

DRAFT
ARA Fluid Study Report
January 23, 2009

Location: LKQ, Belleville, MI

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Components evaluated: Gas tanks – 6 All data collected out doors (35 F)
Torque Converter – 2 Drained and stored indoors (62 F)
Differential (rear) – 1 Drained indoors/stored outdoors

Gas tanks: Normally*, tanks are drained and left on cars. Tanks are removed by dismantlers. Tanks are then checked again for fuel by lifting and shaking. If fluid is detected, the FSO is removed and remaining fuel removed with small negative pressure hose.

For the study, we examined each tank by close inspection with flashlight and or cut the tank open to reveal remaining gas.

Range of fuel collected from tanks was 20 ml to over 1500 ml. (this tank was checked after removal from car would not have been further drained)



Facility A Gas Tank	mL	type	evacuated by	
2006 Grand prix	745	plastic	gravity	puncture tank then gravity evac with pump to storage tank
2006 Jeep Cherokee	0	plastic	vacuum	remove whole tank w/gas then vacuum pump out
2006 Audi 84	105	plastic	gravity	puncture tank/sent to dismantlers/found 50mL in fuel filter channels trap residual gas had to punch hole and shake to capture
2005 Honda Civic	35	metal	vacuum	
2007 VW Golf	1530	plastic	gravity	tank felt empty would have gone to crusher as is
2008 Mazda	20	plastic	vacuum	cut this tank after pump out, minimal gas left

Torque Converter: Normally, torque converters are drained by inversion on a drain table. Units kept for resale are inventoried and cores are placed in a Gaylord. Converters with drain plugs are unplugged and drained further.

One of our converters had a plug that we removed and drained* the oil (30 min) and collected over 1 liter of oil.

The other converter had no plug so we drilled a hole and drained for 30 min and collected over 1200 ml of oil.

Facility A Torque Converter	mL	minutes	evacuated by	
GM 4L60E (MY 2000+)	1200	30	gravity	drilled
Ford 4R70W (MY1989+)	1050	30	gravity	plug



Differential: Normally, differentials are not drained at this facility whether they are kept for resale or scrapped. We examined dozens of rear differentials from inventory until we found one with a drain plug. After draining for 30 minutes we collected over 1100 ml.

Facility A Differential	mL	minutes	evacuated by	
2004 Toyota Tundra (rear)	1150	30	gravity	plug



*Normally means at this facility

*Oil draining was done until flow stopped and drips were about 5 seconds apart, which typically required 30 minutes