CONESTOGA-ROVERS
& ASSOCIATES

FILE

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May 18, 2006

Reference No. 17318-05

Mr. Keith L. Casanova, Administrator
Louisiana Department of Environmental Quality
Remediation Services Division
Post Office Box 4314
Baton Rouge, LA 70821-4314

Dear Mr. Casanova:

Re: RECAP Evaluation and
Request for No Further Action-At This Time
GM Boulevard 30.8 and 33.8 Acre Tracts
North Side of General Motors Boulevard, East of Plant
Shreveport, Caddo Parish, Louisiana
Agency Interest No.: 84360

Conestoga-Rovers & Associates (CRA), as environmental consultant for General Motors Corporation (GM), herein submits a Risk Evaluation/Corrective Action Program (RECAP) evaluation of the above-referenced property (Site). This evaluation is being submitted in response to conditional approval by the Louisiana Department of Environmental Quality (LDEQ) of an Additional Site Investigation (ASI) report dated February 21, 2006. In correspondence dated May 2, 2006, LDEQ requested additional documentation supporting the calculation of RECAP standards for the Site (see Exhibit 1). A completed RECAP Form 1 Submittal Summary and other required RECAP forms are included as Exhibit 2.

BACKGROUND

In December 1999, C-K Associates, Inc. (C-K), on behalf of GM, conducted a limited Phase II Environmental Site Assessment (ESA) of the Site. In January 2000, C-K conducted a second expanded assessment to collect additional data for use in a (2000 version) RECAP evaluation of the Site. The purpose of the assessments was to determine if the Site had been adversely impacted from previous use. Five soil borings (SB-1 through SB-5) were installed for the collection of soil and groundwater samples on December 16 and 17, 1999, and fourteen soil borings (SB-6 through SB-19) were installed for the collection of soil and groundwater samples during January 13 through 16, 2000. Soil and groundwater samples were analyzed for volatile (VOC) and semivolatile (SVOC) organic compounds, chlorinated pesticides, polychlorinated biphenyls (PCBs), and the Resource Conservation and Recovery Act (RCRA) metals during the December 1999 ESA, and for Arsenic, Barium, Chromium, Lead, Selenium, and Mercury during

the January 2000 expanded assessment activities. Results of the groundwater sample analyses indicated the presence of several RCRA metals at concentrations above RECAP Screening Standards (SS). In particular, Barium, Chromium, Lead, and Selenium exceeded respective (2000 version) RECAP SS in groundwater. In addition, the analytical detection limits of several constituents exceeded the RECAP SS and these constituents were not evaluated in the (2000 version) RECAP Management Option – 1 (MO-1) evaluation conducted by C-K.

A comparison of the analytical data from previous assessments conducted by C-K with revised (2003 version) RECAP SS indicated that the detection limit for several constituents of concern (COCs) that previously exceeded the (2000 version) standards did not exceed the (2003 version) RECAP SS. Therefore, GM proposed to evaluate the Site using the 2003 version of the RECAP document and only include those COCs that exceeded the 2003 RECAP SS. Since groundwater samples from previous assessments were collected from temporary monitoring wells without filter packing, GM further proposed the installation of temporary monitor wells with pre-packed well screens for the collection of groundwater samples.

On November 18, 2005, CRA conducted an ASI, on behalf of GM, to further assess COCs that were previously found to exceed the 2003 RECAP Screening Option (SO) SS. Constituents analyzed included aniline in soil and barium, cadmium, chromium, lead, selenium, hexachlorobutadiene, pentachlorophenol, 1,1,2,2-tetrachloroethane and vinyl chloride in groundwater. ASI activities were described, in detail, in the previously submitted CRA report entitled *Additional Site Investigation, General Motors Boulevard, 30.8 and 33.8 Acre Tracts, Shreveport Truck Assembly Plant*. Analytical results of the November ASI indicated lead concentrations in groundwater exceeding the (2003) RECAP SO SS for groundwater in the location of soil boring SB-101.

This correspondence is intended to provide additional documentation, as requested by LDEQ in correspondence dated May 2, 2006, to support the assertion by GM that lead concentrations detected in groundwater at the Site are protective of human health and the environment.

SITE DESCRIPTION

The subject Site is located east of 7600 General Motors Boulevard in Shreveport (Caddo Parish), Louisiana. The Site consists of two tracts of land (30.8 and 33.8-acre tracts) and encompasses approximately 64.6-acres. The primary facility entrance is located at latitude 32°25'28" N and longitude 93°54'38" W (obtained from digital atlas). Surrounding land use in the area consists primarily of mixed industrial, commercial, and residential properties. A vicinity map showing the location of the Site is presented as figure 1. A surrounding land use map is included as

figure 2. A site plan showing the locations of former soil borings, temporary monitor wells and other pertinent features of the Site is presented as figure 3.

REGIONAL TOPOGRAPHY, GEOLOGY, AND HYDROLOGY (NOTE: Applies to Site and to GM facility where groundwater classification data was obtained.)

Topography: The Site lies within Caddo Parish in the uplands of the Gulf Coastal Plain at an approximate elevation of 230 feet above mean sea level (MSL) national geodetic vertical datum (NGVD). Topography in the vicinity of the Site slopes toward the east/southeast. Site surface water drainage is toward the south, via natural and man-made shallow drainage features.

Geology: The Site is located in an area that includes outcrops of the Paleocene-aged Wilcox Group at higher elevations with Quaternary terrace and stream deposits at lower elevations along natural drainage features. The Carrizo Sand consists of massive, discontinuous medium to coarse-grained sands that overlie fine to medium grained sands, clays, and lignite layers of the Wilcox Group. The Wilcox deposits are predominantly composed of interbedded sands and silts with sandy to silty clays that are occasionally lignitic. The Wilcox Group is approximately 300 feet thick in the Site vicinity and is underlain by the Paleocene Midway Group. Local alluvium is usually composed of silty sands to silts with occasional gravel lenses. ("Water Resources of Bossier and Caddo Parishes, Louisiana," by L. V. Page and H. G. May, 1964, Louisiana Geological Survey, Water Resources Bulletin No. 5).

Hydrogeology: The Carrizo-Wilcox Aquifer is the primary groundwater source for northwest Louisiana, according to the U.S. Geological Survey, "Water Resources Investigations Report 95-4176," 1991. The Carrizo Sand and the Wilcox Group are hydraulically connected and are considered as one aquifer.

The Carrizo-Wilcox Aquifer outcrops in Caddo, Bossier, DeSoto, Natchitoches, Red River, and Sabine Parishes and recharges from infiltration of rainwater and from shallower aquifers. Average hydraulic conductivity of the Carrizo Aquifer is 27 feet per day, while the Wilcox Aquifer is 12 feet per day. Potable water is available throughout Caddo Parish from the Wilcox Group, which yields enough water for rural use and small industry. The top of the Wilcox Group ranges in depth from 50 to 100 feet below ground surface (ft-bgs). Groundwater movement in the Wilcox Group is typically away from the Red River during periods of high-river stages and toward the river during periods of low-river stages. Groundwater quality in the Wilcox Aquifer is generally good, although some areas may contain high concentrations of sodium, chloride, and iron. The direction of near-surface groundwater flow is usually a function of topography and local drainage.

Water Well Survey: A survey of registered water wells within a one-mile radius of the Site identified 18 water wells. Of those wells identified, 7 are registered as Monitor, 10 are registered as Domestic, and one is registered as Industrial. The nearest domestic well is located approximately 2,500 feet east of the Site and is screened between 170 and 190 ft-bgs. A 7.5-minute quadrangle map showing the locations of the registered water wells within a one-mile radius of the Site is included as figure 4.

Area of Concern: The Area of Concern (AOC) is an area where constituents have been released to the environment. Although no releases have been reported in the area, the AOC conservatively includes the entire Site. A conceptual site model is included as figure 5.

DATA COLLECTION AND EXPOSURE ASSESSMENT

CRA has utilized analytical data obtained during the November 2005 ASI to conduct the RECAP evaluation presented herein. The previous investigation and data collection activities were described in the background section of this correspondence as well as in the previously submitted ASI report dated February 21, 2006. A copy of analytical reports and chain-of-custody documentation are provided for reference as Exhibit 3. Additional data used for this evaluation are provided below:

Groundwater Classification: To assess aquifer yield, CRA utilized hydraulic conductivity (slug-out) test data from three monitoring wells installed as part of Site Investigation activities performed August 19-22, 2003, on the west side of the General Motors Shreveport Assembly Plant (GM facility) located approximately 3,500 feet west of the Site [See *Revised Hazardous Waste Closure and Risk Evaluation/Corrective Action Program (RECAP) Evaluation*, November 2003 (AI No. 3349)]. Hydraulic conductivity (K) values were calculated by the Bouwer and Rice Method (1976) as determined from recovery versus time graphs with a commercially available software routine. Hydraulic conductivity values were utilized to calculate a sustainable aquifer yield for the aquifer under investigation equal to approximately 550 gallons per day (gpd). Data (boring logs, monitor well construction diagrams, LDOTD registration forms) utilized and calculations made to support and arrive at the estimated aquifer yield are provided as Exhibit 4.

The groundwater in the vicinity of the Site was, therefore, classified as 3A non-drinking water. This classification was based on the following criteria: there is no current or potential use of the groundwater from the zone of investigation at the Site; maximum attainable yield from the stratum is less than 800 gpd, based on tests/calculations described above; and groundwater would potentially discharge to a water body that is not a drinking water source (see below).

Groundwater Flow Direction: CRA utilized historical groundwater flow direction data from the GM facility, located approximately 3,500 feet west of the Site for this RECAP evaluation (see above). Groundwater flow direction was determined to be toward the east/northeast, which is generally consistent with topography in the vicinity of the Site. Copies of the monitor well gauging record and the potentiometric map generated during the GM facility investigation are included for reference as Exhibit 5.

Constituents of Concern: The COCs are those compounds detected at concentrations exceeding the RECAP SO SS during the November 18, 2005, ASI conducted by CRA. The only COC detected during ASI that exceeded the RECAP SO SS was lead in groundwater [0.0350 milligrams per liter (mg/L)].

Area of Investigation: The Area of Investigation (AOI) is a zone contiguous to and including impacted media defined vertically and horizontally by the presence of one or more constituents exceeding the RECAP SS. The only AOI at the Site consists of groundwater encompassing former soil boring location SB-101, as indicated on the site plan included as Figure 3.

Point of Exposure: The point of exposure (POE) is defined as the point of discharge from the point of compliance (POC) to the nearest downgradient surface water body (see below). Although it is not directly downgradient, Lake Hayes, located approximately 3,300 feet north of the POC, was conservatively considered the POE and is not designated as a drinking water source as defined by the Louisiana Administrative Code (LAC) Title 33:IX Chapter 11.

Point of Compliance: The point of compliance (POC) is a sampling location where the groundwater protection standard is enforced and at which reproducible and representative samples can be withdrawn. The POC should be located as near to the source as feasible without causing impact to the groundwater. Since there is no defined source at the Site and there are no points where reproducible samples can be collected, former temporary monitor well location SB-101 was considered the POC.

RECAP EVALUATION

The Site was evaluated using the RECAP SO and Appendix H (Management Option 1). Limiting RECAP Standards (LRS) were determined based on the following criteria/assumptions:

1. the Site meets the eligibility criteria for evaluation using the SO and Appendix H RECAP options,

2. the Site is ranked as Class 4 due to the absence of any long-term threat to human health and the environment,
3. the groundwater beneath the Site is classified as groundwater 3A non-drinking water (GW_{3NDW}),
4. the analytical data used for comparison with LRS meet minimum data usability requirements,
5. there are no known current or future site conditions that may affect exposure potential at the Site, and
6. further ecological evaluation of the Site does not appear to be required.

Identification of SO Standards. The RECAP SO SS for soil at the Site were determined based on the Site land use. The Site is located in an industrial area and is zoned industrial, therefore, the industrial screening standard values are applicable (Soil SS_i). The Soil SS_i were compared with the SS protective of groundwater (Soil SSGW), and soil saturation ($Soil_{SAT}$). The lowest of these standards was chosen as the limiting screening standard. These values are obtained from Table 1 of the October 2003 RECAP document. Comparison of COC concentrations for Aniline in soil to the limiting SS on RECAP Form 2 indicated that no soil COC concentrations were above the SO SS. Therefore, soil was eliminated from further consideration.

Groundwater screening standards (GW SS) were also obtained from Table 1 of the RECAP document. The maximum groundwater COC concentrations, or compliance concentrations (CCs), for the AOI are compared to the SO SS in RECAP Form 2. As previously mentioned, the only COC concentration in groundwater that exceeded the SO SS was lead (0.0350 mg/L). Groundwater COCs that exceeded the RECAP SO SS were further evaluated under RECAP Appendix H – Management Option 1 (MO-1).

Identification of the Appendix H/MO-1 LRS for Groundwater. The MO-1 site-specific LRS were calculated in accordance with RECAP Appendix H. Since groundwater was determined to be classification 3 (see "Groundwater Classification" above), and the nearest surface water body was identified as a non-drinking water supply (see "Point of Exposure" above), the $GW3_{NDW}$ standards were identified from RECAP Table 3. A longitudinal dilution factor (DF3) was then identified based on: (1) the shortest distance between the POC and the nearest downgradient surface water body (POE), which is greater than 2,000 feet; and (2) the thickness of the groundwater source ($S_d \leq 5$ feet). Based on these inputs, a MO-1 Longitudinal DF3 was obtained from RECAP page H-42 and multiplied by the $GW3_{NDW}$ standards obtained from Table 3 to arrive at the final GW3 standard.

The solubility of each COC in water ($Water_{SOL}$) was obtained from Table 3.

The lowest of the above standards was chosen as the LRS for each COC (lead). The aforementioned calculations are provided on RECAP Form 16 (Exhibit 2).

Comparison of the LRS to Exposure/Compliance Concentrations. A comparison of the Appendix H/MO-1 LRS with the CC for each COC is presented on RECAP Form 16 (Exhibit 2). The comparison demonstrates that lead concentrations in groundwater do not exceed the LRS.

RECOMMENDATIONS

Based on the results of this RECAP evaluation, CRA respectfully requests No Further Action-At This Time (NFA-ATT) status for this Site.

Should you have any questions or require additional information regarding this submittal, please contact CRA or Mr. David Burroughs, GM General Supervisor, Environmental Engineering, at (318) 683-9267.

Yours truly,

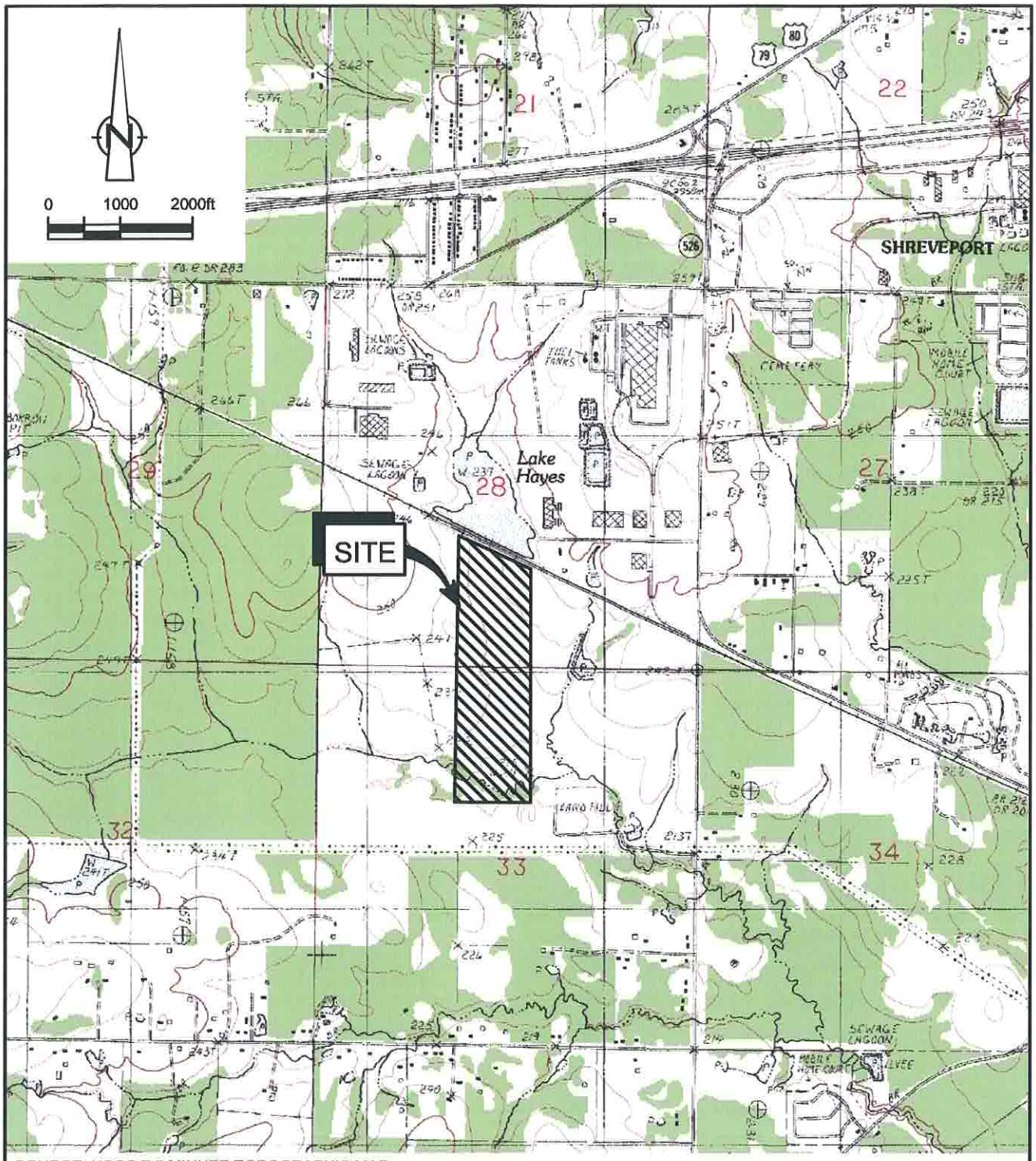
CONESTOGA-ROVERS & ASSOCIATES

J. Wesley Jones

Raymond J. Chadwick, PG

JWJ/smw/3
Encl.

c.c.: Mr. Fred Rindhage, GM Worldwide Real Estate



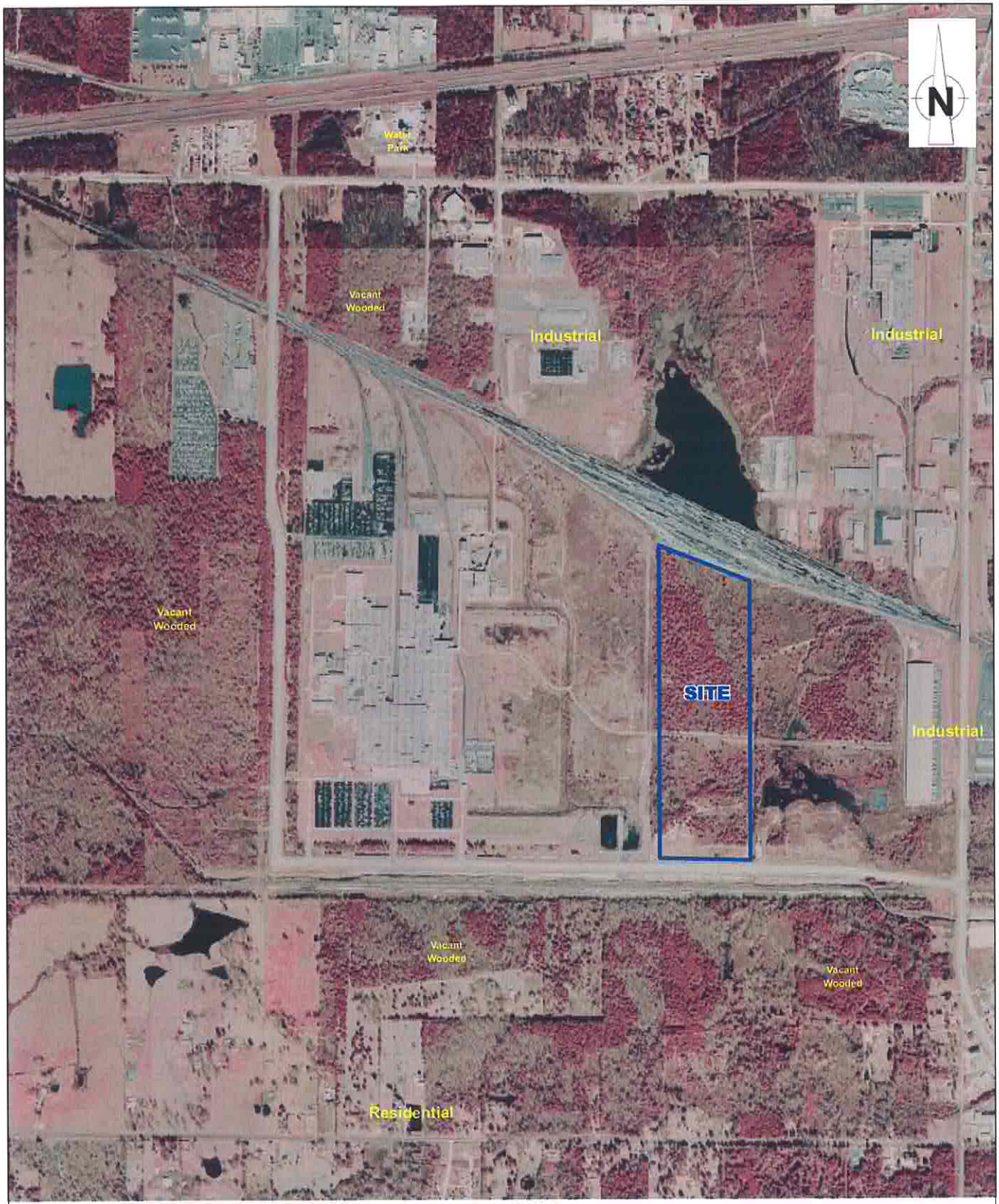
SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP;
"GREENWOOD, LOUISIANA," DATED 1982.

figure 1

VICINITY MAP
GENERAL MOTORS BOULEVARD 30.8 AND 33.8-ACRE TRACTS
7600 GENERAL MOTORS BOULEVARD,
SHREVEPORT, LOUISIANA
General Motors Corporation, Shreveport, Louisiana

CRA

017318-05(003)GN-BR001 MAY 18/2006



RE: 1998 COLOR INFRARED AERIAL PHOTOGRAPH FROM LOSCO.

0 750 1,500 Feet

figure 2

SURROUNDING LAND USE MAP

GENERAL MOTORS BOULEVARD 30.8 AND 33.8-ACRE TRACTS

7600 GENERAL MOTORS BOULEVARD, SHREVEPORT, LOUISIANA

General Motors Corporation, Shreveport, Louisiana

17318-05(003)PR-BR003 MAY 18/2006

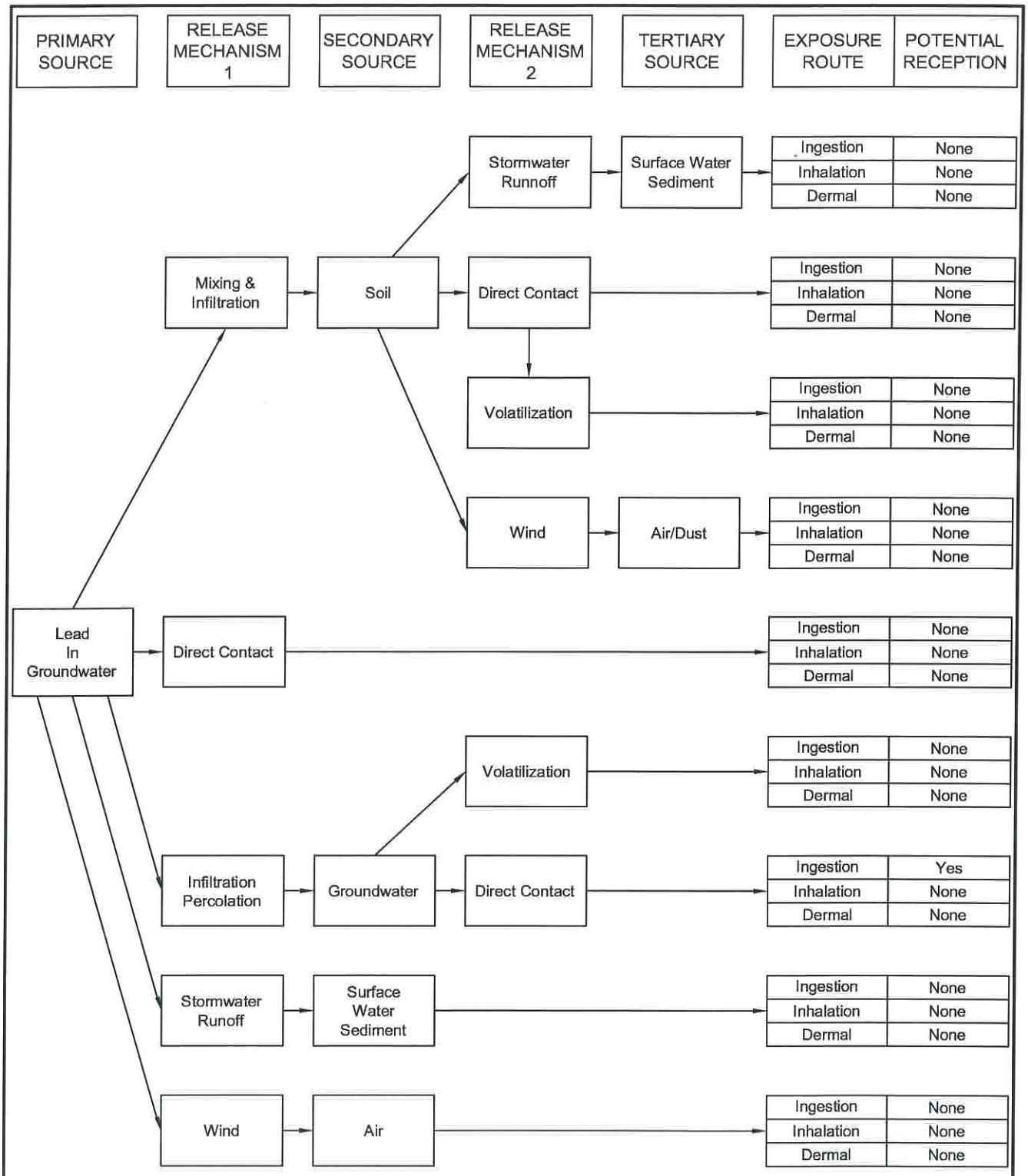


figure 5

CONCEPTUAL SITE MODEL
GENERAL MOTORS BOULEVARD 30.8 AND 33.8-ACRE TRACTS
7600 GENERAL MOTORS BOULEVARD, SHREVEPORT, LOUISIANA

General Motors Corporation, Shreveport, Louisiana

EXHIBITS

EXHIBIT 1

LDEQ CORRESPONDENCE
DATED MAY 2, 2006

DEPARTMENT OF ENVIRONMENTAL QUALITY
KATHLEEN BABINEAUX BLANCO
GOVERNOR
MIKE D. McDANIEL, Ph.D.
SECRETARY

May 2, 2006

CERTIFIED-RETURN RECEIPT REQUESTED 7004 1160 0001 9950 9349

Dr. David Burroughs
General Motors Corporation
Post Office Box 30011
Shreveport, LA 71130-0011

RE: Conditional Approval
Additional Site Investigation Report
GM Boulevard 30.8 and 33.8 Acre Undeveloped Tracts; **AI Number 84360**
North Side of General Motors Blvd
Shreveport, Louisiana; Caddo Parish

Dear Mr. Burroughs:

We have completed our review of the Additional Site Investigation Report dated February 21, 2006.

Based on the information submitted, it appears that the lead concentration (0.0350mg/L) in the groundwater exceeds the RECAP screening standard in the location of sample number SB-101. In your submittal, one of the recommendations made suggested the use of the lead standard (22 mg/L) that was approved for another site on the GM property. In cases such as this, we may allow the use of the groundwater classification information from the referenced site provided the supporting documentation is submitted and approved by the Department. Please provide the following documentation where applicable for both the site of concern and the site from which the data will be used: the name and AI number of the site of the approved data, the distance from the area of concern to the site/area from which the data will be used; the geology, hydrology, and hydrogeology of the site; the soil boring logs; a description of the groundwater use at and in the vicinity (one mile radius) of the AOC or the AOI including a DOTD well survey obtained within the last 12 months; the groundwater classification of the zone(s) under evaluation; aquifer test data used to determine the yield and/or TDS data; and potentiometric surface map(s).

We hereby approve the referenced report providing the referenced documentation is submitted to the Department within thirty (30) days of receipt of this letter.

ENVIRONMENTAL ASSESSMENT
PO BOX 4314, BATON ROUGE, LA 70821-4314
P:225-219-3236 F:225-219-3239
WWW.DEQ.LOUISIANA.GOV

Please be reminded that all correspondences related to this matter must include the AI number and be submitted in triplicate to:

Keith L. Casanova, Administrator
Remediation Services Division
P.O. Box 4314
Baton Rouge, LA 70821-4314.

Should you have any questions concerning this matter, feel free to contact me at (225) 219-3227.

Sincerely,

Wanda Ballou
Environmental Specialist
Remediation Services Division

c: LDEQ File Scanning Room 144-SW

EXHIBIT 2

RECAP FORMS/TABLES

RECAP FORM 1
RECAP SUBMITTAL SUMMARY

A completed RECAP Submittal Summary form shall be included as the first page of the RECAP Submittal.

1. Agency Interest Name: GM Boulevard 30.8 and 33.8 Acre Undeveloped Tracts

2. AI#: 84360

3. Name of Area of Investigation: Groundwater

4. Facility Owner Name: General Motors Corporation

5. Facility Owner Mailing Address: 7600 General Motors Boulevard
Shreveport, Louisiana

6. Facility Operator Name: Same

7. Facility Operator Mailing Address: Same

8. Facility Physical Address: Same

9. Parish: Caddo

10. Latitude/Longitude of Primary Facility Entrance: 32°25'28"N/93°54'38"W

11. Latitude/Longitude Method: Digital Atlas

12. Facility Contact Person: Mr. David Burroughs

13. Facility Contact Person's Phone Number: (318) 683-9267

14. Facility Contact Person's Mailing Address: P.O. Box 30011
Shreveport, Louisiana 71130

15. Facility Contact Person's E-mail Address: david.burroughs@gm.com

16. Area of Investigation Location: South end of Site, (groundwater) surrounding SB-101.

17. Area of Investigation Size: < 5 acres

18. Horizontal and Vertical Extent of the Area of Investigation has been identified? [X] Yes [ ] No

19. Describe the Current and Historical Uses of the Property on which the AOC is located and the Time Periods for Each Use/Activity: The Site has never been developed.

20. Indicate How Release Occurred (if known): Unknown

21. List Constituents Released (if known): Lead

22. RECAP Submittal Date: May 2006

23. RECAP Submittal Prepared by: J. Wesley Jones

24. RECAP Submittal Preparer's Employer: Conestoga-Rovers & Associates

25. RECAP Submittal Preparer's Phone Number: (318) 868-3003

26. Site Ranking: [ ] Class 1 [ ] Class 2 [ ] Class 3 [X] Class 4

27. Media Impacted:

[ ] Surface Soil	[ ] Groundwater 1A	[ ] Surface water
[ ] Subsurface Soil	[ ] Groundwater 1B	[ ] Sediment
	[ ] Groundwater 2A	[ ] Biota
	[ ] Groundwater 2B	
	[ ] Groundwater 2C	
	[X] Groundwater 3A	
	[ ] Groundwater 3B	
	[ ] Groundwater Classification Unknown	

28. Is soil present at 0-3 ft bgs impacted? [ ] Yes [X] No

29. Release volume: Unknown

30. Is NAPL Present? [ ] Yes [X] No

31. Aquifer: Carrizo-Wilcox

(a) Distance from AOC/AOI to the nearest downgradient property boundary: ≅ 800 feet

(b) Distance from AOC/AOI to the nearest downgradient surface water body: ≅ 3,300 feet

(c) Depth from known contamination to the nearest Groundwater Classification 1 aquifer: ≅ 150 feet

(d) If a GW 1 or 2 aquifer, distance from POC to nearest downgradient drinking water wells: N/A

32. Distance from known contamination to nearest enclosed occupied structure: N/A

33. Depth Groundwater First Encountered: ≅ 13 ft-bgs

34. Distance from POC to POE: ≅ 3,300 feet

35. Dilution Factor Applied: MO-1 = 440

36. Fractional Organic Carbon Content: 0.006 (default)

37. Current Land Use: [ ] Non-Industrial [X] Industrial NAICS: None

38. Potential Future Land Use: [ ] Non-Industrial [X] Industrial NAICS: 336112

39. Is There Offsite Contamination? [ ] Yes [X] No

(a) If Yes, Land Use Offsite: [ ] Non-Industrial [ ] Industrial NAICS: _____

(b) If Yes, Identify the Landowner(s), Lessee(s), and/or Servitude Holder(s):_____

40. Management Option(s)Applied at the AOC: [X] SO [X] MO-1 [ ] MO-2 [ ] MO-3

41. Provide documentation that the AOC meets the criteria for the Option implemented:

- An industrial exposure scenario is under consideration. The AOI is within a commercial area and no sensitive subpopulations exist on the site.
- The potential for human exposure is limited to exposure pathways via ingestion, inhalation from volatilization from the soil and groundwater, and dermal contact with impacted soil. Exposure pathways via surface water, sediment, or biota are virtually non-existent.
- Soil does not appear to be impacted (is less than 0.5 acre).
- The impacted groundwater is in declining conditions. The COC mass within groundwater cannot increase because an on-site source does not exist.
- PSH is not present and has not been encountered at the site.
- High fugitive dust emissions are not present due to the presence of vegetative cover over the entire site.
- Based on the relatively flat topography and presence of vegetative cover over a large portion of the site, the potential for impact to any surface water runoff is virtually non-existent. In addition, biota impact is similarly non-existent.
- The potential for discharge of COCs to surface water via a groundwater discharge from the AOIs is virtually non-existent due to the low permeability of soils at the site and the distance to the nearest surface water body from the site (>2,000 feet).
- There are no unusual current or future site conditions that may affect exposure potential at the site. Groundwater impacted with volatile constituents is not present near an enclosed structure.

42. Current Status of AOI-1: N/A

(a) AOI-2 will be further evaluated under: [ ] MO-1 [ ] MO-2 [ ] MO-3.
(b) Medium for further evaluation: _____
(c) Exceedances:

43. The AOIs will be remediated under: N/A

44. Exceedances and Corrective Action Standards to be applied: N/A

45. All constituent concentrations in all impacted media:

[X] comply with the applicable RECAP standards; **or**
[ ] will be remediated to the applicable RECAP; **or**
[ ] alternate remediation standards and a NFA-ATT determination is being requested **and**:

(a) RECAP Standards Applied: [ ] Non-industrial [x] Industrial
(b) There are institutional controls on this property: [ ] Yes [x] No
(c) If yes, type of institutional control employed: _____
(d) If applicable, the conveyance notice has been filed with the _____ (parish) Clerk of Court noting that the AOC was closed under industrial standards.

46. RECAP Standards Applied at the AOI:

AOI-1 Medium: Groundwater

COC	[X] CC	[ ] LSS [X] MO-1 LRS [ ] MO-2 LRS [ ] MO-3 LRS [ ] Alternate Standards
Lead	0.0350 (SB-101)	22 (MO-1)

47. Provide documentation that the AOIC and/or CC will continue to comply with the applicable standard:
N/A

48. If groundwater was impacted, provide a description of aquifer use and list the locations and depths of the nearest drinking water supply wells: See Figure 4 of this submittal

49. Provide: (a) a description of the remedial actions implemented; (b) verification that the source has been removed/mitigated and that residual constituent concentrations comply with the LSS or LRS; (c) a discussion on the offsite disposal of investigation and remediation wastes including types, quantities, disposal location, etc.;
(a) remedial actions not required since constituent concentrations below LRS; (b) the Site is vacant and undeveloped; (c) residual investigation derived waste (unanalyzed samples) was disposed by the contract laboratory.

50. If applicable, discuss monitoring well plugging and abandonment: N/A

51. Is There a Current or Potential Ecological Impact? [ ] Yes [X] No

RECAP FORM 2
ANALYTICAL DATA SUMMARY

DATE: November 18, 2005

SITE NAME: General Motors Boulevard 30.8 and 33.8-Acre Tracts

SITE ADDRESS: 7600 General Motors Boulevard
Shreveport, Caddo Parish, Louisiana

MEDIA SAMPLED: Soil

Note	COC	CAS #	Method	Sample Identification: Location/Depth	Sample Date	Option Used	Limiting Standard (mg/kg)	MDL (mg/kg)	PQL (mg/kg)	Sample Result (mg/kg)	QA/QC Flag
	Aniline	62-53-3	8270C	7318-SB-101 (13-15)	05,11,18	SO	0.065	0.00967	0.0200	0.00967	U
	Aniline	62-53-3	8270C	7318-SB-101 (17-19)	05,11,18	SO	0.065	0.00966	0.0200	0.00966	U
Replicated (7318-SR-1)	Aniline	62-53-3	8270C	7318-SB-102 (23-25)	05,11,18	SO	0.065	0.00968	0.0200	0.00968	U

Notes:

COC= Constituent of Concern
CAS= Chemical Abstract Service Registry Number
MDL= Minimum Detection Limit
PQL= Practical Quantitation Limit
mg/kg= Milligrams per kilogram which is approximately equivalent to parts per million.
SO= Screening Option.
U= The analyte was analyzed but not detected.

FORM 2
ANALYTICAL DATA SUMMARY

DATE: November 18, 2005

SITE NAME: General Motors Boulevard 30.8 and 33.8-Acre Tracts

SITE ADDRESS: 7600 General Motors Boulevard
Shreveport, Caddo Parish, Louisiana

MEDIA SAMPLED: Groundwater

Note	COC	CAS #	Method	Sample Identification: Location/Depth	Sample Date	Option Used	Limiting Standard (mg/L)	MDL (mg/L)	PQL (mg/L)	Sample Result (mg/L)	QA/QC Flag
	Barium	7440-39-3	6010B	7318-SB-101	05,11,18	SO	2.0	0.0018	0.020	0.635	
	Cadmium	7440-43-9	6010B	7318-SB-101	05,11,18	SO	0.0050	0.0002	0.005	0.0002	U
	Chromium, total	N/A	6010B	7318-SB-101	05,11,18	SO	0.10	0.0016	0.010	0.0813	
	Lead	7439-92-1	6010B	7318-SB-101	05,11,18	SO	0.015	0.0025	0.010	**0.0350**	
	Selenium	7782-49-2	6010B	7318-SB-101	05,11,18	SO	0.050	0.0041	0.040	0.0061	B
	Hexachlorobutadiene	87-68-3	8270C	7318-SB-101	05,11,18	SO	0.00073	N/A	0.0006	0.0006	U
	Pentachlorophenol	87-86-5	8270C	7318-SB-101	05,11,18	SO	0.0010	0.0002	0.0004	0.0002	U
	1,1,2,2-Tetrachloroethane	79-34-5	8260B	7318-SB-101	05,11,18	SO	0.00050	0.0002	0.0005	0.0002	U
	Vinyl Chloride	75-01-4	8260B	7318-SB-101	05,11,18	SO	0.0020	0.0002	0.0010	0.0002	U
Replicate (7318-WR-1)	Barium	7440-39-3	6010B	7318-SB-101	05,11,18	SO	2.0	0.0018	0.020	0.0543	
Replicate (7318-WR-1)	Cadmium	7440-43-9	6010B	7318-SB-101	05,11,18	SO	0.0050	0.0002	0.005	0.0012	B
Replicate (7318-WR-1)	Chromium, total	N/A	6010B	7318-SB-101	05,11,18	SO	0.10	0.0016	0.010	0.0016	U
Replicate (7318-WR-1)	Lead	7439-92-1	6010B	7318-SB-101	05,11,18	SO	0.015	0.0025	0.010	0.0025	U
Replicate (7318-WR-1)	Selenium	7782-49-2	6010B	7318-SB-101	05,11,18	SO	0.050	0.0041	0.040	0.0041	U
Replicate (7318-WR-1)	Hexachlorobutadiene	87-68-3	8270C	7318-SB-101	05,11,18	SO	0.00073	N/A	0.0005	0.0005	U
Replicate (7318-WR-1)	Pentachlorophenol	87-86-5	8270C	7318-SB-101	05,11,18	SO	0.0010	0.00016	0.0003	0.00016	U
Replicate (7318-WR-1)	1,1,2,2-Tetrachloroethane	79-34-5	8260B	7318-SB-101	05,11,18	SO	0.00050	0.0002	0.0005	0.0002	U
Replicate (7318-WR-1)	Vinyl Chloride	75-01-4	8260B	7318-SB-101	05,11,18	SO	0.0020	0.0002	0.0010	0.0002	U

FORM 2
ANALYTICAL DATA SUMMARY

DATE: November 18, 2005

SITE NAME: General Motors Boulevard 30.8 and 33.8-Acre Tracts

SITE ADDRESS: 7600 General Motors Boulevard
Shreveport, Caddo Parish, Louisiana

MEDIA SAMPLED: Groundwater

Note	COC	CAS #	Method	Sample Identification: Location/Depth	Sample Date	Option Used	Limiting Standard (mg/L)	MDL (mg/L)	PQL (mg/L)	Sample Result (mg/L)	QA/QC Flag
	Barium	7440-39-3	6010B	7318-SB-102	05,11,18	SO	2.0	0.0018	0.020	0.0470	
	Cadmium	7440-43-9	6010B	7318-SB-102	05,11,18	SO	0.0050	0.0002	0.005	0.0014	B
	Chromium, total	N/A	6010B	7318-SB-102	05,11,18	SO	0.10	0.0016	0.010	0.0016	U
	Lead	7439-92-1	6010B	7318-SB-102	05,11,18	SO	0.015	0.0025	0.010	0.0025	U
	Selenium	7782-49-2	6010B	7318-SB-102	05,11,18	SO	0.050	0.0041	0.040	0.0041	U
	Hexachlorobutadiene	87-68-3	8270C	7318-SB-102	05,11,18	SO	0.00073	N/A	0.0005	0.0005	U
	Pentachlorophenol	87-86-5	8270C	7318-SB-102	05,11,18	SO	0.0010	0.0002	0.0003	0.0002	U
	1,1,2,2-Tetrachloroethane	79-34-5	8260B	7318-SB-102	05,11,18	SO	0.00050	0.0002	0.0005	0.0002	U
	Vinyl Chloride	75-01-4	8260B	7318-SB-102	05,11,18	SO	0.0020	0.0002	0.001	0.0002	U

Notes:

COC= Constituent of Concern
CAS= Chemical Abstract Service Registry Number
MDL= Minimum Detection Limit
PQL= Practical Quantitation Limit
N/A = Not Available.
SO= Screening Option.
Bold= Bolded COC concentration exceeds LDEQ SO.
mg/L= Milligrams per liter which is approximately equivalent to parts per million.

U= The analyte was analyzed but not detected.
B= The analyte is an estimated value between the MDL and PQL.

RECAP FORM 3
ANALYTICAL DATA EVALUATION

Date May 16, 2006

Facility Name General Motors Boulevard 30.8 and 33.8-Acre Tracts

Agency Interest (AI #) 84360

Physical Site Location 7600 General Motors Boulevard, Shreveport, Louisiana (Caddo Parish)

Operation Address Same.

Owner/Responsible Party Address Same.

1. Data Generation

1.A All sample collection was done in accordance to applicable RECAP collection guidelines. [X] Yes [ ] No

Note: Samples were collected during a Phase II Environmental Site Assessment and were not collected in strict accordance with RECAP. Groundwater sample results, however, do meet RECAP QA/QC requirements and should be useable for comparison with site-specific Limiting RECAP Standards (LRS).

1.B All generated data was obtained using EPA Methodology, RECAP approved methodology (as found in text), or methodology pre-approved by the Department. Any modifications to methodology have been noted, explained and pre-approved by the Department. [X] Yes [ ] No

1.C All Data are analyte-specific and the identity and concentration are confirmed. [X] Yes [ ] No

1.D All data were generated by a LDEQ certified laboratory. [X] Yes [ ] No

2. Data Evaluation and Usability

2.A Methods used are appropriate for analyzed constituents:

1. Analysis used is specific for COCs. [X] Yes [ ] No

2. Results are produced with the most appropriate sensitive method. (e.g. not using portable field analytical instruments). [X] Yes [ ] No

2.B Sample Quantitation Limits (SQL)

Note: The SQL is not synonymous with the IDL (instrument detection limit) or the MDL (minimum detection limit). The SQL is derived after considering the effects of dilutions, loss of instrument sensitivity, matrix interferences, and other interferences effecting the lower-end accuracy of analysis, and therefore resulting in the elevation of the method detection limit. The SQL will be the only detection limit considered for comparison to limiting standards.

1. All SQLs are less than reference concentrations (RS or SS). [ ] Yes [X] No (If yes, proceed to Section 2C, Qualifiers and Codes).

2. Samples with SQLs greater than the limiting standard are not being reported as non-detected. (If yes, proceed to Item # 3 of this section). [X] Yes [ ] No

   If the SQL is higher than the limiting standard, and a non-detect is being reported, data may still be considered by the Department if all the below conditions are met:

   (a) The non-detect results make up less than 5-10 percent of a sample set for a considered individual COC.

   (b) The ND is not classified as being from a key sampling location (e.g. drinking water well).

   (c) Documentation provided by a LDEQ accredited laboratory (with supporting evidence) is included in the document demonstrating that a practical quantitation limit was not achievable due to site or sample-specific conditions.

   Have the above three conditions been met? [ ] Yes [ ] No

   Note: If one or more of the above conditions cannot be met, the total (100%) value of the PQL may be reported as a positive detected result.

   Will this option be used and annotated in the Report? [ ] Yes [ ] No

   Note: If all answers in this item are "no," analytical results will be rejected and re-sampling will be required.

3. Are sample results higher than both the PQL and the limiting standard? [X] Yes [ ] No (If so, results may be used despite elevated PQL).

2.C Qualifiers and Codes

1. All qualifiers and codes for flagged data have been noted on form 2 and supporting documentation has been included in the laboratory information package. [X] Yes [ ] No

2. All data with a qualifier of "R" (unusable data) do not come from critical sample points (if so, resample will be required). [X] Yes [ ] No

3. All data with a qualifier of "J" (estimated concentrations) have been included as positive results. [X] Yes [ ] No

2.D Blank Samples

1. Field and laboratory blanks showed no signs of contamination, and no constituents were detected in blanks. (If no constituents or contaminants were detected, proceed to 2E, Tentatively Identified Compounds). [X] Yes [ ] No

2. Contaminants or constituents found in blanks can be considered common laboratory contaminants as defined by EPA (acetone, 2-butanone, methylene chloride, toluene, or phthalates); and the same contaminants found in site samples are present at quantities less than 10 times the levels found in blanks. (If no, constituents are to be reported as detected COCs). [ ] Yes [ ] No

3. Contaminants or constituents found in blanks are not considered common laboratory contaminants as defined by EPA; and the same contaminants found in site samples are present at quantities less than 5 times the levels found in blanks (If no, constituents are to be reported as detected COCs). [ ] Yes [ ] No

2.E Tentatively Identified Compounds (TIC)

All possible TIC have been identified, evaluation is supported with documentation in the text, and information conforms to the requirements as listed in Section 2.5 of the RECAP. [X] Yes [ ] No

2.F Historical Data

1. All quantitative historical data has been reviewed by current QA/QC guidelines, and all applicable supporting information is justified and included in the report. [X] Yes [ ] No

2. All qualitative historical data is verifiable, has not been used quantitatively, and has only been used in the development of a conceptual model. [X] Yes [ ] No

3. Documentation

3.A Laboratory information package assembled as follows [X] Yes [ ] No:

1. Sample documentation (chains of custody, preparation time, time of analysis).
2. Sample and analyte identification and quantification.
3. Determination and documentation of sample quantitation limits (SQLs).
4. Initial and continuing calibration.
5. Performance evaluation samples (external QA or laboratory control samples)
6. Matrix spike recoveries.
7. Analytical error determination (determined with replicate samples).
8. Total measurement error determination summary. (Evaluates overall precision of measurement system from sample acquisition through analysis. Determined with field duplicate and matrix spike with matrix spike duplicate).
9. Explanation and supporting documentation for flagged data.

3.B All methods used in all analysis have produced tangible raw data (e.g. chromatograms, spectra, digital values), and are available to the Department upon request.
[X] Yes [ ] No

1. Representative data is included in documentation as examples of method procedures. [X] Yes [ ] No

2. All flagged data is supported with complete associated tangible raw data. (e.g. depiction of matrix interferences, spiked recoveries reported outside of control limits, evidence for need for dilution etc.). [X] Yes [ ] No

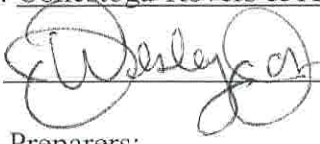
Note: Any "no" answer must be explained at the conclusion of this form. Items not applicable should be left unmarked.

4. Submitter Information

Date: May 16, 2006

Name of Person submitting this evaluation: J. Wesley Jones

Affiliation: Conestoga-Rovers & Associates (CRA)

Signature: 

Additional Preparers: _____

RECAP FORM 4
SAMPLING INFORMATION SUMMARY

DATE: November 18, 2005

Site Name: General Motors Boulevard 30.8 and 33.8-Acre Tracts
Site Physical Address: 7600 General Motors Boulevard
Shreveport, Caddo Parish, Louisiana

LDEQ Site I.D. Number(s): **AI: 84360**

Sample Location No.	SB-101	SB-101	SB-102	SB-101	SB-102
Sample Identification No.	SB-101 (13-15)	SB-101 (17-19)	SB-102 (23-25)	SB-101	SB-102
Laboratory Sample I.D. No.	306407-1	306407-2	306407-3	306407-6	306407-7
Date Sampled (yy,mm,dd)	05,11,18	05,11,18	05,11,18	05,11,18	05,11,18
Media Sampled	Surface Soil	Subsurface Soil	Subsurface Soil	Groundwater	Groundwater
Sample Type	Grab	Grab	Grab	Grab	Grab
Sample Collection Point	Borehole	Borehole	Borehole	Borehole	Borehole
Sampling Equipment	direct push	direct push	direct push	teflon bailer	teflon bailer
Sample Depth (BGS)	13 feet	17 feet	23 feet	13 feet	24 feet
Sample Elevation (NGVD)	NE	NE	NE	NE	NE
Ground Surface Elevation (NGVD)	NE	NE	NE	NE	NE
Sampling Comments	None	None	None	None	None
Replicate? (Y/N)	N	N	Y	Y	N
Replicate Sequence Number	N/A	N/A	SR-1	WR-1	N/A

RECAP FORM 16
MANAGEMENT OPTION 1 SUBMITTAL FOR GROUNDWATER

AOI-3 GROUNDWATER - Identification of the Limiting (Non-Enclosed Space) RS:

COC	❑ GW_1 ❑ GW_2 ❑ GW_{3DW} ■ GW_{3NDW}	❑NO DAF ❑ DAF2 ❑ DAF3 ■ DAF3	Final ❑ GW_1 ❑ GW_2 ❑ GW_{3DW} ■ GW_{3NDW}	$Water_{sol}$	❑ GW_{esi}	■GW_{air}	Additivity Divisor	■ FINAL GW_{air}	Limiting RS
Lead	0.050	440	22	NA	NA	NA	NA	NA	22

GROUNDWATER – Compliance Concentration:

COC	Compliance Concentration
Lead	0.0350

MO-1 GROUNDWATER RECAP ASSESSMENT:

COC	Limiting RS	Compliance Concentration	CC Exceeds LRS?
Benzene	22	0.0350	No

RECAP FORM 18
ECOLOGICAL CHECKLIST

Section 1 - Facility Information

1. Name of facility: General Motors Boulevard 30.8 and 33.8-Acre Tracts

2. Location of facility: 7600 General Motors Boulevard, Shreveport, Louisiana

   Parish: Caddo

3. Mailing address: 7600 General Motors Boulevard, Shreveport, Louisiana

4. Type of facility and/or operations associated with AOC: Vacant Land

5. Name of AOC or AOI: AOI-1 = Groundwater

6. If available, attach a USGS topographic map of the facility and/or aerial or other photographs of the release site and surrounding areas. See Figure 1.

Section 2 - Land Use Information

Describe land use at and in the vicinity of the AOC/AOI: Industrial and commercial.

2. Describe land use adjacent to the facility: Same as above.

3. Provide the following information regarding the nearest surface water body which has been impacted or has the potential to be impacted by COC migrating from the AOC/AOC:

a) Name of the surface water body: Lake Hayes

b) Type of surface water body:

[ ] freshwater river or stream
[ ] freshwater swamp/marsh/wetland
[ ] saltwater or brackish swamp/marsh/wetland
[x] lake or pond
[ ] bayou or estuary
[ ] drainage ditch
[ ] other:_____

c) Designated use of the segment/sub-segment of the surface water body (LAC 33:IX):No designated use.

d) Distance from the AOC/AOI to nearest surface water body: >2,000 feet

4. Do any potentially sensitive environmental areas exist adjacent to or in proximity to the site, e.g., federal and state parks, national and state monuments, wetlands, etc? [ ] Yes [X] No

If yes, explain: _____

Section 3 - Release Information

1. Nature of the release: Unknown.

2. Location of the release (within the facility): No defined location known.

3. Location of the release with respect to the facility property boundaries: Near south end of Site.

4. Constituents known or suspected have been released: Lead.

5. Indicate which media are known or suspected to be impacted and if sampling data are available:

[ ]	soil 0 - 3 feet bgs	[X] yes [ ] no
[ ]	soil 0 - 15 feet bgs	[X] yes [ ] no
[ ]	soil >15 feet bgs	[X] yes [ ] no
[X]	groundwater	[X] yes [ ] no
[ ]	surface water/sediment	[X] yes [ ] no

Data are available for surface soil and subsurface soil. Observed constituent concentrations, however, do not indicate impact to these media.

6. Has migration occurred outside the facility property boundaries? [ ] yes [X] no

If yes, describe the designated use of the offsite land impacted: _____

Section 4 - Criteria for Further Assessment

If the AOI meets **all** of the criteria presented below, then typically no further ecological evaluation shall be required. If the AOI **does not** meet **all** of the criteria, then a screening level ecological risk shall be conducted. The Submitter should make the initial decision regarding whether or not a screening level ecological risk assessment is warranted based on compliance of the AOI with criteria listed below. After review of the ecological checklist and other available site information, the Department will make a final determination on the need for a screening level ecological risk assessment. If site conditions at the AOI change such that one or more of the criteria are not met, then a screening level ecological risk assessment shall be conducted. Answers shall be based on current site conditions (i.e., shall not consider future remedial actions or institutional or engineering controls).

Indicate if the AOI meets the following criteria:

(1) The area of impacted soil is approximately 5 acres or less in size (based on the AOI identified for the human health assessment) and it is not expected that the COC will migrate such that the soil AOI becomes greater than 5 acres in size. [X] yes [ ] no

(2) There is no current release or demonstrable long-term threat of release (via runoff or groundwater discharge) of COC from the AOI to a surface water body. [X] yes [ ] no

(3) Recreational species, commercial species, threatened or endangered species, and/or their habitats are not currently being exposed, or expected to be exposed, to COC present at or migrating from the AOI.
[X] yes [ ] no

(4) There are no obvious impacts to ecological receptors or their habitats and none are expected in the future.
[X] yes [ ] no

Is further ecological evaluation required at this AOI? [ ] yes [X] no
This determination is subject to Department concurrence.

Section 5 - Site Summary

The ecological checklist submittal shall include a site summary that presents sufficient information to verify that the AOI meets or does not meet the criteria for further assessment.

All constituent concentrations are below risk-based standards, as documented in the enclosed RECAP Evaluation, and, to the extent currently ascertainable, do not represent a current or future ecological threat to the site or surrounding properties.

Section 6 - Submitter Information

Date: May 16, 2006

Name of person submitting this checklist: J. Wesley Jones

Affiliation: Conestoga-Rovers & Associates (CRA)

Signature: _____ Date: 05/18/06

Additional Preparers: _____

EXHIBIT 3

SOIL AND GROUNDWATER ANALYTICAL REPORTS AND
CHAIN OF CUSTODY DOCUMENTATION

EXHIBIT 4

BORING LOGS, MONITOR WELL CONSTRUCTION DIAGRAMS, LDOTD REGISTRATION FORMS SUPPORTING AQUIFER CLASSIFICATION AND GROUNDWATER USE FROM REFERENCE SITE (AI # 3349)

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-1

Client: General Motors Shreveport Assembly Plant
Shreveport, LA

File No.: 17332(1)
Date: 4/26/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: MWN

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
Moisture Content (%)	Atterberg Test: Liquid Limit (%)	Atterberg Test: Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs. Start Time: 1411 Finish Time: 1426
					66	1.5					Medium, gray, brown, reddish-brown silty CLAY (CL)
					335	0.75					- - gray, brown - hydrocarbon odor noted
					50.2	0.75					
					38.2	2		5			- - very silty
					31.5	2					- - with organic matter
					22.7	0.75		10			- - moist
											Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

Direct Push

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted

Level After __ min

NP Non Plastic

* No Penetrometer or SPT Value

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-2

Client: General Motors Shreveport Assembly Plant
Shreveport, LA

File No.: 17332(1)
Date: 4/26/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: MWN

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
Moisture Content (%)	Atterberg Test: Liquid Limit (%)	Atterberg Test: Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs. Start Time: 1215 Finish Time: 1235
					14.6	1					Gray, brownish-red silty CLAY (CL) - Soft
					25.1	1					
					3.6	3.5					- - medium
								5			
					0	1					Brown, gray clayey SILT (ML) - with organic material
					0	1.5					- - with red mottling
					0	2		10			Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

Direct Push

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted

Level After __ min

NP Non Plastic

* No Penetrometer or SPT Value

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-3

Client: General Motors Shreveport Assembly Plant
Shreveport, LA

File No.: 17332(1)
Date: 4/26/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: JWJ/MWN

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
Moisture Content (%)	Atterberg Test: Liquid Limit (%)	Atterberg Test: Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs. Start Time: 1145 Finish Time: 1203
											No sample recovery
					0	*					Gray silty CLAY (CL)
					0	1.75					
					0	4.5		5			- - red/brown, very stiff
					0	0.5					- - more sandy - moist
					0	1.25		10			- - with organic material
											Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Direct Push
Split-Spoon Sampler
Auger Cuttings
No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted
Level After __ min
NP Non Plastic
* No Penetrometer or SPT Value

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-4

Client: General Motors Shreveport Assembly Plant
Shreveport, LA

File No.: 17332(1)
Date: 4/26/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: MWN

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
Moisture Content (%)	Atterberg Test: Liquid Limit (%)	Atterberg Test: Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs. Start Time: 1115 Finish Time: 1131
					0	*					Fill Material
					24.3	1.75					Gray silty CLAY (CL) - with iron oxide staining
					0	1					- - reddish-brown, moist
					0	1.75		5			Dark brown clayey SILT (ML)
					2.1	3					Reddish-brown, gray silty CLAY (CL)
					0	3		10			Reddish- brown, sandy CLAY (CL) - with organic matter
											Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

Direct Push

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted

Level After __ min

NP Non Plastic

* No Penetrometer or SPT Value

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-5

Client: General Motors Shreveport Assembly Plant
Shreveport, LA

File No.: 17332(1)
Date: 4/26/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: MWN

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
Moisture Content (%)	Atterberg Test: Liquid Limit (%)	Atterberg Test: Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs. Start Time: 1320 Finish Time: 1335
					0	2.75					Medium brown, gray silty CLAY (CL) - with iron oxide staining
					0	2.75					
					0	3					- - with red mottling
					0	1.5		5			- - with organic material
					0	2.5					- - medium
					0	3.5		10			-- firm
											Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

Direct Push

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted

Level After __ min

NP Non Plastic

* No Penetrometer or SPT Value

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-6

Client: General Motors Shreveport Assembly Plant
Shreveport, LA

File No.: 17332(1)
Date: 4/26/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: MWN

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
	Atterberg Test										Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs.
Moisture Content (%)	Liquid Limit (%)	Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: 1345 Finish Time: 1401
					0	4					Brown silty CLAY (CL) - with gravel
					0	3					
					0	2.5					
					0	1.5		5			- - brown, gray
					0	3					Brown clayey SILT (ML) - with organic material
					0	3.5		10			Brown, gray, red silty CLAY (CL)
											Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

Direct Push

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted

Level After __ min

NP Non Plastic

* No Penetrometer or SPT Value

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-7

Client: General Motors Shreveport Assembly Plant
Shreveport, LA

File No.: 17332(1)
Date: 4/26/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: MWN

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
Moisture Content (%)	Atterberg Test: Liquid Limit (%)	Atterberg Test: Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs.
											Start Time: 1252 Finish Time: 1310
					675	3					Brown, gray silty CLAY (CL) - with iron oxide staining - Firm
					260	2					
					257	2					
								5			
					171	2.25					- - with gray mottling
					223	0.5					- - soft
					74.2	1.5		10			- - becoming sandy, moist
											Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

Direct Push

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted

Level After __ min

NP Non Plastic

* No Penetrometer or SPT Value

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-8

File No.: 17332(1)
Date: 4/26/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: MWN

Client: General Motors Shreveport Assembly Plant
Shreveport, LA

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
Moisture Content (%)	Atterberg Test: Liquid Limit (%)	Atterberg Test: Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs.
											Start Time: 1440 Finish Time: 1458
					0	2					Medium brown, gray silty CLAY (CL)
					0	2					
					0	3.5					- - with red mottling
					32	1.5		5			
					1.3	NP					Gray, reddish-brown clayey SILT (ML)
					1.9	2.25		10			Gray, reddish-brown silty CLAY (CL) - Moist
											Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

Direct Push

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted

Level After __ min

NP Non Plastic

* No Penetrometer or SPT Value

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-9

..ient: General Motors Shreveport Assembly Plant
Shreveport, LA

File No.: 17332(1)
Date: 4/26/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: MWN

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
Moisture Content (%)	Atterberg Test: Liquid Limit (%)	Atterberg Test: Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs. Start Time: 1045 Finish Time: 1108
					0	2					Reddish- brown, gray silty CLAY (CL)
					51.3	2.5					
					159	4					
					89.6	2		5			
					53.2	0.5					Reddish-brown clayey SAND (SC) - Moist
					32.5	0.5		10			Reddish- brown, gray silty CLAY (CL) - Wet
											Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

Direct Push

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted

Level After __ min

NP Non Plastic

* No Penetrometer or SPT Value

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-10

File No.: 17332(1)
Date: 4/24/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: MWN

Client: General Motors Shreveport Assembly Plant
Shreveport, LA

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
Moisture Content (%)	Atterberg Test: Liquid Limit (%)	Atterberg Test: Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs. Start Time: 1625 Finish Time: 1652
					0	1					Gray, brown silty CLAY (CL)
					0	2					
					0	2.5					- - with organic material
					0	2		5			
					0	2.5					- - dark gray, very sandy
					0	*		10			Gray clayey, silty SAND (SL) - - wet at 10 feet
											Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

Direct Push

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted

Level After __ min

NP Non Plastic

* No Penetrometer or SPT Value

BORING LOG

Project: General Motors HWMU Closure
7600 General Motors Blvd.
Shreveport, LA

No. SB-11

.ent: General Motors Shreveport Assembly Plant
Shreveport, LA

File No.: 17332(1)
Date: 4/24/2002
Drilling Co.: Tom Griffith Environmental Drilling
Supervisor: Don Putnam
Type Rig: Geoprobe Model 54DT
Logged by: MWN

LABORATORY TEST DATA					FIELD DATA					BORING DATA	
Moisture Content (%)	Atterberg Test: Liquid Limit (%)	Atterberg Test: Plastic Index (%)	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/Sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Screen Interval	Geoprobe (2" O.D., 1.75" I.D); 0-10 feet bgs. Start Time: 1710 Finish Time: 1738
					0	1.5					Gray, red/brown silty CLAY (CL)
					11	1.5					
					11.9	2.5					- - brown
					8.7	2		5			- - very sandy
					179	2					Stiff brown, gray CLAY (CH)
					21.3	*					Brown, gray silty CLAY (CL) with sand
								10			Boring terminated at 10 feet and grouted to surface with a thick bentonite/cement slurry.
								15			
								20			
								25			
								30			
								35			

Direct Push

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) MultiRae Plus Model PGM50-5P - CRA Control No. 030402

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Conestoga-Rovers & Associates

Water First Noted

Level After __ min

NP Non Plastic

* No Penetrometer or SPT Value