

SERVICE

Environmental Engineering

2325 Endicott Street, St. Paul, MN 55114
(612) 644-6680, Fax (612) 644-7008

January 30, 1997

Mr. Rick Newquist
Minnesota Pollution Control Agency
Hazardous Waste Division
Tanks and Spill Section
520 Lafayette Road
St. Paul, Minnesota 55101

Re: Summary of Additional Investigation
Holman Building
2035 University Avenue
Minneapolis, Minnesota
MPCA Site ID#: LEAK00007370

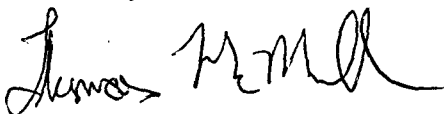
Mr. Newquist:

This letter summarizes the results of the additional investigation activities completed by ATEC Associates, Inc. (ATEC) for the above referenced site. The additional investigation activities were requested by yourself in a letter dated February 16, 1996. In accordance with our telephone conversation on January 30, 1997, SERVICE Environmental Engineering (SERVICE) is submitting the following information:

- Site sketch depicting the locations of the completed Geoprobe borings;
- Analytical results for three soil samples collected from the site; and,
- Soil boring logs generated for the site.

Geoprobe boring GP-1 was completed in the vicinity of the formerly completed boring HA-1. Geoprobe boring GP-2 was completed in the former tank basin of underground storage tank #118. Based on review of the ATEC information and the results of the analytical testing, SERVICE recommends closure of the leaksite. If you have any questions regarding this site, please feel free to contact me at 644-6680.

Sincerely,

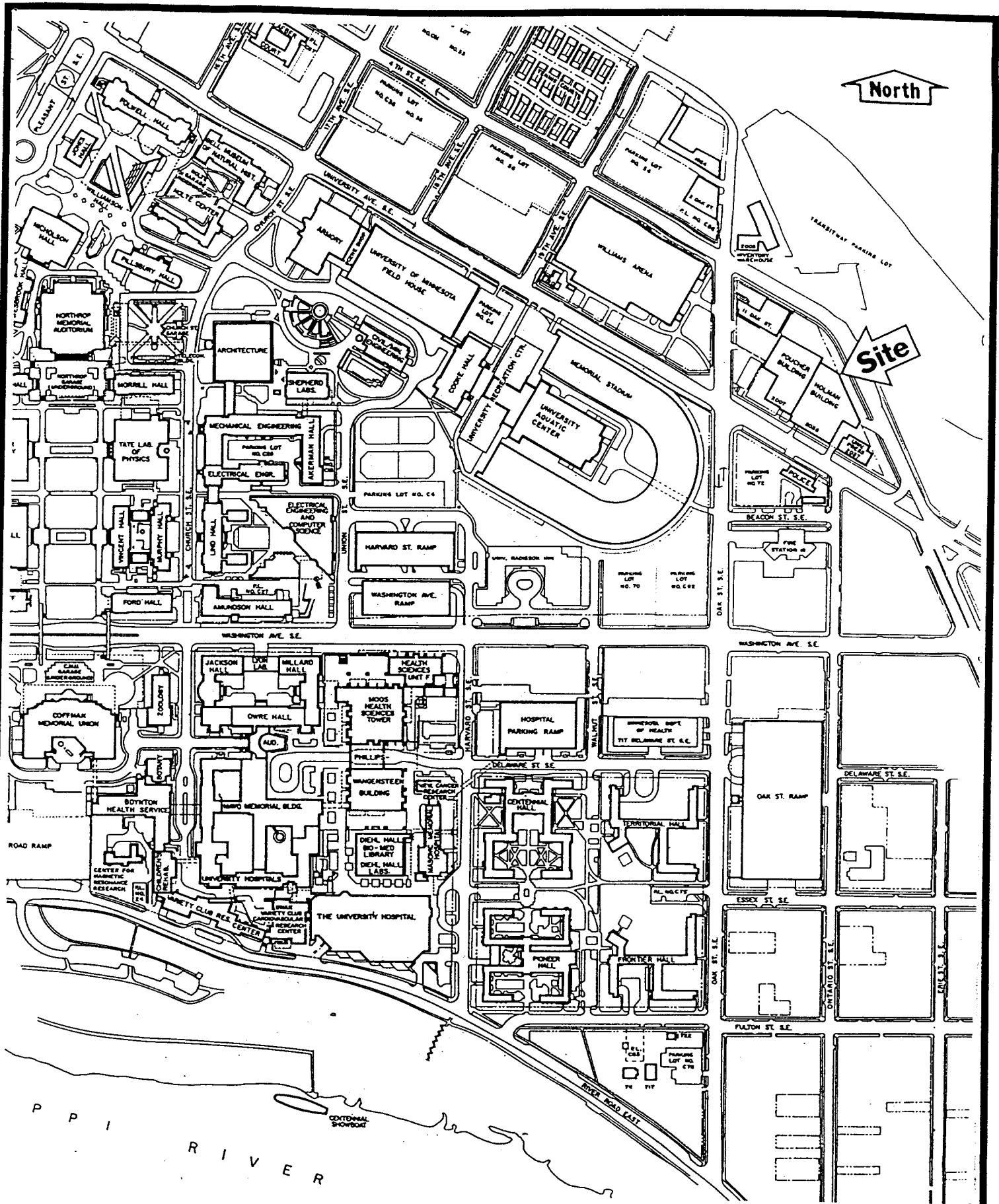


Thomas E. McMullen, P.E.
Environmental Engineer

pc: Mr. Gordon Girtz
University of Minnesota

enclosures





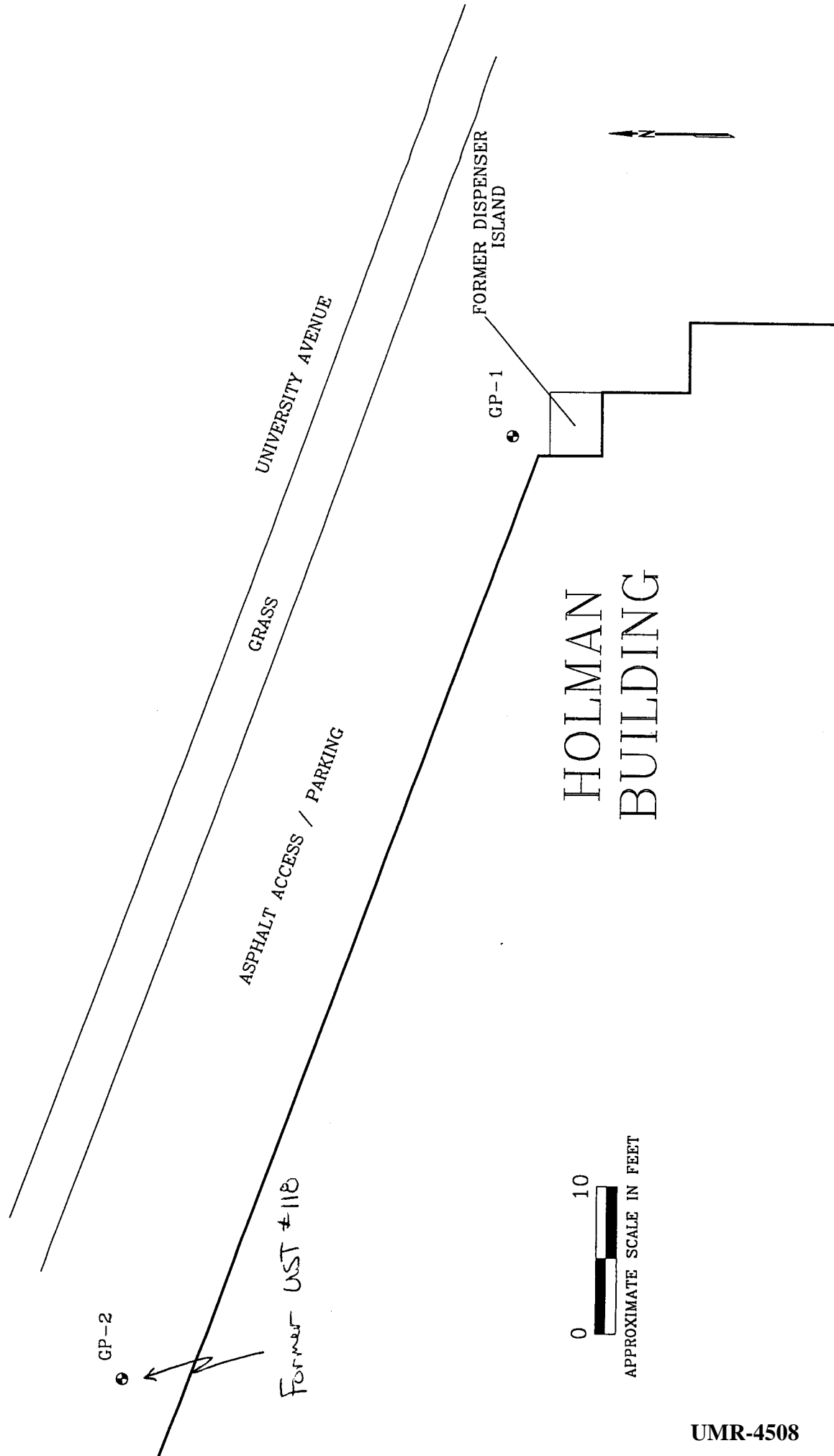
SITE LOCATION MAP
 University of Minnesota
 Holman Building
 Minneapolis, Minnesota

#55-07-94-00090

Scale: proportional

Figure: 1

ATEC
 UMR-4507





BORING NO: GP1

PROJECT NO: 55-07-96-00020

PROJECT NAME: University of Minnesota - Holman CLIENT: University of Minnesota

PROJECT LOCATION: Minneapolis, Minnesota DRILLING CONTRACTOR: Thien Well

DRILLING MTHD: Geoprobe SAMPLE MTHD: Split Spoon

DATE STARTED: 3-28-96 DATE FINISHED: 3-28-96 DRILLER: Mike and Kent INSPECTOR: David Davis

DEPTH (FT)	SPT BLOWS PER 0.5'	REC (%)	PID (ppm)	PROFILE	SURFACE ELEVATION: ---	REMARKS
					LITHOLOGIC DESCRIPTION	
0.0	1	25	13.2		FILL: Fill, silty sand w/gravel to 2.0', then sand w/silt with a little gravel, fine to medium grained, dark brown to brown, very moist to wet to waterbearing at 12.0', layer of black/discolored silty/clayey sand at approximately 4.5', 0.2' asphalt at surface, slight fuel oil odors at 0-2' sample	
	2	75	0			
5.0	3	50	0			
	4	50	0			
10.0						
15.0	5	60	0		End of Boring	
20.0						
25.0						
30.0						

BOTTOM OF TEST BORING: 16.0'

ND = NON-DETECTABLE
 FID = FLAME IONIZATION DETECTOR
 PID = PHOTO-IONIZATION DETECTOR

BORING NO: GP2

PROJECT NO: 55-07-96-00020

PROJECT NAME: University of Minnesota - Holmon CLIENT: University of Minnesota

PROJECT LOCATION: Minneapolis, Minnesota DRILLING CONTRACTOR: Thien Well

DRILLING MTHD: Geoprobe SAMPLE MTHD: Split Spoon

DATE STARTED: 3-28-96 DATE FINISHED: 3-28-96 DRILLER: Mike and Kent INSPECTOR: David Davis

DEPTH (FT)	S P M A X	SPT BLOWS PER 0.5'	REC (%)	PID (ppm)	LITHOLOGY	SURFACE ELEVATION: ---	REMARKS
						LITHOLOGIC DESCRIPTION	
0.0						FILL: Fill, sand w/silt w/gravel, brown, moist, 0.2' asphalt at surface	
1		20	0				
5.0		50	0				
2		20	0				
10.0		50	0		SAND: Sand w/silt w/gravel, brown, moist to wet to waterbearing at 13.0'		
4		50	0				
6		50	0				
7		60	0				
15.0					End of Boring		
20.0							
25.0							
30.0							

BOTTOM OF TEST BORING: 16.0'

ND = NON-DETECTABLE
 FID = FLAME IONIZATION DETECTOR
 PID = PHOTO-IONIZATION DETECTOR

Pace Analytical

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Minneapolis, MN 55422

Tel: 612-544-5543
Fax: 612-525-3377

ATEC Associates, Inc.
1479 Energy Park Drive
St. Paul, MN 55108

April 17, 1996
PACE Project Number: 960401500

Attn: Mr. Tom McMullen

Client Reference: Holmen Bldg/96-020

PACE Sample Number:	10 0054437	10 0054445	10 0054453		
Date Collected:	03/29/96	03/29/96	03/29/96		
Date Received:	04/01/96	04/01/96	04/01/96		
	GP-2	GP-1	GP-1		
<u>Parameter</u>	<u>Units</u>	<u>PRI</u>	<u>12-14'</u>	<u>2-4'</u>	<u>14-16'</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Moisture content	%	0.1	14.0	-	-
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ORGANIC ANALYSIS

DIESEL RANGE ORGANICS-MOD. 8015

Date Analyzed			10APR96 EE	10APR96 EE	10APR96 EE
Date Extracted			04/02/96	04/02/96	04/02/96
Diesel Range Organic Compounds	mg/kg	10	ND	ND (1)	ND (2)
n-Tricontane (Surrogate Std.)	%		94	87	96
Elapse Time, Receipt to Solvent Addition	Minutes	10	255	255	255

VOLATILE PETROLEUM RELATED CMPDS IN SOIL

Date Analyzed			03APR96 E	03APR96 E	03APR96 E
Benzene	mg/kg	0.10	ND	ND	ND
Toluene	mg/kg	0.10	ND	ND	ND
Ethyl benzene	mg/kg	0.10	ND	ND	ND
Xylene	mg/kg	0.20	ND	ND	ND
Gasoline Range Organics	mg/kg	5.0	ND	ND	ND
Fluorobenzene (Surrogate)	%		110	118	107

REPORT OF LABORATORY ANALYSIS

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Mr. Tom McMullen
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April 17, 1996
PACE Project Number: 960401500

Client Reference: Holmen Bldg/96-020

PACE Sample Number: 10 0054780
Date Collected: 03/29/96
Time Collected: 13:50
Date Received: 04/01/96
Client Sample ID: GP1 4-6

<u>Parameter</u>	<u>Units</u>	<u>PRI</u>	<u> </u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Moisture content	%	0.1	28.7
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These data have been reviewed and are approved for release.

Mary Jo Connolly
Project Manager

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FOOTNOTES
for pages 1 through 2

April 17, 1996
PACE Project Number: 960401500

Client Reference: Holmen Bldg/96-020

- ND Not detected at or above the PRL.
- PRL PACE Reporting Limit
- (1) Results are based on wet weight. No moisture analysis was performed.
- (2) Results are based on wet weight. No moisture analysis was performed.

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QUALITY CONTROL DATA

April 17, 1996
PACE Project Number: 960401500

Client Reference: Holmen Bldg/96-020

Moisture content
Batch: 10 81525
Samples: 10 0054437, 10 0054780

METHOD BLANK AND SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRI</u>	<u>Method</u>	<u>Blank</u>	<u>Duplicate of</u>	<u>RPD</u>
Moisture content	%	0.1	ND	100054810 7.4	10 0054810 7.9	7%

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QUALITY CONTROL DATA

April 17, 1996
PACE Project Number: 960401500

Client Reference: Holmen Bldg/96-020

DIESEL RANGE ORGANICS-MOD. 8015

Batch: 10 81795

Samples: 10 0054437, 10 0054445, 10 0054453

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRI</u>	<u>Method Blank</u>
Date Analyzed			10APR96
Diesel Range Organic Compounds	mg/kg	10	ND
n-Tricontane (Surrogate Std.)	%		85

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRI</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dup1 Recv</u>	<u>RPD</u>
Diesel Range Organic Compounds	mg/kg	10	200	80%	80%	0%

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QUALITY CONTROL DATA

April 17, 1996
PACE Project Number: 960401500

Client Reference: Holmen Bldg/96-020

VOLATILE PETROLEUM RELATED CMPDS IN SOIL

Batch: 10 81572

Samples: 10 0054437, 10 0054445, 10 0054453

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Date Analyzed			03APR96
Benzene	mg/kg	0.10	ND
Toluene	mg/kg	0.10	ND
Ethyl benzene	mg/kg	0.10	ND
Xylene	mg/kg	0.20	ND
1,3,5-Trimethylbenzene	mg/kg	0.10	ND
1,2,4-Trimethylbenzene	mg/kg	0.10	ND
Methyl tert-butyl ether	mg/kg	0.40	ND
Gasoline Range Organic Compounds	mg/kg	5.0	ND
Fluorobenzene (Surrogate)	%		123

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dup1 Recv</u>	<u>RPD</u>
Benzene	mg/kg	0.10	5.0	115%	113%	2%
Toluene	mg/kg	0.10	5.0	120%	118%	2%
Ethyl benzene	mg/kg	0.10	5.0	107%	105%	2%
Xylene	mg/kg	0.20	15.0	119%	116%	3%
1,3,5-Trimethylbenzene	mg/kg	0.10	5.0	114%	111%	3%
1,2,4-Trimethylbenzene	mg/kg	0.10	5.0	116%	113%	3%
Methyl tert-butyl ether	mg/kg	0.40	5.0	120%	120%	0%
Gasoline Range Organic Compounds	mg/kg	5.0	50.0	106%	106%	0%

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FOOTNOTES
for pages 4 through 6

April 17, 1996
PACE Project Number: 960401500

Client Reference: Holmen Bldg/96-020

ND Not detected at or above the PRL.
PRL PACE Reporting Limit
RPD Relative Percent Difference

REPORT OF LABORATORY ANALYSIS

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