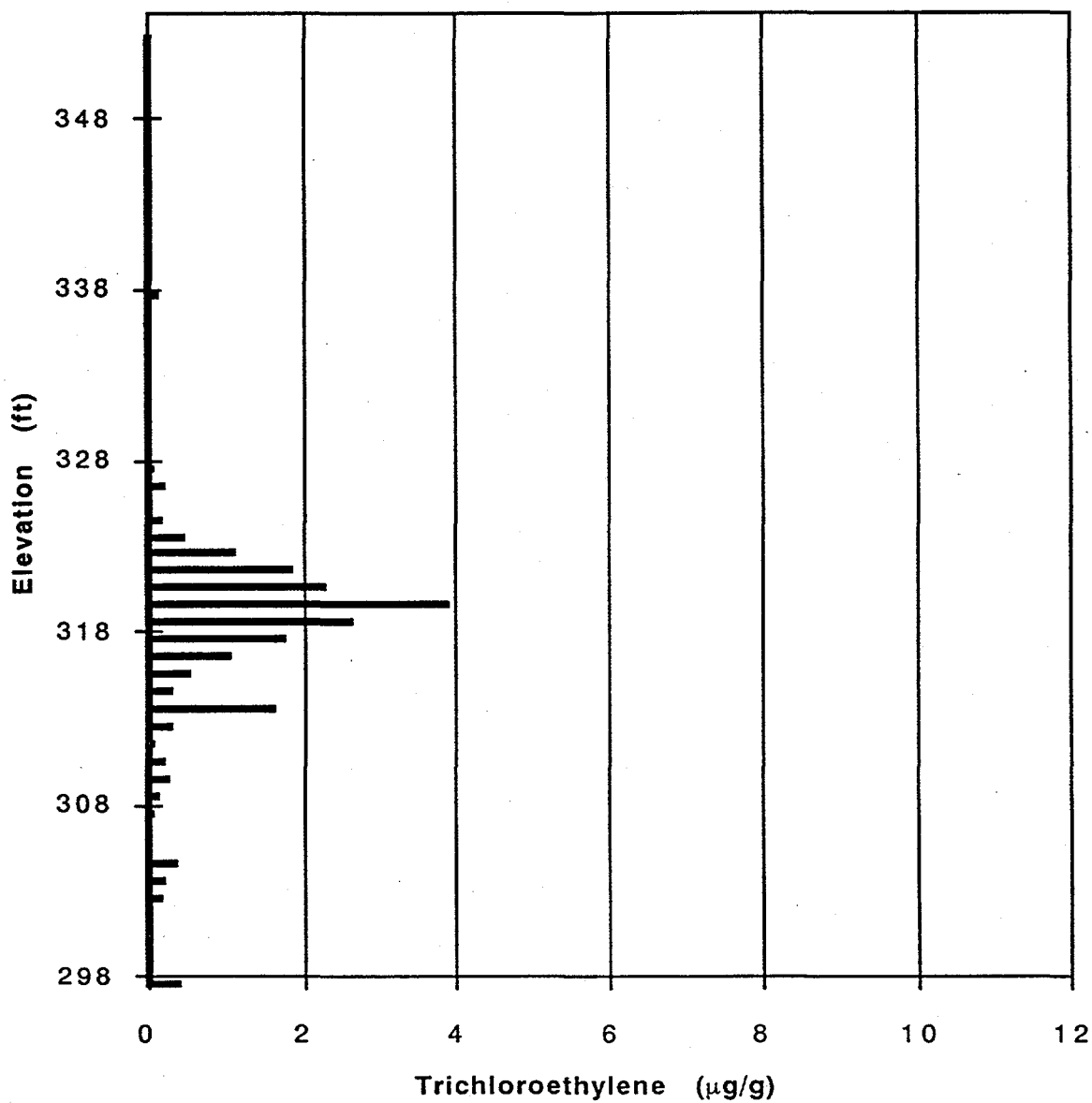
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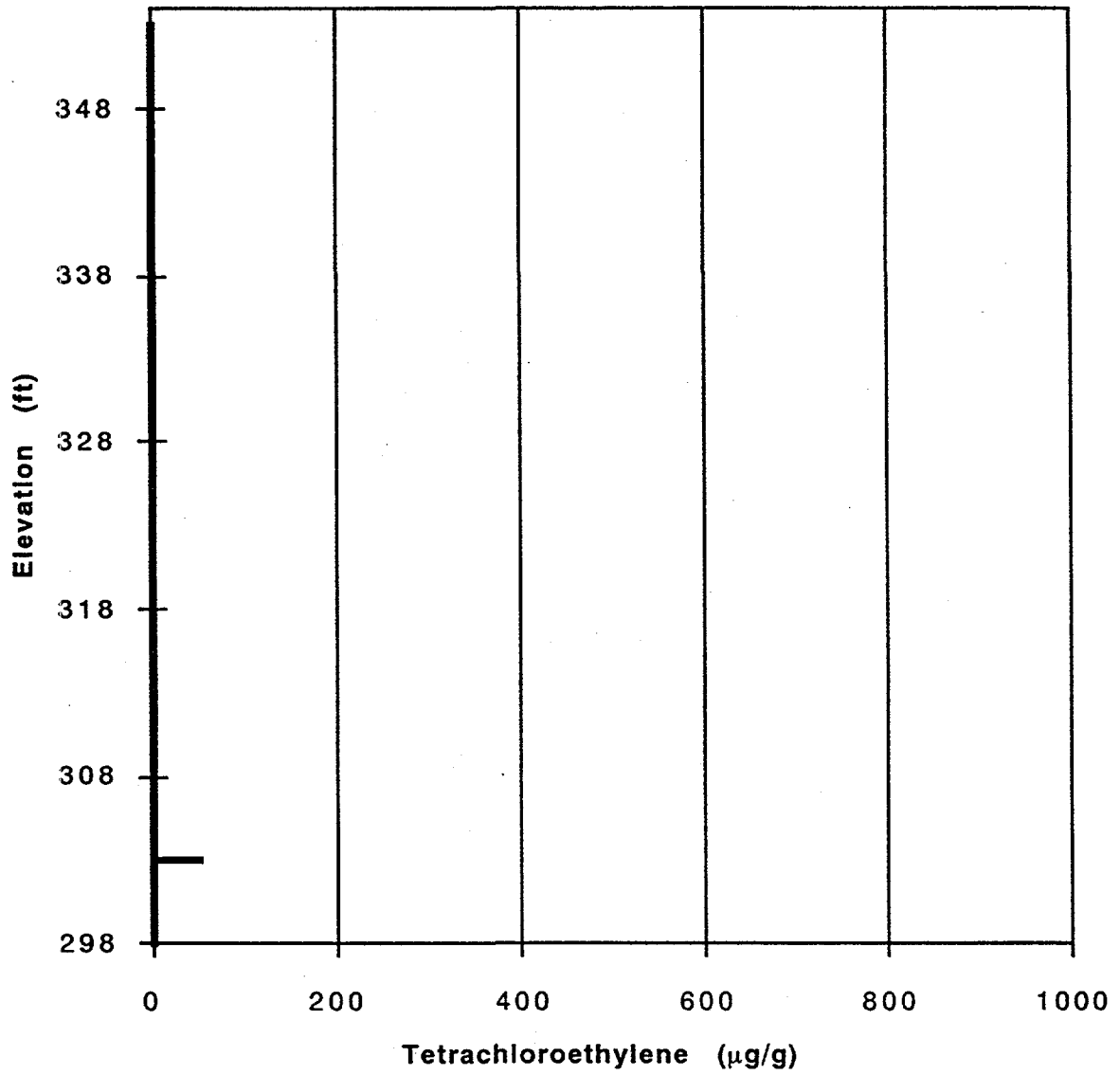
MHB-38 TCE Concentration



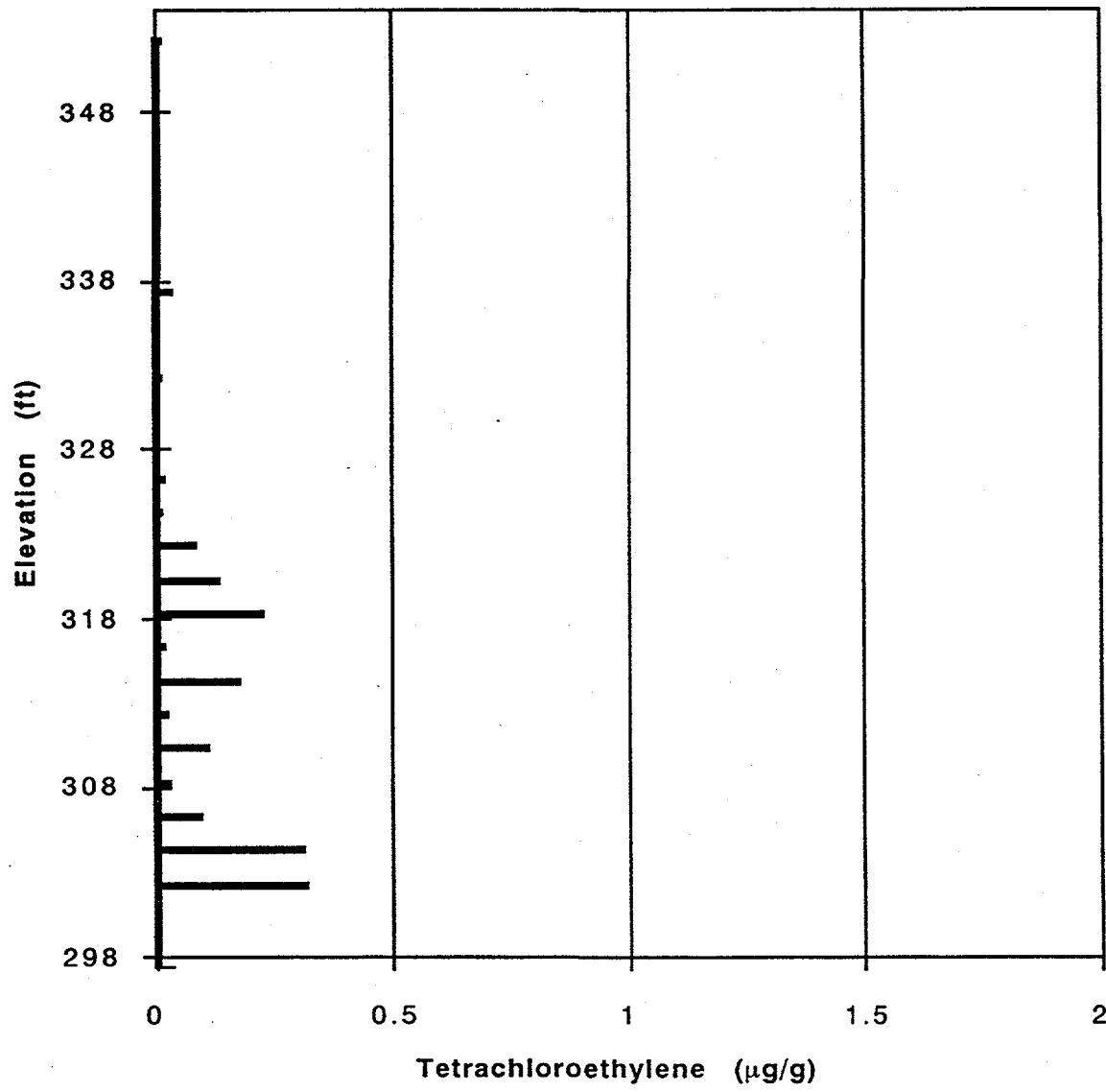
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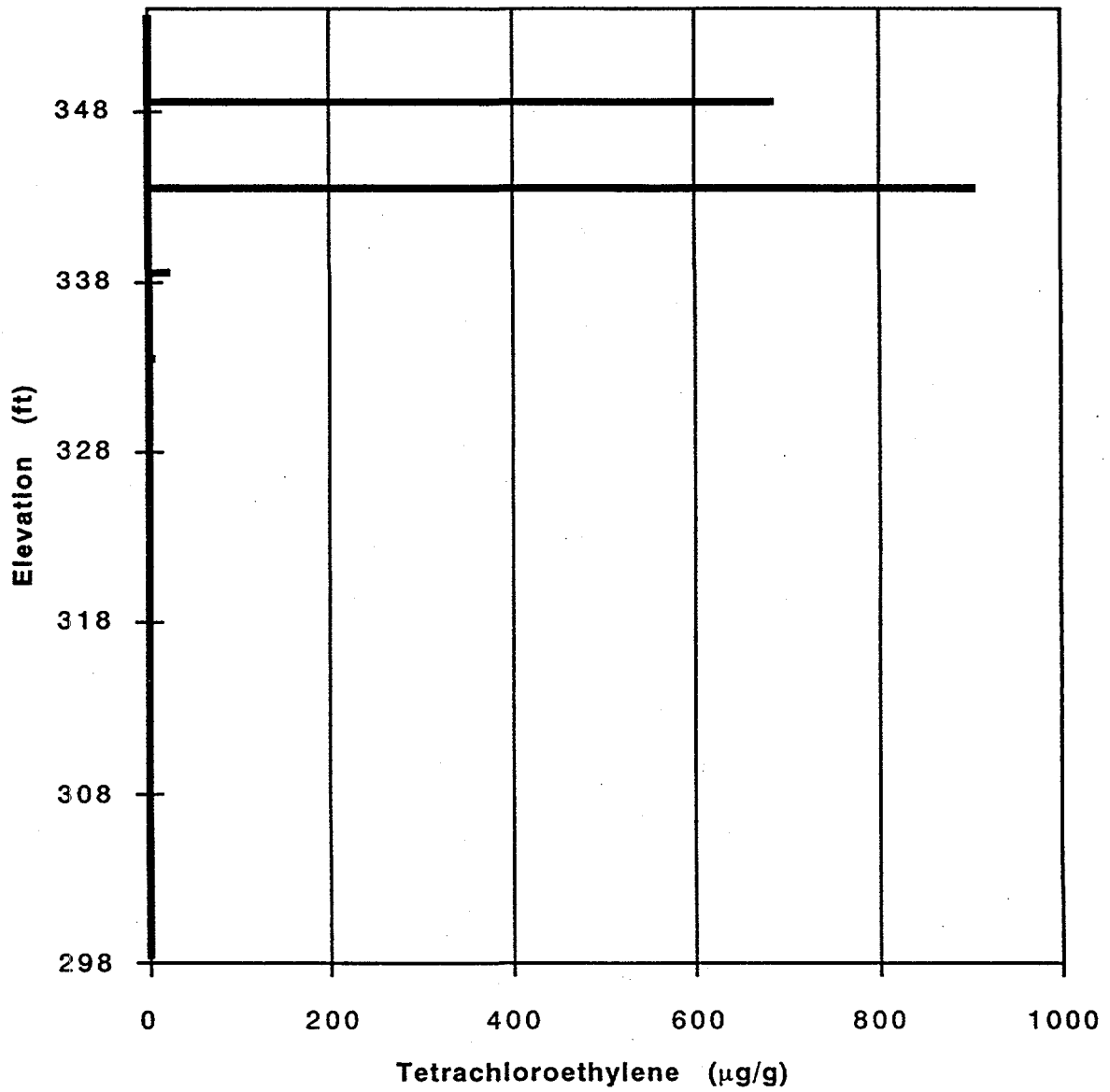
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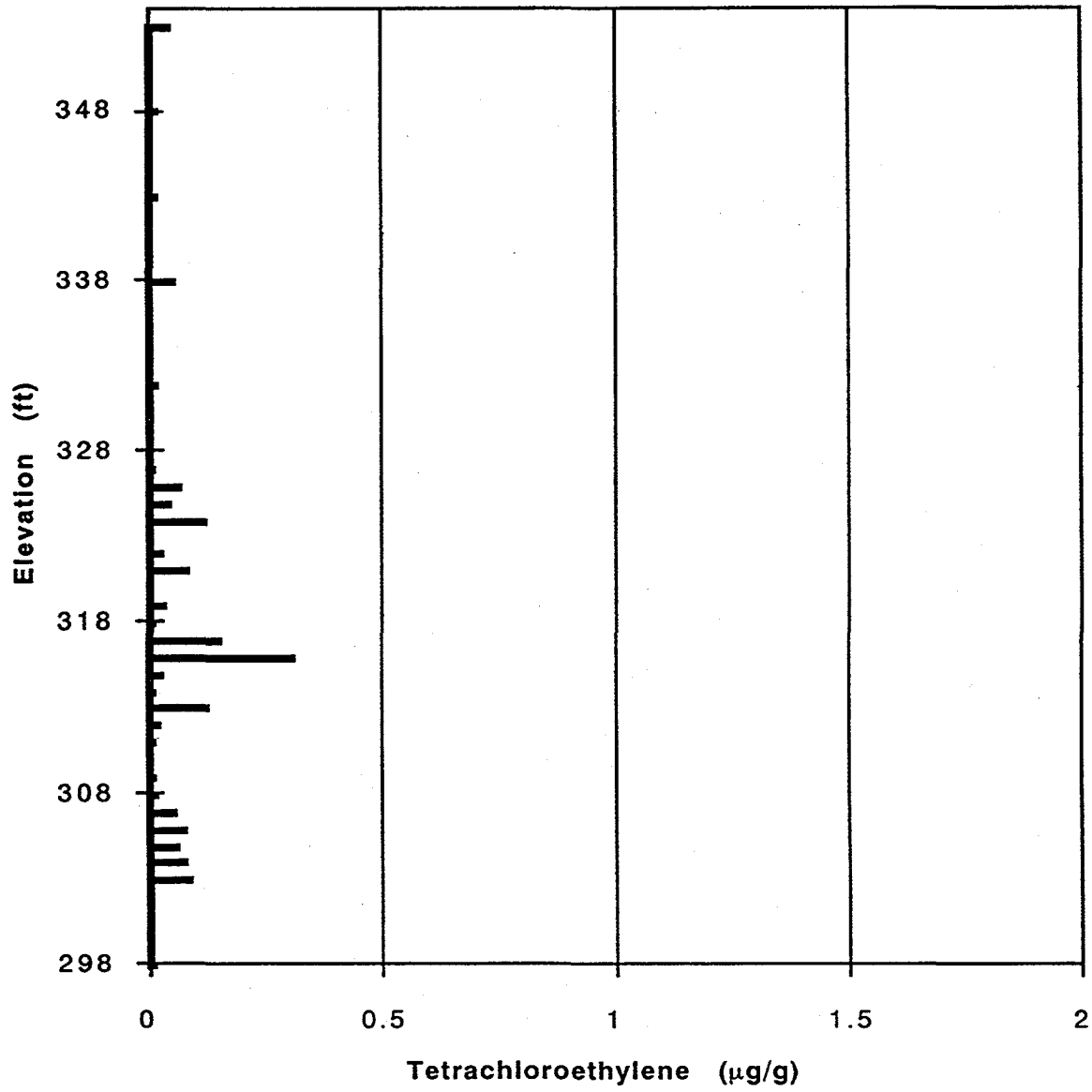
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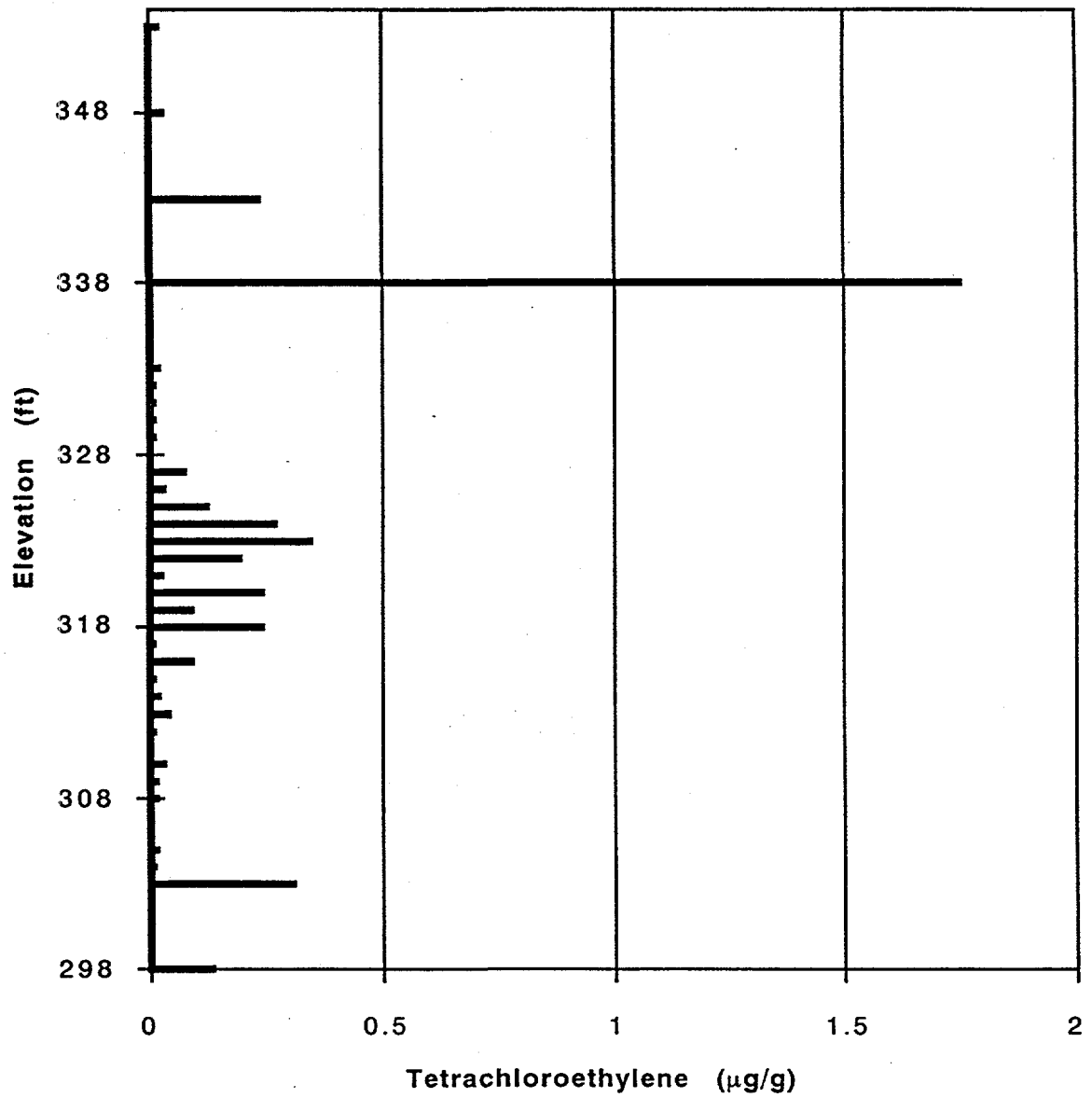
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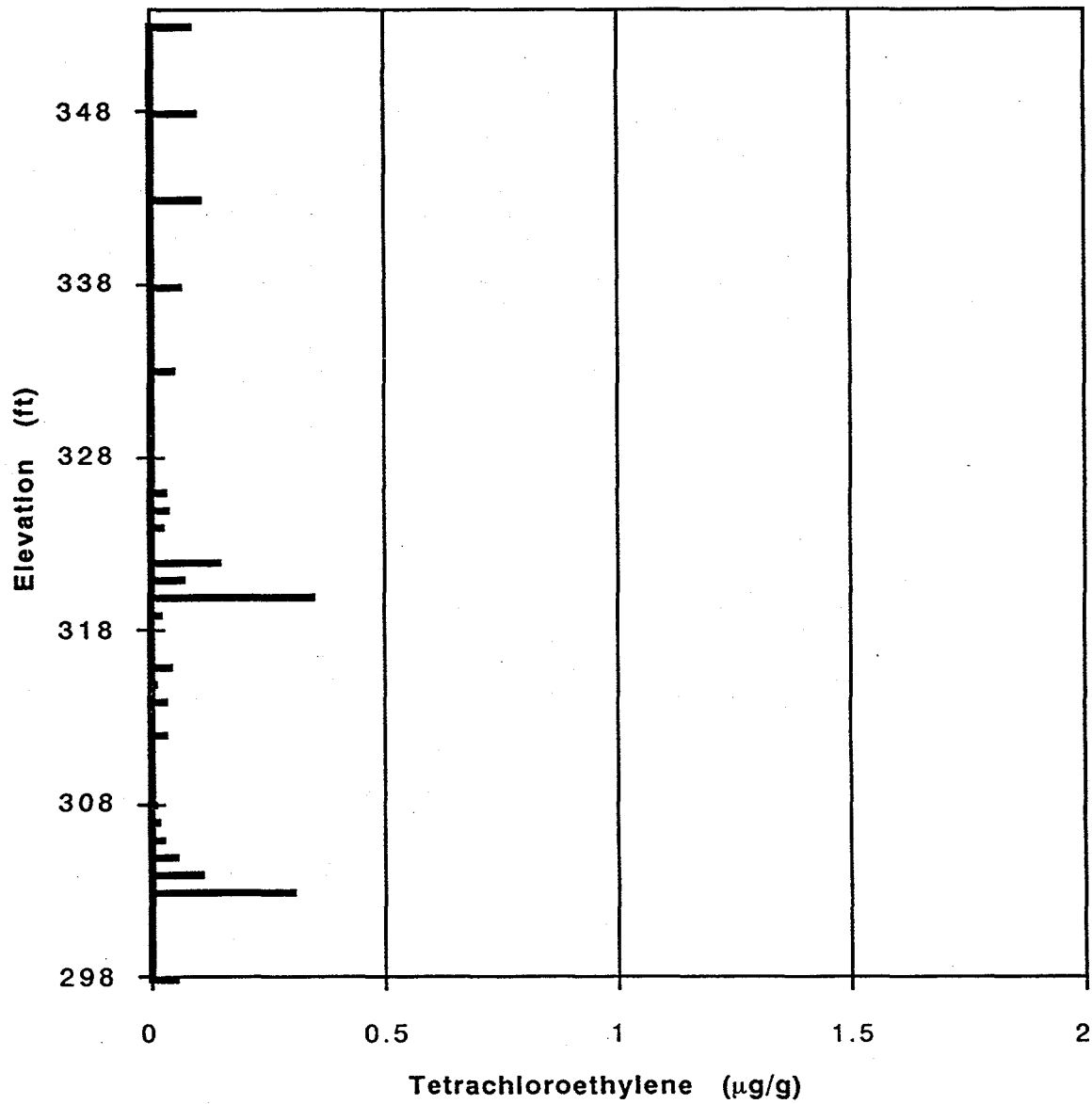
### MHB-37 PCE Concentration



MHB-37D PCE Concentration



### MHB-38 PCE Concentration



### MHB-39 PCE Concentration

