



# State of Louisiana

## Department of Environmental Quality



M.J. "MIKE" FOSTER, JR.  
GOVERNOR

J. DALE GIVENS  
SECRETARY

January 17, 2001

**CERTIFIED – RETURN RECEIPT REQUESTED 7099 3400 0007 7058 8067**

Mr. David Burroughs  
General Motors Corporation  
7600 General Motors Blvd.  
Shreveport, LA 71130-001

RE: Groundwater Certification  
General Motors Corporation; AI # 3349  
Expansion Project at GM's Shreveport Assembly Plant  
7600 General Motors Blvd., Shreveport, LA, Caddo Parish

Dear Mr. Burroughs:

The Louisiana Department of Environmental Quality – Environmental Technology Division (LDEQ-ETD) has reviewed your submittal dated December 19, 2000 for the above referenced groundwater certification project. Based on this review the ETD has no objection to the project in regard to groundwater issues. A summary of project information and justification is attached.

If you have any questions or need further information, please call Luzma Mata de Leder at (225) 765-0624. Thank you for your cooperation.

Sincerely,

Steve Chutz, Geologist Supervisor  
Environmental Technology Division

lml

Attachment – Summary/Justification

c: GW file room  
Jesse Chang  
Peter Romanoswky, URS



## **SUMMARY/JUSTIFICATION**

### **Expansion Project at General Motors Shreveport Assembly Plant**

The Louisiana Department of Environmental Quality – Environmental Technology Division (LDEQ-ETD) has no objection to the expansion project at the General Motors Shreveport Assembly Plant in regard to groundwater issues.

General Motors, located in Shreveport (Fig. 1) is proposing to expand its assembly facility and to build a new production facility to manufacture light duty trucks and related products. The expansion project will be located on undeveloped land within the existing facility property boundary as well as on an additional 30.8 adjacent acres to the east. The new production facility and associated parking area will occupy approximately 53 acres. Thirteen acres will be used for parking, and the remaining 40 acres will be used to house a general vehicle assembly unit, a body shop and a stamping facility. Figure 2 shows the proposed expansion area.

Existing structures at the GM site consist of an assembly plant, a powerhouse for steam production, support facilities and administrative buildings. Other features include an aboveground storage tank (AST) battery with secondary containment, a wastewater treatment plant, cooling towers, two firewater storage tanks, a former fire training area, and a former coal pile area located immediately to the east and northeast of the main assembly plant.

The project construction area, located directly east of the existing plant facilities, has been cleared and graded as part of the site preparation. There is a stormwater drainage canal that traverses the area. This canal drains into a newly constructed stormwater retention basins located at the southeast corner of the plant property.

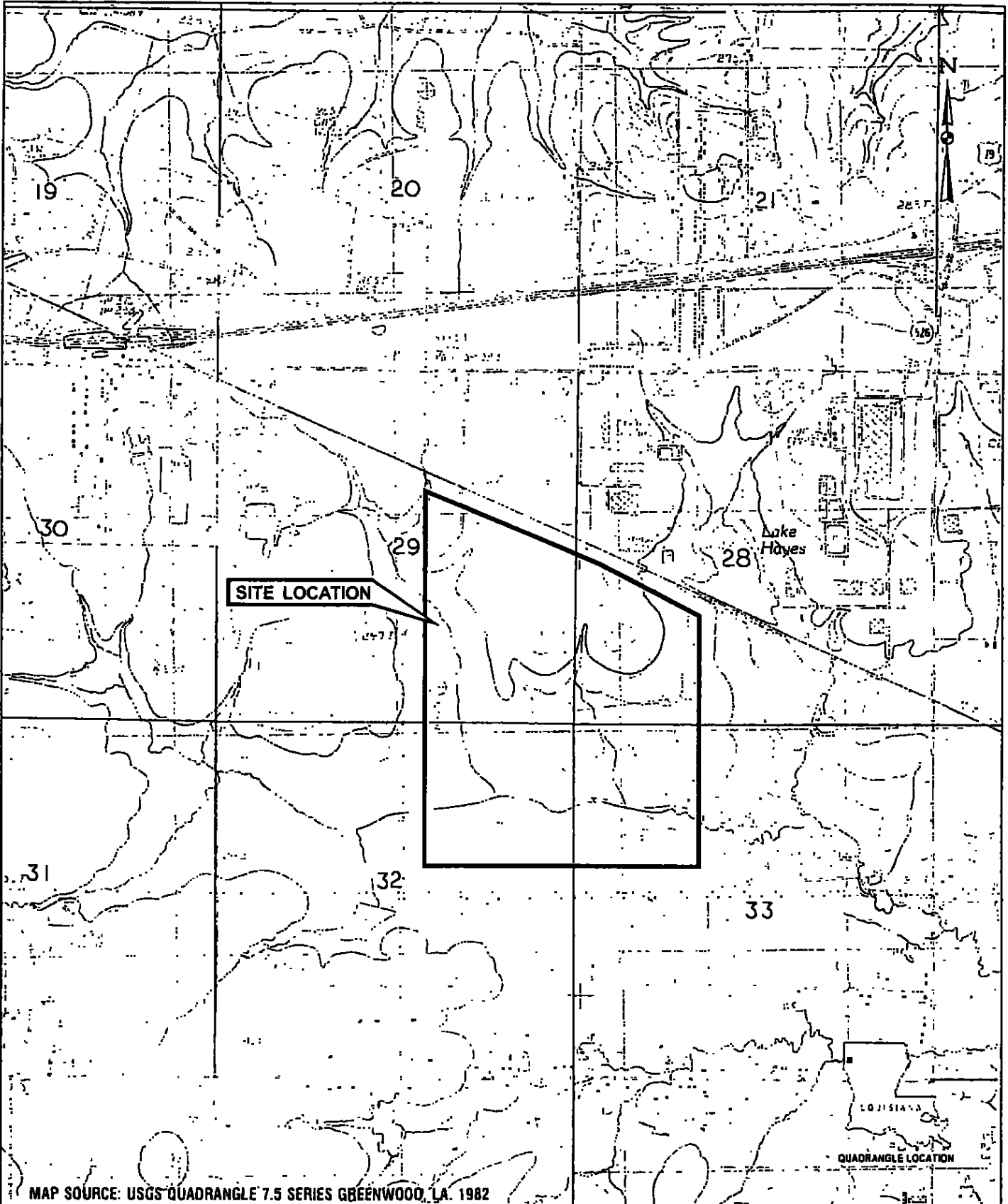
The proposed expansion project involves the installation of pilings. It is expected that approximately 700 drilled shafts will be installed. Each shaft will be approximately five feet in diameter and installed to a depth of approximately 25 feet below ground surface.

A site assessment was performed at the former fire training area in early 1999 by CRA Services (CRA). This area is located in the northern portion of the Plant site (Fig. 2). This area was investigated to determine the vertical and horizontal extent of hydrocarbon-impacted soil and groundwater and to evaluate closure options for the site in accordance with the LDEQ's Risk Evaluation/Correction Action Program (RECAP). The 1999 site investigation revealed that a very limited area of TPH impact on shallow soil (at the 0-2-foot interval) has occurred and that there was no impact of benzene, toluene, ethylbenzene and xylenes, TPH and polynuclear aromatic hydrocarbons (PAHs) in the groundwater. The area was evaluated under RECAP Management Option 1, and it was concluded that no further investigation or further action was required.

On February 15, 2000, LDEQ- ETD requested a site assessment at the proposed expansion area. At the request of the LDEQ-ETD two borings were conducted for this project. One of the borings (B-1) was located in the vicinity of the Above Storage Tank (AST) and the stormwater drainage canal where the Stamping Unit is proposed to be constructed and the other boring (B-2) was located near the Stormwater Retention Basins and the southern portion of the stormwater drainage canal. Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbon/gasoline and diesel ranges, and priority pollutant metals. Analytical results showed that VOCs were not detected in soil samples collected from either borehole. Benzene was detected in the groundwater sample collected from B-1. For this sample, benzene concentration was reported at 0.0105 mg/L. Total petroleum hydrocarbon/gasoline and diesel ranges were not detected in any of the soil and groundwater samples analyzed. No pollutant metals were detected in any of the soil samples. Chromium, lead and zinc were only detected in groundwater samples in the two borings, however, their presence and concentrations were not considered indicative of contamination in the area.

Based on the reported findings LDEQ-ETD requested that horizontal and vertical extent of benzene be investigated in the vicinity of the aboveground storage tank area (B-1). Five more borings were installed and groundwater samples were obtained to further investigate the presence of benzene. Figure 3 shows the location of these additional five borings. Analytical results from these five borings showed the absence of benzene in either the soil samples or groundwater samples collected. Sample results are summarized in Table 1.

A Management Option (MO-1) limiting RECAP Standard was developed for benzene. Evaluation results showed that benzene concentrations were below the limiting MO-1 RECAP standard, and concluded that no further investigation or further action is needed.



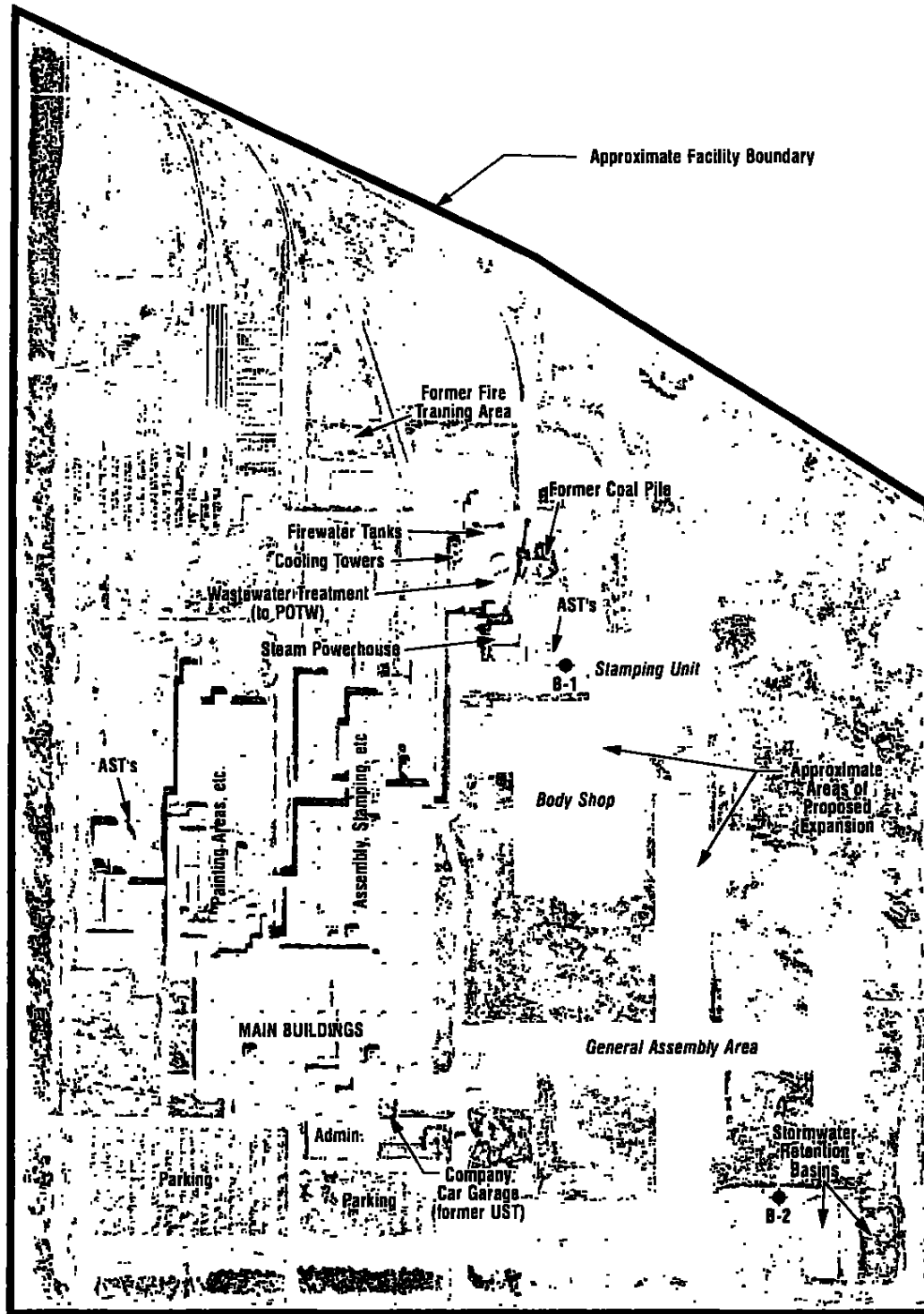
**GENERAL MOTORS CORPORATION**  
Shreveport, Louisiana

**URS**  
URS Corporation  
Baton Rouge, Louisiana

SCALE 1" = 2000'  
DRAWN BY: E OLSON  
DATE: 12/20/99  
CHKD. BY: Y.Q.  
DATE: 12/20/99

SITE LOCATION MAP

FILE NO  
9317.CC  
FIG NO  
1




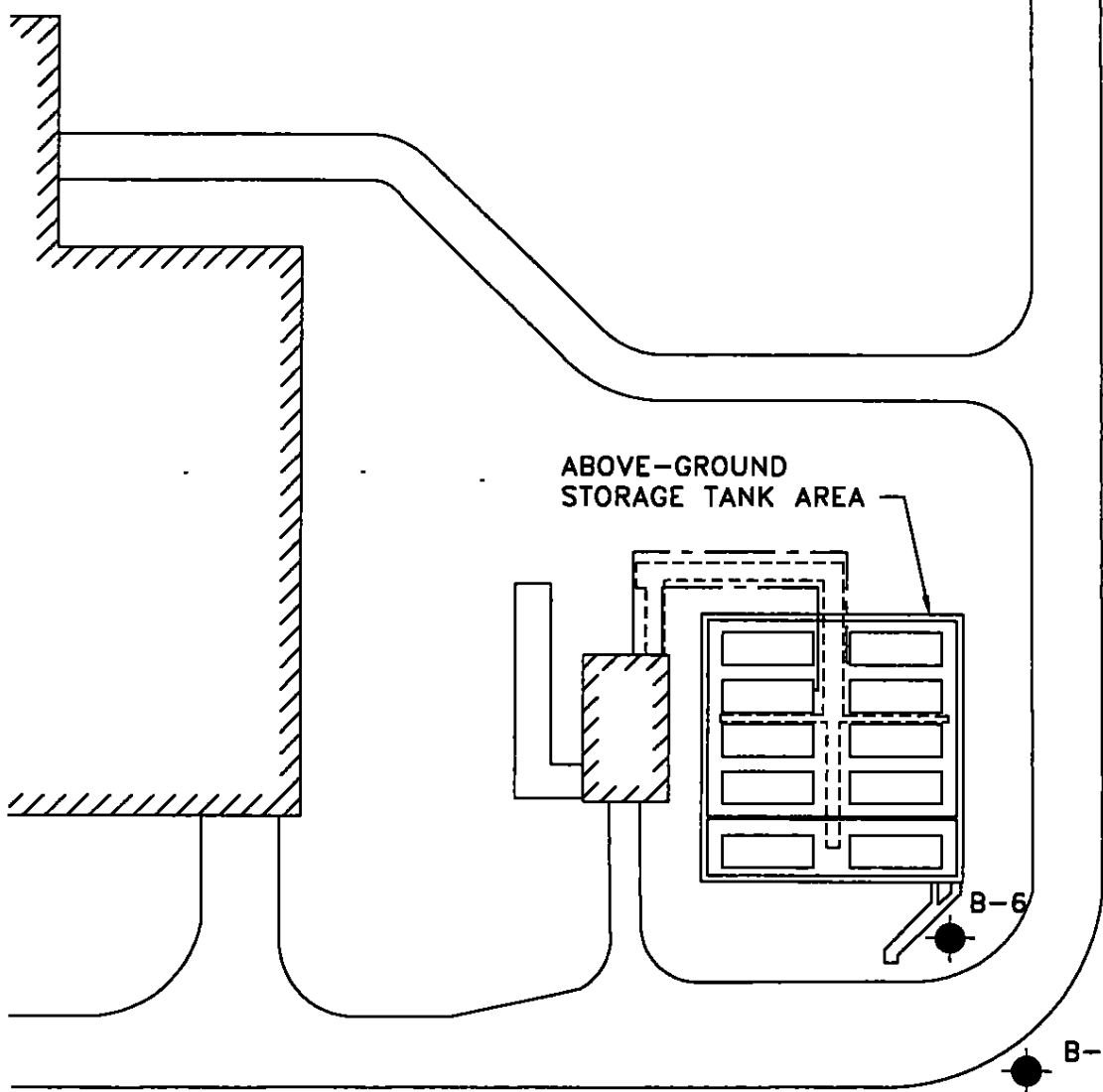
**LEGEND**

◆ B-2 = BORING LOCATION

URS/UMC 141-14-000000-01 C124

PHOTO SOURCE: LADOTD BATON ROUGE, LA (1989)

<b>GENERAL MOTORS CORPORATION</b> Strevport, Louisiana	 <b>URS Corporation</b> Baton Rouge, Louisiana	SCALE: 1" = 900'	PRELIMINARY LAYOUT OF PROPOSED EXPANSION AND ORIGINAL (FEB. 2000) BORING LOCATIONS	FILE NO.
		DRAWN BY: D OLSON		9317 00
		DATE: 04/19/00		FIG. NO.
		CHKD. BY: K Q.		2
		DATE: 04/19/00		



LEGEND:

 BORING LOCATION

 AREA OF NEW CONSTRUCTION

NOTE: SCALE IS APPROXIMATE.

FILE LOCATION: K:\GM-SHREVEPORT\00-913501.DWG

GENERAL MOTORS CORPORATION SHREVEPORT, LOUISIANA	<b>URS</b> 2822 O'Neal Lane Baton Rouge, Louisiana 70816 225/751-1873		OCTOBER 2000 BORING LOCATIONS	PROJ. NO. 3500009135
	SCALE: 1" = 30'	DRAWN BY: GAT CHKD. BY: CD		DATE: 9/26/00 DATE: 9/26/00

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TABLE 1

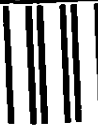
ANALYTICAL RESULTS  
GROUNDWATER INVESTIGATION  
GENERAL MOTORS CORPORATION  
SHREVEPORT ASSEMBLY PLANT

Soil Samples	VOCs - Benzene	Temporary Boring	Sample Depth Interval (ft)	Units <sup>1</sup>	RECAP <sup>2</sup> Screening Standards
B1AS1820	<0.050 <sup>3</sup>	Boring B-1A	18-20'	mg/kg	0.051
B3S1618	<0.050	Boring B-3	16-18'	mg/kg	0.051
B3S1618MS/MSD	0.0175/0.0177	Boring B-3	16-18'	mg/kg	0.051
B4S1820	<0.050	Boring B-4	18-20'	mg/kg	0.051
B5S2022	<0.050	Boring B-5	20-22'	mg/kg	0.051
B6S1820	<0.050	Boring B-6	18-20'	mg/kg	0.051
B6S1820D	<0.050	Boring B-6	18-20'	mg/kg	0.051
<b>Groundwater Samples</b>					
B1AW	<0.001	Boring B-1A	N/A <sup>4</sup>	mg/L	0.005
B1AWMS/MSD	0.0173/0.0189	Boring B-1A	N/A	mg/L	0.005
B3W	<0.001	Boring B-3	N/A	mg/L	0.005
B4W	<0.001	Boring B-4	N/A	mg/L	0.005
B4WD	<0.001	Boring B-4	N/A	mg/L	0.005
B5W	<0.001	Boring B-5	N/A	mg/L	0.005
B6W	<0.001	Boring B-6	N/A	mg/L	0.005

NOTES:

- <sup>1</sup> mg/kg = milligrams per kilogram (soil); and mg/L = milligrams per liter (groundwater).
- <sup>2</sup> Units listed correspond with LDEQ RECAP screening units.
- <sup>3</sup> Analytical detection limits.
- <sup>4</sup> N/A = Not Applicable.

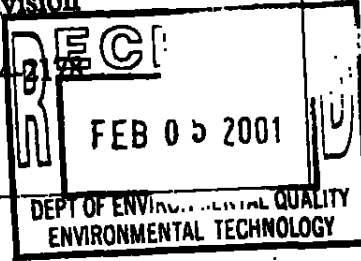
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Mr. David Burroughs  
General Motors Corporation  
7600 General Motors Blvd.  
Shreveport, LA 71130-001

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7099 3400 0007 7058 8067

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