ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

December 3, 1999

Mr. Mick McCourt
Weyerhaeuser Paper Company
CH1L28
Tocoma, WA 98477

RE: Weyerhaeuser,1801 Hibbard Street, Alameda, CA 94501

Dear Mr. McCourt:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director of Environmental Health Services

cc: Chief, Hazardous Materials Division - files
Larry Seto, ACDEH
Chuck Headlee,RWQCB
Dave Deaner, SWRCB (w/ Case Closure Summary)
Captain Steve McKinley, City of Alameda Fire Department
Files

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9432

November 15, 1999

Mr. Mick McCourt
Weyerhaeuser Paper Company
CH1L28
Tacoma,WA 98477
STID 1202

Re: Weyerhaeuser, 1801 Hibbard Street, Alameda, CA 94501

Dear Mr. McCourt:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

Groundwater samples from the most recent sampling from the monitoring wells (8-13-98) contained up to 1,700 ppb TPH(g), 99.3 ppb benzene, 13.9 ppb xylenes, and 51.9 ppb ethylbenzene.

Groundwater sample collected on July 16, 1999 from boreholes B-9 and B-10 located inside the building contained up to 4,520 ppb TPH(gas), 13.7 ppb benzene, 22.3 ppb ethylbenzene, 3.0 xylenes,0.6 ppb 1,1-Dichloroethene, 34.7 ppb 1,1-Dichloroethane, 1,2-Dichloroethane, 2.2 trichloroethene, 1.7 1,1,2-Trichloroethane.

A soil sample collected on the east wall after overexcation on 10/95 contained 160 ppm TPH(g). A soil sample collected from B-9 in July 1999 contained 0.005 ppm benzene, 0.071 ppm ethylbenzene, and 0.009 xylenes.

If you have any questions, please contact me at (510)567-6774. Thank you.

Sincerely,

Larry Seto
Senior Hazardous Materials Specialist

Cc: Chief, Hazardous Materials Division - files
Larry Seto, Environmental Health
Captain Steve McKinley, City of Alameda Fire Department
Chuck Headlee, RWQCB
Dave Deaner, SWRCB (w/case closure summary)
Files

Enclosures:
1. Case Closure Letter
2. Case Closure Summary

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: **September 7, 1999**

Agency name: **Alameda County-HazMat**
City/State/Zip: **Alameda, CA 94502**
Responsible staff person: **Larry Seto**

Address: **1131 Harbor Bay Pkwy.**
Phone: **(510) 567-6774**
Title: **Senior HMS**

II. CASE INFORMATION

Site facility name: Weyerhaeuser Paper Company

Site facility address: 1801 Hibbard Street, Alameda, CA 94501

RB LUSTIS Case No: Local Case No./LOP 1202 / RO 587

URF filing date: 12-17-98 SWEEPS No: N/A

Responsible Parties:	**Addresses:**	**Phone Numbers:**
Weyerhaeuser Attn: Mick McCourt	CH1L28, Tacoma, WA 98477	(253) 924-6513
Kaufman & Broad Attn: Ray Panek	2201 Walnut Avenue, Suite 100 Fremont, CA 94538	

Tank No	Size in Gallons	Contents:	Closed in-place or Removed?	Date:
1	10,000	Diesel	Removed	2-7-91
2	1,000	Waste oil/gasoline	Removed	2-7-91
3	1,000	Gasoline	Removed	2-7-91
4	1,000	Gasoline	Removed	2-7-91
5	20,000	Diesel	Removed	1-13-94

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Equipment failure or spill

Monitoring Wells installed? Yes Number: 8

Site characterization complete? Yes

Date approved by oversight agency:

Proper screened interval? Yes

Highest GW depth below ground surface: 2.1' Lowest depth: 8.1'

Flow direction: Generally to the west

Most sensitive current use: Recharges to Oakland Inner Harbor

Are drinking water wells affected? No Aquifer Name: NA

Is surface water affected? No Nearest affected SW name: ---

Off-site beneficial use impacts (addresses/locations): Unknown

Report(s) on file? Yes Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy.
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal /destination)	Date
Underground Tanks	(1) 10,000 gallon (3) 1,000 gallon	Removed	2/7/91
Underground Tank	1 – 20,000 gallon	Erickson, Inc., Richmond, CA	1/13/94
Soil	420 cu. yds.	BFI – Vasco Rd., Livermore, CA	11/95
Soil	420 cu. yd.	Aerated on-site/ used as Backfill	10 – 11/95
Soil	75 cu. yd.	Redwood Sanitary Landfill Novato, CA	2/94
Groundwater	1,500 gallon	Removed from diesel pit	2/91

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) Before[1]	Soil (ppm) After[3]	Water (ppb) Before[2]	Water (ppb) After[4]
Total Oil and Grease	73	NA	5,100[2A]	ND
TPH(g)	3,000	160[3B]	14,000	4,520[4E]
TPH(d)	22	NA	1,700	1,290
kerosene	NA	NA	ND	NA
Benzene	21	0.005	3,000	99.3[4C]
Toluene	27	ND	540	3.8[4E]
Ethylbenzene	27	0.071	370	51.9[4C]
Xylenes	43	0.009	1,200	13.9[4C]
MTBE	NA	NA	NA	ND[4B]
Naphthalene	35[1A]	.035[3A]	430[2A]	ND[4C]
2-Methylnaphthalene	27[1A]	.010[3A]	160[2A]	ND[4D]
Vinyl Chloride	NA	NA	22[4E]	ND[4E]
1,1- Dichloroethane	NA	ND	130[4G]	37.4[4C]
1,2- Dichloroethane	NA	ND	95[4G]	3.2[3]
Tetrachloroethene	NA	ND	1.1[4I]	ND[4E]
Trichloroethene	NA	ND	ND[4I]	2.2[3]

ND - Non-Detect
NA – Not Analyzed
1 – Samples collected on 2-7-91 during removal of the underground tanks
1A- Samples collected on 2-28-91
2 – Samples collected from 1st sampling of STMW-3 on 12-23-91
2A- collected from pit on 2-28-91, gasoline tank cluster
3 – Sample collected on 7-16-99, boring B-9
3A- Samples soil boring B-4, collected on 1/94
3B – Sampled from the east sidewall @ 5' BGS on 10/95
4 – Sample collected on 5-15-98
4A- Sample collected in 2/94 from MW1-MW-11, note: MW-8 does not exist
4B - Sample collected on 6-6-97 from MW-3B
4C- Sample collected on 8-13-98 from MW-3B
4D- Sample collected on 9-26-95 from MW-3
4E- Sample collected on 7-16-99 from B-10

Comments (Depth of Remediation, etc.): See "Additional Comments" section.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan?

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan?

Does corrective action protect public health for current land use? Yes

Site management requirements: Approved only for commercial use. For a residential or other conservative scenario, this case needs to be re-evaluated.

Should corrective action be reviewed if land use changes? Yes, if the site is ever used for residential purposes, a risk assessment must be prepared to address the potential threat of the residual soil and groundwater contaminant concentrations to the occupants of that residence.

Monitoring wells decommissioned: 5 decommissioned, 8 currently exist on site pending closure

List enforcement actions taken: None

List enforcement actions rescinded: None

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Larry Seto
Signature:
Title: Senior HMS
Date: 9-7-99

Reviewed by
Name: Eva Chu
Signature:
Title: Hazardous Materials Specialist
Date: 9/7/99

Name: Thomas Peacock
Signature:
Title: Supervising HMS
Date: 9-13-99

VI. RWQCB NOTIFICATION

Date Submitted to RB:

RB Response:

RWQCB Staff Name: Chuck Headlee
Signature
Title: Associate Engineering Geologist
Date: 9/29/99

VII. ADDITIONAL COMMENTS, DATA, ETC.

The Weyerhaeuser Paper Company containerboard facility is a corrugated box manufacturing plant. The facility was originally constructed in 1946. Underground fuel tanks were historically installed at the facility to fuel vehicles, a generator and a boiler.

On February 7, 1991, four underground storage tanks, (1-10,000 gallon diesel, 1 – 1,000 gallon waste oil/gasoline and 2 – 1,000 gallon gasoline) were removed from the property. The gasoline tanks were located near the warehouse building and shed, and the diesel tank was 700' NE of the gasoline tanks. Soil samples collected after the removal contained up to 3,000 ppm TPH (gas), 22 ppm (diesel), 21 ppm benzene, 27 ppm toluene, 27 ppm ethylbenzene and 43 ppm total xylenes. (Table 1)

Due to the presence of elevated TPH(gas) at the former gasoline tank area, additional excavation was conducted on February 27 and 28, 1991. Soil samples from the sidewalls contained TPH(gas) ranging from 43 to 2,600 ppm. The water sample taken from the excavation contained 22,000 ppb TPH(g) and 190 ppb TPH(d). (Table2)

Due to the presence of elevated hydrocarbons detected in the sidewall, an additional three feet of soil was excavated from the excavation on April 3, 1991. Soil samples contained up to 1.2 ppm TPH(gas), 0.1 ppm benzene, 0.021 ppm toluene, 0.021 ppm ethylbenzene and 0.026 total xylenes. (Table 3)

A second groundwater sample (water-2) from the pit contained 13,000 ppb TPH(g), 580 ppb benzene, 130 ppb toluene, 29 ppb ethylbenzene and 400 ppb total xylenes.

Three soil borings were advanced and converted to monitoring wells (STMW-1 to STMW-3) in the vicinity of the former underground tank area on December 3 and 4, 1991(See Figure 4c). Soil samples contained up to 550 ppm TPH(g), 0.56 ppm benzene, 1.0 ppm toluene, 1.5 ppm ethlybenzene, 8.5 ppm xylene and 1,000 ppm total oil and grease. Groundwater samples contained up to 1,700 ppb TPH(d), 14,000 ppb TPH(g), 3,000 ppb benzene, 540 ppb toluene, 370 ppb ethylbenzene and 1,200 ppb xylene.

Due to the presence of hydrocarbons, an additional investigation to define the extent of the dissolved hydrocarbon plume was initiated. On April 10, 1992, three additional borings were advanced and converted to monitoring wells STMW-4 to STMW-6. (See Figure 4c) Groundwater samples from the new wells detected hydrocarbons at concentrations up to 790 ppb TPH(g), 7.7 ppb benzene, 5.3 ppb toluene, 4.6 ethylbenzene and 24.0 xylene.

The first quarterly monitoring and sampling of the six on-site wells were conducted in July 1992. Groundwater samples contained up to 1,500 ppb TPH(g), 6.1 ppb benzene, 5.3 ppb toluene, 8.3 ppb ethylbenzene, 26 ppb xylene, and 4,400 ppb Total Oil & Grease. No floating product or petroleum odors were noted in any of the on-site wells except in well STMW-3 where a mild petroleum odor was detected. STMW1 to STMW-4, located in the vicinity of the former underground tank area, continued to show low levels of dissolved petroleum hydrocarbons.

An additional investigation adjacent to the former diesel tank was performed on December 22,1992 with the installation of one additional monitoring well (STMW-7), downgradient of the former diesel tank area. (See Figure 3) Soil and groundwater samples taken were non-detectable for TPH(d) and BTEX.

Monitoring wells STMW-1 to STMW-7 was renamed MW-1 to MW-7 by West & Associates Engineers when they became the consultant for this site in 1993.

On January 13, 1994, a 20,000 gallon underground tank and it's associated piping that formerly stored boiler fuel was removed. A small pocket of contaminated backfill was encountered at the south end of the tank area, which was subsequently removed. In addition, a thin layer of gray discoloration was present at about 7 feet below ground surface on the north pit wall. Diesel product was visible floating on the water in the excavation. Analyses of three soil samples collected from the pit and one sample from the piping trench bottom were non-detect for petroleum hydrocarbons.

Within 48 hours groundwater infiltrated the pit to the levels measured in adjacent groundwater monitoring wells. A petroleum sheen was visible. On February 3, 1994 groundwater samples were collected from the three wells surrrounding the tank pit. All were found to be non-detectable for diesel.

Leaking Underground Fuel Storage Tank Program

Additional subsurface investigations were conducted in 1994. A total of twelve soil borings were completed: (B-1, B-2, B-3, B-4, B-5, B-MW8, B-MW10 MW-9, MW-10 & MW-11) were advanced in January 1994. Boring SB-2 was completed in September 1994, and boring MW-12 was completed in December 1994. (See Figure 4b)

Boring SB-2 was a hand augured boring angled under the building foundation. Ten feet of hole was completed in boring SB-2. The angle hole terminated laterally two feet under the building foundation. Obvious gasoline contamination was encountered throughout the entire length of slant boring B-2. Soil cuttings registered over 1,000 ppm on a calibrated PID. No soil sample was collected for laboratory analysis.

Four soil borings were converted into permanent groundwater monitoring wells. The new wells were coded: MW-9, MW-10, MW-11 and MW-12. No well was coded MW-8. Soil samples were collected from each borehole. A soil sample was also collected from the north wall of the gasoline pit. Seven of the eighteen soil samples submitted for analysis had registered significant total volatile contamination based on field testing with a photoionization detector. However, no significant gasoline contamination was reported by Coast to Coast Analytical in any of the eighteen soil samples submitted.

Eventually it was determined that laboratory handling of the sandy site soils resulted in the loss of volatile as observed in the analytical results. Consequently, the seven suspect soil samples were re-analyzed utilizing a head space "fuel fingerprint in air" technique which minimized sample handling and resultant volatile loss. (See Table 5) Significant gasoline contamination was detected in six of the suspect soil samples utilizing the head space technique.

Groundwater samples from monitoring wells MW-1, 2, 3, 4, 5, 6 and 9 have all been found to contain benzene in excess of the State Maximum Concentration Limit (MCL). Trace levels of some metals were detected in the groundwater as indicated in Table 4-9.

Detectable concentrations of some volatile and semi-volatile organic compounds were detected in the groundwater, particularly in the vicinity of monitoring well MW-3. Groundwater contamination is present in the former gasoline tank cluster area. Gasoline compounds predominate, however MTBE was non-detectable in a groundwater sample collected from MW-3 on 6-6-97. Trace solvent contamination is present in the groundwater. The contaminant plume profile suggests that the release point was not in the tank cluster itself, but rather south near the reported vicinity of a former dispenser.

During October and November 1995, a total of 830 cubic yards of contaminated soil was excavated from the former gasoline tank vicinity. A total of approximately 250 cubic yards of shallow oil contaminated soil was excavated and transported from the site to Vasco Road Landfill (VRL) for disposal. A total of approximately 580 cubic yards of gasoline contaminated soil was excavated from a depth between approximately 3.5 to 9 feet BGS. Of the 580 cubic yards of gasoline contaminated soil that was excavated, approximately 410 cubic yards was aerated on site and used as backfill material. Due to poor aeration weather conditions and lack of space on site the other approximately 170 yards of gasoline contaminated soil was transported from the site with the oil contaminated soil to VRL for disposal. One soil sample, E-SE, was collected from the final excavation at ~5'bgs.

Chemical analyses of the confirmatory side wall samples soil samples collected from the sidewall were conducted by DHS certified laboratories: Pace, Anlab and Excelchem Environmental Labs. Soil samples were analyzed for Total Petroleum Hydrocarbons and BTEX by headspace analysis-fuel fingerprint in air (Table 5). Due to the sandy soil characteristics, the headspace analysis has proven to be a more representative method of analysis for this site. Previous analysis of samples by standard CA LUFT methods often reported very low contaminant concentrations for highly contaminated samples. This has been attributed to loss of volatiles due to the sandy soil texture. A maximum of 160 ppm TPH(g) was in the sidewall sample. BTEX was not detected in any of the soil samples.

In summary, a total of approximately 420 cubic yards (approximately 500 tons) of both gasoline and oil contaminated soil were transported for landfill disposal.

West Associates estimates that approximately 50 cubic yards of gasoline contaminated soil was left in place. The soil left in place was impractical to excavate. Residual contamination was detected using field-testing equipment beneath the main plant building, below underground pipelines, adjacent to former excavations backfilled with pea gravel and between various sections of the remedial excavation. Contamination apparently does not extend off-site, however it has migrated under the main plant building. (See Figures 5 & 6) On July 16, 1999 two soil borings, B-9 and B-10 were advanced inside the building, on the south side of the building foundation near SB-1 and SB-2. (Figure 7) The soil samples contained up to 11.5 ppm TPH(gas), 0.005 ppm toluene, 0.71 ppm ethylbenzene and 0.009 total xylenes. The groundwater samples contained up to 4,520 ppb of TPH(gas), 13.7 ppb benzene, 3.8 ppb toluene, 22.3 ppb ethylbenzene, 3.0 ppb xylene and small amounts of volatile organic compounds.

During the excavation and backfill project, an air sparging and soil vapor recovery/extraction system was constructed. Five air sparge lines were also installed at approximately 45^0 angle and 7' below ground surface into the contaminated saturated zone under the main plant building. A vapor recovery chamber was constructed in the unsaturated zone above each sparge line under the building. A pilot test was performed to assess the air sparging system effectiveness, determine optimum operating parameters and develop an operating schedule. Based on results of the pilot test, continuous operation of the sparging system was initiated on March 29, 1996 and terminated in February 1998.

During the remedial excavation program, monitoring wells MW-1, MW-2, MW-3 MW-4 and MW-9 were removed. In December 1995 two new wells MW-3B and MW-4B were installed in two locations within the newly backfill excavation area, near the former locations of MW-3 and MW-4 respectively. A total of eight monitoring wells exist at the site. (See Figure 3)

A groundwater monitoring program is in effect at the site. Groundwater monitoring, which consists of depth to groundwater measurements and collection of groundwater samples for chemical analysis is conducted quarterly for Total Petroleum Hydrocarbons (TPH) as gasoline, benzene, toluene, ethylbenzene, and xylenes except for well MW-7 which is analyzed for TPH(diesel). Samples are analyzed for naphthalene on a semi-annual basis.

MW-3B has historically been the most contaminated well at the site. A continued decreasing trend in TPH(g) and BTEX concentrations in MW-3B has been observed since air sparging activities began. TPH(gas) and benzene concentrations in MW-3B are approximately 91% and 95% lower respectively, than prior to the start up of groundwater sparging.

Monitoring of volatile chlorinated organic and semi-volatile chlorinated organic concentrations in groundwater over a period of time (1994-1998) have demonstrated a clear and definite declining trend. Results of the last groundwater monitoring event (August 1998) indicated only two wells with volatile chlorinated organic concentrations greater than 5ppb (MW-5 and MW-3B with concentrations of 7.6 ppb and 37.4 ppb of 1,1 Dichloroethane respectively)

Impact to the environment and human health from low concentrations of volatile and semi-volatile chlorinated organics at the Weyerhaeuser site is insignificant. Due to high salinity, groundwater under the Weyerhaeuser site is unsuitable as a drinking water source therefore there is no drinking water impact. Contact by construction workers during redevelopment activities, is also minimal since the contaminant concentrations are low, the area affected is relatively small, and construction worker contact would be short term.

San Francisco Bay is a potential environmental receptor, however it has been demonstrated that groundwater contamination is not migrating off-site.

The groundwater sparge system was turned off in late February 1998. Two quarters of groundwater monitoring have taken place since the sparge system was turned off. No significant rebound in contaminate concentration have been observed over the last two quarter of monitoring.

A review of health risks associated with residual contaminants at the site was undertaken using site-specific data in accordance with general methodologies set forth under the RBCA ASTM Standard ES-38. The results of the analysis indicate that the residual contaminant concentrations do not pose a human health risk in excess of either the target excess individual lifetime cancer risk or the non-carcinogenic target hazard index using a residential scenario. The limiting exposure pathway is represented by carcinogenic compounds present in groundwater, and their potential to migrate to indoor air. However, taken together, all carcinogenic compounds detected in groundwater only comprised approximately 12 and 90 percent of the allowable carcinogenic risk to adults and children, respectively. (See Table 6 & 7)

In summary, this office is recommending that this case be closed for the following reasons:

1) The site has been adequately characterized
2) The leak has been stopped. The source (tank, piping, pump island, etc.) has been removed. Soil excavation and groundwater remediation has been completed
3) Little groundwater impact currently exist
4) No water wells, deeper drinking water aquifer, surface water or other sensitive receptors are likely to be impacted
5) The site presents no significant risk to human health or the environment after comparison of the site data to the ASTM Tier I look-up table

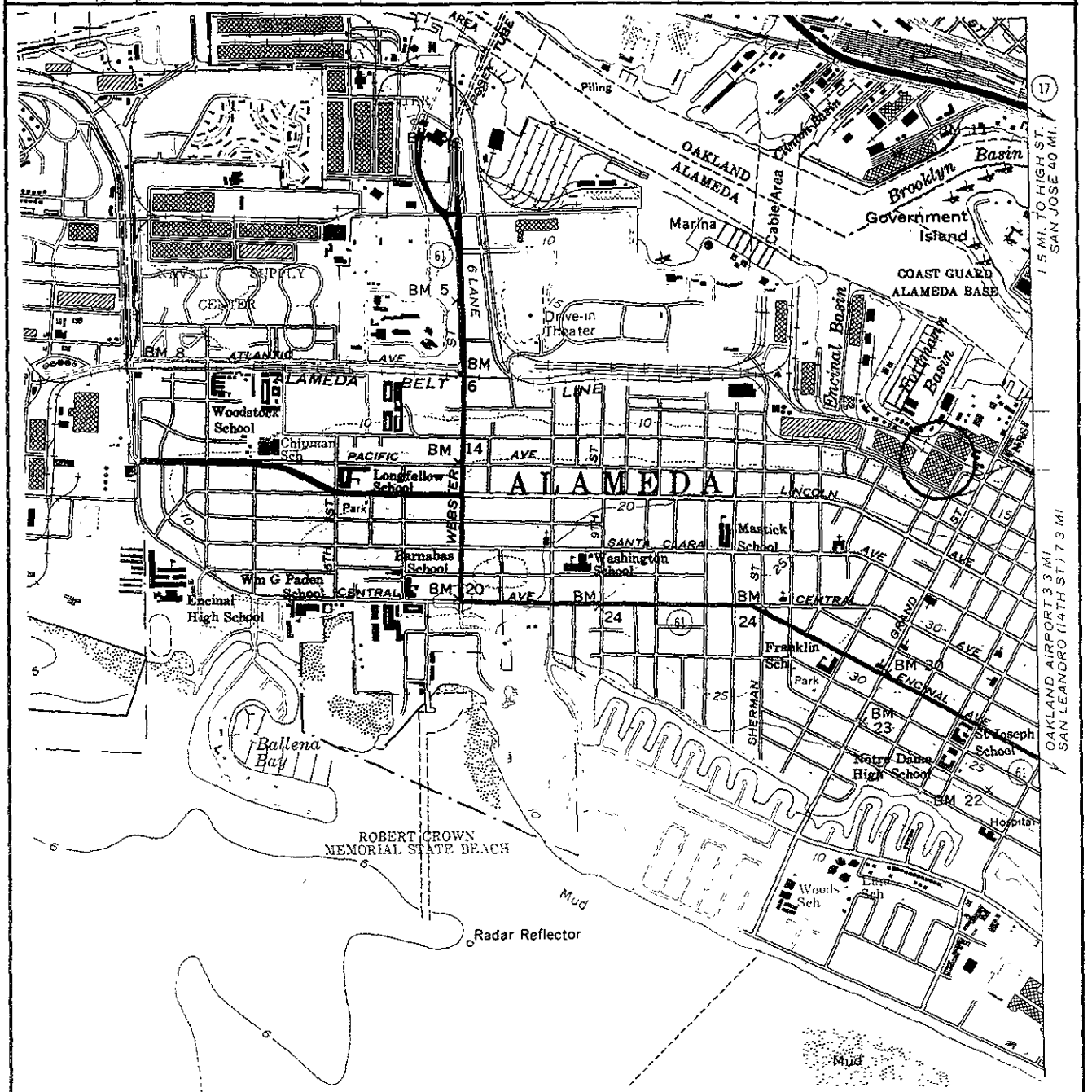
WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville, California 95696

Project Name: Weyerhaeuser Paper Company - Alameda | Date: Jan. 1995

Location: 1801 Hibbard Str., Alameda, California 94501

Drawing By: BWW | Scale: 1" = 0.4 Miles



LEGEND

○ SITE LOCATION

Figure 1

WPC ALAMEDA FACILITY - SITE LOCATION

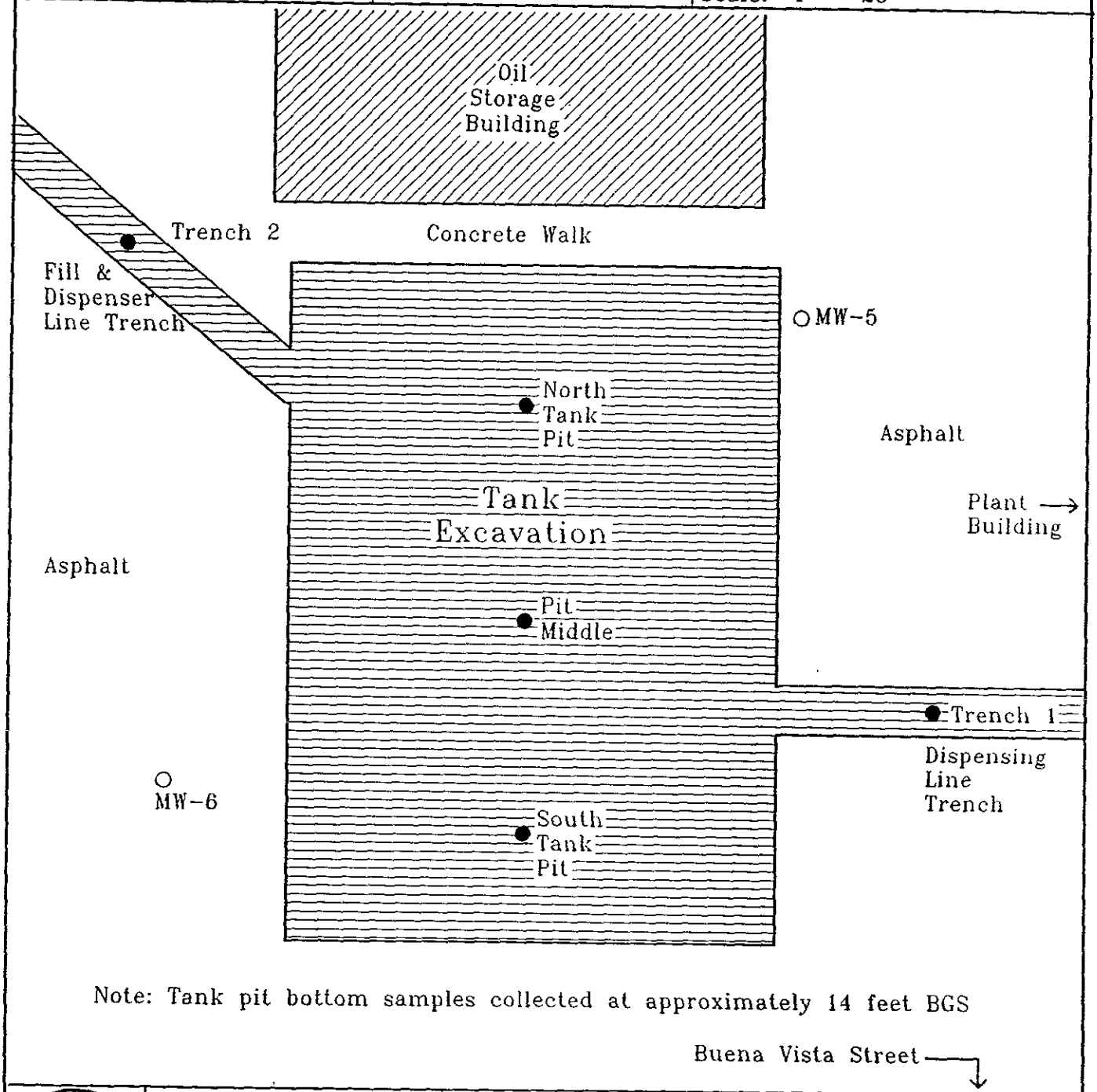
WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville, California 95696

Project Name: Weyerhaeuser Alameda Tank Removal | Date: March 1994

Location: Northwest corner by railroad tracks

Drawing By: BWW | Scale: 1" = 20'



Note: Tank pit bottom samples collected at approximately 14 feet BGS

LEGEND

○ Existing Groundwater Monitoring Well

● Soil Sample Location

Figure 2

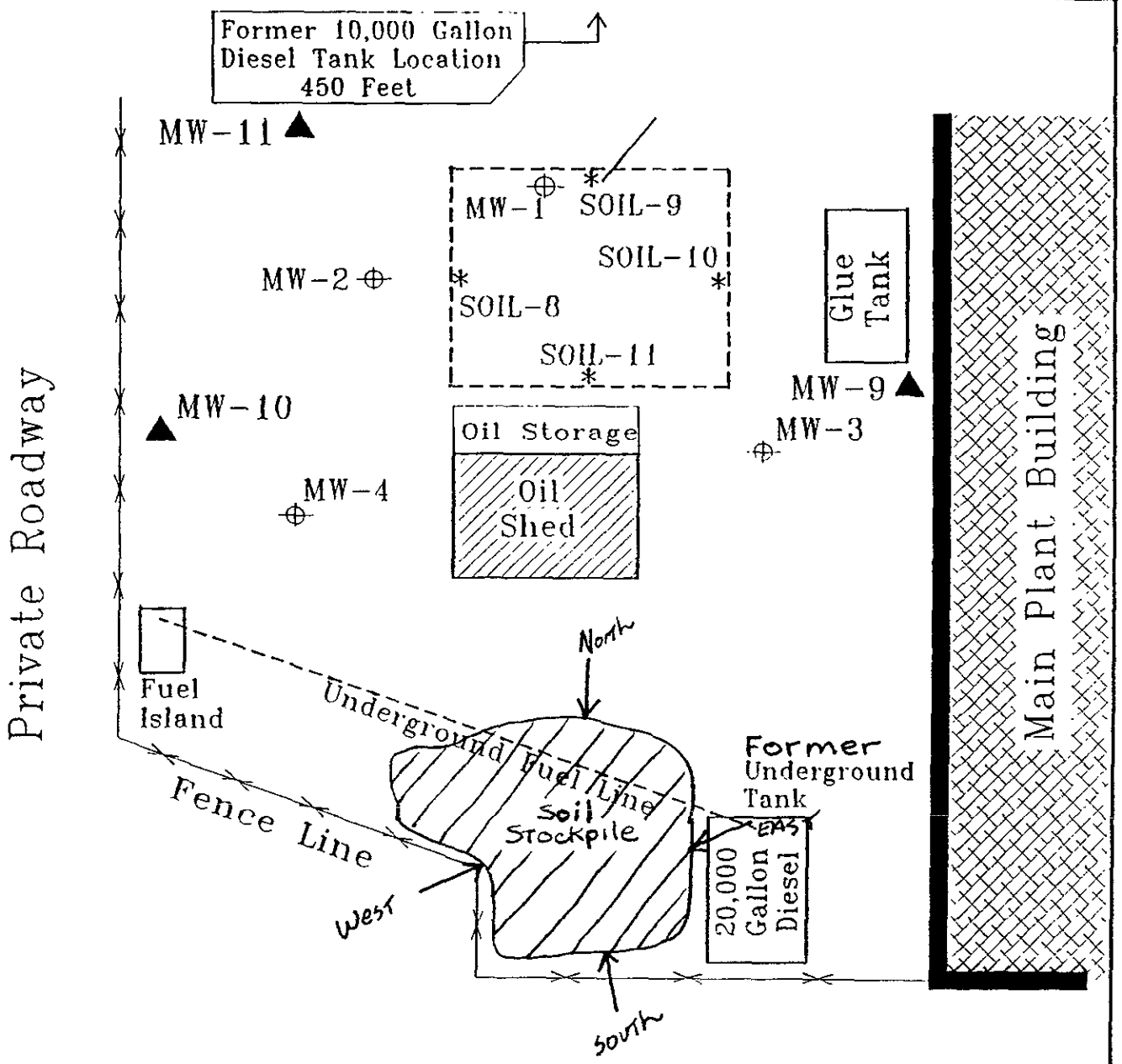
WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville, California 95696

Project Name: Weyerhaeuser - Alameda | 70288.01

Location: 1801 Hibbard Str., Alameda, CA 94501

Drawing By: BWW | Date: Nov., 1993 | Scale: 1" = 20'

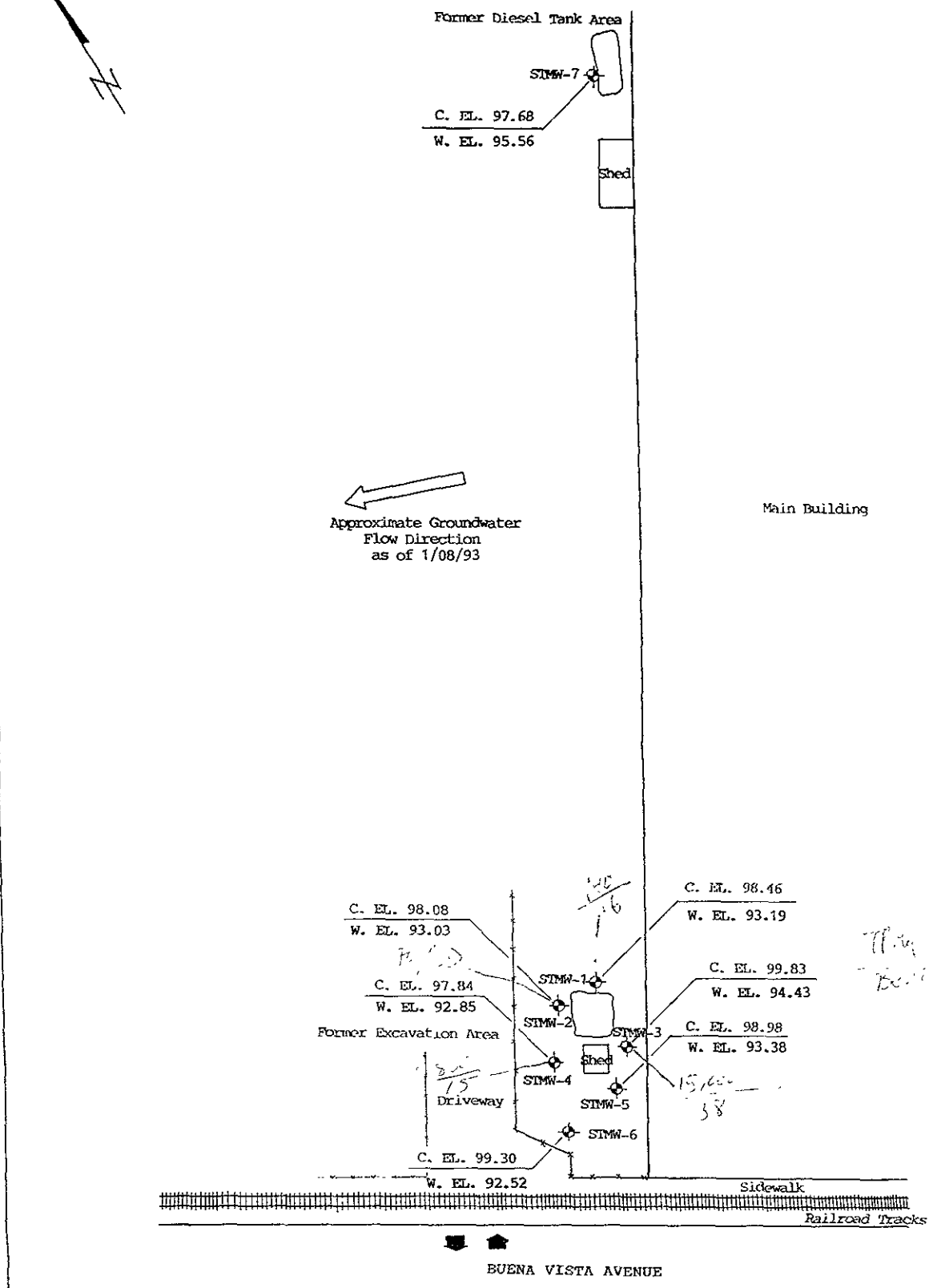


LEGEND

⊕ Existing Well ▲ Proposed Monitoring Well Location

→ Soil Sample Location

Figure 3A



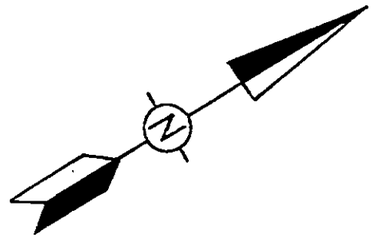
C. EL. Casing Elevation
W. EL. Water Elevation
Chain Link Fence
Monitoring Well

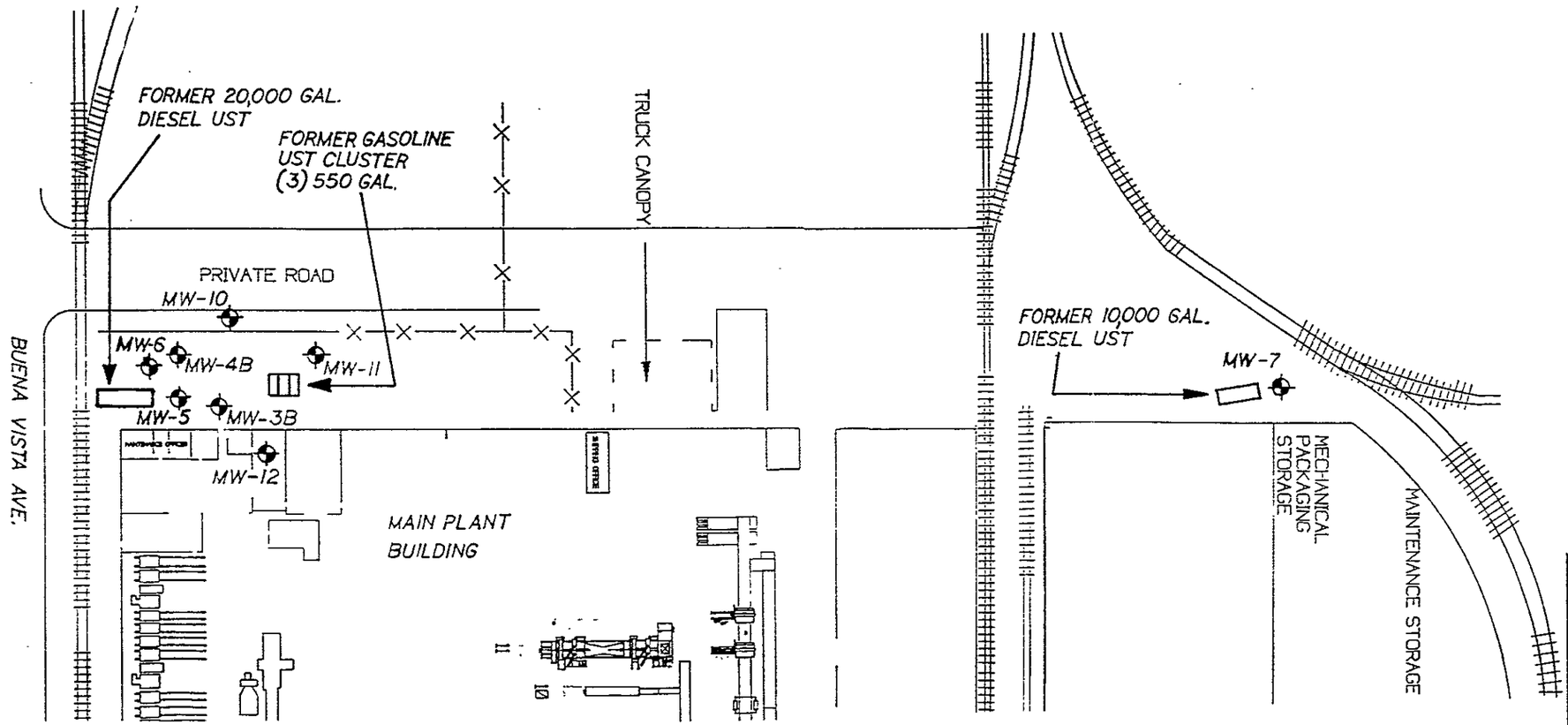
1801 HIBBARD STREET, ALAMEDA, CALIFORNIA		
DRAWN BY: N.A.	PROJECT NO. 10-91-483-MW	FIGURE 4
SCALE: 1"=50'		1/08/93

SOIL TECH ENGINEERING, INC.
298 BROKAW ROAD, SANTA CLARA, CALIFORNIA 95050

M2

OAKLAND
INNER CHANNEL





WEST & ASSOCIATES
ENVIRONMENTAL ENGINEERS, INC.
P.O. BOX 5591, VACAVILLE, CA 95696

SHEET NAME
SITE DIAGRAM

PROJECT: WEYERHAEUSER-ALAMEDA

APPROVED BY:	DRAWN BY: BGM
	REVISED JUNE 1998
SCALE: 1"=100'	SHEET NUMBER FIGURE 3
DATE: JUNE 1997	

LEDGEND

▲ Soil Boring
⊕ Monitoring Well
○ Pit Sidewall or Bottom

MAIN PLANT BUILDING

BOILER ROOM

MACHINE SHOP

REST ROOM

OFFICES

(7.11') MW-12

7.0

6.0

5.0

4.0

SB-1

SB-2

B-4

B-MW 8

B-1

HOT WAX TANK

MW-3B
(4.69')

B-5

(4.75')
MW-5

PIPE TRENCH

PIT WALL

1994
DIESEL TANK
EXCAVATION

PIT MIDDLE

NORTH TANK PIT

SOUTH TANK PIT

GAS TANK

GAS TANK

GAS TANK

PROPANE ENCLOSURE

B-2

PLATE

6" WATER

W

MW-6
(3.95')

MW-11
(4.29')

B-3

MW-4B
(3.92')

PIPING TRENCH

6" SEWER

BUENA VISTA ST.

12" STORM W

B-MW 10

A.G. TANK

SAND CRIB

MANHOLE

WASTE OIL TANK

12" SEWER

FORMER DISPENSER

GATE

MW-10
(3.92')

PRIVATE DRIVE

N

WEYERHAEUSER - ALAMEDA

SCALE: 1" = 10'	APPROVED BY:	DRAWN BY BWW
DATE: JUNE '98		REVISED

GROUNDWATER CONTOURS - MAY '98

1801 HIBBARD ST.

DRAWING NUMBER FIG. 4(a)

11 X 17 PRINTED ON NO. 1000H CLEARPRINT ®

LEDGEND

- ▲ Soil Boring
- ⊕ Monitoring Well
- ○ Pit Sidewall or Bottom

MAIN PLANT BUILDING

MW-12

BOILER ROOM

MACHINE SHOP

REST ROOM

OFFICES

SB-1

SB-2

B-4

B-MW 8

MW-9

MW-3

B-1

HOT WAX TANK

MANHOLE

SOIL 10

4" SS

PIPE TRENCH

B-5

MW-5

FIRST OVEREXCAVATION

2nd OVEREXCAVATION

3rd OVEREXCAVATION

SOIL 9

GAS TANK

GAS TANK

GAS TANK

MW-1

SOIL 11

CANOPY

OIL STORAGE BUILDING

PIT WALL

1994 DIESEL TANK EXCAVATION

PIT MIDDLE

NORTH TANK PIT

SOUTH TANK PIT

PROPANE ENCLOSURE

B-2

PLATE

MW-6

SOIL 8

MW-2

B-3

MW-11

MW-4

PIPING TRENCH

BUENA VISTA ST. →

8" SEWER

B-MW 10

A.G. TANK

SAND CRIB

MANHOLE

WASTE OIL TANK

FORMER DISPENSER

GATE

MW-10

PRIVATE DRIVE

N

WEYERHAEUSER - ALAMEDA

SCALE: 1" = 10'	APPROVED BY:	DRAWN BY BWW
DATE: FEB. 94		REVISED

ALL SOIL SAMPLE LOCATIONS: 1991-1994

1801 HIBBARD ST.

DRAWING NUMBER FIG. 4(b)

11 X 17 PRINTED ON NO. 1000H CLEARPRINT ©

LEDGEND

- ▲ Soil Boring
- ⊕ Monitoring Well
- ▨ Area of Residual Soil Contamination
- —— Air Sparge Line
- ⊖ Air Sparge Line Riser

MAIN PLANT BUILDING

MW-12

Fig.7 X-Section

MACHINE SHOP

REST ROOM

OFFICES

SB-1

SB-2

B-4

MW-9

ZONE II

B-MW 8

MW-3

ZONE I

HOT WAX TANK

B-1

MW-3B

FORMER UST EXCAVATION

B-5

E-SE

ZONE III

MW-1

GAS TANK

GAS TANK

GAS TANK

ZONE IV

PIPE TRENCH

MW-5

PIT WALL

1994 DIESEL TANK EXCAVATION

PIT MIDDLE

NORTH TANK PIT

SOUTH TANK PIT

PROPANE ENCLOSURE

B-2

6" WATER

PLATE

W

MW-6

MW-2

ZONE V

MW-4

ZONE VI

MW-4B

B-3

MW-11

PIPING TRENCH

BUENA VISTA ST. →

8" SEWER

12 STORM W

B-MW 10

A.G. TANK

SAND CRIB

MANHOLE

WASTE OIL TANK

12" SEWER

FORMER DISPENSER

GATE

MW-10

PRIVATE DRIVE

N

WEYERHAEUSER - ALAMEDA

SCALE: 1"= 10'	APPROVED BY:	DRAWN BY BWW
DATE: JAN. 1996		REVISED

PLAN VIEW-AIR SPARGING SYSTEM

1801 HIBBARD ST.

DRAWING NUMBER FIG. 5

LEDGEND

- ▲ Soil Boring
- ⊕ Monitoring Well
- ○ Pit Sidewall or Bottom
- ▨ Area of Residual Soil Contamination
- — Vapor Extraction Line
- ⊖ Vapor Extraction Line Riser

MAIN PLANT BUILDING

MW-12

Fig. 7 X-Section

MACHINE SHOP

REST ROOM

OFFICES

HOT WAX TANK

SB-1

SB-2

B-4

MW-9

ZONE II

B-MW 8

MW-3

ZONE I

6"W

MW-3B

FORMER UST EXCAVATION

GAS TANK

GAS TANK

GAS TANK

ZONE IV

PIPE TRENCH

MW-5

PIT WALL

1994 DIESEL TANK EXCAVATION

PIT MIDDLE

SOUTH TANK PIT

NORTH TANK PIT

PLATE

B-1

B-5

E-SE

ZONE III

MW-1

PROPANE ENCLOSURE

B-2

B-3

MW-11

6" WATER

W

MW-6

MW-2

ZONE V

MW-4

ZONE VI

MW-4B

PIPING TRENCH

BUENA VISTA ST.

9" SEWER

12" STORM W

B-MW 10

A.G. TANK

SAND CRIB

MANHOLE

WASTE OIL TANK

12" SEWER

FORMER DISPENSER

GATE

MW-10

PRIVATE DRIVE

N

WEYERHAEUSER - ALAMEDA

SCALE: 1" = 10'	APPROVED BY:	DRAWN BY BWW
DATE: JAN. 1996		REVISED

PLAN VIEW- VES SYSTEM

1801 HIBBARD ST.

DRAWING NUMBER FIG. 6

LEDGEND

▲ Soil Boring
⊕ Monitoring Well
○ Pit Sidewall or Bottom

MW-12
MAIN PLANT BUILDING
BOILER ROOM
B-10
B-9
MACHINE SHOP
REST ROOM
OFFICES
SB-1
SB-2
B-4
B-MW 8
HOT WAX TANK
B-1
6"W
MW-3B
B-5
GAS TANK
GAS TANK
GAS TANK
MW-5
PIPE TRENCH
PIT WALL
1994 DIESEL TANK EXCAVATION
PIT MIDDLE
SOUTH TANK PIT
NORTH TANK PIT
PROPANE ENCLOSURE
B-2
PLATE
6" WATER
W
MW-6
MW-11
B-3
MW-4B
PIPING TRENCH
BUENA VISTA ST.
9" SEWER
12" STORM W
B-MW 10
A.G. TANK
SAND CRIB
MANHOLE
WASTE OIL TANK
12" SEWER
FORMER DISPENSER
GATE
MW-10
PRIVATE DRIVE
N

WEYERHAEUSER - ALAMEDA

SCALE: 1"= 10'	APPROVED BY:	DRAWN BY BWW
DATE: 7/99		REVISED

SITE DIAGRAM

1801 HIBBARD ST.

DRAWING NUMBER FIG.7

WEYERHAEUSER PAPER CO.
1801 HIBBARD ST.
ALAMEDA, CA

MAIN BUILDING

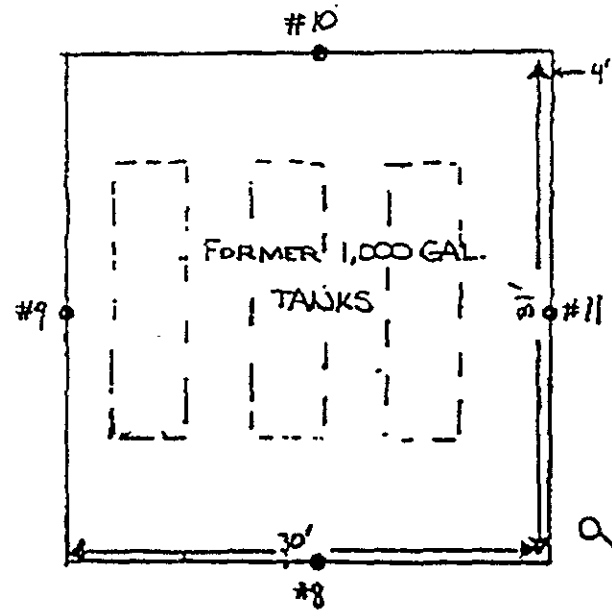
STEEL SHED

3RD SAMPLING

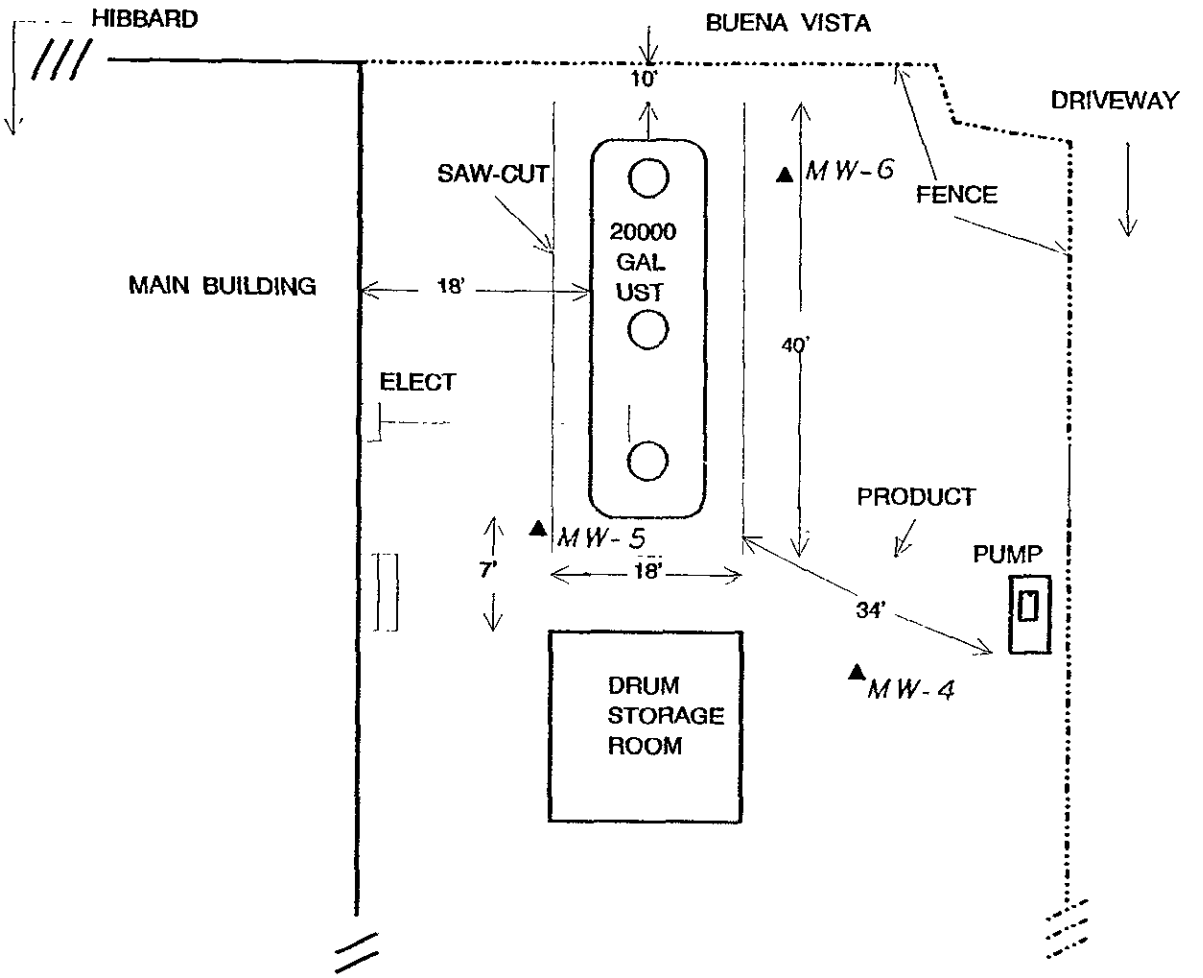
SIDEWALL
Soil Sample #8 @ 4'7"
" #9 @ 4'4"
" #10 @ 4'4"
" #11 @ 4'5"

WATER IN PIT @ 4'8"

4-3-91



ALL CHEM
All Chemical Disposal Inc.
Contractor's License #599864
941 Berryessa Road, Suite D • San Jose, CA 95133
Tel: 408-453-1660 • Fax: 408-453-3087



PARTIAL PLOT PLAN

WEYERHAEUSER FACILITY
1801 HIBBARD STREET
ALAMEDA, CALIF. 94501
DECEMBER 8,1993

FIGURE 1

SCOPE OF WORK

A. Saw-cut,remove,dispose concrete at UST and elect & product lines.Replace after removal

B. Remove UST,piping & dispenser, proper disposal. Backfill and compact as needed.

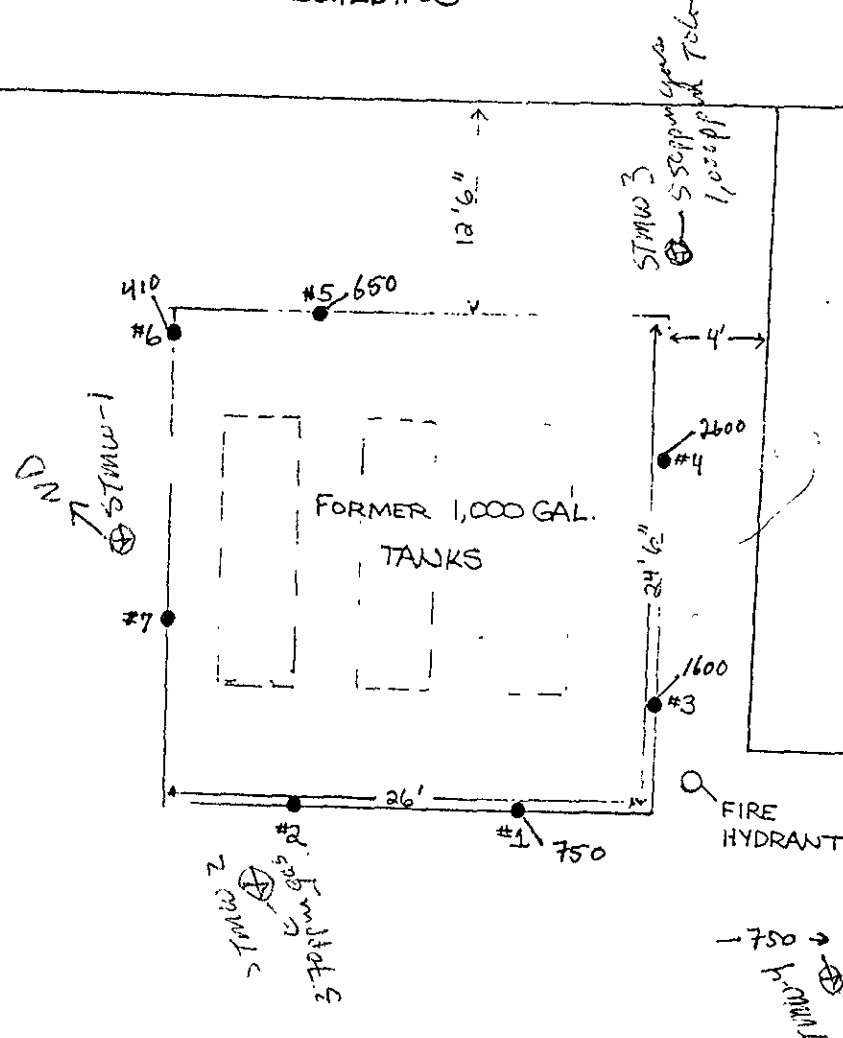
C. Cut-back & cap electrical and plumbing.

DRW WEYER D Escover

WEYERHAEUSER PAPER CO.
1801 HIBBARD ST.
ALAMEDA, CA

MAIN BUILDING

STEEL SHED



ALL SIDEWALL SOIL SAMPLES
SAMPLES #1 TO #6 @ 5'6"

SAMPLE #7 @ 4'

1 WATER SAMPLE TAKEN
DEPTH TO WATER 8'3"

2-28-91
SAMPLING ROUND #2

Table #1

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

February 8, 1991

ChromaLab File No.: 0291028

MINTER AND FAHY

Attn: Matt Minter

RE: Eight rush soil samples for Gasoline/BTEX and Diesel analyses

Project Name: WEYERHAUSER PAPER CO.
Date Sampled: Feb. 7, 1991 Date Submitted: Feb. 7, 1991
Date Extracted: Feb. 7, 1991 Date Analyzed: Feb. 7, 1991

RESULTS:

Sample No.	Gasoline (mg/Kg)	Diesel (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
DIESEL-NE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIESEL-SW	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIESEL-SE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIESEL-NW	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GAS-N	220	N.D.	41	38	530	490
GAS-S	2000	22	15000	9100	16000	27000
GAS-E	770	N.D.	1600	2400	6600	11000
GAS-W	3000	N.D.	21000	27000	27000	43000
BLANK SPIKE RECOVERY	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DUP SPIKE RECOVERY	95.2%	88.5%	92.4%	93.3%	98.8%	97.9%
DETECTION LIMIT	98.9%	89.9%	95.6%	95.2%	94.9%	80.7%
METHOD OF ANALYSIS	1.0	1.0	5.0	5.0	5.0	5.0
	5030/ 8015	3550/ 8015	8020	8020	8020	8020

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

March 7, 1991 ChromaLab File No.: 0291139

MINTER & FAHY Attn: Matt Minter / John Fahy

RE: One water and seven soil samples for Gasoline/BTEX and Diesel analyses

Project Name: WEYERHAEUSER PAPER
Date Sampled: Feb. 28, 1991 Date Submitted: Feb. 28, 1991
Date Extracted: March 4-7, 1991 Date Analyzed: March 4-7, 1991

RESULTS:

Sample No.	Gasoline (µg/L)	Diesel (µg/L)	Kerosene (µg/L)	Benzene (µg/L)	Toulene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)
WATER - 1	22000	190	N.D.	1000	570	130	410
DET. LIMIT	50	50	50	0.5	0.5	0.5	0.5
METHOD OF ANALYSIS	5030/ 8015	3510/ 8015	3510/ 8015	602	602	602	602

Sample No.	Gasoline (mg/Kg)	Diesel (mg/Kg)	Kerosene (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
SOIL #1	750	N.D.	N.D.	3000	4400	5300	7800
SOIL #2	44	N.D.	N.D.	50	6.4	120	170
SOIL #3	1600	N.D.	N.D.	3500	3500	8600	14000
SOIL #4	2600	N.D.	57	4600	8000	14000	25000
SOIL #5	650	N.D.	N.D.	1000	990	2700	4700
SOIL #6	410	N.D.	17	110	60	2000	4200
SOIL #7	43	N.D.	N.D.	510	2500	2200	3600
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	94.1%	98.9%	91.0%	88.8%	84.2%	83.9%	80.9%
DUP SPIKE RECOVERY	98.9%	102.6%	----	92.4%	93.3%	98.8%	97.9%
DET. LIMIT	1.0	1.0	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	3550/ 8015	3550/ 8015	8020	8020	8020	8020

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

Table #3

WEST ASSOCIATES

TABLE 4-1
SOIL CONTAMINANT CONCENTRATIONS
TANK REMOVAL & STE SOIL SAMPLES
1991 GASOLINE TANK CLUSTER AREA
All values in ug/kg

SAMPLE ID	TPH GAS	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
SOIL - 8	1,100	38	16	5.0	ND
SOIL - 9	ND	ND	21	ND	ND
SOIL - 10	1,200	100	19	26	21
SOIL - 11	ND	ND	ND	ND	ND
MW-2 (3')	ND	ND	ND	ND	ND
MW-2 (7')	370,000	560	1,000	6,700	1,500
MW-3 (3')	74,000	160	6	790	240
MW-3 (7')	550,000	440	1,000	8,500	1,300

NOTES

1. Sidewall soil samples SOIL-8 thru SOIL-11 collected at 4.5' BGS
2. Sample MW-3 (3') contained 1,000 ug/kg total oil & grease
3. ND: Non-detectable

Although soil removed during the overexcavation was found to contain semi-volatile chlorinated organics and heavy metals, STE did not test any soil samples for these compounds in any of their site investigations.

The presence of non-gasoline compounds in the gasoline tank cluster soils may be the result of waste oil leakage or surface spillage. Table 4-2 lists the non-gasoline compounds and concentrations detected. The soil from which samples in Table 4-2 were collected has been removed from the site. The only non-gasoline compound verified to still exist in the former gasoline tank cluster area soils is oil & grease, naphthalene and methylnapthalene. (see footnote to Table 1).

Detectable concentrations of Cadmium, Chromium, Lead, Nickel and Zinc were found in samples SOIL #1 - SOIL #7, however the measured levels were orders of magnitude less than established State Total Threshold Limit Concentration (TTLC) limits. Soluble Threshold Limit Concentration (STLC) analyses were not performed. Soil metals concentrations encountered during the West & Associates site investigation were similarly low.

Table #4

~~TABLE 4-4~~
SOIL SAMPLE ANALYTICAL RESULTS
"FUEL FINGERPRINT IN AIR"
January 1994
all values in PPB by volume

SAMPLE ID	TPH	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
B-4, 5.5'	9,700	ND	12	440	160
B-MW8, 7'	ND	ND	ND	ND	ND
B-MW10, 5'	34,000	970	130	620	150
B-MW10, 9'	5,700	ND	1.2	100	35
MW-9, 5'	17,000	ND	70	370	60
MW-9, 9'	6,000	180	50	300	280
NORTH END WALL	ND	ND	ND	250	40

NOTES
ND: Not Detected (Minimum detection limit specified on original laboratory report forms appearing in Appendix)
PPB: Parts Per Billion
Analysis by EPA test method TO-14

TABLE 4-5
SEMI-VOLATILE ORGANIC ANALYSIS - SOIL

SAMPLE ID	COMPOUND	CONCENTRATION ug/l
B-4, 5.5'	NAPHTHALENE	35
	METHYLNAPTHALENE	10

Copies of chain of custody forms and original laboratory reports are contained in the Appendix.

In summary, gasoline contamination in soil extends under the main plant building south of the 1991 gasoline tank cluster and almost to the property line north of the former tank cluster location. Traces of soil contamination from the 1991 gasoline tank cluster were detected on the east pit sidewall of the 1994 diesel tank excavation west of the former gasoline tank cluster. Soil contamination appears to have been largely removed east of the 1991 gasoline tank cluster.

Laboratory chemical analysis results, excluding sample WPC-1, are presented in Table 8.

TABLE 8
REMEDIAL EXCAVATION SOIL SAMPLE ANALYSIS RESULTS
October - November 1995
All values in PPM-V by headspace analysis unless otherwise noted

Sample No.	Description	TPH	Benzene	Toluene	Ethyl-benzene	Xylene
SP-1	Excavated Soil	1,200	0.9	ND	ND	0.8
SP-2	Excavated Soil	2,800	1.0	ND	ND	1.9
Sidewal l E-SE	East sidewall @ 5' BGS, Section II of excavation	160	ND	ND	ND	ND
SPOILS#	Gasoline contaminated spoils pile (for landfill profiling)	8.8	0.0032	0.011	0.058	0.300
SP1	Aerated soil verification sample	ND	ND	ND	ND	ND
SP2	Aerated soil verification sample	ND	ND	ND	ND	ND
SP4	Aerated soil verification sample	ND	ND	ND	ND	ND

Notes:
PPM-V = Parts Per Million by volume
# = TPH as gasoline, results in Parts Per Million, mg/kg
ND = not detected above the laboratory detection limit
TPH = Total Petroleum Hydrocarbons

4.11 Air Sparging System

An air sparging system was constructed in the open excavation. The air sparging system was built as a series of individual grids constructed with 1.5 inch diameter, schedule 40 PVC pipe perforated with either 1/8, 3/16 or 1/4 inch diameter holes (depending on the distance from the air source). An air sparging grid was constructed in each excavation zone. Each grid will be manifolded to an air supply line such that pressures and air flow rates can be regulated and separate sparging zones established, if desired.

The sparging grids were installed at a depth of approximately 9 feet BGS and were bedded in 3/8 inch washed pea gravel. The pea gravel was placed in each section of the excavation from a total depth of approximately 9.5 feet BGS to approximately 7 feet BGS. Soil was then placed on top of the gravel and compacted with a compaction wheel between the depths of approximately 7 and 4 feet bgs. Then a second layer of 3/8 inch pea gravel was applied between the approximated depths of 4 and 3 feet BGS.

TABLE 6 RESULTS: RESIDENTIAL EXPOSURE SCENARIO - CHILD

CHILD - RESIDENTIAL	maximum est. GW conc. (ug/L)	avg est. GW conc. (ug/L)	CARCINOGENIC RBSLw-c =RBSLa-c/VFwesp (ug/L)	Percent Risk: max est. GW conc/ RBSLw-c x 100	Percent Risk: avg est. GW conc/ RBSLw-c x 100	NONCARCINOGENIC RBSLw-nc =RBSLa-nc/VFwes (ug/L)	Percent Risk: max est. GW conc/ RBSLw-nc x 100	Percent Risk: avg est. GW conc/ RBSLw-nc x 100
GROUNDWATER-TO-INDOOR AIR								
Benzene	99.0	16.71	2.89E+02	34.2	5.8			
Ethylbenzene	51.9	8.86				7.98E+05	0.000065	0.000011
M&P xylene	13.9	2.53				4.24E+05	0.000033	0.000006
1,1-Dichloroethane	37.4	8.31				6.71E+03	0.005574	0.001238
Trichloroethene	5.0	1.12	4.59E+01	10.9	2.4			
Tetrachloroethene	5.0	1.22	1.13E+01	44.2	10.8	5.77E+02	0.008666	0.002109
SOIL-TO-INDOOR AIR	maximum est. Soil conc. (mg/kg)	avg est. Soil conc. (mg/kg)	RBSLs-c =RBSLa-c/VFsesp (mg/kg)	Percent Risk: max est. soil conc/ RBSLw-c x 100	Percent Risk: avg est. soil conc/ RBSLw-c x 100	RBSLs-nc =RBSLa-nc/VFsesp (mg/kg)	Percent Risk: max est. soil conc/ RBSLs-nc x 100	Percent Risk: avg est. soil conc/ RBSLs-nc x 100
Benzene	0.005	0.004	4.73E-01	1.1	0.8			
Ethylbenzene	0.071	0.060				2.59E+03	0.000027	0.000023
M&P xylene	0.009	0.006				3.33E+03	0.000003	0.000002
			TOTAL PCNT:	90.4	19.8	TOTAL PCNT:	0.014367	0.003389
			PERCENT>100?	NO	NO	PERCENT>100?	NO	NO

Table 6

TABLE 7 - RESULTS: RESIDENTIAL EXPOSURE SCENARIO - ADULT

ADULT - RESIDENTIAL	maximum est. GW conc. (ug/L)	avg est. GW conc. (ug/L)	CARCINOGENIC RBSLw-c =RBSLa-c/VFwesp (ug/L)	Percent Risk: max est. GW conc/ RBSLw-c x 100	Percent Risk: avg est. GW conc/ RBSLw-c x 100	NONCARCINOGENIC RBSLw-nc =RBSLa-nc/VFwes (ug/L)	Percent Risk: max est. GW conc/ RBSLw-nc x 100	Percent Risk: avg est. GW conc/ RBSLw-nc x 100
GROUNDWATER-TO-INDOOR AIR								
Benzene	99.0	16.71	2.23E+03	4.4	0.7			
Ethylbenzene	51.9	8.86				2.62E+06	1.98E-05	3.38E-06
M&P xylene	13.9	2.53				1.39E+06	1.00E-05	1.82E-06
1,1-Dichloroethane	37.4	8.31				2.20E+04	1.70E-03	3.78E-04
Trichloroethene	5.0	1.12	3.51E+02	1.4	0.3			
Tetrachloroethene	5.0	1.22	8.67E+01	5.8	1.4	1.89E+03	2.65E-03	6.44E-04
SOIL-TO-INDOOR AIR	maximum est. Soil conc. (mg/kg)	avg est. Soil conc. (mg/kg)	RBSLs-c =RBSLa-c/VFsesp (mg/kg)	Percent Risk: max est. soil conc/ RBSLw-c x 100	Percent Risk: avg est. soil conc/ RBSLw-c x 100	RBSLs-nc =RBSLa-nc/VFsesp (mg/kg)	Percent Risk: max est. soil conc/ RBSLs-nc x 100	Percent Risk: avg est. soil conc/ RBSLs-nc x 100
Benzene	0.005	0.004	3.62E+00	0.1	0.1			
Ethylbenzene	0.071	0.060				8.49E+03	8.36E-06	7.07E-06
M&P xylene	0.009	0.006				1.09E+04	8.26E-07	5.28E-07
		TOTAL (GW AND SOIL:)		11.8	2.6	TOTAL:	0.0	0.0
		PERCENT>100?		NO	NO	PERCENT>100?	NO	NO

Table 7

~~TABLE 4-2~~

TANK REMOVAL & STE SOIL SAMPLES
NON-GASOLINE SOIL CONTAMINANTS
1991 GASOLINE TANK CLUSTER
All values in mg/kg Sampled 2-28-91

SAMPLE ID	DIESEL	OIL & GREASE	KEROSENE	NAPHTHA-LENE	METHYL NAPTHA-LENE	BENZOIC ACID
GAS-S	22	NA	NA	NA	NA	NA
SOIL #1	ND	29	ND	2.2	2.2	ND
SOIL #2	ND	13	ND	0.7	0.8	ND
SOIL #3	ND	55	ND	2.4	1.9	ND
SOIL #4	ND	57	57	35	20	3.1
SOIL #5	ND	ND	ND	7.6	6.5	ND
SOIL #6	ND	73	17	30	27	2.8
SOIL #7	ND	ND	ND	2.0	1.5	ND

NOTES
NA: Not Analyzed
ND: Not Detected

During 1994, West & Associates completed a total of twelve soil borings in and around the 1991 gasoline tank cluster area. Ten of the borings were completed in January 1994 (B-1, B-2, B-3, B-4, B-5, B-MW8, B-MW10, MW-9, MW-10 & MW-11), one of the borings (SB-2) was completed in September 1994 and one boring (MW-12) was completed in December 1994. All borings with the exception of SB-2 were completed utilizing a powered continuous flight auger. Boring SB-2 was a hand augered boring angled under the building foundation. Figure 4-2 depicts the West & Associates soil sampling locations. Boring logs for all twelve holes are presented in the Appendix.

Boring B-1 was sited 50 feet east of the former 1991 gasoline tank cluster. No soil contamination was observed in B-1 based on field screening techniques. Soil samples from 5' & 10' BGS (B1-5 & B1-10) were submitted for laboratory analysis.

Boring B-2 was sited 25 feet northeast of the former 1991 gasoline tank cluster. No soil contamination was observed in B-2 based on field screening techniques. Soil samples from 5' & 10' BGS (B2-5 & B2-10) were submitted for laboratory analysis.

Boring B-3 was sited 20 feet north of the former 1991 gasoline tank cluster. No soil contamination was observed in B-3 based on field screening techniques. Soil samples from 5' & 11.5' BGS (B3-5 & B3-11.5) were submitted for laboratory analysis.

4.1.2 Groundwater

In this Section the three separate phases of groundwater investigation at the 1991 gasoline tank cluster are presented; 1) during the tank cluster removal; 2) site investigation performed by STE between December 1992 and July 1993; and 3) site investigation performed by West & Associates in 1994.

4.1.2.1 1991 Gasoline Tank Cluster Removal

There was, apparently, two samples of pit water collected during the overexcavation project; Water-1 and Water-2. The file record does not indicate the method by which either sample was collected or whether the pit was purged and allowed to recharge prior to sampling.

Pit water sample Water-1 was collected on February 28, 1991. Water-1 was analyzed for TPH in the gas/kerosene/diesel range; oil & grease; BTXE, heavy metals; semi-volatile chlorinated organics and volatile chlorinated organics. Analytical results are presented below.

PIT WATER SAMPLE: WATER-1
1991 GASOLINE TANK CLUSTER
February 28, 1991

TPH - gas:	22,000 ug/l
TPH - kerosene:	ND
TPH - diesel:	190 ug/l
Oil & Grease:	5,100 ug/l
Benzene:	1,000 ug/l
Toluene:	570 ug/l
Xylenes:	410 ug/l
Ethyl Benzene	130 ug/l
Cadmium:	ND
Chromium:	160 ug/l
Lead:	130 ug/l
Nickel:	200 ug/l
Zinc:	240 ug/l
Naphthalene:	430 ug/l
Methylnaphthalene	160 ug/l

Gasoline tank cluster pit water sample Water-2 was collected on April 3, 1991. Sample Water-2 was only analyzed for TPH-gas and BTXE. The results of that analysis are presented below.

PIT WATER SAMPLE: WATER-2
1991 GASOLINE TANK CLUSTER
April 3, 1991

TPH - gas:	13,000 ug/l
Benzene:	580 ug/l
Toluene:	130 ug/l
Xylenes:	400 ug/l
Ethyl Benzene	29 ug/l

Apparently, accumulated water in the gasoline tank cluster pit was purged just prior to backfilling the hole.

4.1.2.2 STE Site Investigation

As discussed in Section 1.3, Soil Tech Engineering constructed a total of six groundwater monitoring wells around the 1991 gasoline tank cluster and performed groundwater monitoring on three occasions. Table 4-7, taken directly from Soil Tech's most recent groundwater monitoring report (July 19, 1993), presents a summary of groundwater analytical results prior to January 1994.

4.1.2.3 West & Associates Site Investigation

In January 1994 West & Associates Engineers installed three new groundwater monitoring wells (MW-9, MW-10 & MW-11). All site wells were sampled in February and June 1994. In December 1994 West & Associates installed one final well (MW-12) and sampled all site wells.

New monitoring well MW-9 is sited 20 feet southeast of the 1991 gasoline tank cluster. Well MW-9 was located as close as practical to the main building outer wall and was intended to determine the magnitude of groundwater contamination under the building foundation.

New monitoring well MW-10 is sited 50 feet northwest and new monitoring well MW-11 50 feet north of the 1991 gasoline tank cluster. Both of these wells are intended to define the contaminant plume on the north.

New monitoring well MW-12 is sited 50 feet south of the 1991 gasoline tank cluster. Well MW-12 is inside the main plant building. Well MW-12 is intended to define the edge of the contaminant plume on the south.

Groundwater samples collected in February 1994 were analyzed for gasoline contaminants as well as metals, volatile organics and semi-volatile organics. Table 4-8 presents analytical results for petroleum constituents; Table 4-9 presents analytical results for metals; Table 4-10 presents analytical results for volatile organics and Table 4-11 presents analytical results for semi-volatile organics.

File No. 10-91-483-MW

TABLE 3
SOIL ANALYTICAL RESULTS
IN
MILLIGRAMS PER KILOGRAM (mg/Kg)

Date	Sample #	Depth feet	TPHd	TPHg	B	T	E	X	TOG
12/3/91	STMW-1-3	3	ND	ND	ND	ND	ND	ND	ND
	STMW-1-7	7	ND	ND	ND	ND	ND	ND	ND
	STMW-2-3	3	ND	ND	ND	ND	ND	ND	ND
	STMW-2-7	7	ND	370	0.56	1.0	1.5	6.7	ND
12/4/91	STMW-3-3	3	ND	74	0.16	0.006	0.24	0.79	1,000
	STMW-3-7	7	ND	550	0.44	1.0	1.3	8.5	ND
4/18/92	STMW-4-5	5	ND	ND	ND	ND	ND	ND	ND
	STMW-5-5	5	ND	ND	ND	ND	ND	ND	ND
	STMW-6-5	5	ND	ND	ND	ND	ND	ND	ND
12/22/92	STMW-7-3*	3	ND	NA	ND	ND	ND	ND	NA
	STMW-7-5*	5	ND	NA	ND	ND	ND	ND	NA

TPHd - Total Petroleum Hydrocarbons as diesel
TPHg - Total Petroleum Hydrocarbons as gasoline
BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes
ND - Not Detected (Below Laboratory Detection Limit)
NA - Not Analyzed
* - Additional Monitoring Well Installed on 12/22/92

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Brian West
West & Associates
P.O. Box 5891
Vacaville, CA 95696
Project: Weyerhaeuser, Alameda
Method: EPA 8015m/8020/602

Date Sampled: 07/16/99
Date Received: 07/19/99
BTEX/TPHg Analyzed: 07/19,20/99
Matrix: Soil/ Water
Units: mg/kg (soil)
µg/l (water)

Client Sample I.D.	B9-S		B10-S		B-9		B-10	
LAB. NO	S0799209		S0799210		W0799211		W0799212	
ANALYTE	R/L	Results	R/L	Results	R/L	Results	R/L	Results
TPH as Gasoline	5.34	11.5	1.00	1.96	50	392	200	4520

soil water

ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.
R/L = Reporting Limit

Laboratory Representative

07/20/99
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Brian West
West & Associates
P.O. Box 5891
Vacaville, CA 95696
Project: Weyerhaeuser, Alameda
Method: EPA 8240/624 by 8260

Date Sampled: 07/16/99
Date Received: 07/19/99
Date Analyzed: 07/19/99
Matrix: Soil/ Water
Units: mg/kg (soil)
µg/L (water)

Client Sample I.D.	B9-8		B10-8		B-9		B-10	
LAB. NO.	S0799209		S0799210		W0799211		W0799212	
ANALYTE	R/L	Results	R/L	Results	R/L	Results	R/L	Results
Dichlorodifluoromethane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Chloromethane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Vinyl Chloride	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Bromomethane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Chloroethane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Trichlorofluoromethane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Acetone	0.005	ND	0.005	ND	0.5	ND	0.5	ND
1,1-Dichloroethene	0.005	ND	0.005	ND	0.5	0.6	0.5	ND
Methylene Chloride	0.015	ND	0.015	ND	5.0	ND	5.0	ND
Carbon disulfide	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Trans-1,2-Dichloroethene	0.005	ND	0.005	ND	0.5	ND	0.5	ND
1,1-Dichloroethane	0.005	ND	0.005	ND	0.5	34.7	0.5	6.1
Chloroform	0.005	ND	0.005	ND	0.5	ND	0.5	ND
1,2-Dichloroethane	0.005	ND	0.005	ND	0.5	3.2	0.5	ND
Iodomethane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Dibromochloromethane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
1,1,1-Trichloroethane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Carbon tetrachloride	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Benzene	0.005	0.005	0.005	ND	0.5	3.8	0.5	13.7
Trichloroethene	0.005	ND	0.005	ND	0.5	2.2	0.5	ND
1,2-Dichloropropane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
2-Butanone	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Bromodichloromethane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Cis-1,3-dichloropropene	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Trans-1,3-dichloropropene	0.005	ND	0.005	ND	0.5	ND	0.5	ND
1,1,2-Trichloroethane	0.005	ND	0.005	ND	0.5	1.7	0.5	ND
Toluene	0.005	ND	0.005	ND	0.5	ND	0.5	3.8
Tetrachloroethene	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Chlorobenzene	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Ethylbenzene	0.005	0.071	0.005	0.049	0.5	1.2	0.5	22.3
M+P-xylene	0.005	0.009	0.005	ND	0.5	ND	0.5	3.0

soil water

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Brian West
West & Associates
P.O. Box 5851
Vacaville, CA 95696
Project: Weyerhaeuser, Alameda
Method: EPA 8240/624 by 8260

Date Sampled: 07/16/99
Date Received: 07/19/99
Date Analyzed: 07/19/99
Matrix: Soil/ Water
Units: mg/kg (soil)
µg/L (water)

Client Sample I.D.	B9-8		B10-8		B-9		B-10	
LAB. NO.	S0799209		S0799210		W0799211		W0799212	
ANALYTE	R/L	Results	R/L	Results	R/L	Results	R/L	Results
O-xylene	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Styrene	0.005	ND	0.005	ND	0.5	ND	0.5	ND
Bromoform	0.005	ND	0.005	ND	0.5	ND	0.5	ND
1,1,2,2-Tetrachloroethane	0.005	ND	0.005	ND	0.5	ND	0.5	ND
1,3-Dichlorobenzene	0.005	ND	0.005	ND	0.5	ND	0.5	ND
1,4-Dichlorobenzene	0.005	ND	0.005	ND	0.5	ND	0.5	ND
1,2-Dichlorobenzene	0.005	ND	0.005	ND	0.5	ND	0.5	ND
SURROGATE %RECOVERY								
Dibromofluoromethane	106		94		111		104	
Toluene-d8	98		96		96		97	
4-Bromofluorobenzene	99		96		89		94	

QA/QC %RECOVERY (SOIL)			
	LCS	LCSD	Date Analyzed
1,1-Dichloroethene	101	101	07/19/99
Benzene	99	97	07/19/99
Trichloroethene	99	102	07/19/99
Toluene	94	93	07/19/99
Chlorobenzene	96	94	07/19/99

QA/QC %RECOVERY (WATER)			
	LCS	LCSD	Date Analyzed
1,1-Dichloroethene	100	97	07/16/99
Benzene	99	94	07/16/99
Trichloroethene	98	97	07/16/99
Toluene	92	90	07/16/99
Chlorobenzene	95	94	07/16/99

ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.
R/L = Reporting Limit

Laboratory Representative

07/20/99
Date Reported

~~TABLE 4-3~~

PETROLEUM CONTAMINATION ANALYSES - SOIL
All Values in mg/Kg

SAMPLE ID	OIL & GREASE	TPH (diesel)	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
B-1, 5'	ND	ND	ND	ND	0.011	ND	ND
B-1, 10'	ND	ND	ND	ND	ND	ND	ND
B-2, 5'	ND	ND	ND	ND	ND	ND	ND
B-2, 10'	ND	ND	ND	ND	0.09	ND	ND
B-3, 5'	ND	ND	ND	ND	ND	ND	ND
B-3, 11.5'	ND	ND	ND	ND	ND	ND	ND
B-4, 5.5'	ND	ND[1]	ND	ND	ND	1.2	ND
MW-8, 7'	ND	ND	ND	ND	ND	ND	ND
MW-9, 5'	ND	ND	ND	ND	ND	ND	ND
MW-9, 9'	ND	ND	ND	0.017	ND	ND	0.099
MW-10, 5'	ND	ND	ND	ND	ND	ND	ND
MW-10, 9'	ND	ND	ND	ND	ND	ND	ND
MW-10b,7.5'	ND	ND	ND	ND	ND	ND	ND
MW-10b,11.5'	ND	ND	ND	ND	ND	ND	ND
MW-11, 6'	50	ND	ND	ND	ND	ND	ND
MW-11, 11'	ND	ND	ND	ND	ND	ND	ND
MW-12, 8'	NA	NA	ND	ND	ND	ND	ND
MW-12, 12'	NA	NA	ND	ND	ND	ND	ND
NORTH END WALL	50	ND	ND	ND	ND	ND	ND

ND: Not Detected, Minimum detection limits for each compound listed on original laboratory report forms

[1] Heavier molecular weight hydrocarbon compounds were detected

~~TABLE 4-6~~

METALS ANALYSIS - SOIL
JANUARY 1994
all values in mg/KG

METAL	B-4, 5.5'	MW-8, 7'	MW-9, 5'	MW-9, 9'	MW-10, 5'	MW-10, 9'	NORTH END WALL
CADMIUM	ND	ND	ND	ND	ND	ND	ND
CHROMIUM	23	21	24	24	19	26	21
LEAD	8	6	4	6	8	6	6
NICKEL	28	27	16	24	10	28	22
ZINC	17	60	25	21	21	30	16

NOTES:

ND: Not Detected, minimum detection limits for each metal listed on original laboratory report forms

Removed in 1995

WEYERHAEUSER - ALAMEDA
PETROLEUM CONTAMINATION ANALYSES - GROUNDWATER
MW-1
All Values in PPM

DATE	OIL & GREASE	TPH (diesel)	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
12/91	NA	ND	ND	NA	ND	ND	ND
4/92	ND	ND	0.15	0.0015	0.0012	0.002	0.0018
7/92	0.006 ~~0.6~~	ND	0.31	0.002	0.0018	0.0045	0.0012
1/93	0.8	ND	0.14	0.006	0.0012	0.0022	0.0006
4/93	1.6	1.3	ND	ND	ND	ND	ND
7/93	0.7	0.14	ND	ND	ND	ND	ND
2/94	ND	ND	ND	0.0015	ND	ND	ND
6/94	NA	ND	0.05	ND	ND	ND	ND
12/94	NA	NA	0.093	ND	ND	ND	ND
3/95	NA	NA	ND	0.00062	ND	ND	ND
9/95	NA	NA	ND	ND	ND	ND	ND

NOTES

ND: Not Detected, Minimum detection limits for each compound listed on original laboratory report forms

A summary of historic organic volatile contaminant concentrations in groundwater is presented in Table 4.

A summary of historic naphthalene contaminant concentrations in groundwater is presented in Table 5.

~~TABLE 3~~

SUMMARY OF PETROLEUM CONTAMINATION ANALYSES removed in 1995
All Values in ug/l

MONITORING WELL MW-2

DATE	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
12/23/91	2,300	720	66	240	1.5
4/27/92	1,100	9.4	5.3	24	2
7/31/92	1,500	3.3	5.3	26	10
1/8/93	70	ND	ND	1.4	0.5
4/6/93	ND	ND	ND	ND	ND
7/12/93	1,600	1.4	2.3	8.2	2.5
2/94	200	390	25	50	7.1
6/94	1,300	370	44	170	100
12/94	3,400	1,100	86	190	28
3/7/95	6,500	2,300	240	310	120
9/26/95	440	140	26	46	52

Removed in 1995

~~TABLE 3~~ CONTINUED - MONITORING WELL MW-3
All Values in ug/l

DATE	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
12/23/91	14,000	3,000	540	1,200	370
4/27/92	9,400	57	50	220	4.6
7/31/92	1,400	1.9	5.1	23	8.3
1/8/93	15,000	38	40	140	64
4/6/93	21,000	62	76	200	84
7/12/93	22,000	22	41	120	42
2/94	5,400	3,900	680	840	390
6/94	23,000	8,500	1,700	3,800	1,600
12/94	41,000	9,900	2,900	3,500	1,400
3/7/95	42,000	9,900	3,000	4,100	1,600
9/26/95	24,000	5,300	1,200	2,200	940

~~TABLE 3~~ CONTINUED - MONITORING WELL MW-3B
All Values in ug/l

DATE	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
2/7/96	19,000	2,100	380	1,200	480
6/5/96	11,000	1,300	250	860	370
9/4/96	6,000	840	98	410	140
11/21/96	5,500	440	31	140	50
2/13/97	12,000	1,000	210	690	120
6/6/97	2,030	293	14	11	23
9/5/97	2,140	33.7	31.6	108	28.1
12/3/97	1,200	95.0	ND	6.0	ND
2/20/98	2,370	176	10.9	20.9	22.5
5/15/98	3,160	170	ND	34.2	65.4
8/13/98	1,700	99.3	ND	13.9	51.9

~~TABLE 3~~ CONTINUED - MONITORING WELL MW-4 Removed in 1995
All Values in ug/l

DATE	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
4/27/92	790	7.7	2.6	11	2
7/31/92	1,300	6.1	4.3	21	7.3
1/8/93	860	1.5	4.5	17	9.6
4/6/93	2,500	5.2	6.3	17	11
7/12/93	2,000	1.8	3.8	11	3.9
2/94	1,000	54	2.7	4.7	1.4
6/94	460	46	0.8	8.4	1.1
12/94	2,400	200	7.5	28	7.5
3/7/95	3,800	360	14	49	33
9/26/95	2,900	90	ND	5.7	8.9

~~TABLE 3~~ CONTINUED - MONITORING WELL MW-4B
All Values in ug/l

DATE	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
2/7/96	520	3	2.4	1.0	1.6
6/5/96	350	ND	ND	ND	1.6
9/4/96	71	3.3	ND	0.70	1.8
11/21/96	170	1.5	ND	ND	1.0
2/13/97	220	ND	ND	ND	ND
6/6/97	177	3.5	4.3	6.7	1.0
9/5/97	156	2.1	ND	0.9	ND
12/3/97	ND	ND	ND	ND	ND
2/20/98	77.5	ND	ND	ND	ND
5/15/98	ND	ND	ND	ND	ND
8/13/98	65	ND	ND	ND	ND

~~TABLE 2~~ CONTINUED - MONITORING WELL MW-5
All Values in ug/l

DATE	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
4/27/92	ND	ND	ND	ND	ND
7/31/92	ND	ND	ND	ND	ND
1/8/93	ND	ND	ND	ND	ND
4/6/93	ND	ND	ND	ND	ND
7/12/93	0.27	ND	ND	1.4	0.6
2/94	ND	1.8	ND	ND	ND
6/94	ND	1.0	ND	ND	ND
12/94	93	3.0	0.9	3.0	0.8
3/7/95	79	2.9	ND	ND	ND
9/26/95	67	ND	ND	ND	ND
2/7/96	120	7	ND	ND	ND
6/5/96	100	ND	ND	ND	ND
9/4/96	ND	2.4	ND	ND	ND
11/21/96	62	ND	ND	ND	ND
2/13/97	26	0.58	ND	ND	ND
6/6/97	ND	0.7	ND	0.5	ND
9/5/97	ND	1.2	ND	ND	ND
12/3/97	ND	0.9	ND	ND	ND
2/20/98	ND	ND	ND	ND	ND
5/15/98	ND	ND	ND	ND	ND
8/13/98	ND	ND	ND	ND	ND

~~TABLE 3~~ CONTINUED - MONITORING WELL MW-6
All Values in ug/l

DATE	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
4/27/92	ND	ND	ND	ND	ND
7/31/92	ND	ND	ND	ND	ND
1/8/93	ND	ND	ND	ND	ND
4/6/93	ND	ND	ND	ND	ND
7/12/93	NA	NA	NA	NA	NA
2/94	ND	2.6	ND	ND	ND
6/94	ND	2.2	ND	ND	ND
12/94	ND	1.3	ND	ND	ND
3/7/95	72	2.5	ND	ND	ND
9/26/95	ND	ND	ND	ND	ND
2/7/96	60	0.84	ND	ND	ND
6/5/96	45	1.2	ND	ND	ND
9/4/96	40	0.80	ND	ND	ND
11/21/96	ND	ND	ND	ND	ND
2/13/97	25	0.54	ND	ND	ND
6/6/97	ND	0.5	ND	ND	ND
9/5/97	ND	ND	ND	ND	ND
12/3/97	ND	ND	ND	ND	ND
2/20/98	ND	ND	ND	ND	ND
5/15/98	ND	ND	ND	ND	ND
8/13/98	ND	ND	ND	ND	ND

~~TABLE 3~~ CONTINUED - MONITORING WELL MW-7
All Values in ug/l

DATE	TPH diesel	TPH gas	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
1/8/93	ND	NA	ND	ND	ND	ND
4/6/93	190	NA	ND	ND	ND	ND
7/12/93	80	NA	ND	ND	ND	ND
2/94	ND	ND	ND	ND	ND	ND
6/94	ND	ND	ND	ND	ND	ND
12/94	3.9	ND	ND	ND	ND	ND
3/7/95	1,400	NA	NA	NA	NA	NA
9/26/95	1,100	NA	NA	NA	NA	NA
2/7/96	1,200	NA	NA	NA	NA	NA
6/5/96	1,100	NA	NA	NA	NA	NA
9/4/96	ND	NA	NA	NA	NA	NA
11/21/96	2.2	NA	NA	NA	NA	NA
2/13/97	3.8	NA	NA	NA	NA	NA
6/6/97	318	NA	NA	NA	NA	NA
9/5/97	412	NA	NA	NA	NA	NA
12/3/97	382	NA	NA	NA	NA	NA
2/20/98	650	NA	NA	NA	NA	NA
5/15/98	1,290	NA	NA	NA	NA	NA
8/13/98	195	NA	NA	NA	NA	NA

~~TABLE 3~~ CONTINUED - MONITORING WELL MW-9 Removed in 1995

All Values in ug/l

DATE	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
2/94	1,900	63	4.3	14	22
6/94	5,300	150	20	110	380
12/94	12,000	600	20	55	120
3/7/95	9,900	820	22	78	230
9/26/95	5,900	340	ND	20	53

ABBREVIATIONS

ug/l: Micrograms per liter
ND: Not Detected (See Appendix for minimum detection limits)
NA: Not Analyzed
TPH: Total Petroleum Hydrocarbons

~~TABLE 4~~ - SUMMARY OF VOLATILE ORGANIC ANALYSES RESULTS
All Values in ug/l

MONITORING WELL MW-3

DATE	VINYL CHLORIDE	1,1-DICHLORO-ETHANE	1,2-DICHLORO-ETHANE	CARBON DISULFIDE
2/94	ND	130	95	120
3/7/95	81	110	150	ND
9/26/95	ND	100	ND	ND

~~TABLE 4~~ CONTINUED - MONITORING WELL MW-3B
All Values in ug/l

DATE	VINYL CHLORIDE	1,1-DICHLORO-ETHANE	1,2-DICHLORO-ETHANE	TRICHLORO-ETHENE	1,1,2-TRICHLORO-ETHANE
2/7/96	ND	ND	ND	ND	ND
9/4/96	ND	30	5.0	ND	ND
2/13/97	ND	21	33	ND	60
9/5/97	ND	21.4	ND	ND	ND
2/20/98	2.6	21.6	6.1	ND	ND
8/13/98	ND	37.4	ND	ND	ND

~~TABLE 4~~ CONTINUED - MONITORING WELL MW-4
All Values in ug/l

DATE	1,1-DICHLORO-ETHANE	1,2-DICHLORO-EHTANE	TRICHLORO ETHENE	CARBON DISULFIDE	CHLORO-ETHANE
2/94	22	18	2.1	4.7	1.9
3/7/95	11	15	ND	ND	ND
9/26/95	10	6.6	ND	ND	ND

~~TABLE 4~~ CONTINUED - MONITORING WELL MW-4B
All Values in ug/l

DATE	1,1-DICHLORO-ETHANE	1,2-DICHLORO-EHTANE	TETRACHLORO-ETHENE	TRICHLORO-ETHENE
2/7/96	7.4	6.2	ND	ND
9/4/96	15	13	ND	1.2
2/13/97	12	10	1.8	1.48
9/5/97	9.3	6.3	0.6	ND
2/20/98	4.1	2.8	0.9	0.6
8/13/98	ND	2.5	1.3	0.7

~~TABLE 4~~ CONTINUED - MONITORING WELL MW-5
All Values in ug/l

DATE	1,1-DICHLORO-EHTANE	1,2-DICHCLORO-ETHANE	1,1-DICHLORO-ETHENE	TETRA-CHLORO-ETHENE	TRICHLORO-ETHENE
2/94	11	ND	ND	1.1	ND
3/7/95	24	ND	ND	ND	ND
9/26/95	31	ND	ND	ND	ND
2/7/96	31	ND	ND	ND	ND
9/4/96	28	2.5	1.1	3.5	1.4
2/13/97	17	1.4	ND	1.1	ND
9/5/97	19.5	1.5	ND	0.6	0.7
2/20/98	11.5	0.8	ND	ND	ND
8/13/98	7.6	0.5	ND	ND	ND

~~TABLE 4~~ CONTINUED - MONITORING WELL MW-6
All Values in ug/l

DATE	1,1-DICHLORO-EHTANE	1,2-DICHLORO-ETHANE	TETRA-CHLORO-ETHENE	TRICHLORO ETHENE	1,2-DICHLORO-ETHENE
2/94	2.6	1.1	1.3	ND	2.1
3/7/95	9.4	ND	ND	ND	ND
9/26/95	12	ND	ND	ND	ND
2/7/96	7.6	ND	ND	ND	ND
9/4/96	16	5.4	1.5	2.0	ND
2/13/97	16	4.1	1.6	1.7	ND
9/5/97	10.9	2.7	0.7	0.9	ND
2/20/98	6.8	1.0	1.0	ND	NA
8/13/98	4.1	0.6	ND	ND	NA

~~TABLE 4~~ CONTINUED - MONITORING WELL MW-9
All Values in ug/l

DATE	1,1-DICHLORO-EHTANE	1,2-DICHLORO-EHTANE
3/7/95	12	14
9/26/95	8.7	ND

~~TABLE 4~~ CONTINUED - MONITORING WELL MW-12
All Values in ug/l

DATE	1,1-DICHLOROETHANE	1,2-DICHLOROEHTANE	TETRACHLOROETHENE
3/7/95	11	ND	ND
9/26/95	9.6	ND	ND
9/4/96	2.4	ND	ND
2/13/97	ND	3.2	4.3
9/5/97	2.2	ND	ND
2/20/98	1.4	ND	ND
8/13/98	ND	ND	ND

ABBREVIATIONS
ug/l: Micrograms per liter
ND: Not Detected (See Appendix for minimum detection limits)

~~TABLE 5~~
SUMMARY OF SEMI-VOLATILE ORGANIC ANALYSES RESULTS
All Values in ug/l

MONITORING WELL MW-2

DATE	NAPHTHALENE
2/94	19
3/7/95	2.4
9/26/95	ND

~~TABLE 5~~ CONTINUED - MONITORING WELL MW-3
All Values in ug/l

DATE	NAPHTHALENE	METHYLNAPHTHALENE
2/94	19	45
3/7/95	120	ND
9/26/95	310	ND

~~TABLE 5~~ CONTINUED - MONITORING WELL MW-3B
All Values in ug/l

DATE	NAPHTHALENE
2/7/96	130
9/4/96	100
2/13/97	260
9/5/97	ND
8/13/98	ND

ABBREVIATIONS
ug/l: Micrograms per liter
ND: Not Detected (See Appendix for minimum detection limits)

4.0 HYDROLOGIC MONITORING

Depth to groundwater (DTGW) was measured in all eight of the WPC Alameda monitoring wells on August 13, 1998 this quarter. DTGW was measured using a Solinst electronic sounding meter. Measurement accuracy was +/- 0.01 feet.

Table 6 presents depth to groundwater measurements (DTGW) and groundwater elevations (GW) as measured on August 13, 1998. The change in groundwater elevation in each well relative to the most recent previous measurement (May 15, 1998) is also indicated in Table 6.

Figure 4 illustrates groundwater contours under the site extrapolated from the August 13, 1998 groundwater elevation data. The groundwater gradient direction measured this quarter was toward the northwest. This groundwater gradient direction is consistent with previous groundwater gradient observations at the WPC site.

4.1 Conclusions

Groundwater elevations were lower in all monitoring wells this quarter as compared to last quarter. The decrease in groundwater elevations this quarter, relative to last quarter, is consistent with the historical fluctuations observed previously at the site. The groundwater gradient direction was measured to be toward the northwest this quarter, which is within the range of previous recordings.

TABLE
PETROLEUM CONTAMINATION ANALYSES - GROUNDWATER
FEBRUARY 1994
All Values in ug/l

WELL ID	OIL & GREASE	TPH (diesel)	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
MW-1	ND	ND	ND	1.5	ND	ND	ND
MW-2	ND	ND	200	390	25	50	7.1
MW-3	ND	ND	5400	3900	680	840	390
MW-4	ND	ND	1000	54	2.7	4.7	1.4
MW-5	ND	ND	ND	1.8	ND	ND	ND
MW-6	ND	ND	ND	2.6	ND	ND	ND
MW-7	ND	ND	ND	ND	ND	ND	ND
MW-9	ND	ND	1,900	63	4.3	14	22
MW-10	ND	ND	ND	ND	ND	ND	ND
MW-11	ND	ND	ND	ND	ND	ND	ND
QC	ND	ND	ND	ND	ND	ND	ND

NOTES

ND: Not Detected, Minimum detection limits for each compound listed on original laboratory report forms

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Brennan Mahoney	Date Sampled:	06-06-97
	West & Associates	Date Received:	06-09-97
	490 Merchant St, Ste 104	MTBE Analyzed:	06-16-97
	Vacaville, CA 95688	BTEX Analyzed:	06-16-97
		TPHg Analyzed:	06-16-97
Project :	WPC Alameda	Matrix:	Water

	MTBE PPB	Benzene PPB	Toluene PPB	Ethyl-benzene PPB	Total Xylenes PPB	TPHg PPB
Reporting Limit:	100	10	10	10	10	1000
SAMPLE Laboratory Identification:						
MW-3B W0697079	ND	293	14	23	33	2030

PPB= Parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

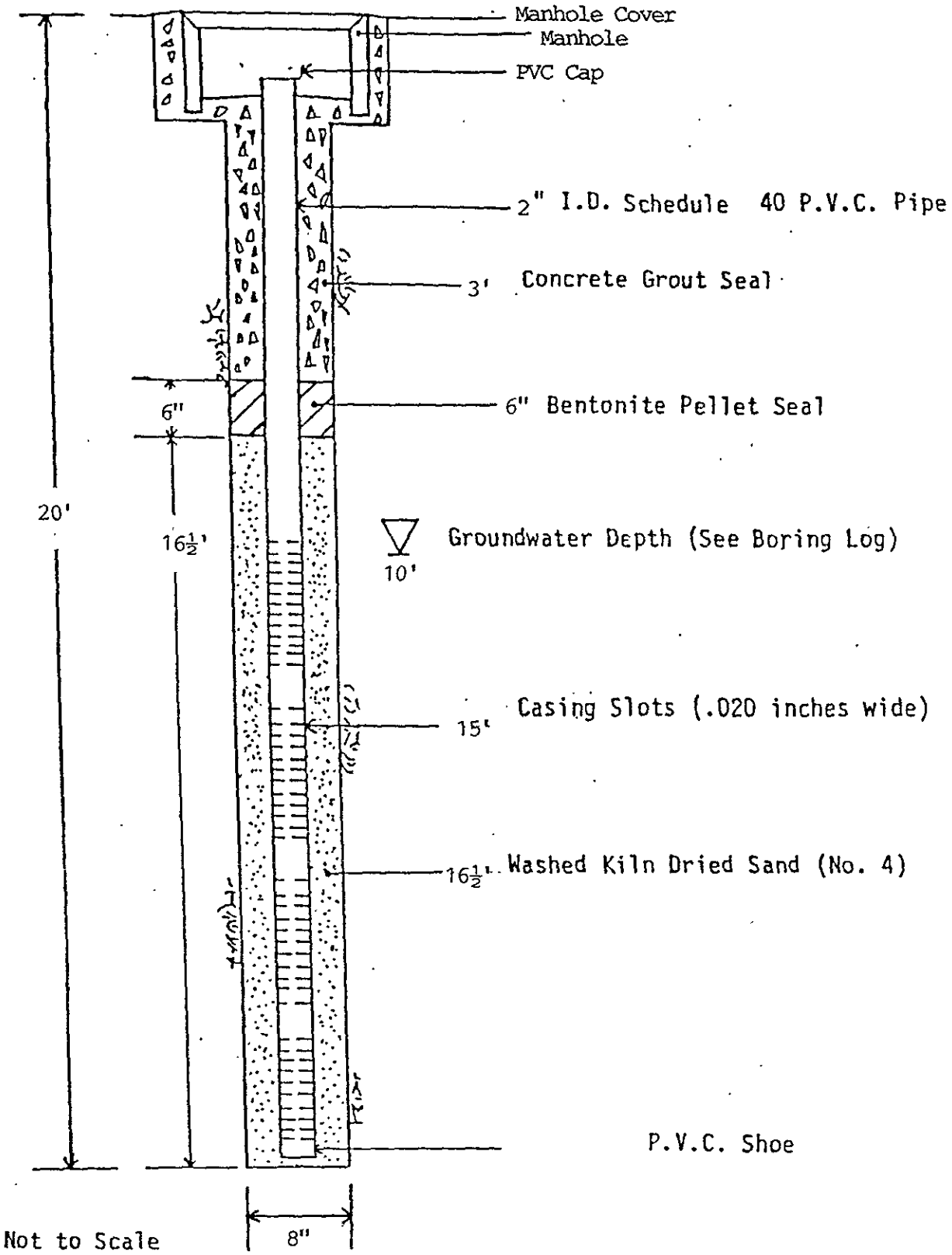
MTBE (Methyl Tert-Butyl Ether)--MTBE is analyzed by EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).

BTEX-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).

TPHg--Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.

Laboratory Representative

06-19-97
Date Reported



STMW-1

Piezometer Schematic

File No. 10-91-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. STMW-1
Date Drilled: 12/3/91	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L	Sampling Method	

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/6"	Unified Soil Classification:	DESCRIPTION
1					4-inch asphalt, 4-inch light brown baserock. Dark brown-black silty fine sandy clay, damp.
2					
3	STMW-1-3			CL	Medium brown-olive sandy clay, damp.
4					
5					Medium brown-olive sandy clay, damp.
6					
7	STMW-1-7			CL	Color changes to light brown-olive fine sandy clay, damp.
8					Light brown sandy clay, damp.
9					
10					▽ First groundwater encountered at 10 feet.
11					
12					
13					Light brown fine sandy clay, wet.
14					
15					
16					

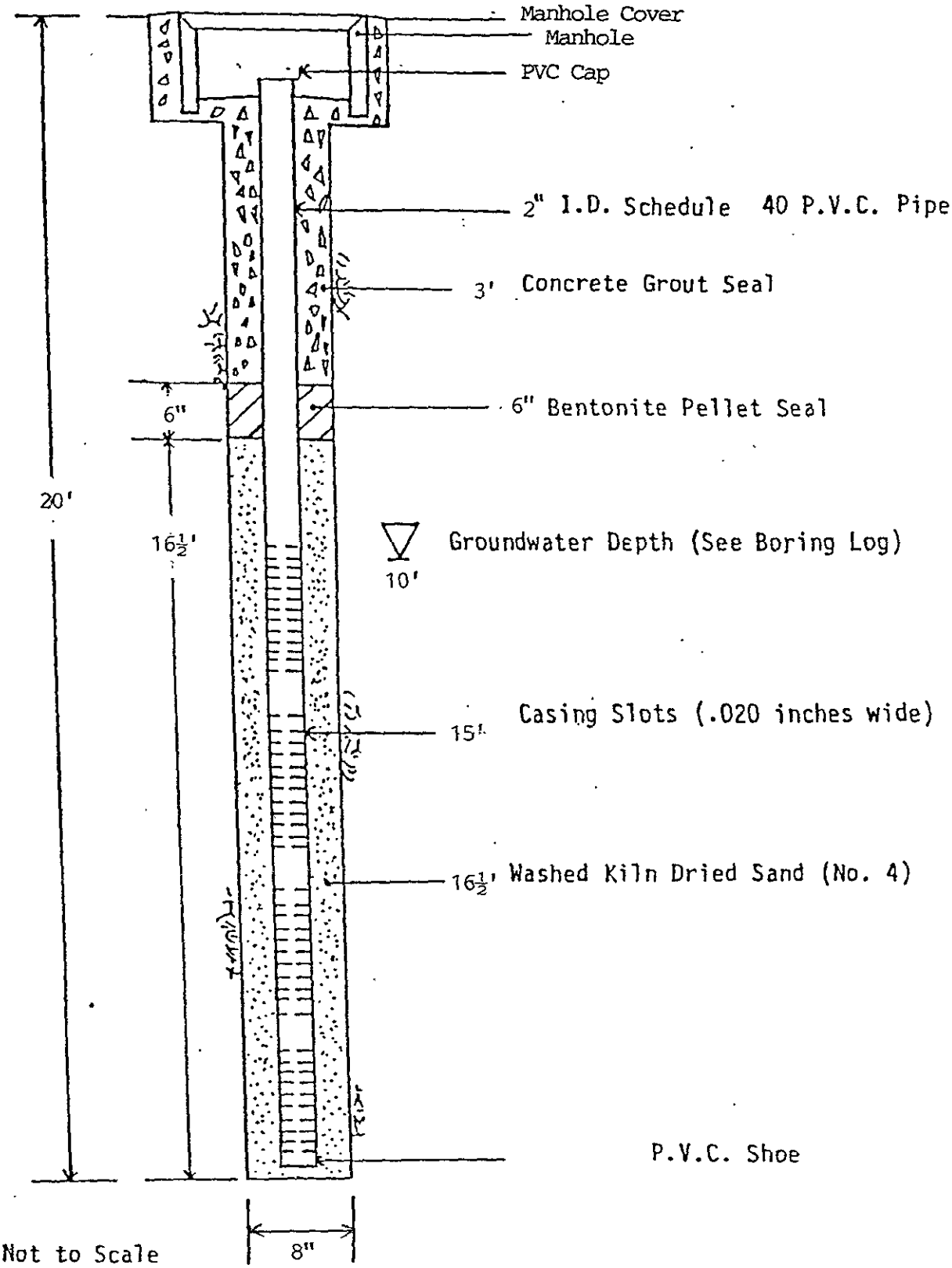
Remarks

File No. 10-91-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. STMW-1
Date Drilled: 12/3/91	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17					Light brown fine sandy clay, wet.
18					
19					
20					Boring terminated at 20 feet.
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

Remarks



STMW-2

Piezometer Schematic

F&S No. 10-91-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. STMW-2
Date Drilled: 12/3/91	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L	Sampling Method	

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/6"	Unified Soil Classification	DESCRIPTION
1					3-inch asphalt, 4-inch light brown baserock. Dark brown-black silty fine sandy clay, damp, light petroleum odor.
2					
3	STMW-2-3			CL	Dark brown sandy clay, damp.
4					
5					Color changes to lighter brown-olive sandy clay.
6					
7	STMW-2-7			CL	Medium brown-olive sandy clay, damp.
8					
9					
10					▽ First groundwater encountered at 10 feet. Light brown fine sandy clay, moist.
11					
12					
13					Light brown fine sandy clay, wet.
14					
15					Light petroleum odor.
16					

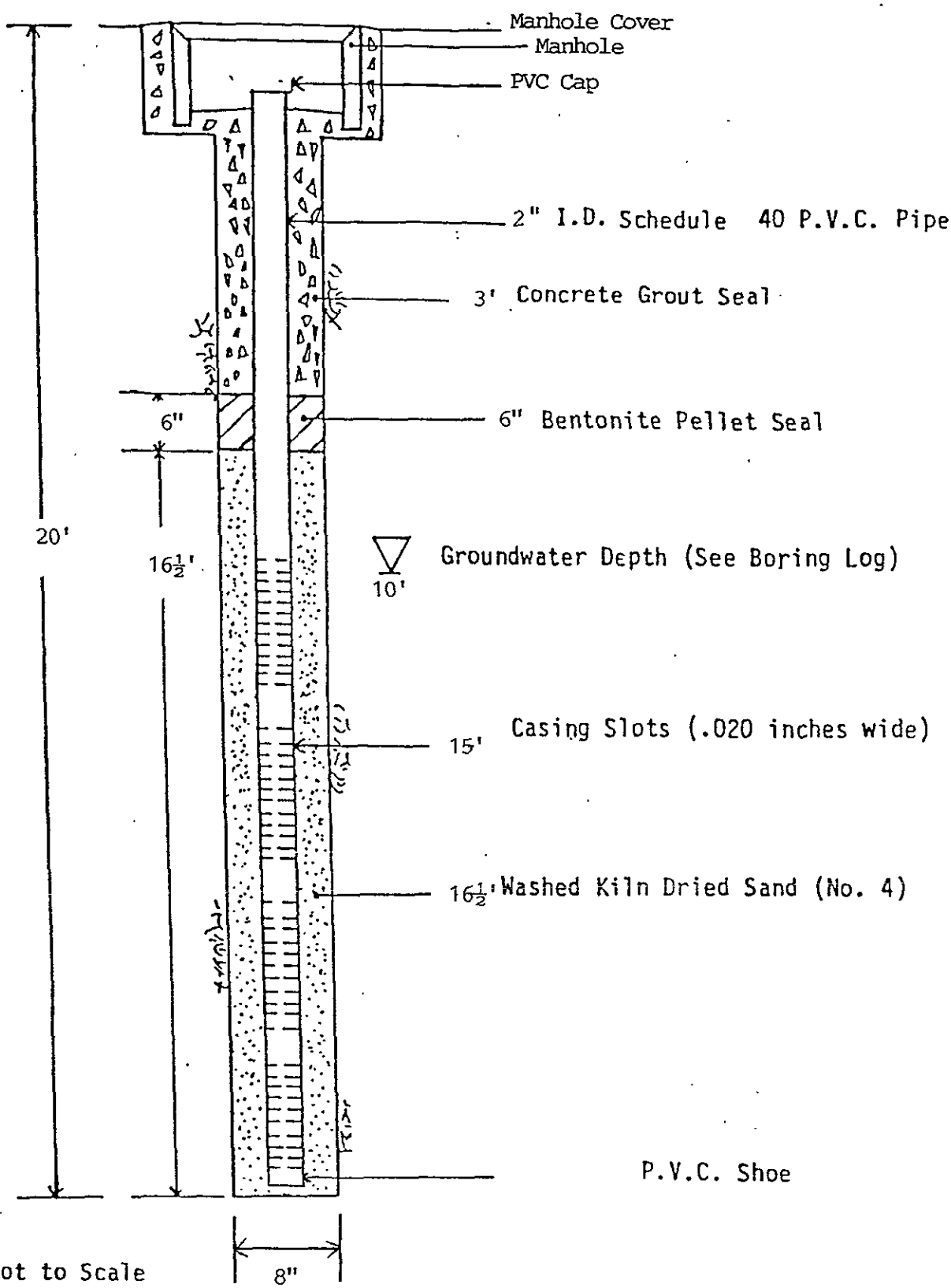
Remarks

File No. 10-91-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. STMW-2
Date Drilled: 12/3/91	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17					Light petroleum odor.
18					
19					
20					Boring terminated at 20 feet.
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

Remarks



STMW-3

Piezometer Schematic

File No. 10-91-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. STMW-3
Date Drilled: 12/4/91	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/6"	Unified Soil Classification:	DESCRIPTION
1					6-inch concrete, 4-inch medium brown baserock. Light petroleum odor.
2					Dark brown-black silty fine sandy clay, damp, light petroleum odor.
3	STMW-3-3			CL	Medium grey-olive sandy silty clay, light petroleum odor, damp.
4					
5					
6					
7	STMW-3-7			CL	Medium grey-olive sandy silty clay, light petroleum odor.
8					
9					
10					▽ First groundwater encountered at 10 feet. Color changes to light brown sandy silty clay, moist, light petroleum odor.
11					
12					
13					
14					Light brown fine sandy clay, wet.
15					
16					

Remarks

F[redacted] 10-91-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. STMW-3
Date Drilled. 12/4/91	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17					Light brown fine sandy clay, wet.
18					
19					
20					Boring terminated at 20 feet.
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

Remarks

WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville CA 95696

Project: Weyerhaeuser Paper Company, Alameda	Job No.: 70632.20
Location: 1801 Hibbard Str., Alameda 94501	Date: Jan. 1996
Boring Designation: MW-3B	Driller: Exploration Geoservices
Logged by: BWW	Base: San Jose
Boring Location: Inside machine shop	Drill Equipment: Mobile B-51
Soils Classification System: USCS	Diameter & Type Well Casing: 10" HSA; 2" dia. Schedule 40 PVC
Sample type: BRASS TUBE - SPLIT SPOON	
Soil Matrix: YES	Elevation & Datum: NYS
Date Started: 12-15-95 Finished: 12-15-95	Completion Depth: 16 feet BGS
Number of Samples: None	Depth to Groundwater: 11-12 feet BGS

Depth (feet)	Date Time	Sample Number	Lithology	Observations	Well Construction
0	12/15 7:00A	MW3B		New Concrete Basecourse	Traffic cover & locking cap; Concrete
5			SP	Poorly graded sand medium grained dry clay stringers	Bentonite grout; Bentonite Seal; PVC Blank
10			SP	Gasoline odor stained	2" dia PVC
15	8:30A		SP	water dripping from sampler	0.020" slot well screen; Monterey No. 3 sand
		EOB			Bottom plug
20					
25					
30					
35					
40					

WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville CA 95696

Project: Weyerhaeuser Paper Company, Alameda	Job No.: 70632.20
Location: 1801 Hibbard Str., Alameda 94501	Date: Jan. 1996
Boring Designation: MW-4B	Driller: Exploration Geoservices
Logged by: BWW	Base: San Jose
Boring Location: Inside machine shop	Drill Equipment: Mobile B-51
Soils Classification System: USCS	Diameter & Type Well Casing: 10" HSA; 2" dia. Schedule 40 PVC
Sample type: BRASS TUBE - SPLIT SPOON	
Soil Matrix: YES	Elevation & Datum: NYS
Date Started: 12-15-95 Finished: 12-15-95	Completion Depth: 16 feet BGS
Number of Samples: One	Depth to Groundwater: 11-12 feet BGS

Depth (feet)	Date Time	Sample Number	Lithology	Observations	Well Construction
0	12/15 9:15A	MW4B	SP	New Concrete Basecourse	Traffic cover & locking cap; Concrete
5		WPC	SP	Poorly graded sand medium grained dry clay stringers	Bentonite grout; Bentonite Seal; PVC Blank
10	10:30A		SP	clean - no odor or stain; water dripping from sampler	2" dia PVC; 0.020" slot well screen; Monterey No. 3 sand
15		EOB			Bottom plug
20					
25					
30					
35					
40					

File No. 10-92-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. STMW-5
Date Drilled: 4/10/92	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft	Unified Soil Classification	DESCRIPTION
1					4-inch asphalt, 4-inch very dark grey baserock. Munsell Color: HUE 10YR 3/1
2					Black silty clay, damp, stiff. Munsell Color: HUE 5Y 2.5/1
3					Color changes to dark brown silty fine sandy clay, damp. Munsell Color: HUE 10YR 3/3
4					
5	STMW-5-5			CL	Dark brown silty fine sandy clay, damp, stiff. Munsell Color: HUE 10YR 3/3
6					
7					
8					Color is getting lighter to brown silty fine sandy clay, damp. Munsell Color: HUE 10YR 4/3
9					
10					
11					▽ First groundwater encountered at 11 feet.
12					Color is getting lighter to dark yellowish-brown silty fine sandy clay, damp. Munsell Color: HUE 10YR 4/4
13					
14					
15					
16					

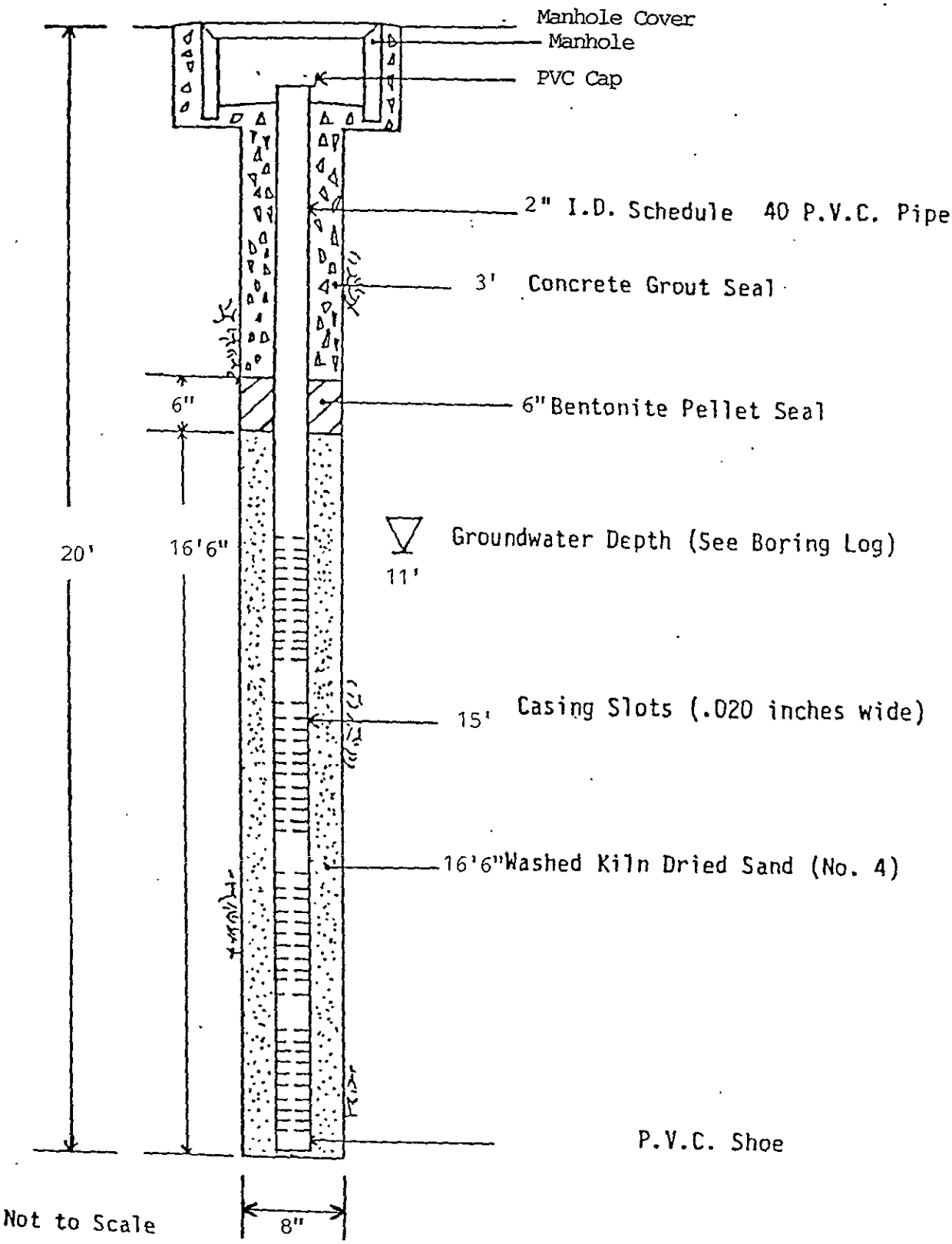
Remarks

File No. 10-91-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. SIMW-5
Date Drilled: 4/10/92	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17					Color is getting lighter to dark yellowish-brown silty fine sandy clay, damp. Munsell Color: HUE 10YR 4/4
18					
19					
20					Boring terminated at 20 feet.
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

Remarks



STMW-5

Piezometer Schematic

File No. 10-91-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. STMW-6
Date Drilled. 4/10/92	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17					Color is getting lighter to dark yellowish-brown silty fine sand, moist. Munsell Color: HUE 10YR 4/4
18					
19					
20					Boring terminated at 20 feet.
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

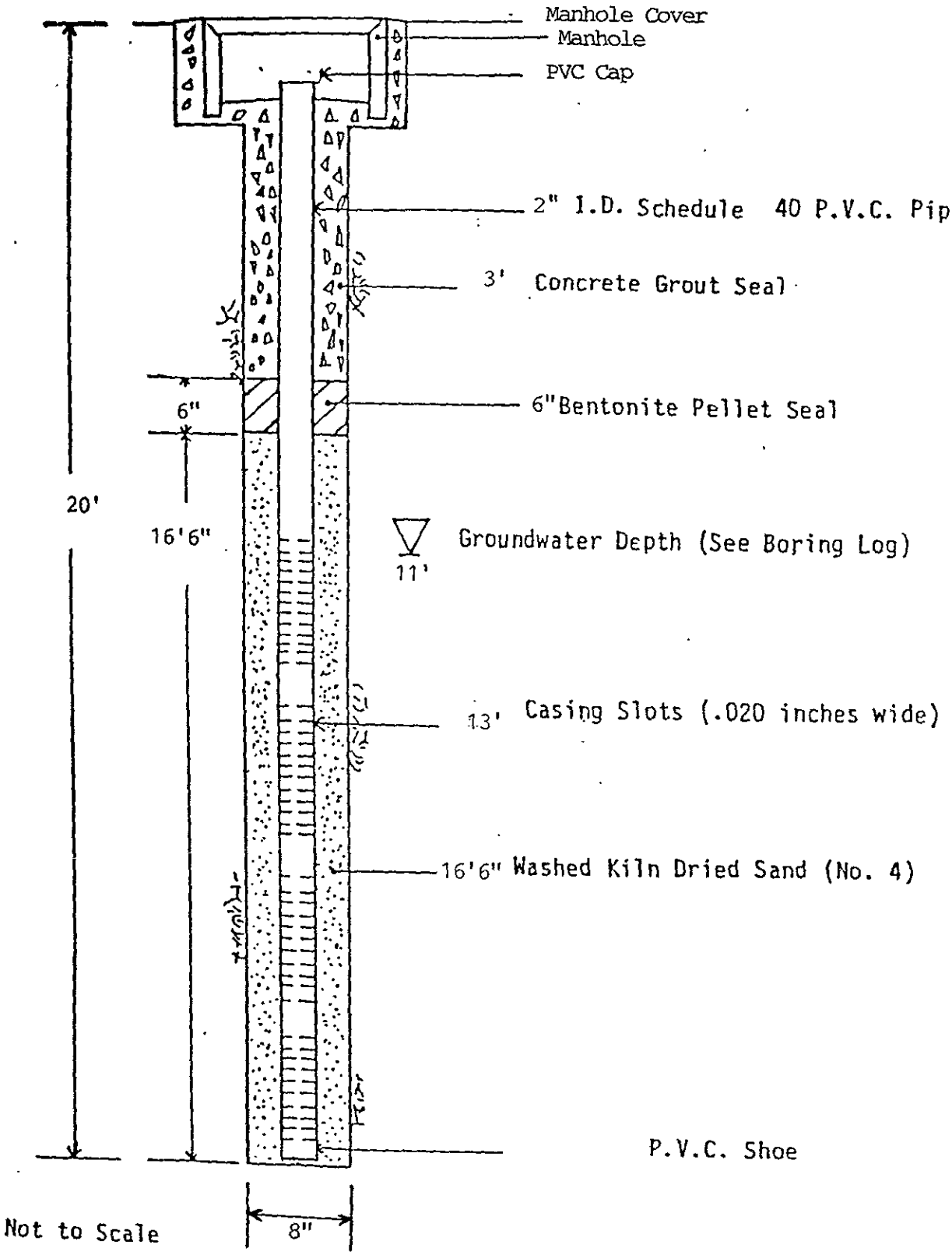
Remarks

File No. 10-91-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. STMW-6
Date Drilled: 4/10/92	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft	Unified Soil Classification	DESCRIPTION
1					4-inch asphalt, 4-inch very dark grey baserock. Munsell Color: HUE 10YR 3/1
2					Black silty clay, damp, stiff. Munsell Color: HUE 5Y 2.5/1
3					Color changes to dark brown silty fine sandy clay, moist, stiff. Munsell Color: HUE 10YR 3/3
4					
5	STMW-6-5			CL	Dark brown silty fine sandy clay, moist, stiff. Munsell Color: HUE 10YR 3/3
6					
7					
8					Color is getting lighter to dark yellowish-brown silty fine sand, moist. Munsell Color: HUE 10YR 4/4
9					
10					
11					▽ First groundwater encountered at 11 feet.
12					
13					
14					
15					
16					

Remarks



SIMW-6

Piezometer Schematic

10-91-483-MW

d By. Noori Ameli	Exploratory Boring Log	Boring No. STMW-7
e Drilled. 12/22/92	Approx. Elevation	Boring Diameter 8-inch

Drilling Method: Mobile drill rig B-40L

Sampling Method:

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft	Unified Soil Classification	DESCRIPTION
1					4-inch asphalt, 6-inch dark yellowish-brown baserock. Munsell Color: HUE 10YR 4/6
2					
3	STMW-7-3			CL	Olive-grey sandy clay, damp. Munsell Color: HUE 5Y 4/2
4					
5	STMW-7-5			CL	Color changes to dark olive-grey silty clay, damp, stiff. Munsell Color: HUE 5Y 3/2
6					
7				CL	Dark olive-grey silty clay, damp, stiff. Munsell Color: HUE 5Y 3/2
8					
9					▽ First groundwater encountered at 9 feet.
10				CL	Color changes to very dark grey silty fine sandy clay, moist, stiff. Munsell Color: HUE 5Y 3/1
11					
12					
13					
14					
15					
16				CL	Color changes to olive fine sandy silty clay, very moist, stiff. Munsell Color: HUE 5Y 4/4

Remarks

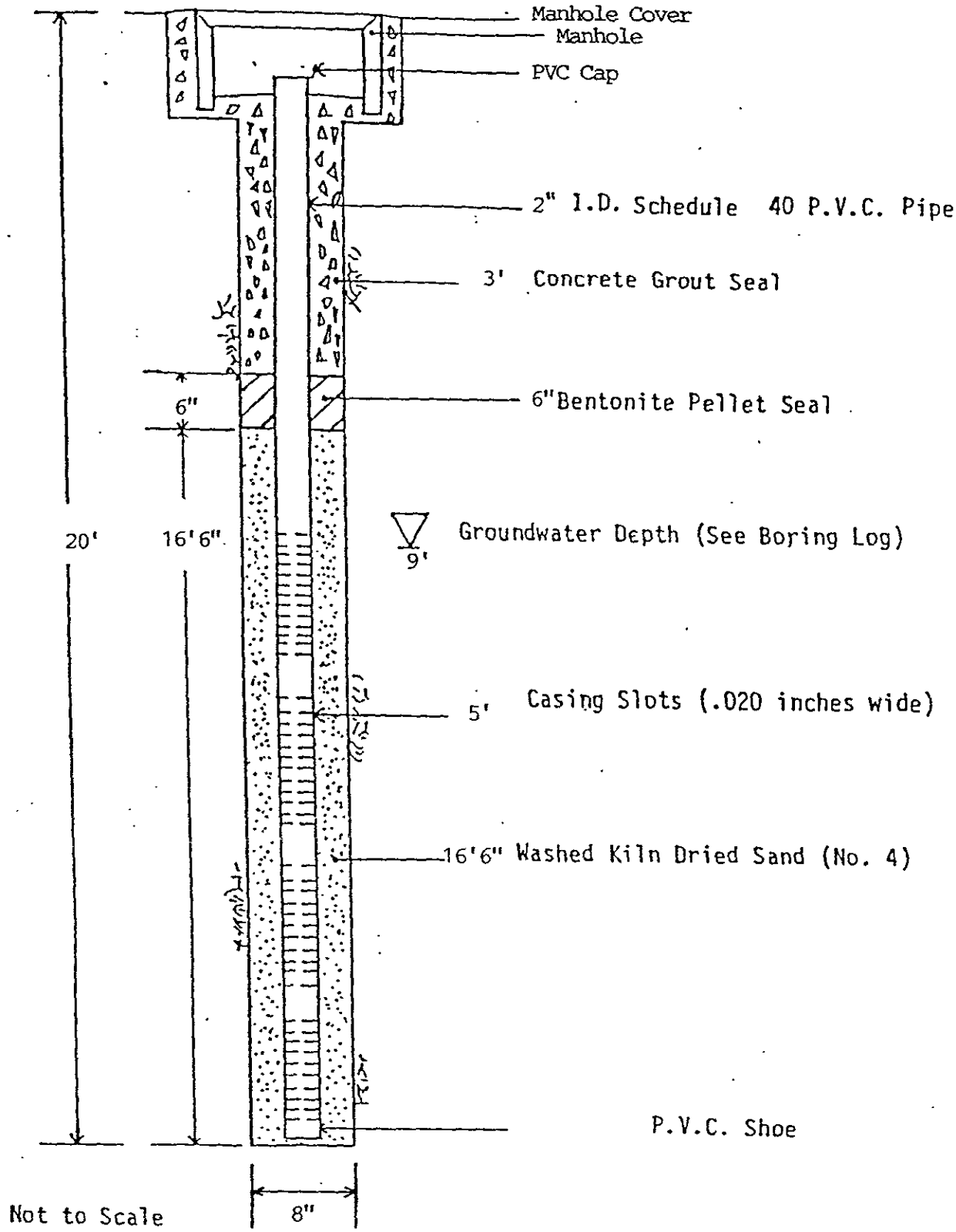
10-91-483-MW

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. STMW-7
Date Drilled: 12/22/92	Approx. Elevation	Boring Diameter 8-inch

Drilling Method	Sampling Method
Mobile drill rig B-40L	

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17				CL	Color changes to olive fine sandy silty clay, very moist, stiff. Munsell Color: HUE 5Y 4/4
18					
19					
20					Boring terminated at 20 feet.
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

Remarks



STMW-7

Piezometer Schematic

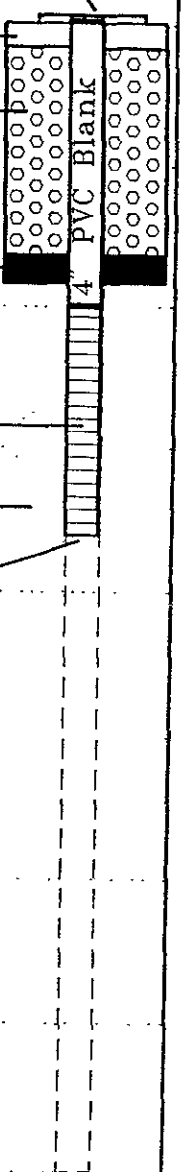
WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville CA 95696

Project: Weyerhaeuser Paper Company, Alameda	Job No.: 70632.20
Location: 1801 Hibbard Str., Alameda 94501	Date: March, 1994
Boring Designation: MW-9	Driller: Exploration Geoservices
Logged by: BWW	Base: San Jose
Boring Location: West of hot wax tank	Drill Equipment: Mobile B-51
Soils Classification System: USCS	Diameter & Type Well Casing: 12" HSA, 4" dia. schedule 40 PVC
Sample type: BRASS TUBE - SPLIT SPOON	Elevation & Datum: TOC *100.60'*
Soil Matrix: YES	Completion Depth: 18' BGS
Date Started: 1-12-94 Finished: 1-12-94	Depth to Groundwater: 9-10' BGS
Number of Samples: 3	

Depth (feet)	Date Time	Sample Number	Lithology	Observations
0	1-12 1:30	MW9-	Asphalt Basecourse	
			CL	Sandy loam, slight staining and odor
5		1	BC 4/8/12	Sample appears contaminated
		2	BC 15/27/36	Definite gas odor and stain
10		3	BC 8/14/31	Well graded sand w/ clay 127 PPM on PID Saturated
			CL	
15				
		EOB		
20	4:00			
25				
30				
35				
40				

Well Construction



WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville CA 95696

Project: Weyerhaeuser Paper Company, Alameda	Job No.: 70632.20
Location: 1801 Hibbard Str., Alameda 94501	Date: March, 1994
Boring Designation: MW-10	Driller: Exploration Geoservices
Logged by: BWW	Base: San Jose
Boring Location: In private drive	Drill Equipment: Mobile B-51
Soils Classification System: USCS	Diameter & Type Well Casing: 12" HSA, 4" dia. schedule 40 PVC
Sample type: BRASS TUBE - SPLIT SPOON	
Soil Matrix: YES	Elevation & Datum: TOC 99.21'
Date Started: 1-12-94 Finished: 1-12-94	Completion Depth: 18' BGS
Number of Samples: 4	Depth to Groundwater: 12' - 13' BGS

Depth (feet)	Date Time	Sample Number	Lithology	Observations	Well Construction
0	1-12 10:30	MW-10	Asphalt Basecourse		Traffic cover & locking cap
			CL	Dry, sandy, uncohesive fine grained	Concrete
5		1	BC 7/19/48	Clean sample	Bentonite grout
		2	BC 15/26/56	Some grey clay stringers	
10		3	BC 16/29/33	Continued clean	Bentonite Seal
		4	BC 26/29/40	PID = 0 PPM Saturated	4" PVC Blank
15			CL		0.020" slot well screen
					Monterey No 3 sand
20	noon	EOB			Bottom plug
25					
30					
35					
40					

WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville CA 95696

Project: Weyerhaeuser Paper Company, Alameda	Job No.: 70632.20
Location: 1801 Hibbard Str., Alameda 94501	Date: March, 1994
Boring Designation: MW-11	Driller: Exploration Geoservices
Logged by: BWW	Base: San Jose
Boring Location: North of propane tank	Drill Equipment: Mobile B-51
Soils Classification System: USCS	Diameter & Type Well Casing: 12" HSA, 4" dia. schedule 40 PVC
Sample type: BRASS TUBE - SPLIT SPOON	
Soil Matrix: YES	Elevation & Datum: TOC 99.45
Date Started: 1-11-94 Finished: 1-11-94	Completion Depth: 20' BGS
Number of Samples: 2	Depth to Groundwater: 12-13' BGS

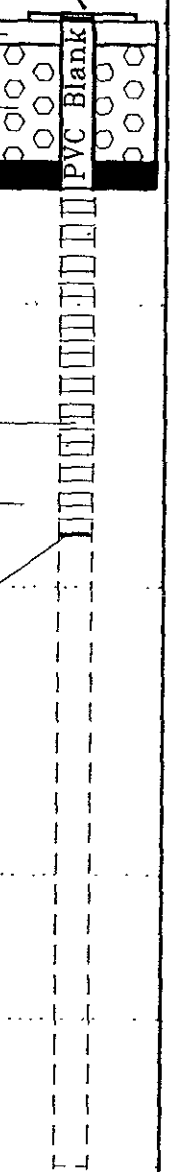
Depth (feet)	Date Time	Sample Number	Lithology	Observations	Well Construction
0	1-11 2:30	MW-11	Asphalt Basecourse		Traffic cover & locking cap; Concrete
			CL	Sandy loam, well graded uncohesive, dry clean- no odor	Bentonite grout
5		1	BC 7/15/30	No odor or staining in sample	
				light brown sand with slight clay stringers	Bentonite Seal
10		2	BC 17/24/26	No odor or stain in sample	4" PVC Blank
				Saturated	
15			CL	Clean	0.020" slot well screen
					Monterey No. 3 sand
20	4:30	EOB			Bottom plug
25					
30					
35					
40					

WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville CA 95696

Project: Weyerhaeuser Paper Company, Alameda	Job No.: 70632.20
Location: 1801 Hibbard Str., Alameda 94501	Date: Jan. 1995
Boring Designation: MW-12	Driller: Exploration Geoservices
Logged by: BWW	Base: San Jose
Boring Location: Inside machine shop	Drill Equipment: Mobile B-51
Soils Classification System: USCS	Diameter & Type Well Casing:
Sample type: BRASS TUBE - SPLIT SPOON	12" HSA, 4" dia. schedule 40 PVC
Soil Matrix: YES	Elevation & Datum: TOC 102.59
Date Started: 12/22/94 Finished: 12/22/94	Completion Depth: 18 feet BGS
Number of Samples: 2 retrieved	Depth to Groundwater: 11-12 feet BGS

Depth (feet)	Date Time	Sample Number	Lithology	Observations	Well Construction
0	12/22	MW12		Machine Shop Floor	Traffic cover & locking cap
	11:30			Concrete	Concrete
			CL	Pavement Base	
				Native soil	Bentonite grout
5		5		Silty sand - No odor	Bentonite Seal
		7	CL	Dry, uncohesive clay stringers	
		8		fine grained, light brown	
10	2:00	11		Increasing moisture	
		12		Water dripping from bit	
			CL		0.020" slot well screen
15					Monterey No. 3 sand
		EOB			
20					Bottom plug
25					
30					
35					
40					



WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville, CA 95696

Project: Weyerhaeuser Alameda Box Plant	Page 1 of 1
Location: 1808 Hibbard St, Alameda	Date: July 16, 1999
Boring Designation: B-9	Driller: Exploration Geoservices
Logged By: Brian West	Base: San Jose
Boring Location: Machine Shop (SB-2)	Drill Equipment: Portable
Soils Classification System: USCS	Diameter & Type Well Casing:
Sample Type: BRASS TUBE - SPLIT SPOON	8" HSA
Matrix: Soil Other	Elevation & Datum:
Date Started: 7-16-99 Finished: 7-16-99	Completion Depth: 13'
Number of Samples: 1	Depth to Groundwater: 12 - 13'

Depth (feet)	Time	Sample Number	Sample	Blow Counts	Lithology	Observations	PID (ppm)	Well Construction
0	8:30	B9-				* Concrete Floor BASE		
5					SM	light brown fine grained dry sand	0	
						no odor or discoloration		
	9:10	8	■	7/9/16		clean		
10					SM	slight odor & discloration **	200	
						resume clean conditions fine grained sand slight grey clay stringers	0	
	EOB							
15								
						* concrete floor 24" higher than outside ground surface		
20								
						** contam. zone appox. 7 - 10' BGS		
25								
30								
35								
40								

WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville, CA 95696

Project: Weyerhaeuser Alameda Box Plant	Page of
Location: 1808 Hibbard St, Alameda	Date: July 16, 1999
Boring Designation: B-10	Driller: Exploration Geoservices
Logged By: Brian West	Base: San Jose
Boring Location: Boiler Room (SB-1)	Drill Equipment: Portable
Soils Classification System: USCS	Diameter & Type Well Casing:
Sample Type: BRASS TUBE - SPLIT SPOON	8" HSA
Matrix: Soil Other	Elevation & Datum:
Date Started: 7-16-99 Finished: 7-16-99	Completion Depth: 13'
Number of Samples: 1	Depth to Groundwater: 12 - 13'

Depth (feet)	Time	Sample Number	Sample	Blow Counts	Lithology	Observations	PID (ppm)	Well Construction
0	10:10	B9-				Concrete Floor*		
						BASE		
						BASE	**	
5						dry, Fine grained sand, brown uncohesive	0	
						increasing clay & cohesion		
		8		10/10/11		discoloration & odor in cuttings	300	
10								
	EOB					groundwater grab sample @ EOB		
15								
20								
						* concrete floor 24" higher than outside ground surface		
25						** old asphalt pavement		
30								
35								
40								

benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA method 8020/602 and for volatile organics by EPA method 624.

The sample from MW-3B was additionally analyzed for naphthalene.

Groundwater from monitoring well MW-7 was analyzed for TPH in the diesel range by modified EPA method 8015.

All analyses were performed using EPA approved test methods. Minimum detection limits for all analyses were within Tri-regional guidelines and are indicated on each original laboratory report form.

Results

This quarters analytical results for TPH-g and BTXE contamination are presented in Table 1. Copies of original laboratory data sheets and chain of custody forms are presented in the appendix.

Results of laboratory analysis indicate that TPH as diesel was detected in groundwater sample MW-7 at a concentration of 0.195 mg/l.

TABLE 1
PETROLEUM CONTAMINATION ANALYSES - GROUNDWATER
August 13, 1998
All Values in ug/l

WELL ID	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
MW-3B	1,700	99.3	ND	13.9	51.9
MW-4B	65	ND	ND	ND	ND
MW-5	ND	ND	ND	ND	ND
MW-6	ND	ND	ND	ND	ND
MW-10	ND	ND	ND	ND	ND
MW-11	ND	ND	ND	ND	ND
MW-12	ND	ND	ND	ND	ND

ABBREVIATIONS
ug/l: Micrograms per liter
ND: Not Detected (See Appendix for minimum detection limits)
TPH: Total Petroleum Hydrocarbons

3.3 Conclusions

TPH-g was detected at a lower concentration in the groundwater sample from MW-3B this quarter (1,700 ppb TPH-g) relative to last quarter (3,160 ppb TPH-g). Benzene was detected at a lower concentration in the groundwater sample from MW-3B this quarter (99.3 ppb TPH-g) relative to the previous quarter (170 ppb benzene) also.

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

March 8, 1991 ChromaLab File # 0291139 H

Client: Minter & Fahy Attn: Matt Minter / John Fahy
Date Sampled: Feb. 28, 1991 Date Submitted: Feb. 28, 1991
Date Extracted: Mar. 06, 1991 Date of Analysis: Mar. 08, 1991

Project Name: WEYERHAEUSER PAPER Project No.:
Sample I.D.: WATER #1
Method of Analysis: EPA 625 Matrix: water

COMPOUND NAME	Sample mg/L	MDL mg/L	Spike Recovery
PHENOL	N.D.	0.01	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.01	82.1% 79.6%
2-CHLOROPHENOL	N.D.	0.01	-----
1,3-DICHLOROBENZENE	N.D.	0.01	-----
1,4-DICHLOROBENZENE	N.D.	0.01	-----
BENZYL ALCOHOL	N.D.	0.02	-----
1,2-DICHLOROBENZENE	N.D.	0.01	-----
2-METHYLPHENOL	N.D.	0.01	85.1% 81.7%
BIS(2-CHLOROISOPROPYL)ETHER	N.D.	0.01	-----
4-METHYLPHENOL	N.D.	0.01	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.01	-----
HEXACHLOROETHANE	N.D.	0.01	-----
NITROBENZENE	N.D.	0.01	-----
ISOPHORONE	N.D.	0.01	-----
2-NITROPHENOL	N.D.	0.01	-----
2,4-DIMETHYLPHENOL	N.D.	0.01	-----
BENZOIC ACID	N.D.	0.05	-----
BIS(2-CHLOROETHOXY)METHANE	N.D.	0.01	87.1% 101.3%
2,4-DICHLOROPHENOL	N.D.	0.01	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.01	-----
NAPHTHALENE	0.43	0.01	-----
4-CHLOROANILINE	N.D.	0.02	-----
HEXACHLOROBUTADIENE	N.D.	0.01	-----
4-CHLORO-3-METHYLPHENOL	N.D.	0.02	-----
2-METHYLNAPHTHALENE	0.16	0.01	107.9% 91.5%
HEXACHLOROCYCLOPENTADIENE	N.D.	0.01	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.01	- - - - - -
2,4,5-TRICHLOROPHENOL	N.D.	0.01	-----
2-CHLORONAPHTHALENE	N.D.	0.01	-----
2-NITROANILINE	N.D.	0.05	-----
DIMETHYL PHTHALATE	N.D.	0.01	-----
ACENAPHTHYLENE	N.D.	0.01	-----
3-NITROANILINE	N.D.	0.05	-----
ACENAPHTHENE	N.D.	0.01	82.4% 75.6%
2,4-DINITROPHENOL	N.D.	0.05	-----
4-NITROPHENOL	N.D.	0.05	-----
DIBENZOFURAN	N.D.	0.01	-----

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CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

March 8, 1991 ChromaLab File # 0291139 A

Client: Minter & Fahy Attn: Matt Minter / John Fahy
Date Sampled: Feb. 28, 1991 Date Submitted: Feb. 28, 1991
Date Extracted: Mar. 06, 1991 Date of Analysis: Mar. 08, 1991

Project Name: WEYERHAEUSER PAPER Project No.:
Sample I.D.: SOIL #1
Method of Analysis: EPA 8270 Matrix: SOIL

COMPOUND NAME	Sample mg/Kg	MDL mg/Kg	Spike Recovery
PHENOL	N.D.	0.5	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.5	104.2% 96.2%
2-CHLOROPHENOL	N.D.	0.5	-----
1,3-DICHLOROBENZENE	N.D.	0.5	-----
1,4-DICHLOROBENZENE	N.D.	0.5	-----
BENZYL ALCOHOL	N.D.	1.0	-----
1,2-DICHLOROBENZENE	N.D.	0.5	-----
2-METHYLPHENOL	N.D.	0.5	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.5	-----
4-METHYLPHENOL	N.D.	0.5	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.5	-----
HEXACHLOROETHANE	N.D.	0.5	-----
NITROBENZENE	N.D.	0.5	-----
ISOPHORONE	N.D.	0.5	-----
2-NITROPHENOL	N.D.	0.5	-----
2,4-DIMETHYLPHENOL	N.D.	0.5	-----
BENZOIC ACID	N.D.	2.5	-----
BIS(2-CHLOROETHOXY)METHANE	N.D.	0.5	95.3% 93.0%
2,4-DICHLOROPHENOL	N.D.	0.5	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.5	-----
NAPHTHALENE	2.2	0.5	-----
4-CHLOROANILINE	N.D.	1.0	-----
HEXACHLOROBUTADIENE	N.D.	0.5	-----
4-CHLORO-3-METHYLPHENOL	N.D.	1.0	-----
2-METHYLNAPHTHALENE	2.2	0.5	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.5	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.5	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.5	-----
2-CHLORONAPHTHALENE	N.D.	0.5	-----
2-NITROANILINE	N.D.	2.5	-----
DIMETHYL PHTHALATE	N.D.	0.5	-----
ACENAPHTHYLENE	N.D.	0.5	-----
3-NITROANILINE	N.D.	2.5	-----
ACENAPHTHENE	N.D.	0.5	110.0% 100.0%
2,4-DINITROPHENOL	N.D.	2.5	-----
4-NITROPHENOL	N.D.	2.5	-----
DIBENZOFURAN	N.D.	0.5	-----

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CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

March 8, 1991 ChromaLab File # 0291139 B

Client: Minter & Fahy Attn: Matt Minter / John Fahy
Date Sampled: Feb. 28, 1991 Date Submitted: Feb. 28, 1991
Date Extracted: Mar. 06, 1991 Date of Analysis: Mar. 08, 1991

Project Name: WEYERHAEUSER PAPER Project No.:
Sample I.D.: SOIL #2
Method of Analysis: EPA 8270 Matrix: SOIL

COMPOUND NAME	Sample mg/Kg	MDL mg/Kg	Spike Recovery
PHENOL	N.D.	0.5	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.5	104.2% 96.2%
2-CHLOROPHENOL	N.D.	0.5	-----
1,3-DICHLOROBENZENE	N.D.	0.5	-----
1,4-DICHLOROBENZENE	N.D.	0.5	-----
BENZYL ALCOHOL	N.D.	1.0	-----
1,2-DICHLOROBENZENE	N.D.	0.5	-----
2-METHYLPHENOL	N.D.	0.5	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.5	-----
4-METHYLPHENOL	N.D.	0.5	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.5	-----
HEXACHLOROETHANE	N.D.	0.5	-----
NITROBENZENE	N.D.	0.5	-----
ISOPHORONE	N.D.	0.5	-----
2-NITROPHENOL	N.D.	0.5	-----
2,4-DIMETHYLPHENOL	N.D.	0.5	-----
BENZOIC ACID	N.D.	2.5	-----
BIS(2-CHLOROETHOXY)METHANE	N.D.	0.5	95.3% 93.0%
2,4-DICHLOROPHENOL	N.D.	0.5	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.5	-----
NAPHTHALENE	0.7	0.5	-----
4-CHLOROANILINE	N.D.	1.0	-----
HEXACHLOROBUTADIENE	N.D.	0.5	-----
4-CHLORO-3-METHYLPHENOL	N.D.	1.0	-----
2-METHYLNAPHTHALENE	0.8	0.5	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.5	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.5	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.5	-----
2-CHLORONAPHTHALENE	N.D.	0.5	-----
2-NITROANILINE	N.D.	2.5	-----
DIMETHYL PHTHALATE	N.D.	0.5	-----
ACENAPHTHYLENE	N.D.	0.5	-----
3-NITROANILINE	N.D.	2.5	-----
ACENAPHTHENE	N.D.	0.5	110.0% 100.0%
2,4-DINITROPHENOL	N.D.	2.5	-----
4-NITROPHENOL	N.D.	2.5	-----
DIBENZOFURAN	N.D.	0.5	-----

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CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

March 8, 1991 ChromaLab File # 0291139 C

Client: Minter & Fahy Attn: Matt Minter / John Fahy
Date Sampled: Feb. 28, 1991 Date Submitted: Feb. 28, 1991
Date Extracted: Mar. 06, 1991 Date of Analysis: Mar. 08, 1991

Project Name: WEYERHAEUSER PAPER Project No.:
Sample I.D.: SOIL #3
Method of Analysis: EPA 8270 Matrix: SOIL

COMPOUND NAME	Sample mg/Kg	MDL mg/Kg	Spike Recovery
PHENOL	N.D.	0.5	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.5	104.2% 96.2%
2-CHLOROPHENOL	N.D.	0.5	-----
1,3-DICHLOROBENZENE	N.D.	0.5	-----
1,4-DICHLOROBENZENE	N.D.	0.5	-----
BENZYL ALCOHOL	N.D.	1.0	-----
1,2-DICHLOROBENZENE	N.D.	0.5	-----
2-METHYLPHENOL	N.D.	0.5	-----
BIS(2-CHLOROISOPROPYL)ETHER	N.D.	0.5	-----
4-METHYLPHENOL	N.D.	0.5	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.5	-----
HEXACHLOROETHANE	N.D.	0.5	-----
NITROBENZENE	N.D.	0.5	-----
ISOPHORONE	N.D.	0.5	-----
2-NITROPHENOL	N.D.	0.5	-----
2,4-DIMETHYLPHENOL	N.D.	0.5	-----
BENZOIC ACID	N.D.	2.5	-----
BIS(2-CHLOROETHOXY)METHANE	N.D.	0.5	95.3% 93.0%
2,4-DICHLOROPHENOL	N.D.	0.5	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.5	-----
NAPHTHALENE	2.4	0.5	-----
4-CHLOROANILINE	N.D.	1.0	-----
HEXACHLOROBUTADIENE	N.D.	0.5	-----
4-CHLORO-3-METHYLPHENOL	N.D.	1.0	-----
2-METHYLNAPHTHALENE	1.9	0.5	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.5	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.5	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.5	-----
2-CHLORONAPHTHALENE	N.D.	0.5	-----
2-NITROANILINE	N.D.	2.5	-----
DIMETHYL PHTHALATE	N.D.	0.5	-----
ACENAPHTHYLENE	N.D.	0.5	-----
3-NITROANILINE	N.D.	2.5	-----
ACENAPHTHENE	N.D.	0.5	110.0% 100.0%
2,4-DINITROPHENOL	N.D.	2.5	-----
4-NITROPHENOL	N.D.	2.5	-----
DIBENZOFURAN	N.D.	0.5	-----

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CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

March 8, 1991 ChromaLab File # 0291139 D

Client: Minter & Fahy Attn: Matt Minter / John Fahy
Date Sampled: Feb. 28, 1991 Date Submitted: Feb. 28, 1991
Date Extracted: Mar. 06, 1991 Date of Analysis: Mar. 08, 1991

Project Name: WEYERHAEUSER PAPER Project No.:
Sample I.D.: SOIL #4
Method of Analysis: EPA 8270 Matrix: SOIL

COMPOUND NAME	Sample mg/Kg	MDL mg/Kg	Spike Recovery
PHENOL	N.D.	0.5	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.5	104.2% 96.2%
2-CHLOROPHENOL	N.D.	0.5	-----
1,3-DICHLOROBENZENE	N.D.	0.5	-----
1,4-DICHLOROBENZENE	N.D.	0.5	-----
BENZYL ALCOHOL	N.D.	1.0	-----
1,2-DICHLOROBENZENE	N.D.	0.5	-----
2-METHYLPHENOL	N.D.	0.5	-----
BIS(2-CHLOROISOPROPYL)ETHER	N.D.	0.5	-----
4-METHYLPHENOL	N.D.	0.5	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.5	-----
HEXACHLOROETHANE	N.D.	0.5	-----
NITROBENZENE	N.D.	0.5	-----
ISOPHORONE	N.D.	0.5	-----
2-NITROPHENOL	N.D.	0.5	-----
2,4-DIMETHYLPHENOL	N.D.	0.5	-----
BENZOIC ACID	3.1	2.5	-----
BIS(2-CHLOROETHOXY)METHANE	N.D.	0.5	95.3% 93.0%
2,4-DICHLOROPHENOL	N.D.	0.5	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.5	-----
NAPHTHALENE	35	0.5	-----
4-CHLOROANILINE	N.D.	1.0	-----
HEXACHLOROBUTADIENE	N.D.	0.5	-----
4-CHLORO-3-METHYLPHENOL	N.D.	1.0	-----
2-METHYLNAPHTHALENE	20	0.5	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.5	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.5	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.5	-----
2-CHLORONAPHTHALENE	N.D.	0.5	-----
2-NITROANILINE	N.D.	2.5	-----
DIMETHYL PHTHALATE	N.D.	0.5	-----
ACENAPHTHYLENE	N.D.	0.5	-----
3-NITROANILINE	N.D.	2.5	-----
ACENAPHTHENE	N.D.	0.5	110.0% 100.0%
2,4-DINITROPHENOL	N.D.	2.5	-----
4-NITROPHENOL	N.D.	2.5	-----
DIBENZOFURAN	N.D.	0.5	-----

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CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

March 8, 1991 ChromaLab File # 0291139 E

Client: Minter & Fahy Attn: Matt Minter / John Fahy
Date Sampled: Feb. 28, 1991 Date Submitted: Feb. 28, 1991
Date Extracted: Mar. 06, 1991 Date of Analysis: Mar. 08, 1991

Project Name: WEYERHAEUSER PAPER Project No.:
Sample I.D.: SOIL #5
Method of Analysis: EPA 8270 Matrix: SOIL

COMPOUND NAME	Sample mg/Kg	MDL mg/Kg	Spike Recovery
PHENOL	N.D.	0.5	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.5	104.2% 96.2%
2-CHLOROPHENOL	N.D.	0.5	-----
1,3-DICHLOROBENZENE	N.D.	0.5	-----
1,4-DICHLOROBENZENE	N.D.	0.5	-----
BENZYL ALCOHOL	N.D.	1.0	-----
1,2-DICHLOROBENZENE	N.D.	0.5	-----
2-METHYLPHENOL	N.D.	0.5	-----
BIS(2-CHLOROISOPROPYL)ETHER	N.D.	0.5	-----
4-METHYLPHENOL	N.D.	0.5	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.5	-----
HEXACHLOROETHANE	N.D.	0.5	-----
NITROBENZENE	N.D.	0.5	-----
ISOPHORONE	N.D.	0.5	-----
2-NITROPHENOL	N.D.	0.5	-----
2,4-DIMETHYLPHENOL	N.D.	0.5	-----
BENZOIC ACID	N.D.	2.5	-----
BIS(2-CHLOROETHOXY)METHANE	N.D.	0.5	95.3% 93.0%
2,4-DICHLOROPHENOL	N.D.	0.5	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.5	-----
NAPHTHALENE	7.6	0.5	-----
4-CHLOROANILINE	N.D.	1.0	-----
HEXACHLOROBUTADIENE	N.D.	0.5	-----
4-CHLORO-3-METHYLPHENOL	N.D.	1.0	-----
2-METHYLNAPHTHALENE	6.5	0.5	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.5	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.5	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.5	-----
2-CHLORONAPHTHALENE	N.D.	0.5	-----
2-NITROANILINE	N.D.	2.5	-----
DIMETHYL PHTHALATE	N.D.	0.5	-----
ACENAPHTHYLENE	N.D.	0.5	-----
3-NITROANILINE	N.D.	2.5	-----
ACENAPHTHENE	N.D.	0.5	110.0% 100.0%
2,4-DINITROPHENOL	N.D.	2.5	-----
4-NITROPHENOL	N.D.	2.5	-----
DIBENZOFURAN	N.D.	0.5	-----

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Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

March 8, 1991 ChromaLab File # 0291139 F

Client: Minter & Fahy Attn: Matt Minter / John Fahy
Date Sampled: Feb. 28, 1991 Date Submitted: Feb. 28, 1991
Date Extracted: Mar. 06, 1991 Date of Analysis: Mar. 08, 1991

Project Name: WEYERHAEUSER PAPER Project No.:
Sample I.D.: SOIL #6
Method of Analysis: EPA 8270 Matrix: SOIL

COMPOUND NAME	Sample mg/Kg	MDL mg/Kg	Spike Recovery
PHENOL	N.D.	0.5	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.5	104.2% 96.2%
2-CHLOROPHENOL	N.D.	0.5	-----
1,3-DICHLOROBENZENE	N.D.	0.5	-----
1,4-DICHLOROBENZENE	N.D.	0.5	-----
BENZYL ALCOHOL	N.D.	1.0	-----
1,2-DICHLOROBENZENE	N.D.	0.5	-----
2-METHYLPHENOL	N.D.	0.5	-----
BIS(2-CHLOROISOPROPYL)ETHER	N.D.	0.5	-----
4-METHYLPHENOL	N.D.	0.5	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.5	-----
HEXACHLOROETHANE	N.D.	0.5	-----
NITROBENZENE	N.D.	0.5	-----
ISOPHORONE	N.D.	0.5	-----
2-NITROPHENOL	N.D.	0.5	-----
2,4-DIMETHYLPHENOL	N.D.	0.5	-----
BENZOIC ACID	2.8	2.5	-----
BIS(2-CHLOROETHOXY)METHANE	N.D.	0.5	95.3% 93.0%
2,4-DICHLOROPHENOL	N.D.	0.5	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.5	-----
NAPHTHALENE	30	0.5	-----
4-CHLOROANILINE	N.D.	1.0	-----
HEXACHLOROBUTADIENE	N.D.	0.5	-----
4-CHLORO-3-METHYLPHENOL	N.D.	1.0	-----
2-METHYLNAPHTHALENE	27	0.5	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.5	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.5	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.5	-----
2-CHLORONAPHTHALENE	N.D.	0.5	-----
2-NITROANILINE	N.D.	2.5	-----
DIMETHYL PHTHALATE	N.D.	0.5	-----
ACENAPHTHYLENE	N.D.	0.5	-----
3-NITROANILINE	N.D.	2.5	-----
ACENAPHTHENE	N.D.	0.5	110.0% 100.0%
2,4-DINITROPHENOL	N.D.	2.5	-----
4-NITROPHENOL	N.D.	2.5	-----
DIBENZOFURAN	N.D.	0.5	-----

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Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

March 8, 1991 ChromaLab File # 0291139 G

Client: Minter & Fahy Attn: Matt Minter / John Fahy
Date Sampled: Feb. 28, 1991 Date Submitted: Feb. 28, 1991
Date Extracted: Mar. 06, 1991 Date of Analysis: Mar. 08, 1991

Project Name: WEYERHAEUSER PAPER Project No.:
Sample I.D.: SOIL #7
Method of Analysis: EPA 8270 Matrix: SOIL

COMPOUND NAME	Sample mg/Kg	MDL mg/Kg	Spike Recovery
PHENOL	N.D.	0.5	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.5	104.2% 96.2%
2-CHLOROPHENOL	N.D.	0.5	-----
1,3-DICHLOROBENZENE	N.D.	0.5	-----
1,4-DICHLOROBENZENE	N.D.	0.5	-----
BENZYL ALCOHOL	N.D.	1.0	-----
1,2-DICHLOROBENZENE	N.D.	0.5	-----
2-METHYLPHENOL	N.D.	0.5	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.5	-----
4-METHYLPHENOL	N.D.	0.5	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.5	-----
HEXACHLOROETHANE	N.D.	0.5	-----
NITROBENZENE	N.D.	0.5	-----
ISOPHORONE	N.D.	0.5	-----
2-NITROPHENOL	N.D.	0.5	-----
2,4-DIMETHYLPHENOL	N.D.	0.5	-----
BENZOIC ACID	N.D.	2.5	-----
BIS(2-CHLOROETHOXY) METHANE	N.D.	0.5	95.3% 93.0%
2,4-DICHLOROPHENOL	N.D.	0.5	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.5	-----
NAPHTHALENE	2.0	0.5	-----
4-CHLOROANILINE	N.D.	1.0	-----
HEXACHLOROBUTADIENE	N.D.	0.5	-----
4-CHLORO-3-METHYLPHENOL	N.D.	1.0	-----
2-METHYLNAPHTHALENE	1.5	0.5	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.5	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.5	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.5	-----
2-CHLORONAPHTHALENE	N.D.	0.5	-----
2-NITROANILINE	N.D.	2.5	-----
DIMETHYL PHTHALATE	N.D.	0.5	-----
ACENAPHTHYLENE	N.D.	0.5	-----
3-NITROANILINE	N.D.	2.5	-----
ACENAPHTHENE	N.D.	0.5	110.0% 100.0%
2,4-DINITROPHENOL	N.D.	2.5	-----
4-NITROPHENOL	N.D.	2.5	-----
DIBENZOFURAN	N.D.	0.5	-----

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