

March 5, 1999

Scott O. Seery, CHMM
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, Calif. 94502-6577

59 MAR -9 PM 3:06
ENVIRONMENTAL HEALTH SERVICES

RE: People v. National Airmotive Corporation
Alameda County Superior Court, Case No. H-179506-2

Dear Mr. Seery:

When we spoke by telephone a few weeks back, you indicated some concern over the fact that you had not received copies of the test results from July, 1998, for the monitoring wells installed in connection with the test cell issues raised in the above-referenced matter. Accordingly, I spoke with National Airmotive Corporation regarding obtaining another copy of those results to forward to you.

Enclosed please find a copy of those results, as reported by Envirometrix Corporation. I believe the results and commentary are self-explanatory. Of course, if you have any questions, please feel free to contact me.

On behalf of NAC, I apologize for any inconvenience caused by the delay in getting these materials to you. Once again, thank you for your courtesy and cooperation in the NAC matter.

Very truly yours,



WILLIAM D. CONNELL

Enclosure

cc: Robert Chambers, Esq. (w/out enclosure)
National Airmotive Corporation (w/out enclosure)



COPY

Environmental Consultants

National Airmotive Corporation
7200 Earhart Road
Oakland, California 94521-4504

July 27, 1998

Attention: Mr. Lorne Dyke

***ANNUAL GROUNDWATER MONITORING AND
REQUEST FOR CLOSURE LETTER
NAC TEST CELL FACILITY
EARHART ROAD
OAKLAND, CALIFORNIA
EMC JOB No. 198499***

This letter presents the results of the annual groundwater monitoring conducted in April and July 1998, by Envirometrix Corporation (EMC) for groundwater monitoring wells MW-1 through MW-3 at the National Airmotive Corporation (NAC) Test Cell Facility (Plates 1 and 2). This annual sampling event was conducted to fulfill the requirements of the Alameda County Department of Environmental Health (ACDEH).

LIMITATIONS

This investigation was performed in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No warranty or guarantee, expressed or implied, is made as to the conclusions and opinions included in this report.

The findings of this report are current as of the date of this report. However, changes in the conditions of the property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. Therefore, the actual conditions discovered may change over time.

This report was prepared for the sole use of NAC, the only intended beneficiary of our work. No other party should rely on the information contained herein without the prior written consent of EMC.

PROCEDURES

Groundwater elevations were measured in all wells on April 23 and July 23, 1998. After the column of water in each well was calculated, approximately three well volumes of water were purged from each well until temperature, pH, and conductivity readings stabilized. A new pre-cleaned, disposable, weighted bailer was used to purge the groundwater from wells MW-1 through MW-3. Once the groundwater parameter readings stabilized during purging, or three casing volumes of water were removed, water samples were collected with the new disposable bailer and decanted into laboratory supplied containers. The samples were immediately placed in an iced cooler and transported under



Mr. Lorne Dyke
National Airmotive Corporation

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chain-of-custody procedures to Excelchem Environmental Laboratory, Roseville, a California-certified laboratory for chemical analysis. The samples were analyzed for the following:

- ▲ Total petroleum hydrocarbons quantified as jet fuel (TPH-JF) using EPA Method 8015 modified
- ▲ Total petroleum hydrocarbons as diesel (TPH-D) using EPA Method 8015 modified
- ▲ Benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8020

As required by the ACDEH, all the groundwater samples were to be analyzed for semi-volatile organic compounds (SVOCs) using EPA Method 8270 if TPH-JF was detected. However, TPH-JF was not detected above reported laboratory detection limits in the water samples, and therefore, SVOCs were not analyzed.

Due to a miscommunication between EMC and the laboratory, the water samples collected on April 23, 1998 were not analyzed for TPH-D. Therefore, EMC monitored and sampled the wells on July 23, 1998 and analyzed the samples for TPH-D.

RESULTS

Groundwater elevation data and historical results of laboratory analyses for the chemical analysis are summarized in Table 1. Groundwater elevation contour maps for the April 23 and July 23, 1998 groundwater monitoring events are presented on Plates 3 and 4. The general direction of groundwater flow is interpreted to be to the west-southwest at a magnitude of 0.012 foot per foot for the April 23, 1998 event and 0.017 foot per foot for the July 23, 1998 event. Copies of laboratory reports are attached.

The following are the results of the groundwater sampling and laboratory analyses:

- ▲ No TPH-JF, TPH-D, or BTEX constituents were detected above reported laboratory detection limits in the water samples collected from wells MW-1 through MW-3.

CASE CLOSURE REQUEST

Mr. Scott Seery of the ACDEH prepared a letter to NAC dated February 21, 1996 that stated: "Should concentrations of targeted jet fuel constituents in sampled water suggest that the plume is stable and not discharging into the tidal marsh, or plume constituents are below levels of concern based on toxicity values for estuarine organisms, no further action will be required." The letter also required that the monitoring be performed annually for 2 years after the well installation. A copy of the ACDEH letter is attached.

Two annual monitoring and samplings events have occurred since the installation of the groundwater monitoring wells at the site. Review of Table 1 indicates that the concentrations of TPH-JF and TPH-D have decreased over time and were not detected above reported laboratory detection limits in the samples collected during the April and July 1998 sampling events. All other targeted jet fuel constituents (BTEX and SVOCs) have not been detected above reported laboratory detection limits in



Mr. Lorne Dyke
National Airmotive Corporation

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any of the groundwater samples collected from the wells. Therefore, it is EMC's opinion that the targeted jet fuel concentrations are below levels of concern.

Based on the above, EMC requests no further investigative or remedial action at the site regarding the unauthorized release of jet fuel from the underground storage tanks. In addition, EMC requests case closure of the site on completion of the monitoring well destruction.

EMC hopes this letter provides the information you require at this time. If you have any questions or require additional information, please call.

Yours very truly,

ENVIROMETRIX CORPORATION

Norman Shopay
Principal

William G. Shipp
Associate Geologist, R.G. No. 6115

Enclosures: Table 1 Results of Laboratory Analyses Groundwater Monitoring
 Plate 1 Site Location Map
 Plate 2 Site Vicinity Map
 Plate 3 Site Plan and Groundwater Elevations 4/23/98
 Plate 4 Site Plan and Groundwater Elevations 7/23/98
 Laboratory Reports and Chain-of-Custody Forms
 ACDEH Letter Dated February 21, 1996

cc: Alameda County Health Care Services
 Department of Environmental Health
 1131 Harbor Bay Parkway
 Alameda, California 94502-6577

Attention: Mr. Scott O. Seery

WGS/198499a/12



Table 1
Results of Laboratory Analyses and Groundwater Monitoring
National Airmotive Corporation, Test Cell Facility
Oakland, California

Values in shaded areas represent concentrations above laboratory detection limits in micrograms/liter (ug/L)

Values in un-shaded areas are the reported laboratory detection limits in ug/L

Cells that are blank were not measured or sampled

TPH-JF = Total Petroleum Hydrocarbons as Jet Fuel

TPH-D = Total Petroleum Hydrocarbons as Diesel

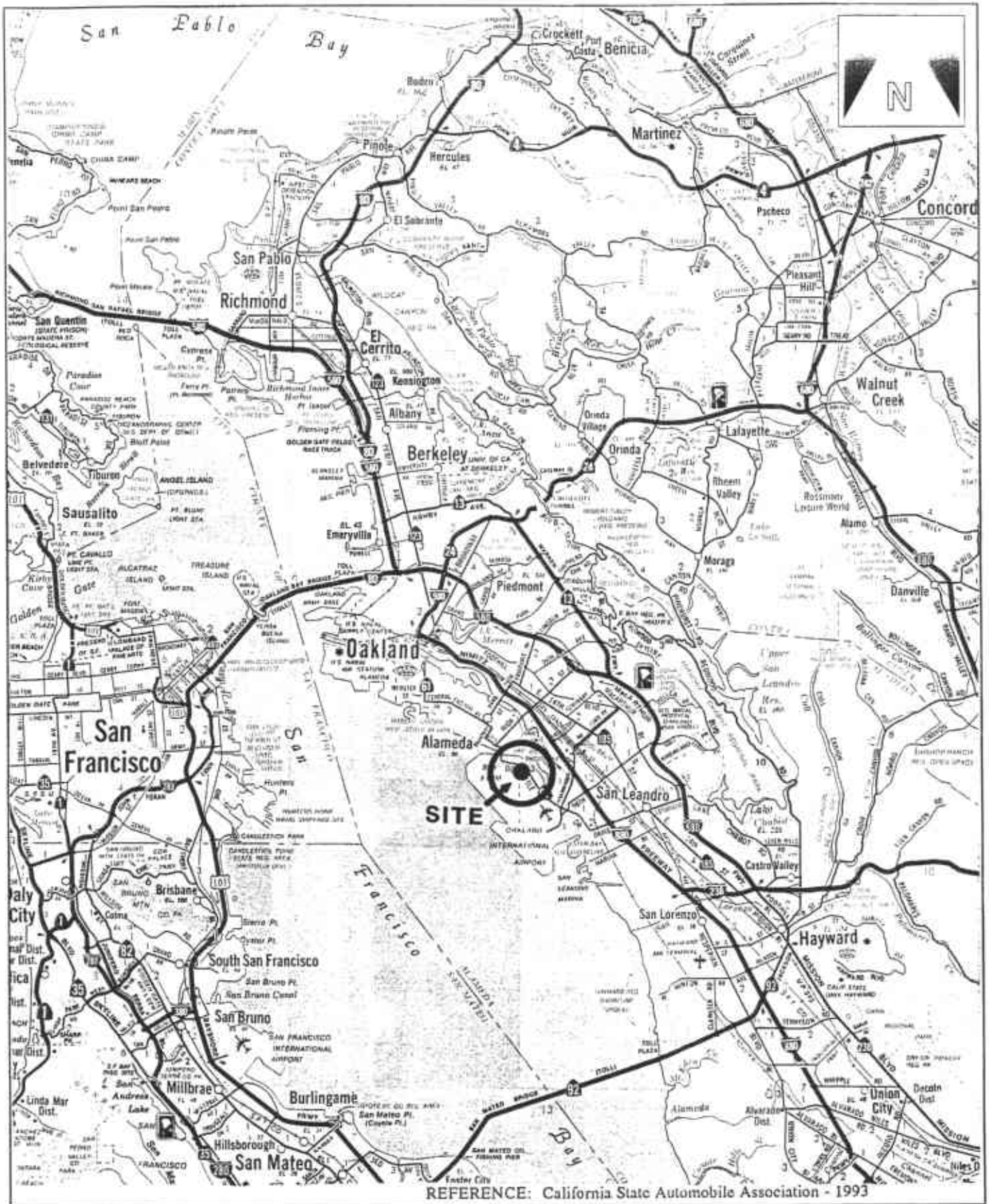
SVOCs = Semi-Volatile Organic Compounds

ND = Not detected, see laboratory reports for detection limits

N/A = Not applicable, not sampled

TOC = Top of Casing Elevation

Well Number	Date	TPH-JF	TPH-D	SVOCs	Benzene	Toluene	Ethyl-benzene	Xylenes	Groundwater Elevation	Depth to Water	TOC Elevation
MW-1	4/3/96	ND	81	ND	ND	ND	ND	ND	6.97	3.06	10.03
	5/15/97	ND	67	ND	ND	ND	ND	ND	6.85	3.18	10.03
	4/23/98	ND	N/A	N/A	ND	ND	ND	ND	7.27	2.76	10.03
	7/23/98	N/A	ND	N/A	N/A	N/A	N/A	N/A	7.28	2.75	10.03
MW-2	4/3/96	ND	ND	ND	ND	ND	ND	ND	7.20	2.80	10.00
	5/15/97	ND	ND	ND	ND	ND	ND	ND	7.12	2.88	10.00
	4/23/98	ND	N/A	N/A	ND	ND	ND	ND	7.46	2.54	10.00
	7/23/98	N/A	ND	N/A	N/A	N/A	N/A	N/A	7.69	2.31	10.00
MW-3	4/3/96	1300	2200	ND	ND	ND	ND	ND	6.22	3.51	9.73
	5/15/97	660	1100	ND	ND	ND	ND	ND	5.91	3.82	9.73
	4/23/98	ND	N/A	N/A	ND	ND	ND	ND	6.14	3.59	9.73
	7/23/98	N/A	ND	N/A	N/A	N/A	N/A	N/A	6.05	3.68	9.73



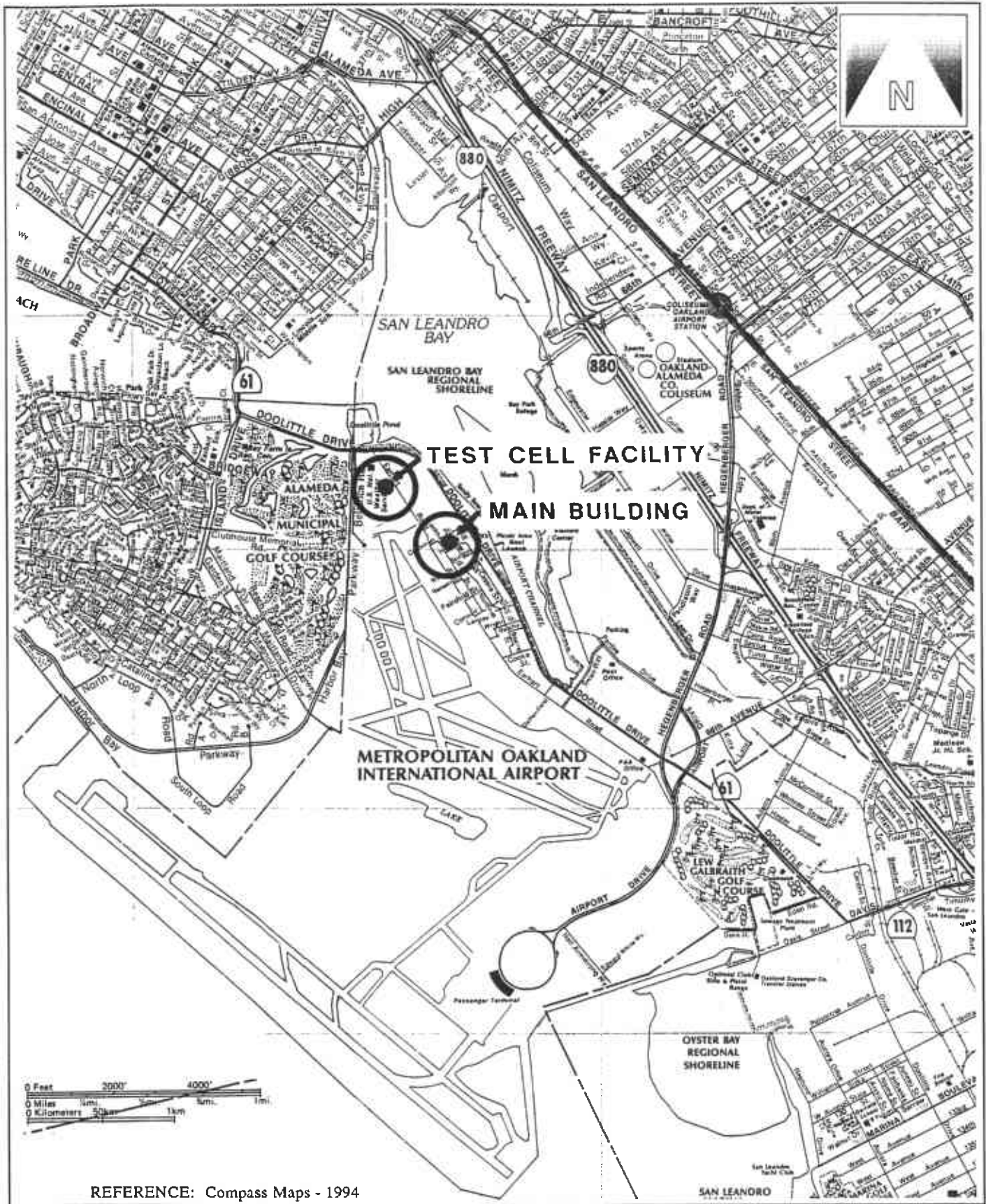
DRAWN	JOB NUMBER
WGS	198499
APPROVED	DATE
	09/98
REVISED	DATE

SITE LOCATION MAP

National Airmotive Corporation
 Test Cell Facility
 Oakland, California

PLATE

1



REFERENCE: Compass Maps - 1994



DRAWN WGS	JOB NUMBER 198499
APPROVED	DATE 09/98
REVISED	DATE

SITE VICINITY MAP

National Airmotive Corporation
 Test Cell Facility
 Oakland, California

PLATE

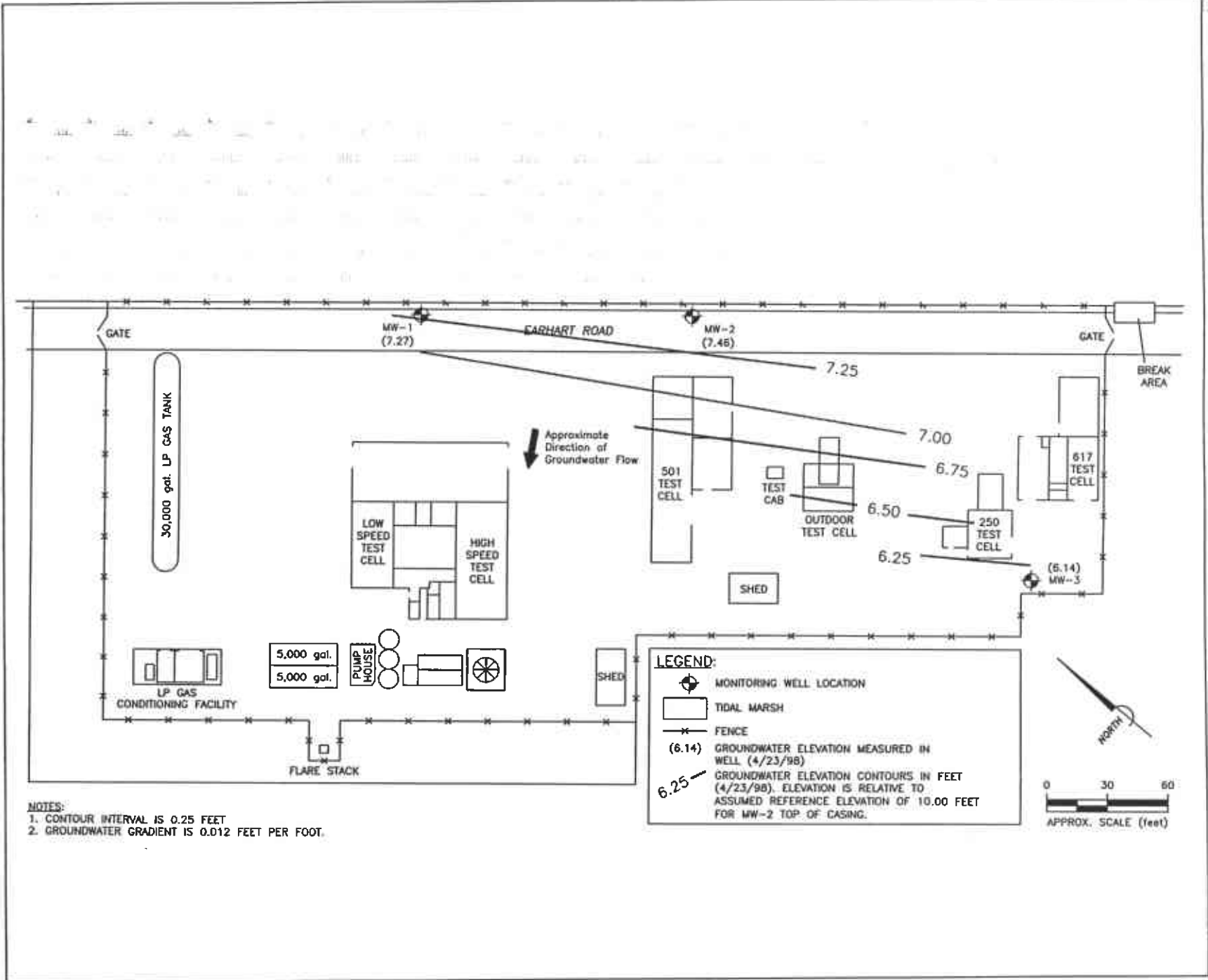
2



DRAWN
WGS
APPROVED
REVISD

JOB NUMBER
198499
DATE
09/98

GROUNDWATER ELEVATIONS 4/23/98
National Airmoive Corporation
Test Cell Facility
Oakland, California



NOTES:
1. CONTOUR INTERVAL IS 0.25 FEET
2. GROUNDWATER GRADIENT IS 0.012 FEET PER FOOT.

LEGEND:

- MONITORING WELL LOCATION
- TIDAL MARSH
- FENCE
- (6.14) GROUNDWATER ELEVATION MEASURED IN WELL (4/23/98)
- GROUNDWATER ELEVATION CONTOURS IN FEET (4/23/98). ELEVATION IS RELATIVE TO ASSUMED REFERENCE ELEVATION OF 10.00 FEET FOR MW-2 TOP OF CASING.

NORTH

0 30 60
APPROX. SCALE (feet)



DRAWN
WGS

APPROVED

REVISED

DATE

DATE

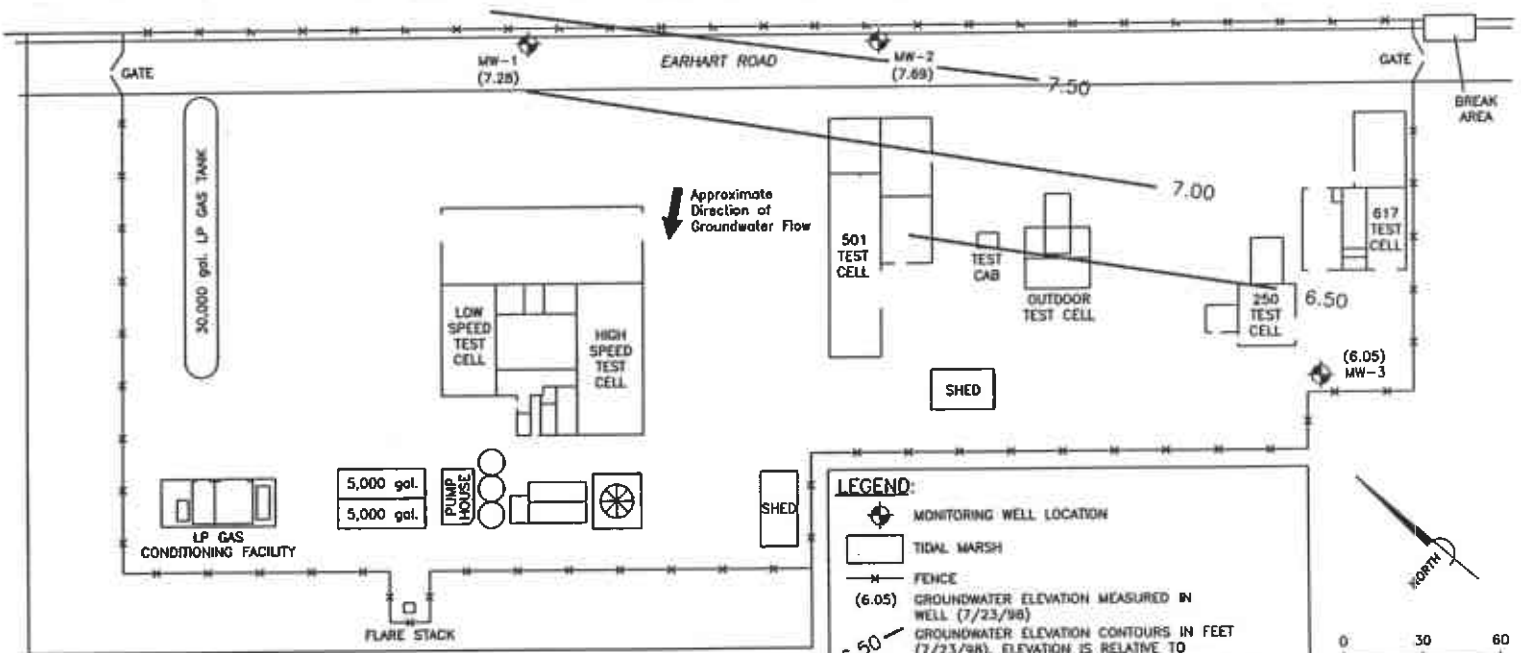
JOB NUMBER
198499

DATE
09/98

GROUNDWATER ELEVATIONS 7/23/98

National Airmotive Corporation
Test Cell Facility
Oakland, California

PLATE
4



NOTES:
 1. CONTOUR INTERVAL IS 0.50 FEET
 2. GROUNDWATER GRADIENT IS 0.017 FEET PER FOOT.

LEGEND:

- MONITORING WELL LOCATION
- TIDAL MARSH
- FENCE
- GROUNDWATER ELEVATION MEASURED IN WELL (7/23/98)
- GROUNDWATER ELEVATION CONTOURS IN FEET (7/23/98), ELEVATION IS RELATIVE TO ASSUMED REFERENCE ELEVATION OF 10.00 FEET FOR MW-2 TOP OF CASING.

Due 7-30-98



ENVIROMETRIX

ENVIROMETRIX CORPORATION
 3950 Industrial Blvd
 Suite 200C
 West Sacramento CA 95691
 Phone: (916) 375-1000
 FAX: (916) 375-1024

CHAIN OF CUSTODY RECORD

Sample Collector Will G Ship Date/Time 7-23-98

Signature of Collector Will G Ship

LABORATORY:

Excelchem

Project Name: NAC Test Cell Facility, Job #: 198499

Project Location: Oakland, CA Project Manager: William Shipp

REMARKS:

31 798074

SAMPLE ID	Sampling		DESCRIPTION	Container	Preservatives	Matrix	BTEX (602/80201/503.1	BTEX/TPH gas (602/8020	TPH/diesel (8015)	EPA 601										Turn Around Time		
	Date	Time		VOA / Tube / Amber	ICR / None /	Water / Soil /															Standard	Rush Services (72hr/48hr/24hr/12hr)
MW-1	7-23-98			X	X	X			*												X	
MW-2	7-23-98			X	X	X			*												X	
MW-3	7-23-98			X	X	X			*												X	

Relinquished by: Will G Ship

Received by: Eric Van Venter

Relinquished by: James Carter

Received by:

Date: 7-23-98 Time:

Date: 3:35 7/23/98

Date: 7/23/98 Time: 3:35 pm

Date:

EXCELICHEM ENVIRONMENTAL LABS



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

ANALYSIS REPORT

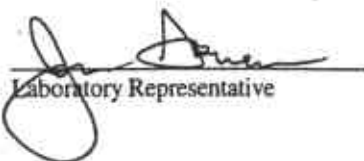
Attention: William Shipp
Envirometrix Corp.
3950 Industrial Blvd., Ste. 200C
West Sacramento, CA 9569
Project: NAC Test Cell Facility - 198499
Method: EPA 8015m

Date Sampled: 07-23-98
Date Received: 07-23-98
TPHd Analyzed: 07-28-98
Matrix: Soil
Units: mg/kg

Client Sample I.D.	MW-1		MW-2		MW-3	
LAB. NO.	S0798289		S0798290		S0798291	
ANALYTE	R/L	Results	R/L	Results	R/L	Results
TPH as Diesel	50	ND	50	ND	50	ND

QA/QC			
	LCS % Recovery	LCSD % Recovery	Date Analyzed
TPH as Diesel	84	83	07-28-98

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


Laboratory Representative

07-30-98
Date Reported

5-9800



ENVIROMETRIX CORPORATION
3950 Industrial Blvd
Suite 200C
West Sacramento CA 95691
Phone: (916) 375-1000
FAX: (916) 375-1024

CHAIN OF CUSTODY RECORD

Sample Collector William G. Shipp Date/Time 4/23/98

Signature of Collector Will. G. Shipp

LABORATORY:
Excelchem Environmental Labs.

Project Name: NAC, Test Cell Facility Job #: 198499
Project Location: Oakland, CA Project Manager: William G. Shipp

REMARKS:
* If TPH-JF is detected in any of the samples, analyze all these samples for SVOCs (EPA 8270) *

SAMPLE ID	Sampling		DESCRIPTION	Container	Preservatives	Matrix	BTEX (602/8020)/503.1	BTEX/TPH gas (602/8020)	TPH/diesel (8015)	EPA 601	TPH-JF EPA 8015 M JF = Jet Fuel	Standard	Turn Around Time Rush Services (72hr/48hr/24hr/12hr)
	Date	Time		VOA Tubs / Ambers	ICEV None /	Water / Soil /							
MW-1	4/23/98			X	X	X	X					X	
MW-2	↓			X	X	X	X					X	
MW-3	↓			X	X	X	X					X	

Relinquished by: <u>Will. G. Shipp</u>	Received by: <u>William Lewis</u>	Relinquished by:	Received by:
Date: <u>4/24/98</u> Time: <u>0815</u>	Date: <u>4-24-98</u> Time: <u>0815</u>	Date:	Date:

EXCELCHEM ENVIRONMENTAL LABS



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

ANALYSIS REPORT

Attention: William Shipp
Envirometrix Corp.
3950 Industrial Blvd., Ste. 200C
West Sacramento, CA 95691

Project: NAC, Test Cell Facility
Date Received: 04-24-98
Matrix: Water
Units: ug/L

EPA Methods 602/8015m												
Client Sample ID.	MW-1		MW-2		MW-3							
LAB. NO.	W0498214		W0498215		W0498216							
Date Sampled:	04-23-98		04-23-98		04-23-98							
BTEX Analyzed:	04-30-98		04-30-98		04-30-98							
ANALYTE	R/L	Results	R/L	Results	R/L	Results	R/L	Results	R/L	Results	R/L	Results
Benzene	0.5	ND	0.5	ND	0.5	ND						
Toluene	0.5	ND	0.5	ND	0.5	ND						
Ethylbenzene	0.5	ND	0.5	ND	0.5	ND						
Total Xylenes	0.5	ND	0.5	ND	0.5	ND						
TPH as Jet A	500	ND	500	ND	500	ND						

QA/QC RECOVERY			
	LCS	LCSD	Date Analyzed
Benzene	102%	101%	04-30-98
Toluene	101%	101%	04-30-98
Ethylbenzene	101%	101%	04-30-98
Total Xylenes	101%	101%	04-30-98

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


 Laboratory Representative

05-05-98
Date Reported



ENVIROMETRIX CORPORATION

MEMORANDUM

DATE: October 13, 1998

TO: Lorne Dyke
National Airmotive Corporation

FROM: Norman T. Shopay *NTS*

RE: Annual Groundwater Monitoring and Request for Closure Letter

EMC Job No. 198499

Enclosed are two (2) copies of Envirometrix Corporation's (EMC's), *Annual Groundwater Monitoring and Request for Closure Letter*, dated July 27, 1998.

Please forward one copy to Mr. Scott Seery at the Alameda County Department of Environmental Health.

If you have any questions, please call me.

Thank you.

Attachment: Report (2 copies)

ns/jc/198499c/12