



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (206) 407-6300

June 14, 1995

Mr. Lon R. Yandell
Dames & Moore, Inc.
1750 SW Harbor Way, Suite 400
Portland, OR 97201

Dear Mr. Yandell:

Re: Gramor Development - Parcel 9, 5106 E. Fourth Plain Blvd, Vancouver, Washington

The Department of Ecology (Ecology) has received a site assessment report summary for the above-named site. The May 26, 1995 report of discovery of contamination and request for opinion, serves as adequate notification of a release per the Model Toxics Control Act, Chapter 173-340 WAC. This report indicates groundwater contamination exceeding the Model Toxics Control Act (MTCA) cleanup standards. The property will be listed in Ecology's Site Information System (SIS) database and will appear in the "Confirmed and Suspected Contaminated Sites" report. Your letter indicates groundwater contamination on the site is the result of migration of contaminants from the gas station on the neighboring property. Ecology will initiate an investigation to determine the potential for contamination at that property.

Ecology does not have a process for reviewing environmental site assessments, thus a formal agency opinion cannot be provided. Ecology also does not have the staff or resources to review all of the final independent remedial action reports received. However, we have implemented a system in which owners and operators may apply for a formal review of final Independent Remedial Action Program (IRAP) cleanup reports. The review would determine whether or not the site qualifies for a "no further action" status by Ecology. A Request for Review form and filing instructions for this fee-based service are enclosed with this letter. Any questions concerning IRAP reports or independent cleanup actions should be directed to Dick Heggen at (360) 407-6267.

As we discussed, I am also forwarding a copy of the recently approved lender liability law and an information sheet. If you have any questions or if I can be of assistance, please contact me at (360) 407-6246.

Sincerely,

Rusty Post
Toxics Cleanup Program
Southwest Regional Office

RP:jr
Enclosures

cc: David Copenhaver, Gramor Development
Steven Oliva
Dick Heggen, Ecology

Dames & Moore

1750 S.W. Harbor Way, Suite 200
Portland, Oregon 97201
(503) 228-7688
FAX (503) 223-6083

RECEIVED
95 MAY 30 19:29

LETTER OF TRANSMITTAL

TO: Mr. Rusty Post
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504

DATE: May 26, 1995

ATTENTION: Mr. Rusty Post

JOB NO: 21541-009-005

SUBJECT: Request for Opinion

YOUR ORDER NO:

WE ARE SENDING YOU VIA U.S. Mail

THE FOLLOWING:

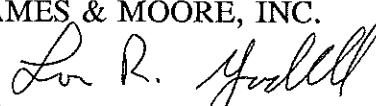
NO. OF COPIES	DESCRIPTION
1	Request for Ecology Opinion Gramor Development - Parcel 9 5106 E. Fourth Plain Blvd., Vancouver, Washington

THESE ARE FOR Your consideration

REMARKS:

COPIES TO:
David Copenhaver, Gramor Development

DAMES & MOORE, INC.


BY: Lon R. Yandel



1750 S.W. HARBOR WAY, SUITE 400, PORTLAND, OREGON 97201
(503) 228-7688 FAX: (503) 223-6083

May 26, 1995

Mr. Rusty Post
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504

Request for
Ecology Opinion
Gramor Development - Parcel 9
5106 E. Fourth Plain Boulevard
Vancouver, Washington

Dear Mr. Post:

The purpose of this letter is to request an opinion from the Washington Department of Ecology (Ecology) regarding impacted groundwater detected at the subject property referenced above. The subject property consists of Parcel 9 located at 5106 E. Fourth Plain Boulevard, northwest of the intersection of NW 54th Avenue and Fourth Plain Boulevard in Vancouver, Washington (Figure 1). This request is being submitted to Ecology by Dames & Moore on behalf of Gramor Development Northwest, Inc. (Gramor Development).

The subject property is currently occupied by Bird Boy's Retail Discount Store, Auction Block warehouse and sales building, and Zinda & Son's Auto Repair Shop. A discount tire sales building was also formerly located on the property.

Gramor Development is currently in the process of purchasing the subject property for immediate development. Prior to purchase, Gramor Development contracted Dames & Moore to perform a Phase I Environmental Site Assessment (Phase I ESA). During the Phase I ESA, a previous site investigation report dated November 4, 1991 and prepared by PEMCO for the current owner of the property was reviewed. PEMCO's site investigation included advancing three soil borings along the southeast property boundary adjacent to an Arco Service Station. Soil samples were collected for laboratory analysis from each of the borings. Analytical results indicated benzene was present at a concentration exceeding Ecology soil cleanup levels in a soil sample collected at the soil/groundwater interface in the southeastern-most soil boring (B-7). No other analytes were present in the soil samples at concentrations above Ecology soil cleanup levels (Table 1). Groundwater samples were not collected during PEMCO's investigation.

To assess the potential for impacted groundwater at the subject property, Gramor Development contracted Dames & Moore to perform a focused groundwater investigation. The purpose of the focused groundwater investigation was to determine if elevated levels of BTEX compounds are present in the groundwater in the southeastern portion of the subject property, and if present,

Mr. Rusty Post
May 26, 1995
Page 2

evaluate whether the elevated levels of BTEX are more likely to be from an on-site or off-site source.

Dames & Moore advanced four Geoprobe for the collection of groundwater samples in the southeast corner of the property. Geoprobe sample locations P2, P3 and P4 were selected to coincide with the locations of the soil borings advanced by PEMCO to compare the groundwater analytical results with the results from PEMCO's soil sampling. The Geoprobe locations are presented in Figure 2. Groundwater was encountered between 10 and 15 feet below the ground surface (bgs) at each location. The groundwater gradient at the site is assumed to be to the south or southwest, based on surface topography, towards Burnt Bridge Creek and the Columbia River. One groundwater sample was collected at each location and submitted for laboratory analysis. Each sample was analyzed for total petroleum hydrocarbons (TPH) by Ecology Method WTPH-418.1 and BTEX compounds by EPA Method 8020. The analytical results are presented in Table 1 and the laboratory report is attached.

The analytical results indicate BTEX compounds were only detected in the groundwater sample from location P-2 which is at the southeastern-most portion of the property. BTEX compounds were not detected in the other three locations. TPH was not detected in any of the groundwater samples. The elevated levels of BTEX compounds detected in P-2 corresponds to the location where elevated levels of BTEX compounds were detected during PEMCO's soil investigation.

Dames & Moore evaluated potential sources of the benzene detected in P-2. The three other Geoprobe sampling points (i.e., P-1, P-2, and P-4) were located between P-2 and remainder of the subject property. Because BTEX compounds were only detected in the southeastern-most sample location during both the PEMCO and Dames & Moore investigations, and the assumed groundwater flow direction is to the south-southwest, it is Dames & Moore's opinion that an off-site source is contributing the BTEX compounds detected in P-2 and B-7. The soil and groundwater analytical results appear to suggest that petroleum hydrocarbons are migrating onto the site along the soil/groundwater interface. The Arco Service Station appears to be the most likely off-site source given its proximity to the subject property and the assumed groundwater flow direction of south-southwest. In addition, the presence of elevated BTEX compounds only along the soil/groundwater interface and only at sample location P-2 (B-7) would make an on-site source unlikely even if the assumed groundwater flow direction is incorrect.

It is Dames & Moore's opinion that the BTEX compounds detected at the southeast portion of the site are most likely the result of on-site migration of contaminants from an off-site source. Although the most likely off-site source appears to be the Arco Service Station, other potential off-site sources may also be contributing. Therefore, we are requesting that Ecology issue a letter with respect to the elevated levels of BTEX compounds detected at the subject property to reflect Ecology's acceptance of Dames & Moore's opinion.



Mr. Rusty Post
May 26, 1995
Page 3

Because Gramor Development is currently in the process of acquiring the subject property and will be closing in mid-June, prompt issuance of the letter is requested to address lender concerns. Consequently, we ask that the letter be issued at your earliest opportunity.

We sincerely appreciate your prompt attention to this matter. If you have any questions regarding this request or are in need of any additional information, please feel free to call us at your convenience (503) 228-7688.

Very truly yours,

DAMES & MOORE, INC.

A handwritten signature in cursive script that reads "Peter L. Stroud".

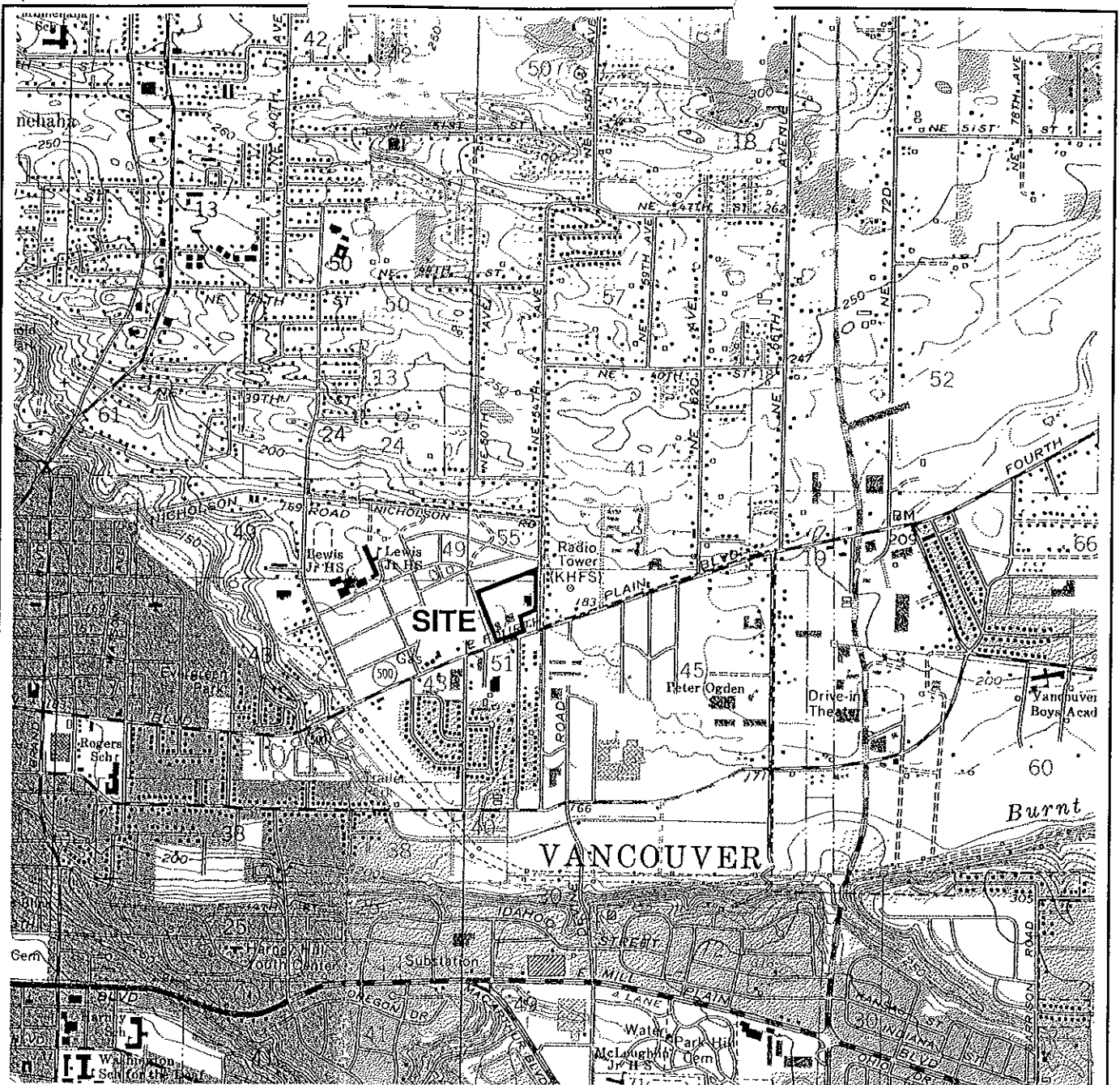
Peter L. Stroud, CEG
Senior Engineering Geologist
Oregon Geoscience Manager

A handwritten signature in cursive script that reads "Lon R. Yandell".

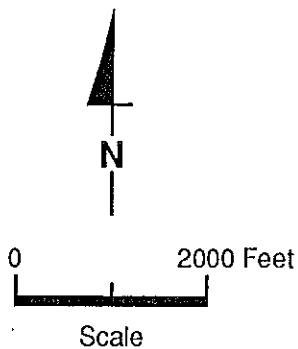
Lon R. Yandell
Senior Project Manager

Attachments: Table 1 - Analytical Results
Figure 1 - Vicinity Map
Figure 2 - Site Plan
Laboratory Report

G21541-01.10
PLS:LRY:lih:cab
21541-009-005

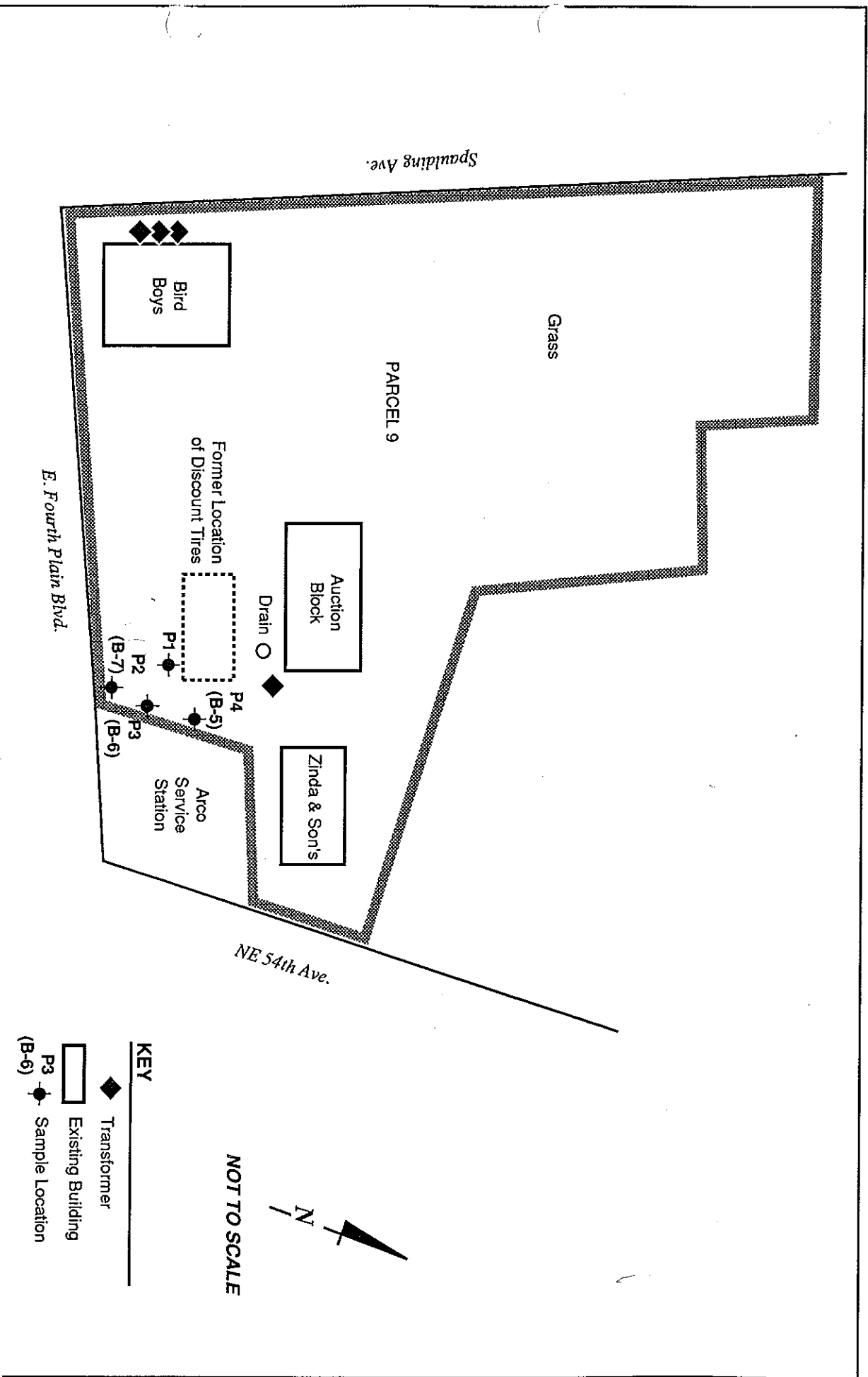


Reference: Vancouver & Orchards Quadrangles, USGS 7.5 Minute Series, 1951,
 Photorevised 1978



VICINITY MAP

Gramor Development
 May 1995 Focused Groundwater Investigation
 21541-009-005 Vancouver, Washington



May 1995
21541-009-005

Gramor Development
Focused Groundwater Investigation
Vancouver, Washington

**TABLE 1
ANALYTICAL RESULTS
GRAMOR DEVELOPMENT - PARCEL 9**

Sample Location	Sample Depth (feet) (bgs)	Sample Type	Analytical Results				
			TPH ¹ (ppm)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylene (ppb)
Dames & Moore's Analytical results							
P-1	--	Water	ND	ND	ND	ND	ND
P-2	--	Water	ND	290	41	390	1,300
P-3	--	Water	ND	ND	ND	ND	ND
P-4	--	Water	ND	ND	ND	ND	ND
PEMCO's Analytical Results							
B-5	10-11	Soil	6	ND	3.0	ND	2.4
B-5	15-16	Soil	ND	ND	2.9	ND	ND
B-6	10-11	Soil	10	ND	5.9	2.3	11
B-6	15-16	Soil	ND	ND	ND	ND	ND
B-7	10-11	Soil	17	ND	4.6	ND	5.9
B-7	15-16	Soil	ND	1,900	2,800	170	1,000

1 - Total Petroleum Hydrocarbons by Ecology Method WTPH-418.1
 Benzene, Toluene, Ethylbenzene, and Xylene by EPA Method 8020
 ppm = parts per million
 ppb = parts per billion
 ND = not detected
 bgs = below the ground surface



3700 Lakeville Highway, Petaluma, CA 94954
Telephone: (707) 763-8245
FAX (707) 763-4065

Lon Yandell
Dames & Moore-Portland
1750 S.W. Harbor Way, Suite 400
Portland, OR 97201

May 8, 1995

Customer Project: 21541-009-005 Gramor 9
Laboratory Job: L9505001

On May 1, 1995 we received 5 sample(s) for analysis.
Samples were analyzed by the following method(s):


BTEX (EPA 8020A)

Total Recoverable Petroleum Hydrocarbons (WAC WTPH-418.1)



Andrea Lee

Project Manager



Robert Peak

Laboratory Director
Robert Peak

D&M Laboratories
 QUALITY CONTROL REPORT

Reported: 03-MAY-95

QC for: GAS/BTEX

Lab Id: WG7505-1 Sample Id: MX

Parameter	Value	RDL	Units	Extracted	Analyzed
Benzene	ND <	0.50	ug/L	19-APR-95	19-APR-95
Ethyl Benzene	ND <	0.50	ug/L	19-APR-95	19-APR-95
Toluene	ND <	0.50	ug/L	19-APR-95	19-APR-95
Xylene	ND <	0.50	ug/L	19-APR-95	19-APR-95
-	-	-	-	-	-
Surrogate Bromofluorobenzene	86.1	-	%	19-APR-95	19-APR-95
-	-	-	-	-	-
Comments:	MX = L9504152-2				

Lab Id: WG7505-2 Sample Id: Matrix Spike

Parameter	Value	Units	Spike	Units	% Rec	Extracted	Analyzed
Benzene	25.2	ug/L	25	ug/L	101.%	20-APR-95	20-APR-95
Ethyl Benzene	23.7	ug/L	25	ug/L	95.%	20-APR-95	20-APR-95
Toluene	24.3	ug/L	25	ug/L	97.%	20-APR-95	20-APR-95
Xylene	70.1	ug/L	75	ug/L	94.%	20-APR-95	20-APR-95
-	-	-	-	-	-	-	-
Surrogate Bromofluorobenzene	91.1	%	-	-	-	20-APR-95	20-APR-95

Lab Id: WG7505-3 Sample Id: Matrix Spike Dup

Parameter	Value	Units	% Rec	RPD	Extracted	Analyzed
Benzene	24.3	ug/L	97.%	3.6	20-APR-95	20-APR-95
Ethyl Benzene	23.1	ug/L	92.%	2.8	20-APR-95	20-APR-95
Toluene	23.2	ug/L	83.%	4.6	20-APR-95	20-APR-95
Xylene	68.5	ug/L	91.%	2.4	20-APR-95	20-APR-95
-	-	-	-	-	-	-
Surrogate Bromofluorobenzene	89.4	%	-	-	20-APR-95	20-APR-95

D&M Laboratories
 QUALITY CONTROL REPORT

Reported: 04-MAY-95

QC for: Total Recoverable Petroleum Hydrocarbons: Infrared

Lab Id: WG7646-1 Sample Id: Method Blank

Parameter	Value	RDL	Units	Extracted	Analyzed
TRPH	ND <	1.0	mg/L	03-MAY-95	03-MAY-95

Lab Id: WG7646-2 Sample Id: Method Blank Spike

Parameter	Value	Units	Spike	Units	% Rec	Extracted	Analyzed
TRPH	4.10	mg/L	5	mg/L	82.0%	03-MAY-95	03-MAY-95

Lab Id: WG7646-3 Sample Id: Method Blank Spike D

Parameter	Value	Units	% Rec	RPD	Extracted	Analyzed
TRPH	4.07	mg/L	81.0%	0.70	03-MAY-95	03-MAY-95

D&M Laboratories
 QUALITY CONTROL REPORT

Reported: 05-MAY-95

QC for: GAS/BTEX

Lab Id: WG7505-10 Sample Id: Method Blank

Parameter	Value	RDL	Units	Extracted	Analyzed
Benzene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
Ethyl Benzene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
Toluene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
Xylene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
-	-	-	-	-	-
Surrogate Bromofluorobenzene	82.9	-	%	01-MAY-95	01-MAY-95

Lab Id: WG7505-11 Sample Id: Method Blank Spike

Parameter	Value	Units	Spike	Units	% Rec	Extracted	Analyzed
Benzene	22.5	ug/L	25	ug/L	90.%	01-MAY-95	01-MAY-95
Ethyl Benzene	22.6	ug/L	25	ug/L	90.%	01-MAY-95	01-MAY-95
Toluene	22.6	ug/L	25	ug/L	90.%	01-MAY-95	01-MAY-95
Xylene	71.5	ug/L	75	ug/L	95.%	01-MAY-95	01-MAY-95
-	-	-	-	-	-	-	-
Surrogate Bromofluorobenzene	87.3	%	-	-	-	01-MAY-95	01-MAY-95

Lab Id: WG7505-12 Sample Id: Method Blank

Parameter	Value	RDL	Units	Extracted	Analyzed
Benzene	ND <	0.50	ug/L	02-MAY-95	02-MAY-95
Ethyl Benzene	ND <	0.50	ug/L	02-MAY-95	02-MAY-95
Toluene	ND <	0.50	ug/L	02-MAY-95	02-MAY-95
Xylene	ND <	0.50	ug/L	02-MAY-95	02-MAY-95
-	-	-	-	-	-
Surrogate Bromofluorobenzene	87.7	-	%	02-MAY-95	02-MAY-95

Lab Id: WG7505-13 Sample Id: Method Blank Spike

Parameter	Value	Units	Spike	Units	% Rec	Extracted	Analyzed
Benzene	22.9	ug/L	25	ug/L	92.%	02-MAY-95	02-MAY-95
Ethyl Benzene	23.0	ug/L	25	ug/L	92.%	02-MAY-95	02-MAY-95
Toluene	23.0	ug/L	25	ug/L	92.%	02-MAY-95	02-MAY-95
Xylene	72.7	ug/L	75	ug/L	97.%	02-MAY-95	02-MAY-95
-	-	-	-	-	-	-	-
Surrogate Bromofluorobenzene	87.2	%	-	-	-	02-MAY-95	02-MAY-95

D&M Laboratories
ANALYTICAL DATA REPORT
Prepared for: Dames & Moore-Portland

Project Id: 21541-009-005

Reported: 08-MAY-95

Parameter	Value	RDL	Units	Extracted	Analyzed
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Lab Id: L9505001-1 Sample Id: P-1 Collected: 28-APR-95 Received: 01-MAY-95

Total Recoverable Petroleum Hydrocarbons: Infrared					
TRPH	ND <	0.95	mg/L	03-MAY-95	03-MAY-95
BTEX					
Benzene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
Ethyl Benzene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
Toluene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
Xylene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
Surrogate Bromofluorobenzene	83.8	-	%	01-MAY-95	01-MAY-95

Lab Id: L9505001-2 Sample Id: P-2 Collected: 28-APR-95 Received: 01-MAY-95

Total Recoverable Petroleum Hydrocarbons: Infrared					
TRPH	ND <	0.95	mg/L	03-MAY-95	03-MAY-95
BTEX					
Benzene	290	10.	ug/L	02-MAY-95	02-MAY-95
Ethyl Benzene	390	10.	ug/L	02-MAY-95	02-MAY-95
Toluene	41.	0.50	ug/L	01-MAY-95	01-MAY-95
Xylene	1300	10.	ug/L	02-MAY-95	01-MAY-95
Surrogate Bromofluorobenzene	79.1	-	%	01-MAY-95	01-MAY-95

Lab Id: L9505001-3 Sample Id: P-3 Collected: 28-APR-95 Received: 01-MAY-95

Total Recoverable Petroleum Hydrocarbons: Infrared					
TRPH	ND <	0.95	mg/L	03-MAY-95	03-MAY-95
BTEX					
Benzene	ND <	0.50	ug/L	02-MAY-95	02-MAY-95
Ethyl Benzene	ND <	0.50	ug/L	02-MAY-95	02-MAY-95
Toluene	ND <	0.50	ug/L	02-MAY-95	02-MAY-95
Xylene	ND <	0.50	ug/L	02-MAY-95	02-MAY-95
Surrogate Bromofluorobenzene	94.2	-	%	02-MAY-95	02-MAY-95

D&M Laboratories
 ANALYTICAL DATA REPORT
 Prepared for: Dames & Moore-Portland

Project Id: 21541-009-005

Reported: 08-MAY-95

Parameter	Value	RDL	Units	Extracted	Analyzed
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Lab Id: L9505001-4 Sample Id: P-4 Collected: 28-APR-95 Received: 01-MAY-95

Total Recoverable Petroleum Hydrocarbons: Infrared					
TRPH	ND <	0.95	mg/L	03-MAY-95	03-MAY-95
BTEX					
Benzene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
Ethyl Benzene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
Toluene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
Xylene	ND <	0.50	ug/L	01-MAY-95	01-MAY-95
-	-	-	-	-	-
Surrogate	-	-	-	-	-
Bromofluorobenzene	82.4	-	%	01-MAY-95	01-MAY-95

QUALITY CONTROL REPORT

In order to provide you with the means of assessing the quality of the data in our report, D&M Laboratories reports the results of Quality Control samples analyzed with your samples.

The Quality Control samples provide the following QC information:

The Method Blank (**MB**) monitors the level of contamination introduced by reagents or glassware. A minimum of one MB is run per batch of 20 samples or less.

The Method Blank Spike (**MBS**) measures the accuracy of analytical techniques and is not subject to matrix effects. A minimum of one MBS is run per batch of 20 samples or less.

The Matrix Spike (**MS**) measures the accuracy of the method for a matrix type. Due to the high variability within matrix types and the necessity of batching samples from varied sources, matrix spike information from one sample is not necessarily relevant to other samples on the batch. A minimum of two matrix spikes, **MS** and **MSD**, are run per batch of 20 samples or less. The sample selected for the matrix spike is designated **MX**, and may or may not have been submitted by the recipient of this report.

The Matrix Spike Duplicate (**MSD**), along with the **MS**, is used to monitor the precision (**RPD**) of the method and to indicate possible non homogeneity of the sample matrix.

Equations used for determining percent recovery and relative percent difference (**RPD**) are as follows:

$$\text{MBS \% Recovery} = (\text{MBS result} / \text{MBS spike level}) \times 100$$

$$\text{MS \% Recovery} = [(\text{MS result} - \text{MX result}) / \text{MS spike level}] \times 100$$

$$\text{RPD} = \{ | \text{MS result} - \text{MSD result} | / [(\text{MS result} + \text{MSD result}) / 2] \} \times 100$$

We continue to strive to improve the quality of service to our clients. We welcome any questions or comments you may have about this information, or about D&M Laboratories in general. Please contact a Project Manager for further information.

19505001

CHAIN-OF-CUSTODY RECORD

WHITE COPY - Original (Accompanies Samples) YELLOW COPY - Collector



Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES	FIELD NOTES	Number Of Containers	Laboratory Note Number
P-1	18	0930	Water	11L, 2 VOA	VOA 6018010 VOA 6028020 SAFETY 6248240 RES/PCB 6080 FNA 6108310 THIRD 8015M GAS/TEX	Petroleum Odor	3	
P-2	18	1000					3	
P-3	18	1030					3	
P-4	18	1115					3	

RECEIVED
D&M LABORATORIES
1995 MAY -1 AM 8:54

COOLER CUSTODY SEALS INTACT NOT INTACT
COOLER TEMPERATURE 17.0 °C

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
 RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

Clients Name: PDX 005
 Address: 178 1750 SW Harbor Way #4100
 City, State, Zip: Portland OR 97201
 Phone: (503) 228-7688 Fax:
 Laboratory Contact:

LABORATORY NOTES:
 5/1/95 Verbat results by May 1st 5:11
 #4 BTX (N=18240) per L. Yonell. Shun
 11 VOA vials + 4 - CT. Amber
 UPS RED -

JOB NO: 21541-009/005 SHEET 1 OF 1
 PROJECT: Giamor 9
 LOCATION: Vancouver WA
 COLLECTOR: Kevin M. Freeman DATE OF COLLECTION: April 28 95



3700 Lakeville Highway, Petaluma CA 94954
 Telephone: (707) 763-8245
 FAX: (707) 763-4065