

Phase II Environmental Site Assessment


Former Automotive Shop
415-423 2nd Street SW and 116 5th Avenue SW
Cedar Rapids, IA

Prepared for

**Mr. Tony Schubert
Contract Exchange Corporation
c/o Mr. Terrill Baner MD**

Professional Certification:

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a Professional Geologist and Nationally Registered Environmental Manager.



Edward D. Bertch, PG
Associate Principal/Senior Geologist

June 3, 2011



Project CR-11-01229

Braun Intertec Corporation

June 3, 2011

Project CR-11-01229r

Mr. Tony Schubert
Contract Exchange Corporation
c/o Mr. Terrill Baner MD
222 3rd Street SE, Suite 202
Cedar Rapids, IA 52401

Re: Phase II Environmental Site Assessment
Former Automotive Shop
415-423 2nd Street SW and 116 5th Avenue SW
Cedar Rapids, IA

Dear Mr. Schubert:


In accordance with your authorization, Braun Intertec Corporation (Braun Intertec) has conducted a Phase II Environmental Site Assessment (Phase II ESA) of the referenced site. The objective of the Phase II ESA was to investigate the findings from the Phase I ESA at the referenced site. Braun Intertec evaluated the findings by collecting soil and groundwater samples and evaluating readily available information. Based on analytical data, the soil and groundwater does not appear to have been impacted by volatile organic compounds (VOCs), Resource Conservation Recovery Act (RCRA) metals except for lead, and total extractable hydrocarbons (TEH) from the on-site recognized environmental conditions (RECs) above Iowa Department of Natural Resources target levels.

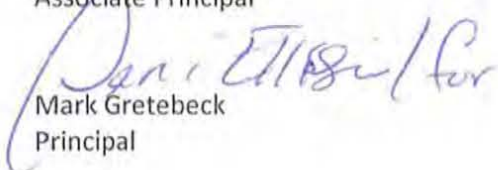
This Phase II ESA has been prepared on behalf of and for use by Mr. Tony Schubert-Contract Exchange Corporation in care of Mr. Terrill Baner MD. No other party has a right to rely on the contents of this Phase II ESA without the written authorization of Braun Intertec Corporation. For a complete discussion of our assessment, please refer to the attached Phase II ESA report.

We appreciate the opportunity to provide our professional services to you for this project. If you have any questions or comments regarding this report, please call Ed D. Bertch at 319.365.0961.

Sincerely,

BRAUN INTERTEC CORPORATION


Ed D. Bertch, PG, REM
Associate Principal


Mark Gretebeck
Principal

Attachment:
Phase II ESA Report

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A. Introduction

A.1. Authorization

In accordance with your authorization, Braun Intertec Corporation (Braun Intertec) conducted a Phase II Environmental Site Assessment (ESA) for the potential contamination of soil and groundwater by volatile organic compounds (VOCs), eight common Resource Conservation and Recovery Act (RCRA) metals, and total extractable hydrocarbons (TEH) for the Commercial Properties at 415-423 2nd Street SW and 116 5th Avenue SW, Cedar Rapids, Iowa (Site). This Phase II ESA has been prepared on behalf of and for use by the client, Mr. Tony Schubert-Contract Exchange Corporation in care of Mr. Terrill Baner MD, in accordance with the contract between the client and Braun Intertec, which includes the Braun Intertec General Conditions. No other party has a right to rely on the contents of this Phase II ESA without the written authorization of Braun Intertec Corporation.

A.2. Project Objective

The objective of the Phase II ESA was to provide opinion on readily available information and evaluate soil and groundwater beneath the Site for current concentrations of VOCs, RCRA metals, and TEH.

A.3. Location

The Site is located at 415-423 2nd Street SW and 116 5th Avenue SW, Cedar Rapids, Iowa (see Figure 1). The Site is located within the southeast quarter of the northeast quarter of Section 28, Township 83 North, Range 7 West in the City of Cedar Rapids, Linn County, Iowa.

A.4. Project Background

A.4.a. Site History

The site is currently a vacant lot commercial building. The historical use of the property has been an auto service and maintenance shop from 1931 to 2008.

A.4.b. Potential Source Areas

The areas of concern are the RECs identified on site. The following RECs were identified by a previous consultant.

- 415 2nd Street SW
 - The property was used as an auto service shop from 1964 to 2008.
- 419 2nd Street SW
 - The property was used as an auto repair shop from 1931 to 1968.

- 423 2nd Street SW
 - The property was used as an auto repair shop from 1953 to 1968 and also from 1978 to 1983.
- 116 5th Avenue SW
 - The property was used as an auto collision repair center from 1926 to 2008.

A.5. Scope of Services

The following tasks were conducted at the Site as part of this Phase II ESA:

- Boring B1 was drilled by the southeast corner of the building at 415 2nd Street SW.
- Boring B2 was drilled centrally to the north of the building at 423 2nd Street SW.
- Boring B3 was drilled to the southwest corner of 116 5th Avenue SW.
- Boring B1 was sampled continually to a depth of 16 feet.
- Boring B2 was sampled continually to a depth of 13.5 feet. The boring was terminated due to auger refusal before 15 feet because limestone rock was encountered.
- Boring B3 was sampled continually to a depth of 12.5 feet. The boring was terminated due to auger refusal before 15 feet because limestone rock was encountered.
- Screened soil samples on one foot intervals with a photo-ionization detector (PID) (MiniRae 3000) for the presence of organic vapors.
- Collected one soil sample at the capillary fringe zone per boring and submitted them to a laboratory for analysis of VOCs, RCRA metals, and TEH because Braun Intertec did not observe elevated PID readings (Above 10 parts per million (ppm)) in borings B1 and B3.
- Collected one soil sample at the highest PID reading in boring B2 and submitted them to a laboratory for analysis of VOCs, RCRA metals, and TEH.
- The borings were converted to temporary monitoring wells with casing and screen. Temporary monitoring well TMW1 was the only monitoring well that produced water. The well was then purged of three well volumes. After significant recharge, Braun Intertec collected a groundwater sample from the temporary monitoring well TMW1 and submitted it to a laboratory for analysis for VOCs, RCRA metals, and TEH because temporary monitoring well TMW2 and TMW3 did not encounter water.
- Gather public information from the previous Phase II ESA completed for West Side Sewing properties-108 5th Avenue SW and 416-422 1st Street SW, Cedar Rapids, IA (adjoining property).
- Evaluated the data and prepared this Phase II ESA report.

B. Methods and Procedures

B.1. Soil Boring Locations

Three soil borings (B1, B2, and B3) were completed at the Site. The field work relating to the Phase II ESA was conducted on March 22, 2011. A soil boring location map is attached as Figure 2.

B.2. Soil Borings

The soil borings were drilled with an all terrain 550-CME drill equipped with 3 1/4-inch inside-diameter hollow-stem auger. Sampling for the borings was conducted in general accordance with ASTM D 1586, "Penetration Test and Split-Barrel Sampling of Soils." We advanced the boreholes with the hollow-stem auger to the desired test depths. A 140-pound hammer falling 30 inches was then used to drive the standard 2-inch split-barrel sampler a total penetration of 2 feet below the tip of the hollow-stem auger. Samples were taken at 1-foot vertical intervals to the termination depth of the boring.

B.3. Soil Classification

The soils encountered in the soil borings were visually and manually classified in the field by an environmental technician in accordance with ASTM D 2488 "Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)." A soil boring log with descriptions of the various soil strata encountered during the soil boring operation and water level information are contained in Appendix A. The depths shown as changes between the soil types are approximate. The actual changes may be transitional, and the transition depths are likely to be horizontally variable. Soils encountered within the soil boring consisted mainly of poorly graded sand. Groundwater was encountered at a depth of approximately 15.1 feet below ground surface (bgs) in boring B1.

B.4. Soil Contamination Screening

Soil samples retrieved from the soil borings were examined by an environmental technician for unusual staining, odors and other apparent signs of contamination. In addition, the soil samples were screened for the presence of organic vapors using a PID (MiniRae 3000). The PID was equipped with a 10.6-electron-volt lamp and calibrated to an isobutylene standard. The PID was used to perform a headspace method of analyses, as recommended by the Iowa Department of Natural Resources (IDNR).

The headspace analytical procedure was used to field-screen total organic vapor levels in soils. The procedure consists of half-filling a new quart-size sealable plastic bag with a soil sample. After the sample has been placed in the bag, the bag is quickly sealed. Headspace development proceeds for a minimum of 10 minutes. The bag is shaken vigorously for 15 seconds, both at the beginning and the end of the headspace development period. After headspace development, the PID probe is inserted through the bag to one-half the headspace depth. The highest PID reading observed is then recorded.

B.5. Soil Contamination Observations

PID readings were taken at depths of 1 to 15 feet bgs. The highest observed PID reading was 11.1 parts per million (ppm) in boring B2. The other observed PID readings were 0.0 ppm.

B.6. Sampling Procedures

A summary of the sampling depths, sample type and chemical analysis parameters for each of the samples is provided in Table 1 below.

Table 1. Summary of Sampling Intervals and Chemical Analysis Parameters

Soil Boring Number and Sampling Depth (feet)	Sample Type	Area of Environmental Concern	Chemical Analysis Parameters
B1 (15)	Soil and Groundwater	The area of concern was the on-site service area.	VOCs, RCRA metals and TEH
B2 (2)	Soil	The area of concern was the on-site service area.	VOCs, RCRA metals and TEH
B3 (12)	Soil	The area of concern was the on-site service area.	VOCs, RCRA metals and TEH

B.6.a. Soil Sampling Procedures

Soil samples were collected from soil borings B1, B2, and B3 for laboratory chemical analyses. A soil sample was collected from the capillary fringe zone in boring B1. A soil sample was collected at the highest observed PID reading in boring B2. A soil sample was collected above rock in boring B3. Please refer to Appendix B for applicable Standard Operating Procedures.

The soil sample was placed in clean, clear glass screw-top vials with Teflon®-lined caps, correctly

preserved, labeled, and transported to our laboratory under refrigerated conditions using chain-of-custody procedures.

The soil sample was analyzed at the Braun Intertec, Bloomington, MN laboratory for the presence and concentrations of VOCs by Environmental Protection Agency (EPA) Method 8260B, RCRA metals by EPA Method 6010B, and TEH by Iowa Method OA2.

B.6.b. Groundwater Sampling Procedures

A temporary monitoring well was installed in the soil borings and a groundwater sample was collected for laboratory chemical analyses from temporary monitoring well B1. The other temporary monitoring wells (B2 and B3) did not produce water. A new clean polyethylene bailer fitted with a clean check-ball valve was used for the temporary monitoring well to collect the groundwater sample. The sample for the for RCRA metals from each temporary monitoring well was field filtered with a clean disposal 0.45 micron filter.

The groundwater sample was placed in clean, clear glass screw-top 40-mL vials and 2-quart amber jars with Teflon®-lined caps, correctly preserved, labeled, and transported to Braun Intertec in Bloomington, MN under refrigerated conditions using chain-of-custody procedures.

The groundwater sample was analyzed at the Braun Intertec, Bloomington, MN Laboratory for the presence and concentrations of VOCs by EPA Method 8260B, RCRA metals by EPA Method 6010B, and TEH by Iowa Method OA2.

C. Results of Laboratory Chemical Analysis

C.1. Results of Soil Sample Analysis

A summary of identified analytical results for the Site soil sample and the analytical results for the adjoining West Side Sewing properties soil samples are provided below in Table 2. West Side Sewing properties are located to the east of the Site. Soil concentrations are reported in milligrams per kilogram (mg/kg).

Table 2. Soil Analytical Results

Location	West Side Sewing Properties				Site			IDNR Target Levels
	B1	B2	B4	B6	B1	B2	B3	
Boring								
Date	9/1/2010	9/1/2010	9/1/2010	9/1/2010	3/22/11	3/22/11	3/22/11	
Depth (feet bgs)	10	2	16	4	15	2	12	
Concentrations	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Metals								
Arsenic	7.8	2.4	< 5.6	6.5	6.9	9.6	7.4	17
Barium	48	55	23	210	43	320	200	15,000
Cadmium	<0.55	<0.49	<2.8	<0.60	<0.55	24	<0.57	70
Chromium (total)*	15	5.3	< 5.6	16	14	47	15	210
Lead	9.4	43	11	150	9.3	620	50	400
Mercury	0.022	0.17	< 0.021	0.14	<0.021	0.038	0.052	23
TEH								
Diesel	< 4.0	< 4.0	25	5.5	<4.0	<710	<4.1	3,800
Motor Oil	< 10	< 10	< 10	36	<4.0	23,000	<4.1	NS

Reference:

567 Iowa Administrative Code (IAC) Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage
 135: Tanks-Iowa Tier 1 Look-Up Table

567 IAC 137: Iowa Land Recycling Program- Statewide Standards for soil and groundwater

NS: No Standard

Bolded: Above IDNR Target Level

The analytical results for the soils identified the following.

- The soils within the areas of Site boring B2 have been impacted lead concentrations above IDNR target levels.
- The soils within the areas of Site boring B2 have been impacted TEH-motor oil concentrations, but there is not an IDNR standard for TEH-motor oil in soil.
- The soils within the areas of Site B1 and B2 have not been impacted by VOCs and TEH above IDNR target levels.

The complete laboratory report is attached in Appendix C.

C.2. Results of Groundwater Sample Analysis

A summary of identified analytical results for the Site groundwater sample and the analytical results for the east adjoining West Side Sewing Properties groundwater samples is provided in Table 3 below. Groundwater concentrations are reported in milligrams per liter (mg/L).

Table 3. Groundwater Analytical Results

Location	West Side Sewing Properties				Site	IDNR Target Levels
	B1	B2	B4	B6	B1	
Boring						
Date	9/2/10	9/1/10	9/1/10	9/1/10	3/22/11	
Concentrations	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Metals						
Barium	--	0.061	0.18	0.075	0.047	2
TEH						
Diesel	<0.1	<0.1	23	<0.1	<0.094	1.2
Motor Oil	<0.25	<0.25	1.4	<0.25	<0.094	0.4

Reference:

567 Iowa Administrative Code (IAC) Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks-Iowa Tier 1 Look-Up Table

567 IAC 137: Iowa Land Recycling Program- Statewide Standards for soil and groundwater

NS: No Standard

Bolded: Above IDNR Target Level

The results of the laboratory analysis indicated that groundwater within the area of West Side Sewing properties-B4 has been impacted by TEH-diesel and TEH-motor concentrations above IDNR target levels.

The results of the laboratory analysis indicated that groundwater within the areas of West Side Sewing properties-B1, B2, and B6 and Site-B1 have not been impacted by VOCs, RCRA metals, and TEH concentrations above IDNR target levels.

The complete laboratory report is attached in Appendix C.

D. Discussion

Based upon the results of this assessment, soil analytical results indicate that soil in the area for B2 have been impacted by lead and TEH-motor oil. The soil concentration of identified lead is above IDNR target levels. The identified TEH-motor oil concentration in soils appears to be causing the elevated TEH concentration at the down-gradient boring B4 on West Side Sewing properties.

Based on the analytical results for West Side Sewing-B1, B2, and B6 and Site-B1, B2, B3, the soil and groundwater at the Site in those areas do not appear to be impacted by VOCs and TEH concentrations above IDNR target levels.

E. Conclusions and Recommendations

Based on the results of this soil and groundwater assessment, Braun Intertec has made the following conclusions:

- The soils within the areas of Site boring B2 have been impacted lead concentrations above IDNR target levels.
- The soils within the areas of Site boring B2 have been impacted TEH-motor oil concentrations, but there is not an IDNR standard for TEH-motor oil in soil.
- The soils within the areas of Site-B1 and B2 have not been impacted by VOCs and TEH above IDNR target levels.

- The results of the laboratory analysis indicated that groundwater within the area of West Side Sewing properties-B4 has been impacted by TEH-diesel and TEH-motor concentrations above IDNR target levels.
- The results of the laboratory analysis indicated that groundwater within the areas of West Side Sewing properties-B1, B2, and B6 and Site-B1 have not been impacted by VOCs and TEH concentrations above IDNR target levels.

Braun Intertec has the following recommendations:

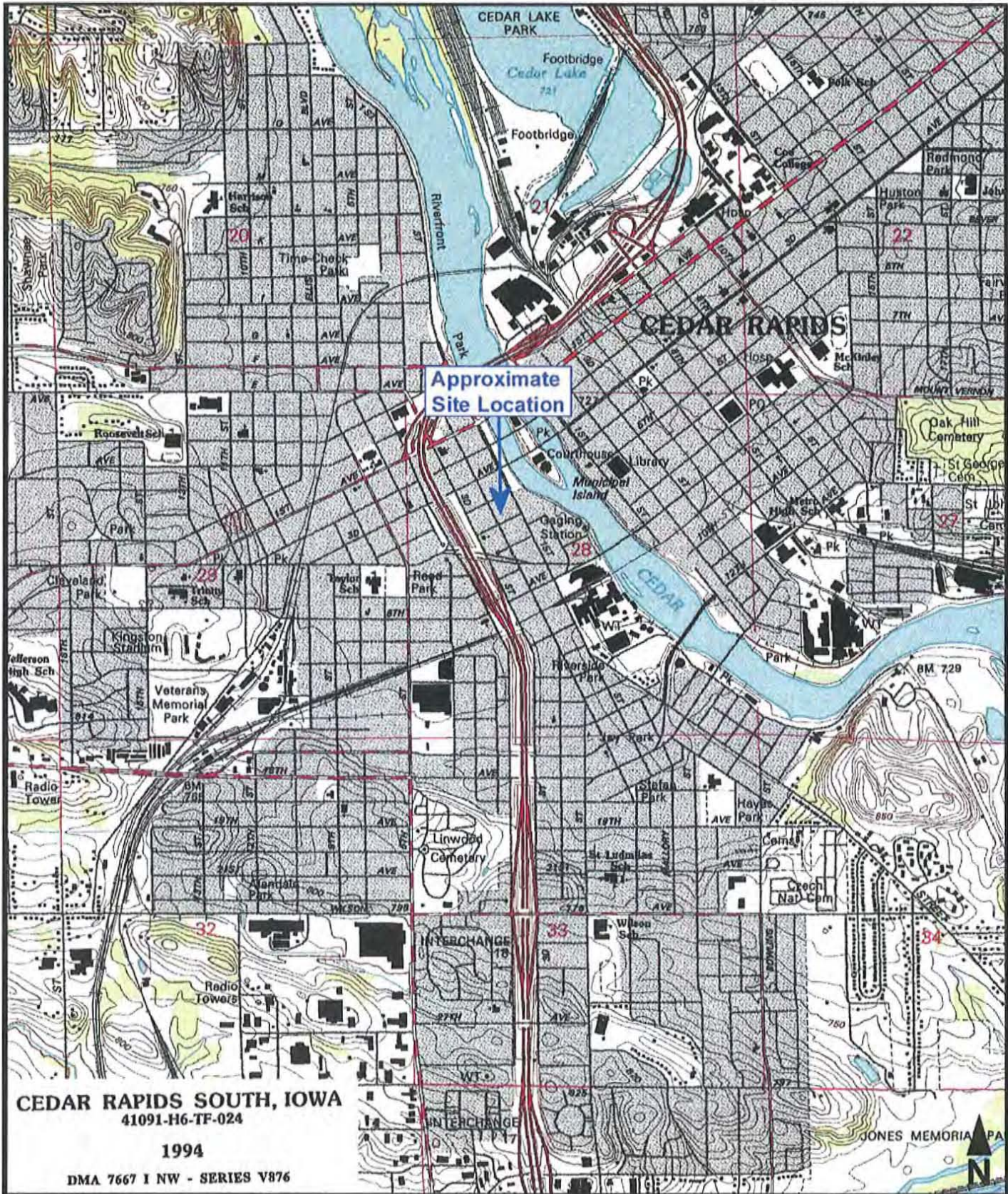
- Further soil testing to horizontally define the impacted area.
- Removal of the apparent localized impact soils of lead and TEH-motor oil.

F. Assessment Limitations

The analyses and conclusions submitted in this report are based on our field observations and the results of laboratory chemical analyses of soil samples and groundwater samples collected from the soil borings and temporary monitoring wells completed for this project.

In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession practicing in the same location. No other warranty is made or intended.

Figures

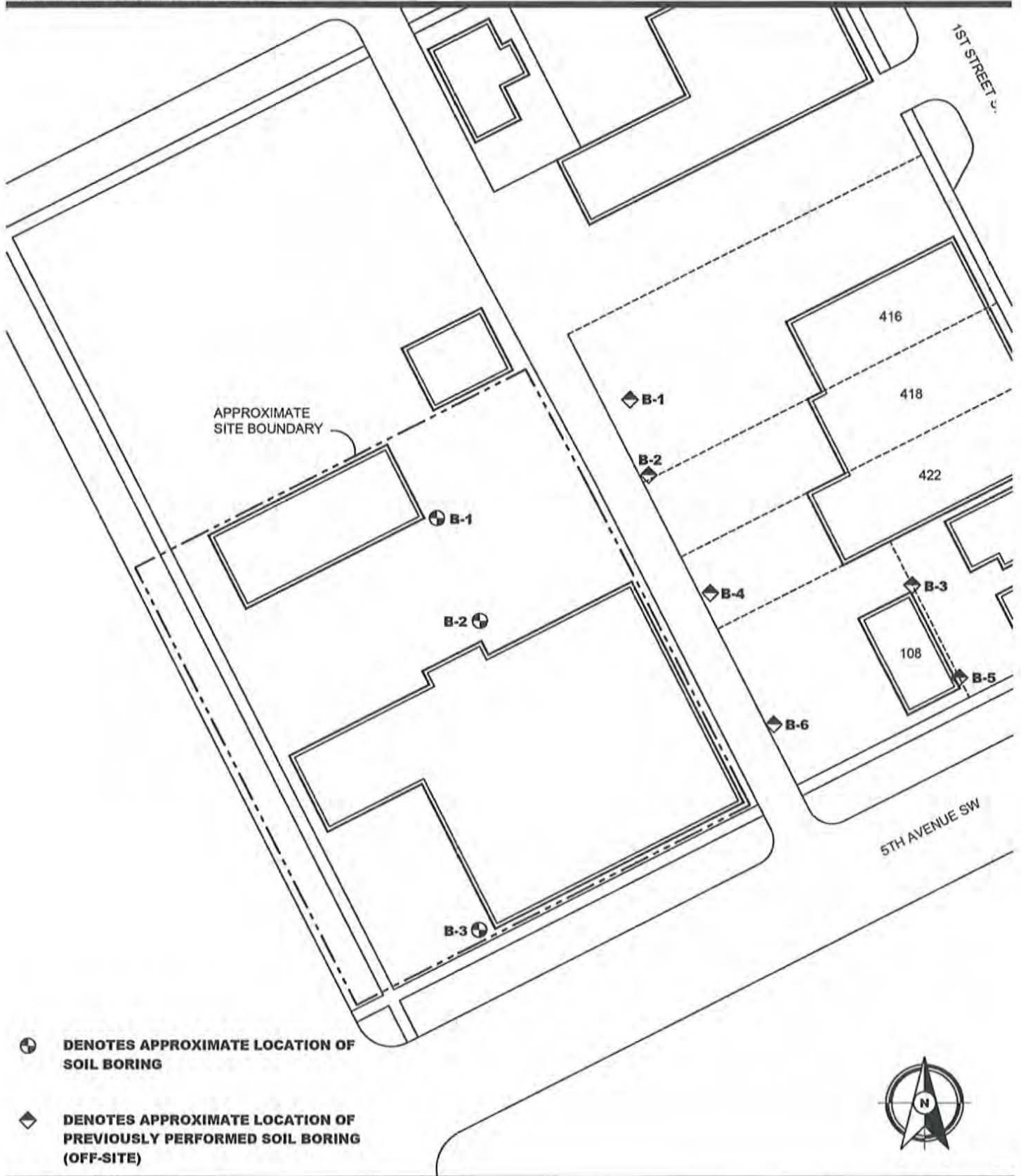


CEDAR RAPIDS SOUTH, IOWA
 41091-H6-TF-024
 1994
 DMA 7667 I NW - SERIES V876



Site Location Map
 Former Auto Shop
 415-423 2nd St SW & 116 5th Ave SW
 Cedar Rapids, Iowa

USGS TOPOGRAPHIC MAP	
Cedar Rapids South, IA	
DATE:	4/22/2011
JOB NO:	CR-11-01229
SCALE:	1 : 24,000
DRAWN BY:	FER
FIGURE NO:	1



- ⊕ DENOTES APPROXIMATE LOCATION OF SOIL BORING
- ◆ DENOTES APPROXIMATE LOCATION OF PREVIOUSLY PERFORMED SOIL BORING (OFF-SITE)



Sheet of Fig:	Project No:	CR1101229
	Drawing No:	CR1101229
	Scale:	NONE
	Drawn By:	BJB
	Date Drawn:	9/23/10
	Checked By:	EDB
	Last Modified:	4/22/11

SOIL BORING LOCATION SKETCH
 PHASE II ENVIRONMENTAL SITE ASSESSMENT
 FORMER AUTO STORAGE
 415 AND 423 2ND STREET SW AND 116 5TH AVENUE SW
 CEDAR RAPIDS, IOWA

**BRAUN
 INTERTEC**

11001 Hampshire Avenue So.
 Minneapolis, MN 55438
 PH. (952) 995-2000
 FAX (952) 995-2020

Appendix A
Soil Borings Logs

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

Boring / Well Number: B1	Facility Name: Former Automotive Shop	Facility Street Address: 415-423 2nd ST & 116 5th Ave SW, Cedar Rapids, IA
Boring Depth (ft) X Diameter (in): 16.0 x 7		Drilling Method: 3-1/4 In. HSA
Well Contractor Name: Braun Intertec		Logged by: MB
Registration Number:		

Ground Surface Elevation (ASL): 100			Top of Casing Elevation (ASL): 100					
Date: 3/22/11		Date: 3/22/11		UST Number:		LUST Number:		
Start Time: 930		End Time: 1015		NA		NA		
Depth (feet)	Well Construction Details	Blow Count if applicable	Sample		PID / FID Reading	Rock Formations, Soil, Color and Classifications, Observations (moisture, odor, etc.) First column for USCS		
			No.	Type*				
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 20px;">5</div> <div style="margin-bottom: 20px;">10</div> <div style="margin-bottom: 20px;">15</div> <div style="margin-bottom: 20px;">▽</div> </div>	Pavement The temporary casing was removed and the boring was abandoned with bentonite after sampling was complete.							
					SS	0.0	CL	Pavement
					SS	0.0	CL	SANDY LEAN CLAY, dark brown
					SS	0.0	CL	SANDY LEAN CLAY, brown
					SS	0.0		
					SS	0.0		
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
					SS	0.0		
					SS	0.0		
					SS	0.0		
					SS	0.0		
					SS	0.0		
					SS	0.0		
					SS	0.0		
					SS	0.0		
		Bottom of Boring @16 feet bgs						Limestone-Auger refusal at 16 feet

* SS (split spoon) HS (hollow stem auger) ** Sample sent to Lab

Observations	Date:	3/22/11			
Water Levels (ASL)	Level:	▽ 84.90			
Static Water Level Symbol	Time:				

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

Boring / Well Number: B2	Facility Name: Former Automotive Shop	Facility Street Address: 415-423 2nd ST & 116 5th Ave SW, Cedar Rapids, IA
Boring Depth (ft) X Diameter (in): 13.5 x 7		Drilling Method: 3-1/4 In. HSA
Well Contractor Name: Braun Intertec		Logged by: MB
Registration Number:		

Ground Surface Elevation (ASL): 100			Top of Casing Elevation (ASL): ---					
Date: 3/22/11		Date: 3/22/11		UST Number: NA		LUST Number: NA		
Start Time: 1025		End Time: 1055						
Depth (feet)	Well Construction Details	Blow Count if applicable	Sample No.	Type*	PID / FID Reading	Rock Formations, Soil, Color and Classifications, Observations (moisture, odor, etc.) <small>First column for USCS</small>		
<div style="display: flex; align-items: center;"> <div style="width: 100px; border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; background-color: black; margin-right: 5px;"></div> <div style="font-size: 2em; margin-right: 5px;">5</div> <div style="width: 100px; border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; background-color: black; margin-right: 5px;"></div> <div style="font-size: 2em; margin-right: 5px;">10</div> </div>	<p>Pavement The temporary casing was removed and the boring was abandoned with bentonite after sampling was complete.</p>				0.0	CL	Pavement	
					SS	0.0	CL	SANDY LEAN CLAY, dark brown
					SS	11.1	CL	SANDY LEAN CLAY, brown
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
					SS	0.0	CL	SANDY LEAN CLAY, brown to gray
		Bottom of Boring @ 13.5 feet bgs			SS	0.0	CL	SANDY LEAN CLAY, brown to gray
								Limestone-Auger refusal at 13.5 feet

* SS (split spoon) HS (hollow stem auger) ** Sample sent to Lab

Observations	Date:				
Water Levels (ASL)	Level:				
Static Water Level Symbol	Time:				

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

Boring / Well Number: B3	Facility Name: Former Automotive Shop	Facility Street Address: 415-423 2nd ST & 116 5th Ave SW, Cedar Rapids, IA
Boring Depth (ft) X Diameter (in): 12.5 x 7		Drilling Method: 3-1/4 In. HSA
Well Contractor Name: Braun Intertec		Logged by: MB
Registration Number:		

Ground Surface Elevation (ASL): 100	Top of Casing Elevation (ASL): ---
---	--

Date: 3/22/11	Date: 3/22/11	UST Number: NA	LUST Number: NA
Start Time: 1105	End Time: 1135		

Depth (feet)	Well Construction Details	Blow Count if applicable	Sample No.	Type*	PID / FID Reading	Rock Formations, Soil, Color and Classifications, Observations (moisture, odor, etc.) <small>First column for USCS</small>
<div style="text-align: center;"> </div>	<p>Pavement</p> <p>The temporary casing was removed and the boring was abandoned with bentonite after sampling was complete.</p>					<p>Pavement</p> <hr/> <p>CL SANDY LEAN CLAY, dark brown</p> <hr/> <p>CL SANDY LEAN CLAY, brown</p> <hr/> <p>CL SANDY LEAN CLAY, brown to gray</p> <hr/> <p>Limestone-Auger refusal at 12.5 feet</p>
5				SS	0.0	
				SS	0.0	
				SS	0.0	
				SS	0.0	
				SS	0.0	
				SS	0.0	
				SS	0.0	
				SS	0.0	
				SS	0.0	
				SS	0.0	
				SS	0.0	
				SS	0.0	
10				SS	0.0	
	Bottom of Boring @12.5 feet bgs			SS	0.0	

* SS (split spoon) HS (hollow stem auger) ** Sample sent to Lab

Observations	Date:				
Water Levels (ASL)	Level:				
Static Water Level Symbol	Time:				

Appendix B
Standard Operating Procedures

Standard Operating Procedures No. 1203

Title: Groundwater Sample Collection

Purpose: This SOP provides guidelines for the collection of groundwater samples for analytical testing for the presence of: organic compounds, inorganic constituents, and biological parameters.

Necessary Equipment/Supplies:

Low-flow Pump or Bottom Filling Teflon[®] Bailer and Polypropylene Rope (see applicable Sampling and Analysis Plan)
Appropriate Sample Containers and Preservatives (See applicable Sampling and Analysis Plan)
Sample Container Labels
Chain-of-Custody Form
Waterproof Pen
Cooler and Ice

Procedures:

1. Don appropriate PPE, as prescribed by the Health and Safety Plan.
2. Sample from least to most contaminated well or as specified in the work plan.
3. Perform stabilization for recharging wells. See SOP No. 1202 prior to sampling. For product sampling, see SOP No. 1201 (if necessary).
4. After stabilization, follow the procedures in 4a or 4b, as appropriate.
 - 4a. If using pump for sampling:
 1. If a pump was used to purge the well for stabilization, remove the necessary well volumes from the well and discard the water prior to sample collection. Purge the well at the rate specified in the work plan. Then, direct a steady stream of water into the appropriate sample container(s) at a rate specified on the applicable Sampling and Analysis Plan.
 - 4b. If using bailer for sampling:
 1. Attach an appropriate length of new polypropylene rope to a bailer.
 2. When using a bailer to remove the groundwater sample, take care to minimize agitation or aeration of the water; this could lead to the loss of volatiles and a non-representative sample. Lower the bailer slowly into the well, allow it to fill, and then lift it out while preventing the bailer or the rope from contacting any potentially contaminated surface, such as the ground.
 3. Slowly pour the contents of the bailer into the appropriate sample container(s).

5. Containerize samples by order of the volatilization potential of the desired analytes. For example, volatile organic analysis (VOA) vials should be filled first, followed by semi-volatiles.
6. For VOA samples, fill the container to the top of the container so that a positive meniscus is formed. Allow air bubbles to rise to the surface; carefully and quickly screw the cap onto the container and finger tighten. Invert the sample and tap it gently, looking for any air bubbles. If the sample contains air bubbles, discard the sample and repeat the sampling process with new sampling containers. For sample containers with preservative, be careful not to overfill the container.
7. If the sample analysis requires field filtering of the groundwater, follow SOP No. 1205 for field filtering of groundwater samples.
8. Complete the appropriate sample container label on all containers. Include the following information: sample identification number, date and time of collection, sampling personnel, job site location, well number, preservation, and analysis requested.
9. Place all samples on ice in a cooler. Refer to SOP No. 7001 for procedures regarding equipment decontamination.

Standard Operating Procedures No. 1205

Title: Field Filtering of Water Samples

Purpose: This SOP provides guidelines for field filtering water samples.

Necessary Equipment:

Nitrogen Tank
Filtering Device
47 mm Diameter, 0.45 micron Filter (see Applicable Sampling and Analysis Plan)
Filter Cartridge
Regulator
Deionized water

Procedures:

Samples collected for dissolved metals analysis that must be filtered in the field prior to adding preservatives should be collected according to the following procedure. An in-line filter can be used for samples collected using a pump in lieu of the following procedures.

1. Lab clean the pressure filtering device before taking it to the site.
2. Connect the regulator to the tank and the filtering device to the regulator hose.
3. Rinse the filtering device with water from the well prior to sampling.
4. Transfer the sample from the bailer or pump to the filtering device.
5. Place a 47-mm-diameter, 0.45-micron pore-size filter made of cellulose nitrate in a laboratory-cleaned filter cartridge. (Filter diameter and pore size may be device- and site-specific).
6. Attach the filter cartridge to the filtering device.
7. Pressurize the sample through the cartridge at the bottom of the filtering device using nitrogen gas, making sure not to overpressurize the system (e.g. ≤ 40 psi).
8. Direct the sample to the sample collection bottles.
9. Remove the cartridge containing the filter and use a clean cartridge and filter at each well, or decontaminate the cartridge in accordance with SOP No. 7001, as appropriate.
10. At subsequent wells, triple rinse the filtering device with deionized water and then triple rinse with water from the well that is to be sampled prior to filtering the samples.

Standard Operating Procedures No. 1403

Title: Split-Barrel Soil Sampling

Purpose: This SOP provides guidelines for collection of soil samples using a split-barrel sampler.

Necessary Equipment:

Split-Barrel Sampler
Permanent Marker
Sample Containers and Labels

Procedures:

1. Don appropriate PPE, as prescribed by the Health and Safety Plan.
2. See SOP No. 5200 for procedures on Hollow-Stem Auger Drilling. The following steps are performed at step 8 of SOP No. 5200.
3. Decontaminate the split-barrel sampler prior to each sample according to SOP No. 7001.
4. Attach the split-barrel sampler to the center rods of the hollow-stem auger drill rig or the drill pipe of the air-rotary/mud-rotary rig and lower the sampler to the bottom of the bore hole.
5. Attach the drill rig drive hammer to the center rods.
6. Using a specified drop height, drive the sampler into the undisturbed soil immediately beneath the bottom-most auger flight or the extent of the steel-drive casing. Drive the sampler 18 inches or until it no longer can be driven. Record the number of blows it takes to drive the sampler every 6 inches.
7. Detach the hammer and attach the center rods or drill pipe to the hanger assembly.
8. Bring the sampler to the surface and open. Record the percent recovery or the length of sample recovered. Describe the soil samples recovered as to soil type, color, stratification, and conditions. American Society for Testing Materials (ASTM D2487 and D2488) standards are used.
9. Place one or more representative portions of the sample into sealable moisture-proof containers (jars or Ziplock baggies) without ramming or distorting any apparent stratification. Seal each container to prevent evaporation of soil moisture.
10. Affix labels to the containers bearing job designation, boring number and sample depth. Protect the samples against extreme temperature changes. If there is a soil change within the sampler, collect a soil sample for each stratum and note its location in the sampler barrel. If soil samples are collected for chemical analysis, please refer to SOP No. 1404.

Standard Operating Procedures No. 2400

Title: Use of the Electronic Water-Level Measuring Tape

Purpose: This SOP provides guidelines for the use of an electronic tape to be used for water-level measurements.

Necessary Equipment:

- Electronic Tape
- Distilled or Deionized Water
- Paper Towels
- Replacement Batteries
- Disposable Glass
- Field Notebook

This tape is a portable reel-mounted device. The tape should be graduated in 100ths of a foot. The tape relies on fluid conductivity to determine the presence of water and emits an audible signal and/or a light. Sensitivity can be adjusted to eliminate false readings due to cascading water and casing effects.

Procedures:

1. Don appropriate PPE, as prescribed by the Health and Safety Plan.
2. Decontaminate the probe and cable length previously submerged by spraying the cable with distilled or deionized water and wiping with paper towels as the cable is rewound onto the reel. Unless stated otherwise in the work plan, proceed from the wells least likely to be contaminated to those closest to the source area.
3. Turn on well probe and immerse probe end in a glass of distilled water to check probe batteries. Note instrument response as the probe contacts the water. If no response occurs, replace the batteries and try again. Replace batteries by removing the screws on the face plate. Standard 9-volt batteries are used. When a response is noted, adjust sensitivity such that the audible alarm is barely activated. This procedure will minimize false readings.
4. Lower the probe into the well by pulling the cable from the hand-held reel until the light comes on or the buzzer sounds.
5. Move the cable up and down fractionally while observing the indicator and note the exact length of cable to the 100th of a foot extended from the tip of the probe to the notch or highest point (or north side) of the well casing. Record the cable length, station number, and time and date of the measurement in the field notebook. The water level measurement should be repeated a second time. If the two measurements are different, repeat a third time.

Standard Operating Procedures No. 2701

Title: Screening Soils for Contamination

Purpose: This SOP is designed to provide general guidelines for screening soil samples for possible volatile organic contamination.

Necessary Equipment:

Portable Organic Vapor Detector

Procedures:

1. Don appropriate PPE as prescribed by the Health and Safety Plan.
2. Refer to the manufacturer's operation manual for instructions on operating the organic vapor detector (see SOP No. 9003).
3. Calibrate the organic vapor detector according to the manufacturer's instructions. Record calibration information in the Field Notebook.
4. Scan freshly exposed soil (from the split spoon, auger spoils pile or excavating equipment) with the organic vapor detector, taking care to keep the instrument probe far enough from the sample to avoid intake of soil particles and moisture.
5. Record the highest meter response in the Field Notebook. The maximum response should occur between two and five seconds.
6. Visually examine the soil for staining or sheens. Note observations in the Field Notebook.
7. Do not intentionally smell the soil for odors but do note unintentional olfactory evidence of contamination in the Field Notebook.

Standard Operating Procedures
No. 2702

Title: Bag Headspace Procedures

Purpose: This SOP is designed to provide general guidelines for performing headspace analysis of soil samples for possible volatile organic compound contamination. This SOP is based on guidelines distributed by the Iowa Department of Natural Resources.

Necessary Equipment:

Portable Organic Vapor Detector/Photo Ionization Detector
1 Gallon Freezer Ziplock Bags

Procedures:

1. Refer to the appropriate operation manual and SOP for instructions on operating the organic vapor detector.
2. Calibrate the organic vapor according to the manufacturer's instructions.
3. Fill ziplock bag 1/3 full with soil sample.
4. Seal bag tightly.
5. Vigorously shake the bag for 15 seconds.
6. Allow the bag to sit for at least ten minutes to allow headspace development. If ambient temperatures are below freezing, the bags should be kept in a heated vehicle or building during this time.
7. Vigorously shake the bag for 15 seconds.
8. Puncture the bag with the organic vapor analyzer sampling probe. Insert the probe to a point about half the headspace depth.
9. Record the highest meter response as the headspace concentration. The maximum response should occur between two to five seconds.

Standard Operating Procedures No. 3100

Title: Field Notebook

Purpose: This SOP is designed to provide guidelines for proper field data documentation in dedicated field notebooks.

Necessary Equipment:

Bound Field Survey Book or Notebook
Waterproof Ink Pen

Procedures:

1. All entries will be made in ink.
2. Incorrect entries will be crossed out with a single line and initialed.
3. The following information shall be recorded on the cover and title page if project-specific, or each page if personal notebook.
 - a. Project number
 - b. Project name
 - c. Time period during which field data was recorded in logbook
4. The following information shall be recorded each time a field visit is made.
 - a. Date (month, date, year) and time arrived on site
 - b. Personnel recording information
 - c. Purpose of field visit
 - d. Other company personnel on site
 - e. Duties of company personnel on site
 - f. Other site visitors and the purpose of their visit
 - g. Weather conditions
 - h. Site sketch of sampling/measurement points, excavation areas and other features as appropriate
 - i. Reference to any photographs of field work
 - j. Other general observations as appropriate
5. The following information shall be recorded for all samples collected and/or measurements made.
 - a. Sampling/measurement point identification
 - Sampling/measurement point number or label
 - Description of sampling/measurement point, including depth if appropriate
 - b. Sample/measurement identification number
 - c. Sample type (soil, water or other)
 - d. Field measurements (pH, groundwater levels, etc.)
 - e. Equipment used to collect measurements and samples
 - f. Time sample or measurement collected
 - g. Sampler's name
6. As soon as possible, a photocopy will be made of the field notes and chain of custody(ies) taken for that day and given to the project manager. These copies will serve as a backup in the event the field notebook becomes lost or is destroyed.

Standard Operating Procedures No. 3200

Title: Chain of Custody

Purpose: This SOP is designed to provide guidelines for proper chain-of-custody procedures for handling samples to be submitted for chemical analysis.

Necessary Equipment:

Chain-of-Custody Record (laboratory supplied)
Custody Tape or Seals

Procedures:

1. This procedure governs the handling of all chemical samples from the time of sampling to the time of submittal to the analytical laboratory. (Chain-of-custody procedures will be continued by the laboratory. See the Braun Intertec Laboratory QA/QC Plan for details.)
2. All samples will be accompanied by a chain-of-custody record from the time of sampling through sample analysis. The original chain-of-custody record will be attached to the final laboratory report.
3. The majority of the chain-of-custody form will be filled out by the individual conducting the sampling. This includes site identification, project number, sample identification, sample matrix (e.g., soil), collection date and time, name of project manager, name of sampler, analytical parameters and any pertinent notes.
4. When transferring samples, the individuals relinquishing and receiving will sign, date, and note the time on the chain-of-custody record. There should be no time gap between the relinquishing and receiving of samples.
5. When the samples will not be within eyesight of the individual currently having custody, they should be placed in a locked room or vehicle.
6. If samples are to be shipped to the laboratory, the chain-of-custody record should be placed in a waterproof bag in the cooler and custody tape applied to seal the cooler. The shipping receipt should be retained and kept with the chain-of-custody record.

Standard Operating Procedures No. 4100

Title: Installation of Monitoring Wells and Piezometers

Purpose: This SOP provides guidelines for the installation of monitoring wells and piezometers.

Necessary Equipment:

- Well Screen
- Threaded End-Cap
- Well Casing
- Casing Cap
- Silica Sand or Washed Gravel
- Portland Cement
- Bentonite Pellets
- Tremie Apparatus
- Protective Casing, Locking Cap, or At-Grade Vault

Procedures:

1. Don appropriate PPE, as prescribed by the Health and Safety Plan.
2. All well construction will be in accordance with state and local well construction codes. Refer to the Work Plan for special requirements.
3. Prior to installing a well or piezometer, a borehole must first be advanced to the required depth. The diameter of the well to be installed will depend on the intended use for the well and possible engineering considerations and needs.
4. All well screen and well casing will be new and will be of adequate structural integrity.
5. Wells and piezometers will be screened as specified in the applicable work plan.
6. A threaded end-cap will be placed on the bottom of the well screen and the screen will be lowered into the open borehole in a manner to minimize cross-contamination.
7. Solid well casing in 5-foot or 10-foot lengths will be threaded onto the well screen to complete the well to a height of approximately 2 feet above the ground surface. The well casing will terminate at the surface if the well is to be completed at grade. A threaded or watertight cap will be placed on the top of the casing.
8. Once the well screen and casing are placed in the borehole, filter pack material will be placed in the annulus between the borehole wall and the well screen to a depth of 2 feet above the well screen or as specified by the work plan.
9. Once the filter pack material has been emplaced, a minimum thickness of 2 feet of bentonite will be placed above the filter pack in the annulus of the borehole to provide a watertight seal. Hydrate the bentonite seal with water.

10. Emplacement of the filter pack and bentonite seal will be verified by measuring the depth to these materials using a weighted tape. These measurements will be recorded in the field log and well construction diagram.
11. After the bentonite seal has been emplaced, the remainder of the borehole annulus will be grouted with neat cement or high solids bentonite. The grout will be placed with a tremie pipe from the bottom of the annular space to a depth of 2 feet below the ground surface.
12. The remaining annular space will be grouted to the ground surface with concrete.
13. For above-grade completion, a steel protective casing with locking cap will be installed over the well casing to a depth of at least 4 feet below the ground surface. If the top of the well screen is less than 4 feet in depth, a concrete pyramid will be used for protection in place of the outer casing. To prevent surface water infiltration, a concrete apron will be placed around the steel protective casing. This apron will be a minimum of 2 feet in diameter. The apron will be approximately 4 inches thick at the protective casing and slope away from the well.
14. For at-grade completion, the well casing will be fitted with a locking, water-tight cap. The well casing will be contained in a protective vault with a water-tight, bolted cover. The top of the vault will be no less than 2 inches above the ground surface. The vault will be installed in a concrete pad at least 4 inches thick and 4 feet square. The concrete pad will be sloped away from the well to divert surface water and to allow traffic movement and snow plowing.
15. Prior to use, the well will be developed to restore the natural hydraulic properties of the formation that were disturbed during drilling operations (See SOP No. 4101 for well development procedures). Well development will occur no sooner than 48 hours after installation. Note: well development within 48 hours is permissible if the annular space is not grouted.
16. Affix the unique well tag and complete the well construction diagram.
17. Decontaminate all equipment prior to moving to the next location. See SOP No. 7001 for procedures concerning equipment decontamination.

Reference

IA Well Code.

Standard Operating Procedures No. 4101

Title: Monitoring Well Development

Purpose: This SOP is designed to provide guidelines for monitoring well development.

Necessary Equipment:

- Bailer
- Submersible Pump
- Water Level Tape
- Field Notebook
- Rope

Procedures:

The purpose of monitoring well development is to ensure removal of fines from the vicinity of the well screen. This allows free flow of water from the formation into the well and also reduces the turbidity of the water during sampling events. The most common well development methods are: surging, jetting, and overpumping. This procedure uses surging using a bailer and pump. For other purging methods, please consult the work plan or other appropriate reference materials.

1. Don appropriate PPE as prescribed by the Health and Safety Plan.
2. Refer to the Work Plan for direction on containerizing and disposing of development water.
3. Measure the depth to water and the depth of the well according to SOP No. 2400 or No. 2500 and record in the field notebook. Determine the well volume according to SOP No. 1202.
4. Attach a bailer to the rope with a secure knot.
5. Lower the bailer into the well.
6. Raise and lower the bailer through the water column in the well (surging). Remove the bailer from the well and empty into container noting the turbidity, odor and color. Note: Do not intentionally smell the boiler contents.
7. Repeat steps 4 and 5 until sediment-free water is being removed from the well and at least 10 well volumes are removed.
8. The submersible pump can be used to surge and remove well volumes once the sediment has been removed from the well.
9. Record in the field notebook the final turbidity, color, odor, total gallons removed, development method and recharge rate observed during development.
10. Decontaminate the downhole equipment according to SOP No. 7001.

Standard Operating Procedures No. 4103

Title: Borehole Abandonment

Purpose: This SOP is designed to provide guidelines for borehole abandonment.

Necessary Equipment:

Portland Cement
Bentonite
Drill Rig and Associated Equipment

Procedures:

1. Don appropriate PPE, as prescribed by the Health and Safety Plan.
2. Borehole abandonment will conform with state and local well codes.
3. Boreholes will be grouted if:
 - a. contamination is encountered,
 - b. the boring is conducted in a known contaminated area,
 - c. the boring is greater than 25 feet in depth and into groundwater, or
 - d. the boring extends through a 10-foot-thick or greater confining layer and into groundwater.
4. Other borings will be backfilled with a mixture of bentonite and cuttings.
5. Neat cement grout or high solids bentonite will be pumped through a tremie pipe from the bottom of the borehole upward to within 2 feet of the established ground surface. The bottom of the tremie pipe will remain submerged while grouting. The hollow-stem auger or other drill casing will be backed out of the ground periodically as the hole is grouted.
6. Decontaminate all equipment prior to moving to next drilling location. See SOP No. 7001 for decontamination procedures.

Reference

MDH Well Code.

Standard Operating Procedures No. 6100

Title: Boring Logs

Purpose: This SOP is designed to provide guidelines for logging of soil and rock characteristics during drilling.

Necessary Equipment:

Penetration Test Boring Field Data Sheet
Field Log

Procedures:

1. The top and bottom of the Field Data Sheets containing information on the boring location, drilling method, water level, and other pertinent project information should be completely filled out for each boring log.
2. The lithology or soil type be noted at no greater than 5-foot intervals or whenever a significant change is observed.
3. Soils will be classified using the ASTM standard for the Unified Soil Classification System unless otherwise stipulated. This will include notation of the following:
 - Soil type,
 - Description of grain size distribution (grading).
 - Description of soil color.
 - Notation of whether sample is dry, moist, wet or waterbearing.
 - Notation of any odor.
 - Notation of the presence of roots, other organic material, or fill material.
4. Rock cuttings and/or cores will be classified using the American Geological Institute (AGI) System.
5. The consistency (for fine-grained soils) or density (for coarse-grained soils) should be determined from blow-count data, and recorded on the log sheet. American Society for Testing Materials (ASTM D 2488) standards are used.
6. If a sample from a given depth is not returned, the apparent reason(s) should be noted on the log and another sample from as close a depth as possible in the same hole should be obtained.
7. Information on the Field Data Sheet is entered into a computer data base. This program allows a graphical display of the boring log data as the final step in Standard Penetration Test Boring Logs.

Standard Operating Procedures No. 7001

Title: Equipment Decontamination

Purpose: This SOP is designed to provide guidelines for the proper decontamination of field equipment used during assessment, sampling, construction, and remedial actions.

Necessary Equipment:

- Steam Cleaner
- Tap Water
- Deionized/Distilled Water
- Laboratory Grade Detergent
- Buckets
- Brushes
- Paper Towels and Chem-Wipes
- Trash Bags
- Isopropyl Alcohol

Procedures for Drilling Equipment Decontamination:

1. Drilling equipment for subsurface investigations is steam-cleaned prior to arrival on the site. The steam-cleaned drilling equipment includes the auger and split-barrel samplers. No soaps or detergents are used in the cleaning procedure. The equipment is rinsed with tap water and is air dried.
2. Hand tools and augers are cleaned with laboratory soap solutions, rinsed with tap water and deionized water.
3. Equipment used on site that will be used for collecting more than one sample is cleaned with detergent solutions and brushes, rinsed with tap water, and rinsed with deionized water prior to each use. The equipment includes split-barrel samplers, spoons, spatulas, bowls, and hand augers, etc. Following collection of sample with oily residue, isopropyl alcohol will be used prior to detergent solution in decontamination process.
4. All drilling equipment should be steam cleaned between uses on the site or prior to leaving the site.

Procedures for Sampling Equipment Decontamination:

All nondisposable equipment used for the collection, preparation, preservation, and storage of the environmental samples must be cleaned prior to use and after each subsequent use. Unless the equipment and materials being used are disposable or of sufficient number so as not to be reused during any one sampling period, decontamination will have to be performed in the field. If possible, attempts should be made to minimize field decontamination by using dedicated or disposable equipment.

The minimum procedure to be used to decontaminate nondisposable sampling equipment is described below:

1. Be aware of Safety. Don appropriate PPE, as prescribed by the Health and Safety Plan.
2. Manually scrub the equipment with laboratory grade detergent using a bucket, tap water and detergent.
3. Rinse the equipment with tap water. Unless otherwise specified by the Work Plan, rinse water should be containerized.
4. Rinse the equipment with distilled water.
5. Air dry.
6. Containerize the waste decontamination solutions and store for future disposal, unless otherwise specified in the work plan.

Procedures for Decontaminating Water Level Probe:

1. Wipe along the length of the probe with the laboratory-grade detergent and perform a final rinse with distilled water.
2. Rinse the rewound spool of the probe with the laboratory-grade detergent and perform a final rinse with distilled/deionized water.
3. Allow the probe to air dry.
4. Place the probe in a clean container.
5. Containerize the waste decontamination solutions as outlined in the work plan and store for future disposal.

Procedures for Decontaminating Pumps and Lines:

1. Assuming pump does not come in contact with product, decontamination of pump and lines is as follows:
 - a. Submerge pump and lines in laboratory-grade solution. Purge pump and lines of potable water. Containerize rinsate, unless otherwise specified in work plan.
 - b. Triple rinse pump and submerged part of lines with potable water. Containerize rinsate unless otherwise specified in work plan.
 - c. Purge pump and lines of potable water. Containerize rinsate unless otherwise specified in work plan.
2. The pump and discharge line will be allowed to air dry before placing the pump into a clean container.

Standard Operating Procedures No. 8002

Title: Packaging and Shipping of Soil and Water Samples

Purpose: This SOP is designed to provide guidelines for packaging and shipping of soil and groundwater samples for delivery to a licensed laboratory for analytical testing.

Necessary Equipment:

- Samples
- Ice Chest and Ice
- Chain-of-Custody Form
- Custody Seal
- Sealable Plastic Bags

Procedures:

1. Place the environmental sample containers in individual plastic bags, place in shipping foam, as received, and chill on ice prior to transport to the laboratory.
2. Fill the ice chest with ice in plastic bags or a comparable substitute to maintain a constant temperature of 4° Celsius. Place packing material in the ice chest to fill all voids.
3. Obtain a chain-of-custody form and fill out all appropriate areas, including: analytical laboratory address, type of analysis, number and type of samples, turn-around time, etc.
4. The generator is to sign the chain of custody as the "Relinquisher;" the laboratory representative is to sign as the "Receiver."
5. Retain one copy of the completed chain-of-custody. Place the other two copies in a plastic bag, and place the bag inside the ice chest. The chain-of-custody should list only those samples contained in the particular ice chest.
6. Seal the ice chest with a custody seal and, additionally, secure the ice chest with strapping tape. Send by overnight shipping service to laboratory in accordance with all shipping requirements.

Note: Anytime that the sample custodian must be separated from the samples, the samples should be locked in a secure place with custody seals on the cooler.

Appendix C

Soil and Groundwater Chemistry Laboratory Reports

BRAUN **INTERTEC**

Braun Intertec Corporation
11001 Hampshire Avenue S.
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Ed Bertch
Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

April 19, 2011

Report #: 1101674

RE: Former Auto Motive
CR-11-01229

Dear Ed Bertch:

Braun Intertec Corporation received samples for the project identified above on April 05, 2011. Analytical results are summarized in the following report.

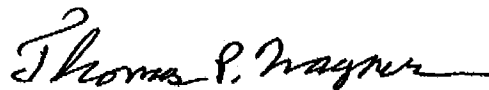
All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,



Thomas P. Wagner
Project Manager

Providing engineering and environmental solutions since 1957

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Qualifiers and Abbreviations

ve	The method reporting limits (MRLs) are elevated due to adjustments of the sample preparation amounts. This was necessary because of the sample matrix.
R-01	The Method Reporting Limit for this analyte has been raised to account for matrix interference.
qo	The relative percent difference (RPD) was outside of laboratory control limits for the matrix spike (MS) and matrix spike duplicate (MSD) samples.
qn	The spike recovery is outside of laboratory control limits for the matrix spike (MS) and/or the matrix spike duplicate (MSD).
gg2	The sample was authorized for analysis past the method specified holding time.
gg	The sample was received past the method specified holding time.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Sample Summary

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1	1101674-01	Soil	03/22/11 00:00	04/05/11 10:00
B2	1101674-02	Soil	03/22/11 00:00	04/05/11 10:00
B3	1101674-03	Soil	03/22/11 00:00	04/05/11 10:00
TMW1	1101674-04	Water	03/22/11 00:00	04/05/11 10:00



11001 Hampshire Ave. S.
Minneapolis, MN 55438
952.995.2000 Phone
952.995.2020 Fax

Braun Intertec-Cedar Rapids 5915 4th Street SW, Suite 100 Cedar Rapids, IA 52404	Client Ref: Former Auto Motive Client Contact: Mr. Ed Bertch PO Number: CR-11-01229	Report #: 1101674 Project Mgr: Thomas P. Wagner Account ID:
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Conditions Upon Receipt

Cooler: Cooler 1

Temperature: 5.3 °C	COC Included: Yes	Custody Seals Used: No
Temperature Blank: Yes	COC Complete: Yes	Custody Seals Intact: NA
Received on Ice: Yes	COC & Labels Agree: Yes	Hand Delivered by Client: No
Preservation Confirmed: No	Sufficient Sample Provided: Yes	Headspace Present (VOC): No

Braun Intertec-Cedar Rapids 5915 4th Street SW, Suite 100 Cedar Rapids, IA 52404	Client Ref: Former Auto Motive Client Contact: Mr. Ed Bertch PO Number: CR-11-01229	Report #: 1101674 Project Mgr: Thomas P. Wagner Account ID:
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B1

1101674-01 (Soil)

3/22/11 0:00

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84	0.050	% Wt	1	B1D0119	4/6/11	4/6/11	EPA 3545A 11.4	gg

Metals

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	6.9	1.1	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Barium	43	2.2	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Cadmium	< 0.55	0.55	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Chromium	14	1.1	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Lead	9.3	1.1	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Selenium	< 1.1	1.1	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Silver	< 0.55	0.55	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Mercury	< 0.021	0.021	mg/kg dry	1	B1D0102	4/6/11	4/7/11	EPA 7471A	

Total Petroleum Hydrocarbons

gg

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel	< 4.0	4.0	mg/kg dry	1	B1D0126	4/7/11	4/11/11	OA-2	
Gasoline	< 4.0	4.0	mg/kg dry	1	B1D0126	4/7/11	4/11/11	OA-2	
Motor Oil	< 4.0	4.0	mg/kg dry	1	B1D0126	4/7/11	4/11/11	OA-2	
Total Extractable Hydrocarbons as Diesel	< 4.0	4.0	mg/kg dry	1	B1D0126	4/7/11	4/11/11	OA-2	

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1,1-Trichloroethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1,2-Trichloroethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1-Dichloroethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1-Dichloroethene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1-Dichloropropene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.12	0.12	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2,3-Trichloropropane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.59	0.59	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

B1

1101674-01 (Soil)

3/22/11 0:00

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dibromoethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2-Dichlorobenzene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2-Dichloroethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2-Dichloropropane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,3-Dichlorobenzene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,3-Dichloropropane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,4-Dichlorobenzene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
2,2-Dichloropropane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
2-Butanone (MEK)	< 0.59	0.59	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
2-Chlorotoluene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
4-Chlorotoluene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
4-Isopropyltoluene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Acetone	< 0.89	0.89	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Allyl Chloride	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Benzene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Bromobenzene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Bromochloromethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Bromodichloromethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Bromoform	< 0.30	0.30	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Bromomethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Carbon Tetrachloride	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Chlorobenzene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Chlorodibromomethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Chloroethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Chloroform	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Chloromethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
cis-1,2-Dichloroethene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
cis-1,3-Dichloropropene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Dibromomethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Dichlorodifluoromethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Dichlorofluoromethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Ethyl Ether	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Ethylbenzene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Hexachlorobutadiene	< 0.12	0.12	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Isopropylbenzene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	

Braun Intertec-Cedar Rapids 5915 4th Street SW, Suite 100 Cedar Rapids, IA 52404	Client Ref: Former Auto Motive Client Contact: Mr. Ed Bertch PO Number: CR-11-01229	Report #: 1101674 Project Mgr: Thomas P. Wagner Account ID:
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B1
1101674-01 (Soil)
3/22/11 0:00

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
m,p-Xylenes	< 0.12	0.12	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Methyl Isobutyl Ketone	< 0.30	0.30	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Methylene chloride	< 0.30	0.30	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Methyl-t-butyl ether	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Naphthalene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
n-Butylbenzene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
n-Propylbenzene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
o-Xylene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
sec-Butylbenzene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Styrene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
tert-Butylbenzene	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Tetrachloroethene	< 0.12	0.12	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Tetrahydrofuran	< 0.30	0.30	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Toluene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
trans-1,2-Dichloroethene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
trans-1,3-Dichloropropene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Trichloroethene	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Trichlorofluoromethane	< 0.059	0.059	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Vinyl chloride	< 0.15	0.15	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	115 %	Limits: 80-120%			B1D0136	4/7/11	4/7/11	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	94.0 %	Limits: 80-120%			B1D0136	4/7/11	4/7/11	EPA 8260B	
Surrogate: Dibromofluoromethane	102 %	Limits: 80-120%			B1D0136	4/7/11	4/7/11	EPA 8260B	
Surrogate: Toluene-d8	103 %	Limits: 80-120%			B1D0136	4/7/11	4/7/11	EPA 8260B	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

B2

1101674-02 (Soil)

3/22/11 0:00

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93	0.050	% Wt	1	B1D0119	4/6/11	4/6/11	EPA 3545A 11.4	gg

Metals

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	9.6	5.0	mg/kg dry	5	B1D0101	4/6/11	4/11/11	EPA 6010B	
Barium	320	10	mg/kg dry	5	B1D0101	4/6/11	4/11/11	EPA 6010B	
Cadmium	24	2.5	mg/kg dry	5	B1D0101	4/6/11	4/11/11	EPA 6010B	
Chromium	47	5.0	mg/kg dry	5	B1D0101	4/6/11	4/11/11	EPA 6010B	
Lead	620	5.0	mg/kg dry	5	B1D0101	4/6/11	4/11/11	EPA 6010B	
Selenium	< 5.0	5.0	mg/kg dry	5	B1D0101	4/6/11	4/11/11	EPA 6010B	R-01
Silver	< 2.5	2.5	mg/kg dry	5	B1D0101	4/6/11	4/11/11	EPA 6010B	R-01
Mercury	0.038	0.020	mg/kg dry	1	B1D0102	4/6/11	4/7/11	EPA 7471A	

Total Petroleum Hydrocarbons

gg, ve

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel	< 710	710	mg/kg dry	100	B1D0126	4/7/11	4/12/11	OA-2	
Gasoline	< 710	710	mg/kg dry	100	B1D0126	4/7/11	4/12/11	OA-2	
Motor Oil	23000	710	mg/kg dry	100	B1D0126	4/7/11	4/12/11	OA-2	
Total Extractable Hydrocarbons as Diesel	22000	710	mg/kg dry	100	B1D0126	4/7/11	4/12/11	OA-2	

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,1,1-Trichloroethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,1,2-Trichloroethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,1-Dichloroethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,1-Dichloroethene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,1-Dichloropropene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.11	0.11	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,2,3-Trichloropropane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.57	0.57	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	

EPA Lab ID: MN00063

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Braun Intertec-Cedar Rapids 5915 4th Street SW, Suite 100 Cedar Rapids, IA 52404	Client Ref: Former Auto Motive Client Contact: Mr. Ed Bertch PO Number: CR-11-01229	Report #: 1101674 Project Mgr: Thomas P. Wagner Account ID:
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B2
1101674-02 (Soil)
3/22/11 0:00

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dibromoethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,2-Dichlorobenzene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,2-Dichloroethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,2-Dichloropropane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,3-Dichlorobenzene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,3-Dichloropropane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
1,4-Dichlorobenzene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
2,2-Dichloropropane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
2-Butanone (MEK)	< 0.57	0.57	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
2-Chlorotoluene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
4-Chlorotoluene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
4-Isopropyltoluene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Acetone	< 0.85	0.85	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Allyl Chloride	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Benzene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Bromobenzene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Bromochloromethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Bromodichloromethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Bromoforn	< 0.28	0.28	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Bromomethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Carbon Tetrachloride	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Chlorobenzene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Chlorodibromomethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Chloroethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Chloroform	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Chloromethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
cis-1,2-Dichloroethene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
cis-1,3-Dichloropropene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Dibromomethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Dichlorodifluoromethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Dichlorofluoromethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Ethyl Ether	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Ethylbenzene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Hexachlorobutadiene	< 0.11	0.11	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Isopropylbenzene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Berteh
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

B2

1101674-02 (Soil)

3/22/11 0:00

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
m,p-Xylenes	< 0.11	0.11	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Methyl Isobutyl Ketone	< 0.28	0.28	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Methylene chloride	< 0.28	0.28	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Methyl-t-butyl ether	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Naphthalene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
n-Butylbenzene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
n-Propylbenzene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
o-Xylene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
sec-Butylbenzene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Styrene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
tert-Butylbenzene	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Tetrachloroethene	< 0.11	0.11	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Tetrahydrofuran	< 0.28	0.28	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Toluene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
trans-1,2-Dichloroethene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
trans-1,3-Dichloropropene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Trichloroethene	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Trichlorofluoromethane	< 0.057	0.057	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Vinyl chloride	< 0.14	0.14	mg/kg dry	1	B1D0136	4/7/11	4/8/11	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	114 %	Limits: 80-120%			B1D0136	4/7/11	4/8/11	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	92.0 %	Limits: 80-120%			B1D0136	4/7/11	4/8/11	EPA 8260B	
Surrogate: Dibromofluoromethane	102 %	Limits: 80-120%			B1D0136	4/7/11	4/8/11	EPA 8260B	
Surrogate: Toluene-d8	101 %	Limits: 80-120%			B1D0136	4/7/11	4/8/11	EPA 8260B	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

B3

1101674-03 (Soil)

3/22/11 0:00

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80	0.050	% Wt	1	B1D0119	4/6/11	4/6/11	EPA 3545A	gg 11.4

Metals

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	7.4	1.1	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Barium	200	2.3	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Cadmium	< 0.57	0.57	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Chromium	15	1.1	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Lead	50	1.1	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Selenium	< 1.1	1.1	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Silver	< 0.57	0.57	mg/kg dry	1	B1D0101	4/6/11	4/7/11	EPA 6010B	
Mercury	0.052	0.020	mg/kg dry	1	B1D0102	4/6/11	4/7/11	EPA 7471A	

Total Petroleum Hydrocarbons

gg

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel	< 4.1	4.1	mg/kg dry	1	B1D0126	4/7/11	4/11/11	OA-2	
Gasoline	< 4.1	4.1	mg/kg dry	1	B1D0126	4/7/11	4/11/11	OA-2	
Motor Oil	< 4.1	4.1	mg/kg dry	1	B1D0126	4/7/11	4/11/11	OA-2	
Total Extractable Hydrocarbons as Diesel	26	4.1	mg/kg dry	1	B1D0126	4/7/11	4/11/11	OA-2	

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1,1-Trichloroethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1,2-Trichloroethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1-Dichloroethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1-Dichloroethene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,1-Dichloropropene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.12	0.12	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2,3-Trichloropropane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.62	0.62	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
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Client Ref: Former Auto Motive
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Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

B3

1101674-03 (Soil)

3/22/11 0:00

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dibromoethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2-Dichlorobenzene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2-Dichloroethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,2-Dichloropropane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,3-Dichlorobenzene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,3-Dichloropropane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
1,4-Dichlorobenzene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
2,2-Dichloropropane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
2-Butanone (MEK)	< 0.62	0.62	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
2-Chlorotoluene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
4-Chlorotoluene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
4-Isopropyltoluene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Acetone	< 0.93	0.93	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Allyl Chloride	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Benzene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Bromobenzene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Bromochloromethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Bromodichloromethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Bromoform	< 0.31	0.31	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Bromomethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Carbon Tetrachloride	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Chlorobenzene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Chlorodibromomethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Chloroethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Chloroform	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Chloromethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
cis-1,2-Dichloroethene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
cis-1,3-Dichloropropene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Dibromomethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Dichlorodifluoromethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Dichlorofluoromethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Ethyl Ether	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Ethylbenzene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Hexachlorobutadiene	< 0.12	0.12	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Isopropylbenzene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	

EPA Lab ID: MN00063

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Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

B3

1101674-03 (Soil)

3/22/11 0:00

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
m,p-Xylenes	< 0.12	0.12	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Methyl Isobutyl Ketone	< 0.31	0.31	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Methylene chloride	< 0.31	0.31	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Methyl-t-butyl ether	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Naphthalene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
n-Butylbenzene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
n-Propylbenzene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
o-Xylene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
sec-Butylbenzene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Styrene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
tert-Butylbenzene	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Tetrachloroethene	< 0.12	0.12	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Tetrahydrofuran	< 0.31	0.31	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Toluene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
trans-1,2-Dichloroethene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
trans-1,3-Dichloropropene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Trichloroethene	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Trichlorofluoromethane	< 0.062	0.062	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Vinyl chloride	< 0.16	0.16	mg/kg dry	1	B1D0136	4/7/11	4/7/11	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	115 %	Limits: 80-120%			B1D0136	4/7/11	4/7/11	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	93.6 %	Limits: 80-120%			B1D0136	4/7/11	4/7/11	EPA 8260B	
Surrogate: Dibromofluoromethane	102 %	Limits: 80-120%			B1D0136	4/7/11	4/7/11	EPA 8260B	
Surrogate: Toluene-d8	103 %	Limits: 80-120%			B1D0136	4/7/11	4/7/11	EPA 8260B	

BRAUN INTERTEC

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Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

TMW1

1101674-04 (Water)

3/22/11 0:00

Metals

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic, Dissolved	< 10	10	ug/L	1	B1D0122	4/6/11	4/7/11	EPA 6010B	
Barium, Dissolved	47	10	ug/L	1	B1D0122	4/6/11	4/7/11	EPA 6010B	
Cadmium, Dissolved	< 2.0	2.0	ug/L	1	B1D0122	4/6/11	4/7/11	EPA 6010B	
Chromium, Dissolved	< 5.0	5.0	ug/L	1	B1D0122	4/6/11	4/7/11	EPA 6010B	
Lead, Dissolved	< 5.0	5.0	ug/L	1	B1D0122	4/6/11	4/7/11	EPA 6010B	
Selenium, Dissolved	< 10	10	ug/L	1	B1D0122	4/6/11	4/7/11	EPA 6010B	
Silver, Dissolved	< 5.0	5.0	ug/L	1	B1D0122	4/6/11	4/7/11	EPA 6010B	
Mercury, Dissolved	< 0.20	0.20	ug/L	1	B1D0117	4/6/11	4/7/11	EPA 7470A	

Total Petroleum Hydrocarbons

gg

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel	< 94	94	ug/L	1	B1D0125	4/7/11	4/11/11	OA-2	
Gasoline	< 94	94	ug/L	1	B1D0125	4/7/11	4/11/11	OA-2	
Motor Oil	< 94	94	ug/L	1	B1D0125	4/7/11	4/11/11	OA-2	
Total Extractable Hydrocarbons as Diesel	120	94	ug/L	1	B1D0125	4/7/11	4/11/11	OA-2	

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,1,1-Trichloroethane	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,1,2-Trichloroethane	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,1-Dichloroethane	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,1-Dichloroethene	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,1-Dichloropropene	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,2,3-Trichlorobenzene	< 2.0	2.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,2,3-Trichloropropane	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,2,4-Trichlorobenzene	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,2,4-Trimethylbenzene	< 2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 10	10	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,2-Dibromoethane	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,2-Dichlorobenzene	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,2-Dichloroethane	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,2-Dichloropropane	< 1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
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Client Ref: Former Auto Motive
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PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

TMW1

1101674-04 (Water)

3/22/11 0:00

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,3,5-Trimethylbenzene	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,3-Dichlorobenzene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,3-Dichloropropane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
2,2-Dichloropropane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
2-Butanone (MEK)	<10	10	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
2-Chlorotoluene	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
4-Chlorotoluene	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
4-Isopropyltoluene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Acetone	<15	15	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Allyl Chloride	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Benzene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Bromobenzene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Bromochloromethane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Bromodichloromethane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Bromoform	<5.0	5.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Bromomethane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Carbon Tetrachloride	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Chlorobenzene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Chlorodibromomethane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Chloroethane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Chloroform	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Chloromethane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
cis-1,2-Dichloroethene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Dibromomethane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Dichlorodifluoromethane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Dichlorofluoromethane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Ethyl Ether	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Ethylbenzene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Hexachlorobutadiene	<2.0	2.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Isopropylbenzene	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
m,p-Xylenes	<2.0	2.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Methyl Isobutyl Ketone	<5.0	5.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Methylene chloride	<5.0	5.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Methyl-t-butyl ether	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	

EPA Lab ID: MN00063

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Reports\RPT 35.01

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Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

TMW1

1101674-04 (Water)

3/22/11 0:00

Volatile Organic Compounds

gg2

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
n-Butylbenzene	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
n-Propylbenzene	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
o-Xylene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
sec-Butylbenzene	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Styrene	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	qn, qo
tert-Butylbenzene	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Tetrachloroethene	<2.0	2.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Tetrahydrofuran	<5.0	5.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Toluene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
trans-1,2-Dichloroethene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Trichloroethene	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Trichlorofluoromethane	<1.0	1.0	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
Vinyl chloride	<2.5	2.5	ug/L	1	B1D0106	4/6/11	4/7/11	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>110 %</i>	<i>Limits: 80-120%</i>			<i>B1D0106</i>	<i>4/6/11</i>	<i>4/7/11</i>	<i>EPA 8260B</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>92.0 %</i>	<i>Limits: 80-120%</i>			<i>B1D0106</i>	<i>4/6/11</i>	<i>4/7/11</i>	<i>EPA 8260B</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>98.5 %</i>	<i>Limits: 80-120%</i>			<i>B1D0106</i>	<i>4/6/11</i>	<i>4/7/11</i>	<i>EPA 8260B</i>	
<i>Surrogate: Toluene-d8</i>	<i>96.1 %</i>	<i>Limits: 80-120%</i>			<i>B1D0106</i>	<i>4/6/11</i>	<i>4/7/11</i>	<i>EPA 8260B</i>	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Classical Chemistry Parameters - Quality Control

Batch B1D0119 - Method-specified preparation

Method Blank (B1D0119-BLK1)

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	< 0.050	0.050	% Wt	NA	NA	NA	NA	NA	NA	

Duplicate (B1D0119-DUP1)

Source: 1101672-02

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	48.4	0.050	% Wt	NA	54.0	NA	NA	10.9	20	

Standard Reference Material (B1D0119-SRM1)

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	91.0		% Wt	91.3	NA	99.7	90-110	NA	NA	

Braun Intertec-Cedar Rapids 5915 4th Street SW, Suite 100 Cedar Rapids, IA 52404	Client Ref: Former Auto Motive Client Contact: Mr. Ed Bertch PO Number: CR-11-01229	Report #: 1101674 Project Mgr: Thomas P. Wagner Account ID:
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Metals - Quality Control

Batch B1D0101 - EPA 3050B

Method Blank (B1D0101-BLK1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	
Barium	< 2.0	2.0	mg/kg	NA	NA	NA	NA	NA	NA	
Cadmium	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
Chromium	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	
Lead	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	
Selenium	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	
Silver	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B1D0101-BS1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	206	1.0	mg/kg	200	NA	103	80-120	NA	NA	
Barium	208	2.0	mg/kg	200	NA	104	80-120	NA	NA	
Cadmium	202	0.50	mg/kg	200	NA	101	80-120	NA	NA	
Chromium	205	1.0	mg/kg	200	NA	103	80-120	NA	NA	
Lead	211	1.0	mg/kg	200	NA	106	80-120	NA	NA	
Selenium	201	1.0	mg/kg	200	NA	101	80-120	NA	NA	
Silver	39.1	0.50	mg/kg	40.0	NA	97.7	80-120	NA	NA	

Laboratory Control Sample Duplicate (B1D0101-BSD1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	205	1.0	mg/kg	200	NA	103	80-120	0.431	20	
Barium	206	2.0	mg/kg	200	NA	103	80-120	1.21	20	
Cadmium	202	0.50	mg/kg	200	NA	101	80-120	0.258	20	
Chromium	205	1.0	mg/kg	200	NA	102	80-120	0.332	20	
Lead	212	1.0	mg/kg	200	NA	106	80-120	0.114	20	
Selenium	201	1.0	mg/kg	200	NA	100	80-120	0.298	20	
Silver	38.5	0.50	mg/kg	40.0	NA	96.3	80-120	1.43	20	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Metals - Quality Control

Batch B1D0101 - EPA 3050B

Matrix Spike (B1D0101-MS1)

Source: 1101673-01

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	189	0.98	mg/kg dry	196	2.87	95.0	75-125	NA	NA	
Barium	298	2.0	mg/kg dry	196	142	79.7	75-125	NA	NA	
Cadmium	181	0.49	mg/kg dry	196	0.139	92.3	75-125	NA	NA	
Chromium	192	0.98	mg/kg dry	196	5.66	95.1	75-125	NA	NA	
Lead	192	0.98	mg/kg dry	196	3.88	95.8	75-125	NA	NA	
Selenium	180	0.98	mg/kg dry	196	ND	91.8	75-125	NA	NA	
Silver	35.6	0.49	mg/kg dry	39.3	ND	90.6	75-125	NA	NA	

Matrix Spike Duplicate (B1D0101-MSD1)

Source: 1101673-01

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	187	0.99	mg/kg dry	197	2.87	93.5	75-125	1.07	20	
Barium	307	2.0	mg/kg dry	197	142	83.6	75-125	2.86	20	
Cadmium	180	0.49	mg/kg dry	197	0.139	91.3	75-125	0.628	20	
Chromium	190	0.99	mg/kg dry	197	5.66	93.3	75-125	1.32	20	
Lead	190	0.99	mg/kg dry	197	3.88	94.4	75-125	0.886	20	
Selenium	179	0.99	mg/kg dry	197	ND	90.8	75-125	0.550	20	
Silver	35.2	0.49	mg/kg dry	39.5	ND	89.2	75-125	1.05	20	

Standard Reference Material (B1D0101-SRM1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	127	2.0	mg/kg	167	NA	76.2	57.7-110	NA	NA	
Barium	262	3.9	mg/kg	313	NA	83.8	68.4-117	NA	NA	
Cadmium	77.1	0.98	mg/kg	88.5	NA	87.2	70.4-122	NA	NA	
Chromium	156	2.0	mg/kg	187	NA	83.6	63.1-116	NA	NA	
Lead	113	2.0	mg/kg	134	NA	84.4	64.8-115	NA	NA	
Selenium	39.6	2.0	mg/kg	49.7	NA	79.7	49-126	NA	NA	
Silver	50.6	0.98	mg/kg	62.6	NA	80.9	58.8-118	NA	NA	

BRAUN INTERTEC

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Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Metals - Quality Control

Batch B1D0102 - EPA 7471A

Method Blank (B1D0102-BLK1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	< 0.020	0.020	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B1D0102-BS1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.261	0.020	mg/kg	0.250	NA	104	85-115	NA	NA	

Laboratory Control Sample Duplicate (B1D0102-BSD1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.255	0.020	mg/kg	0.250	NA	102	85-115	2.13	20	

Matrix Spike (B1D0102-MS1)

Source: 1101673-01

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.211	0.016	mg/kg dry	0.197	0.00461	105	75-125	NA	NA	

Matrix Spike Duplicate (B1D0102-MSD1)

Source: 1101673-01

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.205	0.015	mg/kg dry	0.192	0.00461	104	75-125	2.82	20	

Standard Reference Material (B1D0102-SRM1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	7.27	0.20	mg/kg	8.29	NA	87.7	47.5-138	NA	NA	

Batch B1D0117 - EPA 7470A

Method Blank (B1D0117-BLK1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury, Dissolved	< 0.20	0.20	ug/L	NA	NA	NA	NA	NA	NA	

Method Blank (B1D0117-BLK2)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury, Dissolved	< 0.20	0.20	ug/L	NA	NA	NA	NA	NA	NA	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
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PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Metals - Quality Control

Batch B1D0117 - EPA 7470A

Laboratory Control Sample (B1D0117-BS1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury, Dissolved	2.64	0.20	ug/L	2.50	NA	106	85-115	NA	NA	

Laboratory Control Sample Duplicate (B1D0117-BSD1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury, Dissolved	2.63	0.20	ug/L	2.50	NA	105	85-115	0.190	20	

Matrix Spike (B1D0117-MS1)

Source: 1101589-01

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury, Dissolved	2.51	0.20	ug/L	2.50	ND	100	75-125	NA	NA	

Matrix Spike Duplicate (B1D0117-MSD1)

Source: 1101589-01

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury, Dissolved	2.63	0.20	ug/L	2.50	ND	105	75-125	4.75	20	

Batch B1D0122 - EPA 3005A

Method Blank (B1D0122-BLK1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic, Dissolved	< 10	10	ug/L	NA	NA	NA	NA	NA	NA	
Barium, Dissolved	< 10	10	ug/L	NA	NA	NA	NA	NA	NA	
Cadmium, Dissolved	< 2.0	2.0	ug/L	NA	NA	NA	NA	NA	NA	
Chromium, Dissolved	< 5.0	5.0	ug/L	NA	NA	NA	NA	NA	NA	
Lead, Dissolved	< 5.0	5.0	ug/L	NA	NA	NA	NA	NA	NA	
Selenium, Dissolved	< 10	10	ug/L	NA	NA	NA	NA	NA	NA	
Silver, Dissolved	< 5.0	5.0	ug/L	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B1D0122-BS1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic, Dissolved	1010	10	ug/L	1000	NA	101	85-115	NA	NA	
Barium, Dissolved	1010	10	ug/L	1000	NA	100	85-115	NA	NA	

Braun Intertec-Cedar Rapids
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Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Metals - Quality Control

Batch B1D0122 - EPA 3005A

Laboratory Control Sample (B1D0122-BS1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cadmium, Dissolved	982	2.0	ug/L	1000	NA	98.0	85-115	NA	NA	
Chromium, Dissolved	1010	5.0	ug/L	1000	NA	101	85-115	NA	NA	
Lead, Dissolved	1020	5.0	ug/L	1000	NA	102	85-115	NA	NA	
Selenium, Dissolved	979	10	ug/L	1000	NA	97.7	85-115	NA	NA	
Silver, Dissolved	189	5.0	ug/L	200	NA	94.7	85-115	NA	NA	

Laboratory Control Sample Duplicate (B1D0122-BSD1)

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic, Dissolved	1010	10	ug/L	1000	NA	100	85-115	0.367	20	
Barium, Dissolved	1000	10	ug/L	1000	NA	100	85-115	0.268	20	
Cadmium, Dissolved	976	2.0	ug/L	1000	NA	97.4	85-115	0.530	20	
Chromium, Dissolved	1010	5.0	ug/L	1000	NA	100	85-115	0.282	20	
Lead, Dissolved	1020	5.0	ug/L	1000	NA	101	85-115	0.0836	20	
Selenium, Dissolved	969	10	ug/L	1000	NA	96.7	85-115	1.03	20	
Silver, Dissolved	190	5.0	ug/L	200	NA	95.3	85-115	0.647	20	

Matrix Spike (B1D0122-MS1)

Source: 1101673-02

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic, Dissolved	1020	10	ug/L	1000	ND	102	75-125	NA	NA	
Barium, Dissolved	1040	10	ug/L	1000	44.1	99.5	75-125	NA	NA	
Cadmium, Dissolved	975	2.0	ug/L	1000	ND	97.5	75-125	NA	NA	
Chromium, Dissolved	982	5.0	ug/L	1000	1.41	98.1	75-125	NA	NA	
Lead, Dissolved	951	5.0	ug/L	1000	ND	95.2	75-125	NA	NA	
Selenium, Dissolved	987	10	ug/L	1000	2.61	98.5	75-125	NA	NA	
Silver, Dissolved	186	5.0	ug/L	200	ND	92.9	75-125	NA	NA	

Matrix Spike Duplicate (B1D0122-MSD1)

Source: 1101673-02

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Metals - Quality Control

Batch B1D0122 - EPA 3005A

Matrix Spike Duplicate (B1D0122-MSD1)

Source: 1101673-02

Prepared: 04/06/11 Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic, Dissolved	1020	10	ug/L	1000	ND	102	75-125	0.609	20	
Barium, Dissolved	1040	10	ug/L	1000	44.1	100	75-125	0.592	20	
Cadmium, Dissolved	978	2.0	ug/L	1000	ND	97.9	75-125	0.331	20	
Chromium, Dissolved	987	5.0	ug/L	1000	1.41	98.6	75-125	0.525	20	
Lead, Dissolved	990	5.0	ug/L	1000	ND	99.1	75-125	4.01	20	
Selenium, Dissolved	989	10	ug/L	1000	2.61	98.6	75-125	0.175	20	
Silver, Dissolved	193	5.0	ug/L	200	ND	96.5	75-125	3.85	20	

Braun Intertec-Cedar Rapids
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Client Ref: Former Auto Motive
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PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Total Petroleum Hydrocarbons - Quality Control

Batch B1D0125 - OA-2

Method Blank (B1D0125-BLK1)

Prepared: 04/07/11 Analyzed: 04/11/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel	< 100	100	ug/L	NA	NA	NA	NA	NA	NA	
Gasoline	< 100	100	ug/L	NA	NA	NA	NA	NA	NA	
Motor Oil	< 100	100	ug/L	NA	NA	NA	NA	NA	NA	
Total Extractable Hydrocarbons as Diesel	< 100	100	ug/L	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B1D0125-BS1)

Prepared: 04/07/11 Analyzed: 04/11/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel	914	100	ug/L	1000	NA	91.4	75-95	NA	NA	

Laboratory Control Sample Duplicate (B1D0125-BSD1)

Prepared: 04/07/11 Analyzed: 04/11/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel	906	100	ug/L	1000	NA	90.6	75-95	0.928	20	

Batch B1D0126 - OA-2

Method Blank (B1D0126-BLK1)

Prepared: 04/07/11 Analyzed: 04/11/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel	< 3.3	3.3	mg/kg	NA	NA	NA	NA	NA	NA	
Gasoline	< 3.3	3.3	mg/kg	NA	NA	NA	NA	NA	NA	
Motor Oil	< 3.3	3.3	mg/kg	NA	NA	NA	NA	NA	NA	
Total Extractable Hydrocarbons as Diesel	< 3.3	3.3	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B1D0126-BS1)

Prepared: 04/07/11 Analyzed: 04/11/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel	30.5	3.3	mg/kg	33.3	NA	91.6	55-95	NA	NA	

Laboratory Control Sample Duplicate (B1D0126-BSD1)

Prepared: 04/07/11 Analyzed: 04/11/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel	30.6	3.3	mg/kg	33.3	NA	91.8	55-95	0.264	20	

Duplicate (B1D0126-DUP1)

Source: 1101673-01

Prepared: 04/07/11 Analyzed: 04/11/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diesel	< 3.6	3.6	mg/kg dry	NA	ND	NA	NA	NA	20	

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Braun Intertec-Cedar Rapids 5915 4th Street SW, Suite 100 Cedar Rapids, IA 52404	Client Ref: Former Auto Motive Client Contact: Mr. Ed Bertch PO Number: CR-11-01229	Report #: 1101674 Project Mgr: Thomas P. Wagner Account ID:
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Total Petroleum Hydrocarbons - Quality Control

Batch B1D0126 - OA-2

Duplicate (B1D0126-DUP1)

Source: 1101673-01

Prepared: 04/07/11 Analyzed: 04/11/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Gasoline	< 3.6	3.6	mg/kg dry	NA	ND	NA	NA	NA	20	
Motor Oil	< 3.6	3.6	mg/kg dry	NA	ND	NA	NA	NA	20	
Total Extractable Hydrocarbons as Diesel	< 3.6	3.6	mg/kg dry	NA	ND	NA	NA	NA	20	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertoh
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0106 - EPA 5030B

Method Blank (B1D0106-BLK1)

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,1,2-Trichlorotrifluoroethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,1-Dichloropropene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	< 2.0	2.0	ug/L	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
1,2-Dibromo-3-chloropropane	< 10	10	ug/L	NA	NA	NA	NA	NA	NA	
1,2-Dibromoethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,3,5-Trimethylbenzene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,3-Dichloropropane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
2,2-Dichloropropane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	< 10	10	ug/L	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
4-Chlorotoluene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
4-Isopropyltoluene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Acetone	< 15	15	ug/L	NA	NA	NA	NA	NA	NA	
Allyl Chloride	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Benzene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Bromobenzene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Bromochloromethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Bromoform	< 5.0	5.0	ug/L	NA	NA	NA	NA	NA	NA	
Bromomethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Chlorobenzene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Chlorodibromomethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Chloroethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Chloroform	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	

EPA Lab ID: MN00063

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Braun Intertec-Cedar Rapids 5915 4th Street SW, Suite 100 Cedar Rapids, IA 52404	Client Ref: Former Auto Motive Client Contact: Mr. Ed Bertch PO Number: CR-11-01229	Report #: 1101674 Project Mgr: Thomas P. Wagner Account ID:
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Volatile Organic Compounds - Quality Control

Batch BID0106 - EPA 5030B

Method Blank (BID0106-BLK1)

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Dibromomethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Dichlorofluoromethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Ethyl Ether	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Hexachlorobutadiene	< 2.0	2.0	ug/L	NA	NA	NA	NA	NA	NA	
Isopropylbenzene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
m,p-Xylenes	< 2.0	2.0	ug/L	NA	NA	NA	NA	NA	NA	
Methyl Isobutyl Ketone	< 5.0	5.0	ug/L	NA	NA	NA	NA	NA	NA	
Methylene chloride	< 5.0	5.0	ug/L	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Naphthalene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
n-Butylbenzene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
n-Propylbenzene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
o-Xylene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
Styrene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	< 2.0	2.0	ug/L	NA	NA	NA	NA	NA	NA	
Tetrahydrofuran	< 5.0	5.0	ug/L	NA	NA	NA	NA	NA	NA	
Toluene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Trichloroethene	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	< 1.0	1.0	ug/L	NA	NA	NA	NA	NA	NA	
Vinyl chloride	< 2.5	2.5	ug/L	NA	NA	NA	NA	NA	NA	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>26.1</i>		<i>ug/L</i>	<i>25.0</i>	<i>NA</i>	<i>104</i>	<i>80-120</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>23.9</i>		<i>ug/L</i>	<i>25.0</i>	<i>NA</i>	<i>95.8</i>	<i>80-120</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>24.9</i>		<i>ug/L</i>	<i>25.0</i>	<i>NA</i>	<i>99.4</i>	<i>80-120</i>			
<i>Surrogate: Toluene-d8</i>	<i>24.4</i>		<i>ug/L</i>	<i>25.0</i>	<i>NA</i>	<i>97.6</i>	<i>80-120</i>			

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Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0106 - EPA 5030B

Laboratory Control Sample (B1D0106-BS1)

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	25.0	1.0	ug/L	25.0	NA	100	75-125	NA	NA	
1,1,1-Trichloroethane	26.7	1.0	ug/L	25.0	NA	107	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	24.6	1.0	ug/L	25.0	NA	98.0	75-125	NA	NA	
1,1,2-Trichloroethane	25.1	1.0	ug/L	25.0	NA	100	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	26.5	1.0	ug/L	25.0	NA	106	75-125	NA	NA	
1,1-Dichloroethane	25.5	1.0	ug/L	25.0	NA	102	75-125	NA	NA	
1,1-Dichloroethene	24.9	1.0	ug/L	25.0	NA	99.4	75-125	NA	NA	
1,1-Dichloropropene	26.2	1.0	ug/L	25.0	NA	105	75-125	NA	NA	
1,2,3-Trichlorobenzene	25.4	2.0	ug/L	25.0	NA	101	75-125	NA	NA	
1,2,3-Trichloropropane	25.9	1.0	ug/L	25.0	NA	103	75-125	NA	NA	
1,2,4-Trichlorobenzene	25.2	1.0	ug/L	25.0	NA	101	75-125	NA	NA	
1,2,4-Trimethylbenzene	25.4	2.5	ug/L	25.0	NA	101	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	25.3	10	ug/L	25.0	NA	101	75-125	NA	NA	
1,2-Dibromoethane	24.8	1.0	ug/L	25.0	NA	99.0	75-125	NA	NA	
1,2-Dichlorobenzene	24.4	1.0	ug/L	25.0	NA	97.4	75-125	NA	NA	
1,2-Dichloroethane	26.8	1.0	ug/L	25.0	NA	107	75-125	NA	NA	
1,2-Dichloropropane	26.7	1.0	ug/L	25.0	NA	107	75-125	NA	NA	
1,3,5-Trimethylbenzene	26.0	2.5	ug/L	25.0	NA	104	75-125	NA	NA	
1,3-Dichlorobenzene	24.1	1.0	ug/L	25.0	NA	96.4	75-125	NA	NA	
1,3-Dichloropropane	25.2	1.0	ug/L	25.0	NA	101	75-125	NA	NA	
1,4-Dichlorobenzene	24.2	1.0	ug/L	25.0	NA	96.4	75-125	NA	NA	
2,2-Dichloropropane	27.4	1.0	ug/L	25.0	NA	109	75-125	NA	NA	
2-Butanone (MEK)	24.0	10	ug/L	25.0	NA	96.0	80-140	NA	NA	
2-Chlorotoluene	24.7	2.5	ug/L	25.0	NA	98.8	75-125	NA	NA	
4-Chlorotoluene	25.4	2.5	ug/L	25.0	NA	101	75-125	NA	NA	
4-Isopropyltoluene	26.5	1.0	ug/L	25.0	NA	106	75-125	NA	NA	
Acetone	29.3	15	ug/L	25.0	NA	117	80-150	NA	NA	
Allyl Chloride	24.0	1.0	ug/L	25.0	NA	95.7	75-125	NA	NA	
Benzene	25.6	1.0	ug/L	25.0	NA	102	75-125	NA	NA	
Bromobenzene	23.9	1.0	ug/L	25.0	NA	95.6	75-125	NA	NA	
Bromochloromethane	23.5	1.0	ug/L	25.0	NA	93.9	75-125	NA	NA	
Bromodichloromethane	27.1	1.0	ug/L	25.0	NA	108	75-125	NA	NA	
Bromoform	25.1	5.0	ug/L	25.0	NA	100	75-125	NA	NA	
Bromomethane	22.0	1.0	ug/L	25.0	NA	87.8	70-130	NA	NA	
Carbon Tetrachloride	29.4	1.0	ug/L	25.0	NA	117	75-125	NA	NA	
Chlorobenzene	24.2	1.0	ug/L	25.0	NA	96.4	75-125	NA	NA	
Chlorodibromomethane	25.2	1.0	ug/L	25.0	NA	101	75-125	NA	NA	
Chloroethane	24.4	1.0	ug/L	25.0	NA	97.2	75-125	NA	NA	
Chloroform	24.9	1.0	ug/L	25.0	NA	99.6	75-125	NA	NA	

EPA Lab ID: MN00063

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Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0106 - EPA 5030B

Laboratory Control Sample (B1D0106-BS1)

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	26.2	1.0	ug/L	25.0	NA	105	75-125	NA	NA	
cis-1,2-Dichloroethene	23.7	1.0	ug/L	25.0	NA	94.8	75-125	NA	NA	
cis-1,3-Dichloropropene	26.6	1.0	ug/L	25.0	NA	106	75-125	NA	NA	
Dibromomethane	25.9	1.0	ug/L	25.0	NA	103	75-125	NA	NA	
Dichlorodifluoromethane	26.4	1.0	ug/L	25.0	NA	106	50-120	NA	NA	
Dichlorofluoromethane	25.6	1.0	ug/L	25.0	NA	102	75-125	NA	NA	
Ethyl Ether	25.3	1.0	ug/L	25.0	NA	101	75-125	NA	NA	
Ethylbenzene	25.2	1.0	ug/L	25.0	NA	101	75-125	NA	NA	
Hexachlorobutadiene	26.1	2.0	ug/L	25.0	NA	104	75-125	NA	NA	
Isopropylbenzene	25.3	2.5	ug/L	25.0	NA	101	75-125	NA	NA	
m,p-Xylenes	49.3	2.0	ug/L	50.0	NA	98.7	75-125	NA	NA	
Methyl Isobutyl Ketone	28.9	5.0	ug/L	25.0	NA	115	75-125	NA	NA	
Methylene chloride	23.4	5.0	ug/L	25.0	NA	93.2	75-125	NA	NA	
Methyl-t-butyl ether	25.3	1.0	ug/L	25.0	NA	101	75-125	NA	NA	
Naphthalene	26.1	2.5	ug/L	25.0	NA	104	75-125	NA	NA	
n-Butylbenzene	27.5	2.5	ug/L	25.0	NA	110	75-125	NA	NA	
n-Propylbenzene	25.9	2.5	ug/L	25.0	NA	103	75-125	NA	NA	
o-Xylene	24.2	1.0	ug/L	25.0	NA	96.6	75-125	NA	NA	
sec-Butylbenzene	26.6	2.5	ug/L	25.0	NA	106	75-125	NA	NA	
Styrene	24.2	2.5	ug/L	25.0	NA	96.5	75-125	NA	NA	
tert-Butylbenzene	25.8	2.5	ug/L	25.0	NA	103	75-125	NA	NA	
Tetrachloroethene	24.2	2.0	ug/L	25.0	NA	96.7	75-125	NA	NA	
Tetrahydrofuran	28.8	5.0	ug/L	25.0	NA	115	75-125	NA	NA	
Toluene	24.4	1.0	ug/L	25.0	NA	97.5	75-125	NA	NA	
trans-1,2-Dichloroethene	23.4	1.0	ug/L	25.0	NA	93.4	75-125	NA	NA	
trans-1,3-Dichloropropene	27.4	1.0	ug/L	25.0	NA	110	75-125	NA	NA	
Trichloroethene	26.0	1.0	ug/L	25.0	NA	104	75-125	NA	NA	
Trichlorofluoromethane	28.2	1.0	ug/L	25.0	NA	112	75-125	NA	NA	
Vinyl chloride	29.6	2.5	ug/L	25.0	NA	118	70-130	NA	NA	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	26.1		ug/L	25.0	NA	104	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	24.0		ug/L	25.0	NA	96.1	80-120			
<i>Surrogate: Dibromofluoromethane</i>	24.4		ug/L	25.0	NA	97.4	80-120			
<i>Surrogate: Toluene-d8</i>	24.2		ug/L	25.0	NA	97.0	80-120			



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Braun Intertec-Cedar Rapids 5915 4th Street SW, Suite 100 Cedar Rapids, IA 52404	Client Ref: Former Auto Motive Client Contact: Mr. Ed Bertch PO Number: CR-11-01229	Report #: 1101674 Project Mgr: Thomas P. Wagner Account ID:
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Volatile Organic Compounds - Quality Control

Batch B1D0106 - EPA 5030B

Laboratory Control Sample Duplicate (B1D0106-BSD1)

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	24.5	1.0	ug/L	25.0	NA	97.9	75-125	2.14	20	
1,1,1-Trichloroethane	26.6	1.0	ug/L	25.0	NA	106	75-125	0.601	20	
1,1,2,2-Tetrachloroethane	24.2	1.0	ug/L	25.0	NA	96.8	75-125	1.27	20	
1,1,2-Trichloroethane	24.6	1.0	ug/L	25.0	NA	98.1	75-125	2.17	20	
1,1,2-Trichlorotrifluoroethane	26.5	1.0	ug/L	25.0	NA	106	75-125	0.264	20	
1,1-Dichloroethane	25.4	1.0	ug/L	25.0	NA	101	75-125	0.551	20	
1,1-Dichloroethene	25.3	1.0	ug/L	25.0	NA	101	75-125	1.63	20	
1,1-Dichloropropene	26.2	1.0	ug/L	25.0	NA	104	75-125	0.382	20	
1,2,3-Trichlorobenzene	25.6	2.0	ug/L	25.0	NA	102	75-125	0.746	20	
1,2,3-Trichloropropane	25.0	1.0	ug/L	25.0	NA	99.8	75-125	3.50	20	
1,2,4-Trichlorobenzene	25.9	1.0	ug/L	25.0	NA	103	75-125	2.74	20	
1,2,4-Trimethylbenzene	25.9	2.5	ug/L	25.0	NA	104	75-125	2.06	20	
1,2-Dibromo-3-chloropropane	24.6	10	ug/L	25.0	NA	98.4	75-125	2.64	20	
1,2-Dibromoethane	24.2	1.0	ug/L	25.0	NA	96.6	75-125	2.41	20	
1,2-Dichlorobenzene	24.7	1.0	ug/L	25.0	NA	98.5	75-125	1.14	20	
1,2-Dichloroethane	26.4	1.0	ug/L	25.0	NA	105	75-125	1.47	20	
1,2-Dichloropropane	26.3	1.0	ug/L	25.0	NA	105	75-125	1.55	20	
1,3,5-Trimethylbenzene	26.1	2.5	ug/L	25.0	NA	104	75-125	0.384	20	
1,3-Dichlorobenzene	24.8	1.0	ug/L	25.0	NA	99.0	75-125	2.74	20	
1,3-Dichloropropane	24.8	1.0	ug/L	25.0	NA	99.1	75-125	1.60	20	
1,4-Dichlorobenzene	24.6	1.0	ug/L	25.0	NA	98.3	75-125	1.93	20	
2,2-Dichloropropane	26.9	1.0	ug/L	25.0	NA	107	75-125	1.70	20	
2-Butanone (MEK)	22.3	10	ug/L	25.0	NA	88.9	80-140	7.60	25	
2-Chlorotoluene	25.5	2.5	ug/L	25.0	NA	102	75-125	2.99	20	
4-Chlorotoluene	26.0	2.5	ug/L	25.0	NA	104	75-125	2.72	20	
4-Isopropyltoluene	26.8	1.0	ug/L	25.0	NA	107	75-125	1.31	20	
Acetone	29.1	15	ug/L	25.0	NA	116	80-150	0.753	30	
Allyl Chloride	24.2	1.0	ug/L	25.0	NA	96.8	75-125	1.12	20	
Benzene	25.2	1.0	ug/L	25.0	NA	101	75-125	1.77	20	
Bromobenzene	24.4	1.0	ug/L	25.0	NA	97.4	75-125	1.90	20	
Bromochloromethane	23.8	1.0	ug/L	25.0	NA	95.1	75-125	1.27	20	
Bromodichloromethane	26.3	1.0	ug/L	25.0	NA	105	75-125	2.77	20	
Bromoform	24.3	5.0	ug/L	25.0	NA	97.1	75-125	3.20	20	
Bromomethane	22.1	1.0	ug/L	25.0	NA	88.2	70-130	0.499	20	
Carbon Tetrachloride	29.3	1.0	ug/L	25.0	NA	117	75-125	0.239	20	
Chlorobenzene	24.0	1.0	ug/L	25.0	NA	95.6	75-125	0.831	20	
Chlorodibromomethane	25.1	1.0	ug/L	25.0	NA	100	75-125	0.636	20	
Chloroethane	25.1	1.0	ug/L	25.0	NA	100	75-125	3.07	20	
Chloroform	24.7	1.0	ug/L	25.0	NA	98.8	75-125	0.805	20	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0106 - EPA 5030B

Laboratory Control Sample Duplicate (B1D0106-BSD1)

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	27.0	1.0	ug/L	25.0	NA	108	75-125	3.19	20	
cis-1,2-Dichloroethene	23.6	1.0	ug/L	25.0	NA	94.3	75-125	0.507	20	
cis-1,3-Dichloropropene	26.2	1.0	ug/L	25.0	NA	105	75-125	1.40	20	
Dibromomethane	25.5	1.0	ug/L	25.0	NA	102	75-125	1.28	20	
Dichlorodifluoromethane	27.2	1.0	ug/L	25.0	NA	109	50-120	2.98	20	
Dichlorofluoromethane	26.0	1.0	ug/L	25.0	NA	104	75-125	1.32	20	
Ethyl Ether	24.6	1.0	ug/L	25.0	NA	98.4	75-125	2.76	20	
Ethylbenzene	25.2	1.0	ug/L	25.0	NA	101	75-125	0.0397	20	
Hexachlorobutadiene	26.2	2.0	ug/L	25.0	NA	104	75-125	0.0765	20	
Isopropylbenzene	25.6	2.5	ug/L	25.0	NA	102	75-125	1.10	20	
m,p-Xylenes	49.3	2.0	ug/L	50.0	NA	98.7	75-125	0.0811	20	
Methyl Isobutyl Ketone	30.2	5.0	ug/L	25.0	NA	120	75-125	4.37	20	
Methylene chloride	23.4	5.0	ug/L	25.0	NA	93.6	75-125	0.427	20	
Methyl-t-butyl ether	24.8	1.0	ug/L	25.0	NA	99.2	75-125	1.72	20	
Naphthalene	26.4	2.5	ug/L	25.0	NA	105	75-125	1.07	20	
n-Butylbenzene	27.9	2.5	ug/L	25.0	NA	111	75-125	1.37	20	
n-Propylbenzene	26.2	2.5	ug/L	25.0	NA	105	75-125	1.23	20	
o-Xylene	24.3	1.0	ug/L	25.0	NA	97.1	75-125	0.494	20	
sec-Butylbenzene	27.1	2.5	ug/L	25.0	NA	108	75-125	2.05	20	
Styrene	24.1	2.5	ug/L	25.0	NA	96.2	75-125	0.249	20	
tert-Butylbenzene	26.1	2.5	ug/L	25.0	NA	104	75-125	1.08	20	
Tetrachloroethene	24.1	2.0	ug/L	25.0	NA	96.2	75-125	0.496	20	
Tetrahydrofuran	27.8	5.0	ug/L	25.0	NA	111	75-125	3.64	20	
Toluene	24.2	1.0	ug/L	25.0	NA	96.4	75-125	1.15	20	
trans-1,2-Dichloroethene	23.5	1.0	ug/L	25.0	NA	93.8	75-125	0.384	20	
trans-1,3-Dichloropropene	27.1	1.0	ug/L	25.0	NA	108	75-125	1.17	20	
Trichloroethene	25.6	1.0	ug/L	25.0	NA	102	75-125	1.47	20	
Trichlorofluoromethane	28.3	1.0	ug/L	25.0	NA	113	75-125	0.425	20	
Vinyl chloride	30.5	2.5	ug/L	25.0	NA	122	70-130	2.79	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	26.1		ug/L	25.0	NA	104	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	24.1		ug/L	25.0	NA	96.6	80-120			
<i>Surrogate: Dibromofluoromethane</i>	24.4		ug/L	25.0	NA	97.6	80-120			
<i>Surrogate: Toluene-d8</i>	24.2		ug/L	25.0	NA	96.8	80-120			

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0106 - EPA 5030B

Matrix Spike (B1D0106-MS1)

Source: 1101590-03

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	26.2	1.0	ug/L	25.0	ND	105	75-125	NA	NA	
1,1,1-Trichloroethane	26.0	1.0	ug/L	25.0	ND	104	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	24.9	1.0	ug/L	25.0	ND	99.5	75-125	NA	NA	
1,1,2-Trichloroethane	25.6	1.0	ug/L	25.0	ND	102	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	25.2	1.0	ug/L	25.0	ND	101	75-125	NA	NA	
1,1-Dichloroethane	25.7	1.0	ug/L	25.0	ND	103	75-125	NA	NA	
1,1-Dichloroethene	24.7	1.0	ug/L	25.0	ND	98.4	75-125	NA	NA	
1,1-Dichloropropene	25.7	1.0	ug/L	25.0	ND	103	75-125	NA	NA	
1,2,3-Trichlorobenzene	26.6	2.0	ug/L	25.0	ND	106	80-130	NA	NA	
1,2,3-Trichloropropane	25.7	1.0	ug/L	25.0	ND	103	75-125	NA	NA	
1,2,4-Trichlorobenzene	26.5	1.0	ug/L	25.0	ND	106	75-125	NA	NA	
1,2,4-Trimethylbenzene	26.3	2.5	ug/L	25.0	ND	105	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	24.8	10	ug/L	25.0	ND	99.0	75-125	NA	NA	
1,2-Dibromoethane	25.5	1.0	ug/L	25.0	ND	102	75-125	NA	NA	
1,2-Dichlorobenzene	25.5	1.0	ug/L	25.0	ND	102	75-125	NA	NA	
1,2-Dichloroethane	26.6	1.0	ug/L	25.0	ND	106	75-125	NA	NA	
1,2-Dichloropropane	26.7	1.0	ug/L	25.0	ND	107	75-125	NA	NA	
1,3,5-Trimethylbenzene	26.1	2.5	ug/L	25.0	ND	104	75-125	NA	NA	
1,3-Dichlorobenzene	25.4	1.0	ug/L	25.0	ND	101	75-125	NA	NA	
1,3-Dichloropropane	26.1	1.0	ug/L	25.0	ND	104	75-125	NA	NA	
1,4-Dichlorobenzene	25.4	1.0	ug/L	25.0	ND	101	75-125	NA	NA	
2,2-Dichloropropane	26.8	1.0	ug/L	25.0	ND	107	75-125	NA	NA	
2-Butanone (MEK)	24.6	10	ug/L	25.0	ND	98.2	65-140	NA	NA	
2-Chlorotoluene	26.2	2.5	ug/L	25.0	ND	104	75-125	NA	NA	
4-Chlorotoluene	26.3	2.5	ug/L	25.0	ND	105	75-125	NA	NA	
4-Isopropyltoluene	27.0	1.0	ug/L	25.0	ND	108	75-125	NA	NA	
Acetone	27.9	15	ug/L	25.0	ND	111	60-150	NA	NA	
Allyl Chloride	24.1	1.0	ug/L	25.0	ND	96.4	75-125	NA	NA	
Benzene	25.4	1.0	ug/L	25.0	ND	102	75-125	NA	NA	
Bromobenzene	25.2	1.0	ug/L	25.0	ND	101	75-125	NA	NA	
Bromochloromethane	24.2	1.0	ug/L	25.0	ND	96.5	75-125	NA	NA	
Bromodichloromethane	28.1	1.0	ug/L	25.0	2.74	101	75-125	NA	NA	
Bromoform	25.4	5.0	ug/L	25.0	0.670	98.7	75-125	NA	NA	
Bromomethane	22.2	1.0	ug/L	25.0	ND	88.5	70-130	NA	NA	
Carbon Tetrachloride	28.2	1.0	ug/L	25.0	ND	113	75-125	NA	NA	
Chlorobenzene	25.1	1.0	ug/L	25.0	ND	100	75-125	NA	NA	
Chlorodibromomethane	27.4	1.0	ug/L	25.0	2.76	98.4	75-125	NA	NA	
Chloroethane	24.2	1.0	ug/L	25.0	ND	96.6	75-125	NA	NA	
Chloroform	25.7	1.0	ug/L	25.0	1.34	97.1	75-125	NA	NA	

EPA Lab ID: MN00063

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Reports/RPT 35.01

Page 32 of 50

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0106 - EPA 5030B

Matrix Spike (B1D0106-MS1)

Source: 1101590-03

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	26.1	1.0	ug/L	25.0	ND	104	75-125	NA	NA	
cis-1,2-Dichloroethene	23.9	1.0	ug/L	25.0	ND	95.6	75-125	NA	NA	
cis-1,3-Dichloropropene	26.7	1.0	ug/L	25.0	ND	107	75-125	NA	NA	
Dibromomethane	26.0	1.0	ug/L	25.0	ND	104	75-125	NA	NA	
Dichlorodifluoromethane	24.8	1.0	ug/L	25.0	ND	98.8	50-120	NA	NA	
Dichlorofluoromethane	25.3	1.0	ug/L	25.0	ND	101	75-125	NA	NA	
Ethyl Ether	25.2	1.0	ug/L	25.0	ND	101	75-125	NA	NA	
Ethylbenzene	25.4	1.0	ug/L	25.0	ND	102	75-125	NA	NA	
Hexachlorobutadiene	26.2	2.0	ug/L	25.0	ND	105	75-125	NA	NA	
Isopropylbenzene	25.2	2.5	ug/L	25.0	ND	101	75-125	NA	NA	
m,p-Xylenes	50.1	2.0	ug/L	50.0	ND	100	75-125	NA	NA	
Methyl Isobutyl Ketone	28.8	5.0	ug/L	25.0	ND	115	75-125	NA	NA	
Methylene chloride	23.9	5.0	ug/L	25.0	ND	95.2	75-125	NA	NA	
Methyl-t-butyl ether	25.3	1.0	ug/L	25.0	ND	101	75-125	NA	NA	
Naphthalene	27.3	2.5	ug/L	25.0	ND	109	75-125	NA	NA	
n-Butylbenzene	28.1	2.5	ug/L	25.0	ND	112	75-125	NA	NA	
n-Propylbenzene	26.5	2.5	ug/L	25.0	ND	106	75-125	NA	NA	
o-Xylene	24.7	1.0	ug/L	25.0	ND	98.6	75-125	NA	NA	
sec-Butylbenzene	26.9	2.5	ug/L	25.0	ND	107	75-125	NA	NA	
Styrene	19.2	2.5	ug/L	25.0	ND	76.5	75-125	NA	NA	
tert-Butylbenzene	26.4	2.5	ug/L	25.0	ND	105	75-125	NA	NA	
Tetrachloroethene	24.3	2.0	ug/L	25.0	ND	96.9	75-125	NA	NA	
Tetrahydrofuran	25.7	5.0	ug/L	25.0	ND	103	75-125	NA	NA	
Toluene	24.8	1.0	ug/L	25.0	ND	98.8	75-125	NA	NA	
trans-1,2-Dichloroethene	23.4	1.0	ug/L	25.0	ND	93.3	75-125	NA	NA	
trans-1,3-Dichloropropene	27.8	1.0	ug/L	25.0	ND	111	75-125	NA	NA	
Trichloroethene	25.9	1.0	ug/L	25.0	ND	103	75-125	NA	NA	
Trichlorofluoromethane	27.0	1.0	ug/L	25.0	ND	108	75-125	NA	NA	
Vinyl chloride	28.7	2.5	ug/L	25.0	ND	115	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	25.8		ug/L	25.0	NA	103	80-120			
Surrogate: 4-Bromofluorobenzene	24.3		ug/L	25.0	NA	97.3	80-120			
Surrogate: Dibromofluoromethane	24.4		ug/L	25.0	NA	97.5	80-120			
Surrogate: Toluene-d8	24.8		ug/L	25.0	NA	99.3	80-120			

Braun Intertec-Cedar Rapids
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Client Ref: Former Auto Motive
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PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0106 - EPA 5030B

Matrix Spike Duplicate (B1D0106-MSD1)

Source: 1101590-03

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	25.4	1.0	ug/L	25.0	ND	101	75-125	3.02	20	
1,1,1-Trichloroethane	25.6	1.0	ug/L	25.0	ND	102	75-125	1.51	20	
1,1,2,2-Tetrachloroethane	24.4	1.0	ug/L	25.0	ND	97.5	75-125	2.03	20	
1,1,2-Trichloroethane	25.6	1.0	ug/L	25.0	ND	102	75-125	0.0781	20	
1,1,2-Trichlorotrifluoroethane	24.9	1.0	ug/L	25.0	ND	99.3	75-125	1.24	20	
1,1-Dichloroethane	25.5	1.0	ug/L	25.0	ND	102	75-125	0.781	20	
1,1-Dichloroethene	24.1	1.0	ug/L	25.0	ND	96.2	75-125	2.34	20	
1,1-Dichloropropene	25.4	1.0	ug/L	25.0	ND	101	75-125	1.33	20	
1,2,3-Trichlorobenzene	26.3	2.0	ug/L	25.0	ND	105	80-130	0.984	20	
1,2,3-Trichloropropane	25.8	1.0	ug/L	25.0	ND	103	75-125	0.350	20	
1,2,4-Trichlorobenzene	26.3	1.0	ug/L	25.0	ND	105	75-125	0.946	20	
1,2,4-Trimethylbenzene	25.8	2.5	ug/L	25.0	ND	103	75-125	1.96	20	
1,2-Dibromo-3-chloropropane	24.9	10	ug/L	25.0	ND	99.4	75-125	0.483	20	
1,2-Dibromoethane	25.4	1.0	ug/L	25.0	ND	101	75-125	0.629	20	
1,2-Dichlorobenzene	25.3	1.0	ug/L	25.0	ND	101	75-125	0.827	20	
1,2-Dichloroethane	27.2	1.0	ug/L	25.0	ND	109	75-125	2.12	20	
1,2-Dichloropropane	26.2	1.0	ug/L	25.0	ND	105	75-125	1.93	20	
1,3,5-Trimethylbenzene	25.1	2.5	ug/L	25.0	ND	100	75-125	3.98	20	
1,3-Dichlorobenzene	25.3	1.0	ug/L	25.0	ND	101	75-125	0.0789	20	
1,3-Dichloropropane	25.6	1.0	ug/L	25.0	ND	102	75-125	1.70	20	
1,4-Dichlorobenzene	24.7	1.0	ug/L	25.0	ND	98.6	75-125	2.83	20	
2,2-Dichloropropane	26.1	1.0	ug/L	25.0	ND	104	75-125	2.69	20	
2-Butanone (MEK)	24.2	10	ug/L	25.0	ND	96.8	65-140	1.39	25	
2-Chlorotoluene	25.6	2.5	ug/L	25.0	ND	102	75-125	2.16	20	
4-Chlorotoluene	25.6	2.5	ug/L	25.0	ND	102	75-125	2.77	20	
4-Isopropyltoluene	26.4	1.0	ug/L	25.0	ND	105	75-125	2.25	20	
Acetone	27.8	15	ug/L	25.0	ND	111	60-150	0.503	30	
Allyl Chloride	23.5	1.0	ug/L	25.0	ND	93.8	75-125	2.69	20	
Benzene	24.9	1.0	ug/L	25.0	ND	99.4	75-125	2.22	20	
Bromobenzene	24.9	1.0	ug/L	25.0	ND	99.2	75-125	1.36	20	
Bromochloromethane	24.3	1.0	ug/L	25.0	ND	96.8	75-125	0.372	20	
Bromodichloromethane	28.0	1.0	ug/L	25.0	2.74	101	75-125	0.606	20	
Bromoform	25.5	5.0	ug/L	25.0	0.670	99.2	75-125	0.472	20	
Bromomethane	22.3	1.0	ug/L	25.0	ND	89.0	70-130	0.540	20	
Carbon Tetrachloride	27.5	1.0	ug/L	25.0	ND	110	75-125	2.69	20	
Chlorobenzene	24.5	1.0	ug/L	25.0	ND	98.0	75-125	2.14	20	
Chlorodibromomethane	27.4	1.0	ug/L	25.0	2.76	98.2	75-125	0.256	20	
Chloroethane	23.6	1.0	ug/L	25.0	ND	94.2	75-125	2.59	20	
Chloroform	25.6	1.0	ug/L	25.0	1.34	96.6	75-125	0.469	20	

EPA Lab ID: MN00063

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0106 - EPA 5030B

Matrix Spike Duplicate (B1D0106-MSD1)

Source: 1101590-03

Prepared & Analyzed: 04/06/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	26.1	1.0	ug/L	25.0	ND	104	75-125	0.0766	20	
cis-1,2-Dichloroethene	24.0	1.0	ug/L	25.0	ND	95.8	75-125	0.292	20	
cis-1,3-Dichloropropene	26.3	1.0	ug/L	25.0	ND	105	75-125	1.55	20	
Dibromomethane	25.8	1.0	ug/L	25.0	ND	103	75-125	0.425	20	
Dichlorodifluoromethane	24.9	1.0	ug/L	25.0	ND	99.5	50-120	0.684	20	
Dichlorofluoromethane	24.9	1.0	ug/L	25.0	ND	99.4	75-125	1.63	20	
Ethyl Ether	25.2	1.0	ug/L	25.0	ND	101	75-125	0.119	20	
Ethylbenzene	25.0	1.0	ug/L	25.0	ND	99.7	75-125	1.83	20	
Hexachlorobutadiene	24.7	2.0	ug/L	25.0	ND	98.6	75-125	5.86	20	
Isopropylbenzene	24.8	2.5	ug/L	25.0	ND	98.9	75-125	1.88	20	
m,p-Xylenes	48.8	2.0	ug/L	50.0	ND	97.7	75-125	2.63	20	
Methyl Isobutyl Ketone	29.8	5.0	ug/L	25.0	ND	119	75-125	3.24	20	
Methylene chloride	23.6	5.0	ug/L	25.0	ND	94.3	75-125	0.969	20	
Methyl-t-butyl ether	25.9	1.0	ug/L	25.0	ND	103	75-125	2.15	20	
Naphthalene	27.2	2.5	ug/L	25.0	ND	109	75-125	0.257	20	
n-Butylbenzene	27.0	2.5	ug/L	25.0	ND	108	75-125	4.03	20	
n-Propylbenzene	25.6	2.5	ug/L	25.0	ND	102	75-125	3.11	20	
o-Xylene	24.1	1.0	ug/L	25.0	ND	96.3	75-125	2.42	20	
sec-Butylbenzene	25.9	2.5	ug/L	25.0	ND	103	75-125	3.90	20	
Styrene	13.1	2.5	ug/L	25.0	ND	52.3	75-125	37.5	20	
tert-Butylbenzene	25.6	2.5	ug/L	25.0	ND	102	75-125	2.81	20	
Tetrachloroethene	23.8	2.0	ug/L	25.0	ND	94.8	75-125	2.17	20	
Tetrahydrofuran	27.3	5.0	ug/L	25.0	ND	109	75-125	5.89	20	
Toluene	24.3	1.0	ug/L	25.0	ND	97.0	75-125	1.92	20	
trans-1,2-Dichloroethene	23.5	1.0	ug/L	25.0	ND	93.7	75-125	0.384	20	
trans-1,3-Dichloropropene	27.4	1.0	ug/L	25.0	ND	109	75-125	1.41	20	
Trichloroethene	24.9	1.0	ug/L	25.0	ND	99.3	75-125	4.02	20	
Trichlorofluoromethane	26.5	1.0	ug/L	25.0	ND	106	75-125	1.57	20	
Vinyl chloride	29.2	2.5	ug/L	25.0	ND	117	70-130	1.69	20	
Surrogate: 1,2-Dichloroethane-d4	26.4		ug/L	25.0	NA	106	80-120			
Surrogate: 4-Bromofluorobenzene	24.3		ug/L	25.0	NA	97.1	80-120			
Surrogate: Dibromofluoromethane	24.7		ug/L	25.0	NA	98.9	80-120			
Surrogate: Toluene-d8	24.5		ug/L	25.0	NA	98.0	80-120			

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0136 - EPA 5035

Method Blank (B1D0136-BLK1)

Prepared & Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichlorotrifluoroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromo-3-chloropropane	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromoethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3,5-Trimethylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorotoluene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
4-Isopropyltoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Acetone	< 0.75	0.75	mg/kg	NA	NA	NA	NA	NA	NA	
Allyl Chloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromochloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromoform	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Bromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorodibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroform	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	

EPA Lab ID: MN00063

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Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0136 - EPA 5035

Method Blank (B1D0136-BLK1)

Prepared & Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethyl Ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobutadiene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Isopropylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylenes	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl Isobutyl Ketone	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methylene chloride	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
n-Butylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
n-Propylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Styrene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrahydrofuran	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Vinyl chloride	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	27.4		ug/L	25.0	NA	110	80-120			
Surrogate: 4-Bromofluorobenzene	23.1		ug/L	25.0	NA	92.5	80-120			
Surrogate: Dibromofluoromethane	25.5		ug/L	25.0	NA	102	80-120			
Surrogate: Toluene-d8	25.7		ug/L	25.0	NA	103	80-120			

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatil Organic Compounds - Quality Control

Batch B1D0136 - EPA 5035

Laboratory Control Sample (B1D0136-BS1)

Prepared & Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
1,1,1-Trichloroethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
1,1,2-Trichloroethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.31	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
1,1-Dichloroethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	
1,1-Dichloroethene	1.24	0.050	mg/kg	1.25	NA	99.0	75-125	NA	NA	
1,1-Dichloropropene	1.31	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.39	0.10	mg/kg	1.25	NA	111	75-125	NA	NA	
1,2,3-Trichloropropane	1.37	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.41	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.40	0.12	mg/kg	1.25	NA	112	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	1.38	0.50	mg/kg	1.25	NA	110	75-125	NA	NA	
1,2-Dibromoethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
1,2-Dichlorobenzene	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
1,2-Dichloroethane	1.41	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
1,2-Dichloropropane	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.41	0.12	mg/kg	1.25	NA	113	75-125	NA	NA	
1,3-Dichlorobenzene	1.33	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
1,3-Dichloropropane	1.33	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
1,4-Dichlorobenzene	1.33	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
2,2-Dichloropropane	1.35	0.050	mg/kg	1.25	NA	108	75-125	NA	NA	
2-Butanone (MEK)	1.22	0.50	mg/kg	1.25	NA	97.2	75-140	NA	NA	
2-Chlorotoluene	1.37	0.12	mg/kg	1.25	NA	109	75-125	NA	NA	
4-Chlorotoluene	1.38	0.12	mg/kg	1.25	NA	110	75-125	NA	NA	
4-Isopropyltoluene	1.42	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
Acetone	1.51	0.75	mg/kg	1.25	NA	121	80-175	NA	NA	
Allyl Chloride	1.20	0.050	mg/kg	1.25	NA	95.9	75-125	NA	NA	
Benzene	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
Bromobenzene	1.32	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	
Bromochloromethane	1.24	0.050	mg/kg	1.25	NA	99.0	75-125	NA	NA	
Bromodichloromethane	1.42	0.050	mg/kg	1.25	NA	113	75-125	NA	NA	
Bromoform	1.32	0.25	mg/kg	1.25	NA	105	75-125	NA	NA	
Bromomethane	1.21	0.050	mg/kg	1.25	NA	96.4	70-130	NA	NA	
Carbon Tetrachloride	1.48	0.050	mg/kg	1.25	NA	118	75-125	NA	NA	
Chlorobenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
Chlorodibromomethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
Chloroethane	1.22	0.050	mg/kg	1.25	NA	97.8	75-125	NA	NA	
Chloroform	1.28	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatil Organic Compounds - Quality Control

Batch B1D0136 - EPA 5035

Laboratory Control Sample (B1D0136-BS1)

Prepared & Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	1.39	0.050	mg/kg	1.25	NA	111	75-125	NA	NA	
cis-1,2-Dichloroethene	1.22	0.050	mg/kg	1.25	NA	97.8	75-125	NA	NA	
cis-1,3-Dichloropropene	1.37	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
Dibromomethane	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
Dichlorodifluoromethane	1.35	0.050	mg/kg	1.25	NA	107	70-130	NA	NA	
Dichlorofluoromethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	
Ethyl Ether	1.27	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
Ethylbenzene	1.31	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
Hexachlorobutadiene	1.38	0.10	mg/kg	1.25	NA	110	75-125	NA	NA	
Isopropylbenzene	1.30	0.12	mg/kg	1.25	NA	104	75-125	NA	NA	
m,p-Xylenes	2.56	0.10	mg/kg	2.50	NA	103	75-125	NA	NA	
Methyl Isobutyl Ketone	1.52	0.25	mg/kg	1.25	NA	121	75-125	NA	NA	
Methylene chloride	1.24	0.25	mg/kg	1.25	NA	99.3	75-125	NA	NA	
Methyl-t-butyl ether	1.32	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
Naphthalene	1.45	0.12	mg/kg	1.25	NA	116	75-125	NA	NA	
n-Butylbenzene	1.46	0.12	mg/kg	1.25	NA	116	75-125	NA	NA	
n-Propylbenzene	1.40	0.12	mg/kg	1.25	NA	112	75-125	NA	NA	
o-Xylene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
sec-Butylbenzene	1.40	0.12	mg/kg	1.25	NA	112	75-125	NA	NA	
Styrene	1.27	0.12	mg/kg	1.25	NA	101	75-125	NA	NA	
tert-Butylbenzene	1.38	0.12	mg/kg	1.25	NA	110	75-125	NA	NA	
Tetrachloroethene	1.22	0.10	mg/kg	1.25	NA	97.0	75-125	NA	NA	
Tetrahydrofuran	1.49	0.25	mg/kg	1.25	NA	119	75-125	NA	NA	
Toluene	1.25	0.050	mg/kg	1.25	NA	99.6	75-125	NA	NA	
trans-1,2-Dichloroethene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
trans-1,3-Dichloropropene	1.43	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
Trichloroethene	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
Trichlorofluoromethane	1.43	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
Vinyl chloride	1.63	0.12	mg/kg	1.25	NA	130	70-130	NA	NA	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	28.3		ug/L	25.0	NA	113	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	24.3		ug/L	25.0	NA	97.3	80-120			
<i>Surrogate: Dibromofluoromethane</i>	25.8		ug/L	25.0	NA	103	80-120			
<i>Surrogate: Toluene-d8</i>	25.3		ug/L	25.0	NA	101	80-120			

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Berteh
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0136 - EPA 5035

Laboratory Control Sample Duplicate (B1D0136-BSD1)

Prepared & Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	0.153	20	
1,1,1-Trichloroethane	1.35	0.050	mg/kg	1.25	NA	108	75-125	1.01	20	
1,1,2,2-Tetrachloroethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	1.61	20	
1,1,2-Trichloroethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	0.269	20	
1,1,2-Trichlorotrifluoroethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	1.18	20	
1,1-Dichloroethane	1.31	0.050	mg/kg	1.25	NA	104	75-125	0.382	20	
1,1-Dichloroethene	1.24	0.050	mg/kg	1.25	NA	98.9	75-125	0.0404	20	
1,1-Dichloropropene	1.32	0.050	mg/kg	1.25	NA	106	75-125	1.02	20	
1,2,3-Trichlorobenzene	1.38	0.10	mg/kg	1.25	NA	110	75-125	0.541	20	
1,2,3-Trichloropropane	1.36	0.050	mg/kg	1.25	NA	108	75-125	0.770	20	
1,2,4-Trichlorobenzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	2.19	20	
1,2,4-Trimethylbenzene	1.39	0.12	mg/kg	1.25	NA	111	75-125	1.15	20	
1,2-Dibromo-3-chloropropane	1.37	0.50	mg/kg	1.25	NA	110	75-125	0.582	20	
1,2-Dibromoethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	1.04	20	
1,2-Dichlorobenzene	1.34	0.050	mg/kg	1.25	NA	107	75-125	0.0747	20	
1,2-Dichloroethane	1.40	0.050	mg/kg	1.25	NA	112	75-125	0.392	20	
1,2-Dichloropropane	1.34	0.050	mg/kg	1.25	NA	107	75-125	1.48	20	
1,3,5-Trimethylbenzene	1.39	0.12	mg/kg	1.25	NA	111	75-125	1.36	20	
1,3-Dichlorobenzene	1.32	0.050	mg/kg	1.25	NA	106	75-125	0.566	20	
1,3-Dichloropropane	1.33	0.050	mg/kg	1.25	NA	106	75-125	0.264	20	
1,4-Dichlorobenzene	1.32	0.050	mg/kg	1.25	NA	105	75-125	0.945	20	
2,2-Dichloropropane	1.36	0.050	mg/kg	1.25	NA	108	75-125	0.703	20	
2-Butanone (MEK)	1.08	0.50	mg/kg	1.25	NA	86.0	75-140	12.3	20	
2-Chlorotoluene	1.36	0.12	mg/kg	1.25	NA	108	75-125	1.03	20	
4-Chlorotoluene	1.38	0.12	mg/kg	1.25	NA	110	75-125	0.254	20	
4-Isopropyltoluene	1.41	0.050	mg/kg	1.25	NA	112	75-125	0.918	20	
Acetone	1.50	0.75	mg/kg	1.25	NA	120	80-175	1.10	25	
Allyl Chloride	1.25	0.050	mg/kg	1.25	NA	99.4	75-125	3.64	20	
Benzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	1.66	20	
Bromobenzene	1.31	0.050	mg/kg	1.25	NA	104	75-125	1.10	20	
Bromochloromethane	1.23	0.050	mg/kg	1.25	NA	98.3	75-125	0.769	20	
Bromodichloromethane	1.37	0.050	mg/kg	1.25	NA	110	75-125	3.08	20	
Bromoform	1.32	0.25	mg/kg	1.25	NA	105	75-125	0.0379	20	
Bromomethane	1.19	0.050	mg/kg	1.25	NA	95.3	70-130	1.08	20	
Carbon Tetrachloride	1.46	0.050	mg/kg	1.25	NA	117	75-125	1.19	20	
Chlorobenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	1.30	20	
Chlorodibromomethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	0.671	20	
Chloroethane	1.23	0.050	mg/kg	1.25	NA	98.6	75-125	0.773	20	
Chloroform	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.233	20	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0136 - EPA 5035

Laboratory Control Sample Duplicate (B1D0136-BSD1)

Prepared & Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	1.35	0.050	mg/kg	1.25	NA	108	75-125	2.74	20	
cis-1,2-Dichloroethene	1.21	0.050	mg/kg	1.25	NA	96.3	75-125	1.52	20	
cis-1,3-Dichloropropene	1.35	0.050	mg/kg	1.25	NA	108	75-125	1.21	20	
Dibromomethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	2.94	20	
Dichlorodifluoromethane	1.31	0.050	mg/kg	1.25	NA	105	70-130	2.64	20	
Dichlorofluoromethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	0.650	20	
Ethyl Ether	1.29	0.050	mg/kg	1.25	NA	103	75-125	1.95	20	
Ethylbenzene	1.31	0.050	mg/kg	1.25	NA	105	75-125	0.459	20	
Hexachlorobutadiene	1.37	0.10	mg/kg	1.25	NA	109	75-125	0.654	20	
Isopropylbenzene	1.32	0.12	mg/kg	1.25	NA	105	75-125	1.26	20	
m,p-Xylenes	2.56	0.10	mg/kg	2.50	NA	103	75-125	0.0195	20	
Methyl Isobutyl Ketone	1.51	0.25	mg/kg	1.25	NA	120	75-125	0.693	20	
Methylene chloride	1.24	0.25	mg/kg	1.25	NA	98.8	75-125	0.483	20	
Methyl-t-butyl ether	1.31	0.050	mg/kg	1.25	NA	105	75-125	0.872	20	
Naphthalene	1.44	0.12	mg/kg	1.25	NA	115	75-125	0.899	20	
n-Butylbenzene	1.45	0.12	mg/kg	1.25	NA	116	75-125	0.481	20	
n-Propylbenzene	1.37	0.12	mg/kg	1.25	NA	109	75-125	2.20	20	
o-Xylene	1.27	0.050	mg/kg	1.25	NA	101	75-125	0.314	20	
sec-Butylbenzene	1.40	0.12	mg/kg	1.25	NA	112	75-125	0.285	20	
Styrene	1.26	0.12	mg/kg	1.25	NA	101	75-125	0.593	20	
tert-Butylbenzene	1.39	0.12	mg/kg	1.25	NA	111	75-125	0.687	20	
Tetrachloroethene	1.25	0.10	mg/kg	1.25	NA	99.6	75-125	2.56	20	
Tetrahydrofuran	1.48	0.25	mg/kg	1.25	NA	118	75-125	0.774	20	
Toluene	1.27	0.050	mg/kg	1.25	NA	102	75-125	2.06	20	
trans-1,2-Dichloroethene	1.20	0.050	mg/kg	1.25	NA	95.6	75-125	0.417	20	
trans-1,3-Dichloropropene	1.41	0.050	mg/kg	1.25	NA	112	75-125	1.66	20	
Trichloroethene	1.26	0.050	mg/kg	1.25	NA	101	75-125	2.31	20	
Trichlorofluoromethane	1.44	0.050	mg/kg	1.25	NA	115	75-125	0.418	20	
Vinyl chloride	1.60	0.12	mg/kg	1.25	NA	128	70-130	2.04	20	
Surrogate: 1,2-Dichloroethane-d4	27.9		ug/L	25.0	NA	112	80-120			
Surrogate: 4-Bromofluorobenzene	24.8		ug/L	25.0	NA	99.2	80-120			
Surrogate: Dibromofluoromethane	25.3		ug/L	25.0	NA	101	80-120			
Surrogate: Toluene-d8	25.9		ug/L	25.0	NA	103	80-120			

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch BID0136 - EPA 5035

Matrix Spike (BID0136-MS1)

Source: 1101653-03

Prepared & Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.49	0.057	mg/kg dry	1.42	ND	105	75-125	NA	NA	
1,1,1-Trichloroethane	1.55	0.057	mg/kg dry	1.42	ND	110	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.45	0.057	mg/kg dry	1.42	ND	102	75-125	NA	NA	
1,1,2-Trichloroethane	1.43	0.057	mg/kg dry	1.42	ND	101	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.52	0.057	mg/kg dry	1.42	ND	107	75-125	NA	NA	
1,1-Dichloroethane	1.49	0.057	mg/kg dry	1.42	ND	105	75-125	NA	NA	
1,1-Dichloroethene	1.43	0.057	mg/kg dry	1.42	ND	101	75-125	NA	NA	
1,1-Dichloropropene	1.52	0.057	mg/kg dry	1.42	ND	107	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.57	0.11	mg/kg dry	1.42	ND	111	75-125	NA	NA	
1,2,3-Trichloropropane	1.49	0.057	mg/kg dry	1.42	ND	105	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.57	0.057	mg/kg dry	1.42	ND	110	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.59	0.14	mg/kg dry	1.42	ND	112	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	1.49	0.57	mg/kg dry	1.42	ND	105	75-125	NA	NA	
1,2-Dibromoethane	1.44	0.057	mg/kg dry	1.42	ND	102	75-125	NA	NA	
1,2-Dichlorobenzene	1.53	0.057	mg/kg dry	1.42	ND	108	75-125	NA	NA	
1,2-Dichloroethane	1.56	0.057	mg/kg dry	1.42	ND	110	75-125	NA	NA	
1,2-Dichloropropane	1.53	0.057	mg/kg dry	1.42	ND	108	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.61	0.14	mg/kg dry	1.42	ND	113	75-125	NA	NA	
1,3-Dichlorobenzene	1.53	0.057	mg/kg dry	1.42	ND	108	75-125	NA	NA	
1,3-Dichloropropane	1.49	0.057	mg/kg dry	1.42	ND	105	75-125	NA	NA	
1,4-Dichlorobenzene	1.51	0.057	mg/kg dry	1.42	ND	107	75-125	NA	NA	
2,2-Dichloropropane	1.51	0.057	mg/kg dry	1.42	ND	107	75-125	NA	NA	
2-Butanone (MEK)	1.32	0.57	mg/kg dry	1.42	ND	93.4	75-170	NA	NA	
2-Chlorotoluene	1.55	0.14	mg/kg dry	1.42	ND	109	75-125	NA	NA	
4-Chlorotoluene	1.55	0.14	mg/kg dry	1.42	ND	109	75-125	NA	NA	
4-Isopropyltoluene	1.64	0.057	mg/kg dry	1.42	ND	115	75-125	NA	NA	
Acetone	1.69	0.85	mg/kg dry	1.42	ND	119	75-180	NA	NA	
Allyl Chloride	1.35	0.057	mg/kg dry	1.42	ND	95.5	75-125	NA	NA	
Benzene	1.47	0.057	mg/kg dry	1.42	ND	104	75-125	NA	NA	
Bromobenzene	1.50	0.057	mg/kg dry	1.42	ND	106	75-125	NA	NA	
Bromochloromethane	1.38	0.057	mg/kg dry	1.42	ND	97.4	75-125	NA	NA	
Bromodichloromethane	1.57	0.057	mg/kg dry	1.42	ND	111	75-125	NA	NA	
Bromoform	1.47	0.28	mg/kg dry	1.42	ND	103	75-125	NA	NA	
Bromomethane	1.35	0.057	mg/kg dry	1.42	ND	95.4	70-130	NA	NA	
Carbon Tetrachloride	1.70	0.057	mg/kg dry	1.42	ND	120	75-125	NA	NA	
Chlorobenzene	1.44	0.057	mg/kg dry	1.42	ND	102	75-125	NA	NA	
Chlorodibromomethane	1.51	0.057	mg/kg dry	1.42	ND	107	75-125	NA	NA	
Chloroethane	1.43	0.057	mg/kg dry	1.42	ND	101	75-125	NA	NA	
Chloroform	1.46	0.057	mg/kg dry	1.42	ND	103	75-125	NA	NA	

EPA Lab ID: MN00063

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Braun Intertec-Cedar Rapids
 5915 4th Street SW, Suite 100
 Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
 Client Contact: Mr. Ed Bertch
 PO Number: CR-11-01229

Report #: 1101674
 Project Mgr: Thomas P. Wagner
 Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0136 - EPA 5035

Matrix Spike (B1D0136-MS1)

Source: 1101653-03

Prepared & Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	1.53	0.057	mg/kg dry	1.42	ND	108	75-125	NA	NA	
cis-1,2-Dichloroethene	1.40	0.057	mg/kg dry	1.42	ND	98.5	75-125	NA	NA	
cis-1,3-Dichloropropene	1.54	0.057	mg/kg dry	1.42	ND	109	75-125	NA	NA	
Dibromomethane	1.50	0.057	mg/kg dry	1.42	ND	106	75-125	NA	NA	
Dichlorodifluoromethane	1.51	0.057	mg/kg dry	1.42	ND	107	70-130	NA	NA	
Dichlorofluoromethane	1.48	0.057	mg/kg dry	1.42	ND	104	75-125	NA	NA	
Ethyl Ether	1.45	0.057	mg/kg dry	1.42	ND	102	75-125	NA	NA	
Ethylbenzene	1.48	0.057	mg/kg dry	1.42	ND	105	75-125	NA	NA	
Hexachlorobutadiene	1.62	0.11	mg/kg dry	1.42	ND	114	75-125	NA	NA	
Isopropylbenzene	1.48	0.14	mg/kg dry	1.42	ND	105	75-125	NA	NA	
m,p-Xylenes	2.93	0.11	mg/kg dry	2.83	ND	103	75-125	NA	NA	
Methyl Isobutyl Ketone	1.65	0.28	mg/kg dry	1.42	ND	117	75-125	NA	NA	
Methylene chloride	1.41	0.28	mg/kg dry	1.42	ND	99.1	75-125	NA	NA	
Methyl-t-butyl ether	1.46	0.057	mg/kg dry	1.42	ND	103	75-125	NA	NA	
Naphthalene	1.63	0.14	mg/kg dry	1.42	ND	115	75-125	NA	NA	
n-Butylbenzene	1.68	0.14	mg/kg dry	1.42	ND	118	75-125	NA	NA	
n-Propylbenzene	1.60	0.14	mg/kg dry	1.42	ND	113	75-125	NA	NA	
o-Xylene	1.43	0.057	mg/kg dry	1.42	ND	101	75-125	NA	NA	
sec-Butylbenzene	1.62	0.14	mg/kg dry	1.42	ND	114	75-125	NA	NA	
Styrene	1.43	0.14	mg/kg dry	1.42	ND	101	75-125	NA	NA	
tert-Butylbenzene	1.59	0.14	mg/kg dry	1.42	ND	112	75-125	NA	NA	
Tetrachloroethene	1.41	0.11	mg/kg dry	1.42	ND	99.3	75-125	NA	NA	
Tetrahydrofuran	1.62	0.28	mg/kg dry	1.42	ND	114	75-125	NA	NA	
Toluene	1.44	0.057	mg/kg dry	1.42	ND	102	75-125	NA	NA	
trans-1,2-Dichloroethene	1.37	0.057	mg/kg dry	1.42	ND	96.8	75-125	NA	NA	
trans-1,3-Dichloropropene	1.60	0.057	mg/kg dry	1.42	ND	113	75-125	NA	NA	
Trichloroethene	1.49	0.057	mg/kg dry	1.42	ND	105	75-125	NA	NA	
Trichlorofluoromethane	1.66	0.057	mg/kg dry	1.42	ND	117	75-125	NA	NA	
Vinyl chloride	1.81	0.14	mg/kg dry	1.42	ND	127	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	27.6		ug/L	25.0	NA	110	80-120			
Surrogate: 4-Bromofluorobenzene	23.7		ug/L	25.0	NA	94.9	80-120			
Surrogate: Dibromofluoromethane	25.4		ug/L	25.0	NA	101	80-120			
Surrogate: Toluene-d8	25.3		ug/L	25.0	NA	101	80-120			

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
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Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0136 - EPA 5035

Matrix Spike Duplicate (B1D0136-MSD1)

Source: 1101653-03

Prepared & Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.51	0.057	mg/kg dry	1.42	ND	107	75-125	1.47	20	
1,1,1-Trichloroethane	1.50	0.057	mg/kg dry	1.42	ND	106	75-125	3.52	20	
1,1,2,2-Tetrachloroethane	1.46	0.057	mg/kg dry	1.42	ND	103	75-125	0.622	20	
1,1,2-Trichloroethane	1.48	0.057	mg/kg dry	1.42	ND	105	75-125	3.30	20	
1,1,2-Trichlorotrifluoroethane	1.51	0.057	mg/kg dry	1.42	ND	106	75-125	1.12	20	
1,1-Dichloroethane	1.46	0.057	mg/kg dry	1.42	ND	103	75-125	1.57	20	
1,1-Dichloroethene	1.44	0.057	mg/kg dry	1.42	ND	102	75-125	0.905	20	
1,1-Dichloropropene	1.49	0.057	mg/kg dry	1.42	ND	105	75-125	2.07	20	
1,2,3-Trichlorobenzene	1.55	0.11	mg/kg dry	1.42	ND	109	75-125	1.49	20	
1,2,3-Trichloropropane	1.53	0.057	mg/kg dry	1.42	ND	108	75-125	3.15	20	
1,2,4-Trichlorobenzene	1.52	0.057	mg/kg dry	1.42	ND	107	75-125	2.82	20	
1,2,4-Trimethylbenzene	1.54	0.14	mg/kg dry	1.42	ND	109	75-125	3.50	20	
1,2-Dibromo-3-chloropropane	1.50	0.57	mg/kg dry	1.42	ND	105	75-125	0.190	20	
1,2-Dibromoethane	1.49	0.057	mg/kg dry	1.42	ND	105	75-125	3.51	20	
1,2-Dichlorobenzene	1.49	0.057	mg/kg dry	1.42	ND	105	75-125	2.36	20	
1,2-Dichloroethane	1.55	0.057	mg/kg dry	1.42	ND	110	75-125	0.726	20	
1,2-Dichloropropane	1.52	0.057	mg/kg dry	1.42	ND	107	75-125	0.891	20	
1,3,5-Trimethylbenzene	1.56	0.14	mg/kg dry	1.42	ND	110	75-125	3.15	20	
1,3-Dichlorobenzene	1.48	0.057	mg/kg dry	1.42	ND	104	75-125	3.57	20	
1,3-Dichloropropane	1.52	0.057	mg/kg dry	1.42	ND	107	75-125	1.95	20	
1,4-Dichlorobenzene	1.48	0.057	mg/kg dry	1.42	ND	104	75-125	2.50	20	
2,2-Dichloropropane	1.48	0.057	mg/kg dry	1.42	ND	105	75-125	1.96	20	
2-Butanone (MEK)	1.34	0.57	mg/kg dry	1.42	ND	94.5	75-170	1.19	20	
2-Chlorotoluene	1.51	0.14	mg/kg dry	1.42	ND	106	75-125	2.81	20	
4-Chlorotoluene	1.54	0.14	mg/kg dry	1.42	ND	109	75-125	0.293	20	
4-Isopropyltoluene	1.57	0.057	mg/kg dry	1.42	ND	111	75-125	4.10	20	
Acetone	1.68	0.85	mg/kg dry	1.42	ND	118	75-180	0.707	25	
Allyl Chloride	1.35	0.057	mg/kg dry	1.42	ND	94.9	75-125	0.587	20	
Benzene	1.45	0.057	mg/kg dry	1.42	ND	102	75-125	1.59	20	
Bromobenzene	1.47	0.057	mg/kg dry	1.42	ND	104	75-125	2.06	20	
Bromochloromethane	1.42	0.057	mg/kg dry	1.42	ND	99.9	75-125	2.55	20	
Bromodichloromethane	1.52	0.057	mg/kg dry	1.42	ND	107	75-125	3.26	20	
Bromoform	1.48	0.28	mg/kg dry	1.42	ND	104	75-125	0.807	20	
Bromomethane	1.35	0.057	mg/kg dry	1.42	ND	94.9	70-130	0.588	20	
Carbon Tetrachloride	1.67	0.057	mg/kg dry	1.42	ND	118	75-125	2.02	20	
Chlorobenzene	1.45	0.057	mg/kg dry	1.42	ND	102	75-125	0.547	20	
Chlorodibromomethane	1.54	0.057	mg/kg dry	1.42	ND	108	75-125	1.52	20	
Chloroethane	1.37	0.057	mg/kg dry	1.42	ND	96.6	75-125	4.32	20	
Chloroform	1.43	0.057	mg/kg dry	1.42	ND	101	75-125	2.43	20	

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Volatile Organic Compounds - Quality Control

Batch B1D0136 - EPA 5035

Matrix Spike Duplicate (B1D0136-MSD1)

Source: 1101653-03

Prepared & Analyzed: 04/07/11

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	1.52	0.057	mg/kg dry	1.42	ND	107	75-125	0.966	20	
cis-1,2-Dichloroethene	1.35	0.057	mg/kg dry	1.42	ND	95.2	75-125	3.34	20	
cis-1,3-Dichloropropene	1.51	0.057	mg/kg dry	1.42	ND	107	75-125	1.85	20	
Dibromomethane	1.49	0.057	mg/kg dry	1.42	ND	105	75-125	0.227	20	
Dichlorodifluoromethane	1.51	0.057	mg/kg dry	1.42	ND	106	70-130	0.450	20	
Dichlorofluoromethane	1.46	0.057	mg/kg dry	1.42	ND	103	75-125	1.54	20	
Ethyl Ether	1.42	0.057	mg/kg dry	1.42	ND	99.8	75-125	2.49	20	
Ethylbenzene	1.50	0.057	mg/kg dry	1.42	ND	106	75-125	0.760	20	
Hexachlorobutadiene	1.52	0.11	mg/kg dry	1.42	ND	107	75-125	6.51	20	
Isopropylbenzene	1.50	0.14	mg/kg dry	1.42	ND	105	75-125	0.874	20	
m,p-Xylenes	2.97	0.11	mg/kg dry	2.83	ND	105	75-125	1.44	20	
Methyl Isobutyl Ketone	1.67	0.28	mg/kg dry	1.42	ND	118	75-125	0.920	20	
Methylene chloride	1.40	0.28	mg/kg dry	1.42	ND	98.6	75-125	0.525	20	
Methyl-t-butyl ether	1.45	0.057	mg/kg dry	1.42	ND	102	75-125	1.05	20	
Naphthalene	1.61	0.14	mg/kg dry	1.42	ND	113	75-125	1.36	20	
n-Butylbenzene	1.60	0.14	mg/kg dry	1.42	ND	113	75-125	4.70	20	
n-Propylbenzene	1.54	0.14	mg/kg dry	1.42	ND	109	75-125	3.50	20	
o-Xylene	1.44	0.057	mg/kg dry	1.42	ND	102	75-125	0.512	20	
sec-Butylbenzene	1.57	0.14	mg/kg dry	1.42	ND	110	75-125	3.41	20	
Styrene	1.44	0.14	mg/kg dry	1.42	ND	102	75-125	0.552	20	
tert-Butylbenzene	1.55	0.14	mg/kg dry	1.42	ND	109	75-125	2.49	20	
Tetrachloroethene	1.39	0.11	mg/kg dry	1.42	ND	97.9	75-125	1.46	20	
Tetrahydrofuran	1.68	0.28	mg/kg dry	1.42	ND	119	75-125	4.05	20	
Toluene	1.46	0.057	mg/kg dry	1.42	ND	103	75-125	1.10	20	
trans-1,2-Dichloroethene	1.34	0.057	mg/kg dry	1.42	ND	94.6	75-125	2.29	20	
trans-1,3-Dichloropropene	1.58	0.057	mg/kg dry	1.42	ND	111	75-125	1.57	20	
Trichloroethene	1.47	0.057	mg/kg dry	1.42	ND	104	75-125	1.15	20	
Trichlorofluoromethane	1.61	0.057	mg/kg dry	1.42	ND	113	75-125	3.09	20	
Vinyl chloride	1.72	0.14	mg/kg dry	1.42	ND	121	70-130	5.05	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	27.2		ug/L	25.0	NA	109	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	24.8		ug/L	25.0	NA	99.0	80-120			
<i>Surrogate: Dibromofluoromethane</i>	25.4		ug/L	25.0	NA	102	80-120			
<i>Surrogate: Toluene-d8</i>	25.9		ug/L	25.0	NA	104	80-120			

BRAUN INTERTEC

11001 Hampshire Ave. S.
Minneapolis, MN 55438
952.995.2000 Phone
952.995.2020 Fax

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

For Braun Intertec Use Only
Laboratory Work Order No.
1101674

BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Ave S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling requires:
labservices@braunintertec.com
Phone 952-995-2690 Fax: 952-995-2691

IMPORTANT

Date Results Requested: _____
Time: _____
Rush Charges Authorized? Yes No
Rush / Quote # _____

Page 1 of 1
002629

REPORT RESULTS TO	Contact Name <u>Ed Bertch</u> Project ID/Name <u>Former Auto Motive</u> P.O. #/Project # <u>CR-11-01229</u>					Contact Name <u>Sam</u> Company _____		
	Company <u>Braun Intertec</u>					Address _____		
	Mailing Address <u>5915 4th Street SW, Suite 100</u>					City, State, Zip _____		
	City, State, Zip <u>Cedar Rapids, IA 52404</u>					Telephone # _____ Fax # _____		
Telephone # <u>319/365-0761</u> Fax # <u>319/365-1366</u>					E-mail # <u>bertch@braunintertec.com</u>		ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request)	
Special Instructions and/or Specific Regulatory Requirements: (method, limit of detection, procedural reporting units)					State Location (State) <u>IA</u>		FOR LAB USE ONLY	
LAB ID#	CLIENT SAMPLE IDENTIFICATION (IDs must be unique)	DATE SAMPLED	TIME SAMPLED	MATRIX MEDIA	VOLUME AREA (Specify units)	Number of Containers (Specify Field Phase Vol)		
1	B1	3/22/11		SS	---	1	X	X
2	B2	3/22/11		SS	---	1	X	X
3	B3	3/22/11		SS	---	1	X	X
4	Trawl	3/22/11		GW	---	BY	X	X
CHAIN OF CUSTODY					Collector's Signature: _____			
Collected by: (Print) <u>Ed Bertch</u>					Received by: _____			
Relinquished by: _____					Date/Time <u>4/5/11 1730</u>			
Relinquished by: _____					Date/Time _____			
Custody Seal Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Hand Delivered by Client					Received Contents Not Verified _____			
On Ice <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					Received Contents Verified: <u>OK</u>			
Temp Blank <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					Date/Time <u>4/5/11</u>			
Temp. <u>5.3</u> °C					Comments <u>GW for metals filtered in field</u> <u>1000</u>			

Form # CS02-03 F:\Group\QA\QC\Forms\clients\mvs\CS02-0307 Effective Date 10-10-07

Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

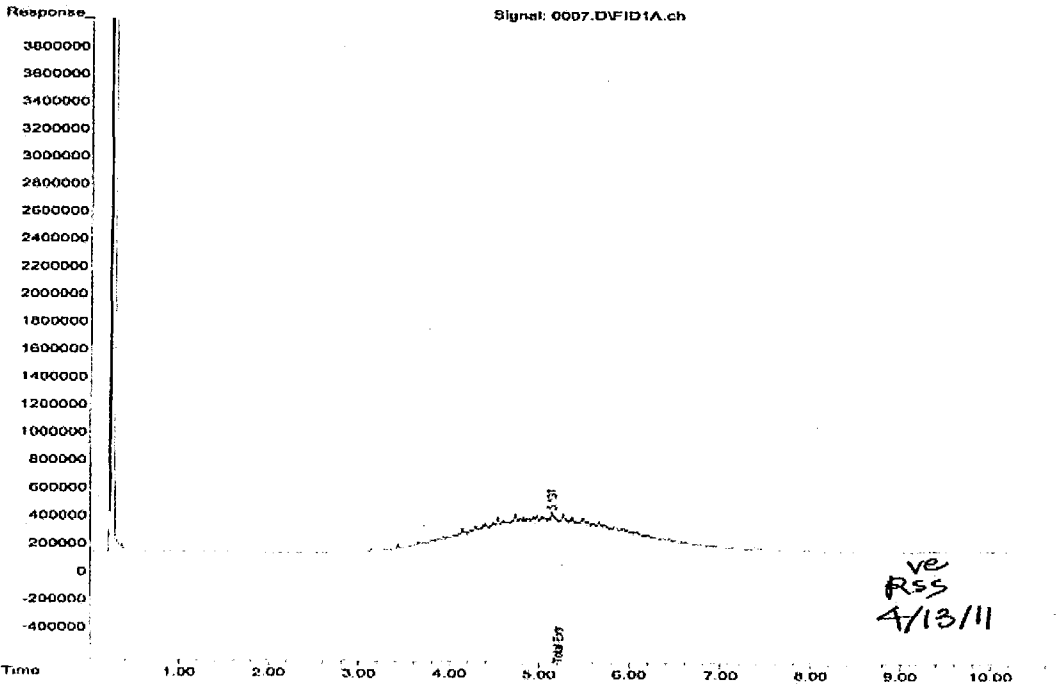
Quantitation Report (Not Reviewed)

Path : F:\LabData\AgilentGCs\7890_2\1102_OA-2\
Data File : 0007.D
Signal(s) : FID1A.ch
Acq On : 12 Apr 2011 12:57
Operator : RSS
Sample : 1101674-02@100
Misc :
ALS Vial : 7 Sample Multiplier: 1

TEH

Integration File: TEH_Integration.e
Quant Time: Apr 12 14:31:52 2011
Quant Method : F:\LabData\AgilentGCs\7890_2\Methods\OA-2_TEH_1035M.M
Quant Title : OA-2 Motor Oil
QLast Update : Mon Feb 07 17:38:10 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



ve
RSS
4/13/11

OA-2 TEH_1035M.M Tue Apr 12 14:31:53 2011

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Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

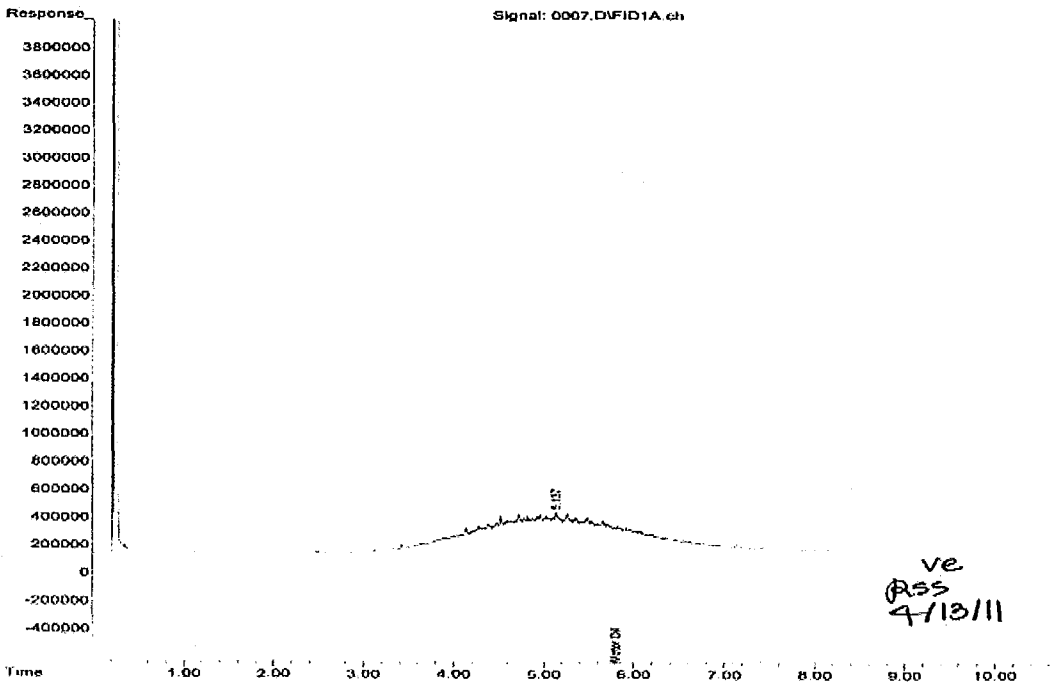
Quantitation Report (Not Reviewed)

Data Path : F:\LabData\AgilentGCs\7890_2\1102_OA-2\
Data File : 0007.D
Signal(s) : FID1A.ch
Acq On : 12 Apr 2011 12:57
Operator : RSS
Sample : 1101674-02@100
Misc :
ALS Vial : 7 Sample Multiplier: 1

Motor oil

Integration File: Oil_Integration.e
Quant Time: Apr 12 14:54:56 2011
Quant Method : F:\LabData\AgilentGCs\7890_2\Methods\OA-2_OIL_1082M.M
Quant Title : OA-2 Motor Oil
QL Last Update : Wed Mar 23 15:14:01 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

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Project Mgr: Thomas P. Wagner
Account ID:

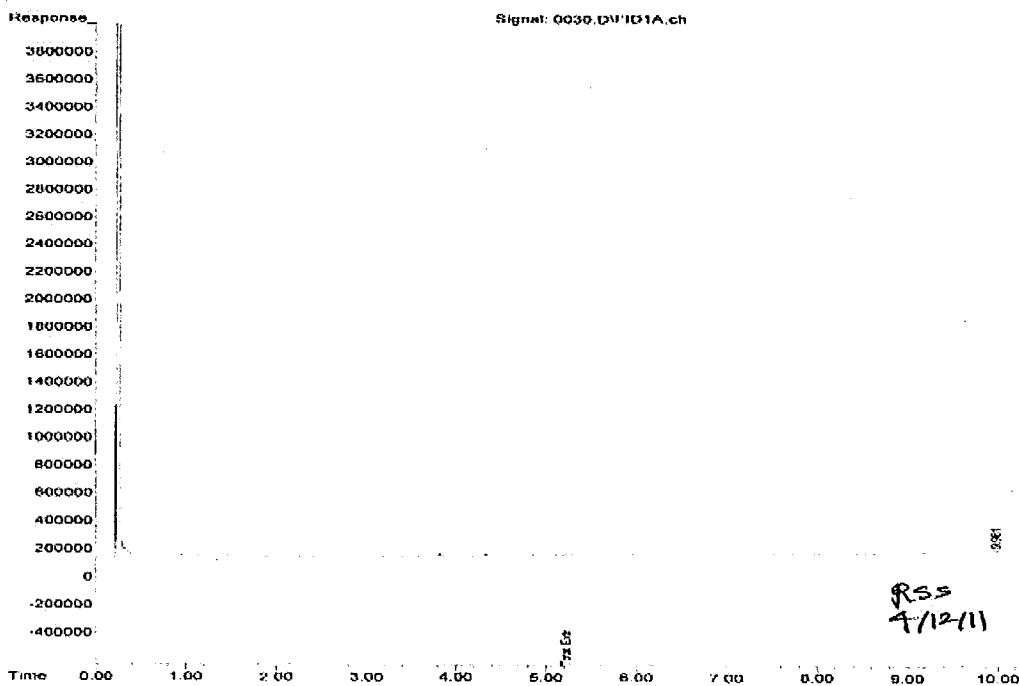
Quantitation Report (Not Reviewed)

File Path : F:\LabData\AgilentGCs\7890_2\1101_OA-2\
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Signal(s) : FID1A.ch
Acq On : 11 Apr 2011 22:40
Operator : RSS
Sample : 1101674-03
Misc :
ALS Vial : 19 Sample Multiplier: 1

TEH

Integration File: TEH_integration.e
Quant Time: Apr 12 08:21:49 2011
Quant Method : F:\LabData\AgilentGCs\7890_2\Methods\OA-2_TEH_1035M.M
Quant Title : OA-2 Motor Oil
QLast Update : Mon Feb 07 17:38:10 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Inj :



OA-2_TEH_1035M.M Tue Apr 12 08:21:50 2011

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BRAUN INTERTEC

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Braun Intertec-Cedar Rapids
5915 4th Street SW, Suite 100
Cedar Rapids, IA 52404

Client Ref: Former Auto Motive
Client Contact: Mr. Ed Bertch
PO Number: CR-11-01229

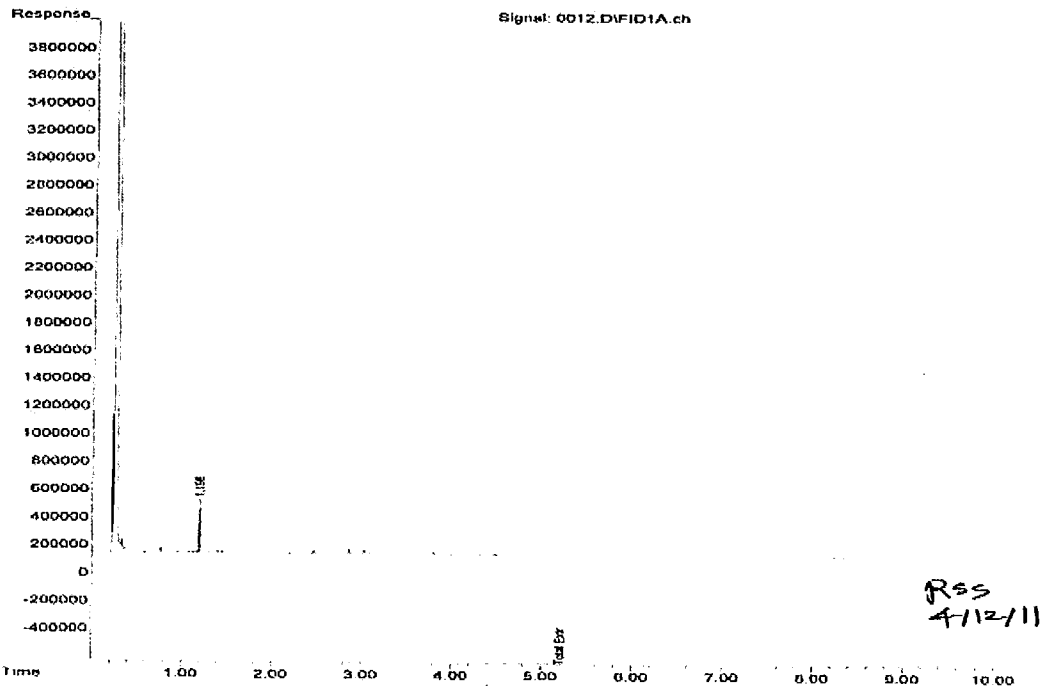
Report #: 1101674
Project Mgr: Thomas P. Wagner
Account ID:

Quantitation Report (Not Reviewed)

Data Path : F:\LabData\AgilentGCs\7890_2\1101_OA-2\
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Signal(s) : FID1A.ch
Acq On : 11 Apr 2011 17:21 **TEH**
Operator : RSS
Sample : 1101674-04
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: TEH_integration.e
Quant Time: Apr 12 08:20:32 2011
Quant Method : F:\LabData\AgilentGCs\7890_2\Methods\OA-2_TEH_1035M.M
Quant Title : OA-2 Motor Oil
Last Update : Mon Feb 07 17:38:10 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



OA-2_TEH_1035M.M Tue Apr 12 08:20:33 2011

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