What is Fuel Focus? Fuel Focus is prepared by Natural Resources Canada (NRCan) and intends to present Canadians with the latest information on the price of oil and petroleum products such as gasoline. Our expectation is that current and factual information on price changes will help Canadians understand how the international petroleum markets affect their lives.

The objectives of this report are to provide price information on crude oil and fuels such as gasoline and furnace oil; offer clear explanations for the factors affecting fuel prices; analyse oil and gasoline market conditions; and, provide information and tools to help Canadians manage their energy costs. Previous issues are available on our website at: <a href="http://www.oppi.gc.ca/index">http://www.oppi.gc.ca/index</a> e.cfm

### **National Overview**

### **Retail Gasoline Prices Reach 2004 Levels**

The Canada-average retail gasoline price fell in an unbroken sequence for the last eight consecutive weeks, almost to the 2004 level, reaching 87.9 cents per litre for the week ending September 26<sup>th</sup>. This week's price is approximately 2.3 cents per litre lower than the last report two weeks ago and nearly 19 cents per litre below last year at this time.

The average Canadian retail gasoline price continues its sharp decline as a result of three major contributing factors - the lower demand for gasoline at this time of the year compared to the summer months when kilometers driven are at a peak; the relative stability in crude oil prices as a result of easing concerns with respect to world events and the threat of supply disruption; and lastly, no major weather-related events, as seen last year, which devastated some of the critical supply infrastructure in the United States.

Diesel fuel prices have not dropped as much as gasoline, mostly because diesel demand tends to be strong in the fall with agricultural use at harvesting time, and the fact that diesel is similar to heating oil which causes prices of both commodities to rise as winter approaches.

# Recent Developments

- In the first six months of 2006, Canadians consumed 23.5 billion litres of gasoline, a slight decline of 0.6% compared to the same period last year. Furnace oil sales dropped more significantly by 14%, mainly due to a milder winter in 2006, while diesel fuel oil remained leveled at 15 billion litres in sales.
- On September 1, 2006, Prince Edward Island taxes on gasoline declined 1.8 cents per litre to 20.5 cents per litre and diesel fuel taxes dropped 0.5 cents a litre to 20.5 cents per litre.

Figure 1: Crude Oil and Regular Gasoline Price Comparison (National Average)

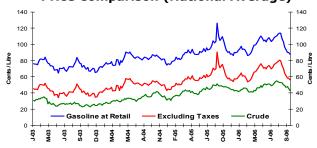
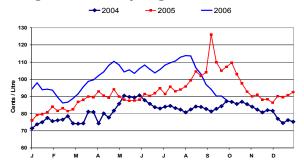


Figure 2: Weekly Regular Gasoline Prices



	Week of:	Change from:		
¢/L	2006-09-26	Previous Week	Last Year	
Gasoline	87.9	-2.3	-19.2	
Diesel	91.5	-5.6	-9.4	
Furnace Oil	77.9	-2.7	-8.4	

Source: NRCan

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**Fuel Focus Info Tips** – This issue features the third of a 4-part series on home heating oil.







## **Retail Gasoline Overview**

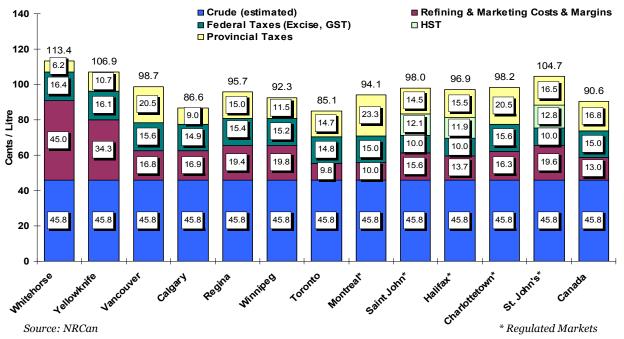
The average Canadian regular gasoline pump price in selected cities for the four weeks ending September 26<sup>th</sup> was 91 cents per litre, a decline of almost 6 cents per litre from the September 12<sup>th</sup> report, and down from the \$1.12 per litre recorded during the same period in 2005.

The downward trend in gasoline prices is tied to the lower seasonal demand, comfortable inventory levels and the decline in the price of the primary gasoline composite, namely, crude oil.

The four-week average crude oil price of 45.8 per litre, declined 2.8 cents per litre from the last report, representing a decrease of 3.4 cents per litre from the same period last year.

Similarly, refining and marketing costs and margins declined on average 2.3 cents per litre across Canada. However, the refining and marketing costs and margins in Western provinces (Vancouver to Winnipeg) fell on average 4.6 cents per litre from two weeks ago compared to the 2.6 cents per litre decline observed in Eastern provinces (Toronto to St. John's) where a number of provinces regulate prices.

Figure 3: Regular Gasoline Pump Prices in Selected Cities 4 Week Average (September 5 to September 26, 2006)



#### **Gasoline and the Environment**

Over the past decade there has been considerable effort by government and industry directed towards providing cleaner gasoline for Canadians. Initiatives include the removal of lead and reductions of summer vapour pressure, benzene and sulphur levels. Pollutants that come from the combustion of fossil fuels include sulphur dioxide (SO2), nitrogen oxides (NOx), ground-level ozone, particulate matter (PM), carbon monoxide (CO), carbon dioxide (CO2), volatile organic compounds (VOC) including benzene, some heavy metals and a number of other pollutants. These pollutants are a result of the use of air, which is composed of nitrogen (78%) and oxygen (21%), in the combustion process, as well as the presence of complex hydrocarbons, additives, and impurities such as sulphur within the fuel.

The Benzene in Gasoline Regulations took effect in July 1999 and prohibit the supply of gasoline containing more than 1% benzene by volume. The regulations also prohibit the sale of gasoline that contains benzene at a concentration that exceeds 1.5% by volume. The federal Sulphur in Gasoline Regulations took effect July 2002 and requires an average gasoline sulphur concentration of 150 mg/kg as of July 2002 and 30 mg/kg as of January 2005. Suppliers of gasoline may elect to meet the requirements for benzene and sulphur on the basis of annual average limits.







## **Wholesale Gasoline Prices**

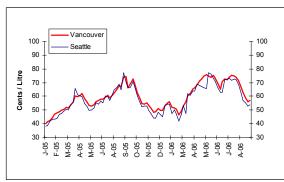
Wholesale gasoline prices in selected Canadian cities continue to decline on average by approximately 2 cents per litre the week ending September 21<sup>st</sup> compared to the previous week. Since the last report, prices have dropped on average about 5 cents per litre across the selected Canadian and U.S. cities. In the last six weeks wholesale gasoline prices in most selected cities, in both Canada and the U.S., dropped on average by 15 cents per litre mainly as a result of the recent decline in crude oil prices.

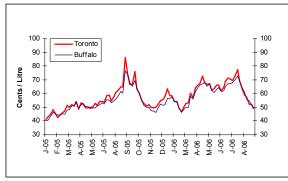
A similar trend can be seen when prices are compared to last year. Current Canadian and U.S. wholesale prices are 16 and 15 cents per litre lower, respectively, when compared with September 2005. However, prices were exceptionally high last year because of the devastation by hurricanes to critical oil producing and refining infrastructure in the U.S. Gulf Coast widening the year-to-year change.

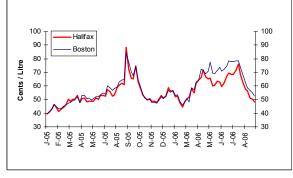
Gasoline rack prices in both Vancouver and Seattle increased slightly by less than 1 cent per litre in the week of September 21<sup>st</sup> as a result of the tighter supply of gasoline on the West coast and limited access of supplies from other regions. Between September 7<sup>th</sup> and September 21<sup>st</sup> wholesale gasoline prices dropped approximately 4 cents per litre in all selected cities in Canada as well as in the competing U.S. cities.

**Figure 4: Wholesale Gasoline Prices** 

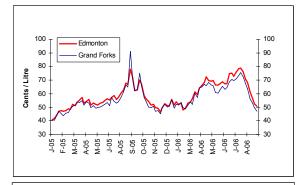
Rack Terminals Prices for Selected Cities ending September 21st (Can ¢/L)







Sources: NRCan, Bloomberg





# How much time is required for crude oil prices to be reflected at the pump?

In today's market, the crude oil to gasoline price pass through is virtually instantaneous. Most businesses currently use the Last In First Out (LIFO) accounting method to value their inventory. Inventories are valued at the price it would cost to replace the product today, rather than the price at which the product was purchased. Therefore, the price that the retail outlet charges for gasoline will reflect the price that the dealer expects to pay for the next delivery. Particularly when prices are volatile, the LIFO system ensures that the local service station operator will have sufficient cash flow to pay for the next delivery.







# **Refining and Marketing Margins**

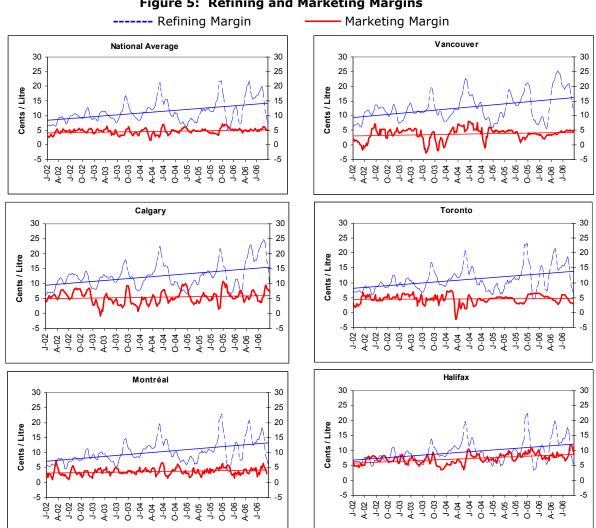
This week's refining and marketing margins continue to decline as seasonal demand for gasoline reduces and crude oil prices decline. The four-week rolling averages trend for the refining and marketing margins, shown in Figure 5, is mainly a function of the supply and demand balance in each region.

Overall the Canadian downstream petroleum sector is complex and highly competitive. The refiners and marketers have to adapt to the specificity of regional markets and each petroleum product in each regional market reacts to a different set of supply and demand and transportation pressures. As a result, refiners must balance a number of competing factors in deciding what type of crude oil to process, what kind of equipment to invest in and what range of products to manufacture. In the end, the viability of the industry depends on its ability to earn an acceptable rate of return in a marketplace where prices are set by international and local markets.

Furthermore, the extent to which the availability of supplies from other regions affects the wholesale price of gasoline depends on the refining capacity and utilization rates of each individual region. Regions with very tight supply conditions are quite vulnerable to short term price spikes. When supplies are tight, substantial price increases are sometimes necessary to dampen demand and prevent product shortages.

For example, in Western Canada, the supply and demand for petroleum products is very tight. Refineries have been operating at near full capacity for several years and because much of Western Canada is landlocked, there is limited access to supplies from other regions. In general, Canadian refineries have been operating at full capacity for many years. When refining facilities operate close to capacity, this reduces the flexibility of the refining system and makes it more vulnerable to unexpected disruptions with the potential to increase the volatility of gasoline prices.

Figure 5: Refining and Marketing Margins





## **Crude Oil Overview**

### **Crude Oil Prices Continue to Decline**

The prices of the three crude oil benchmark declined again this week, continuing the sharp downward slide that began in July. As discussed in previous Fuel Focus reports, crude oil prices are driven by global balance between supply and demand and are often influenced by real or perceived political instability in oil producing regions or weather events threatening oil producing infrastructures.

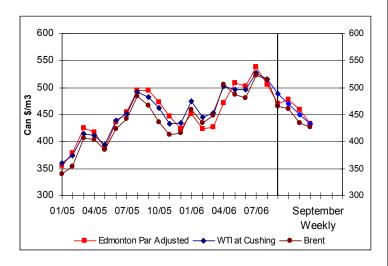
Consequently, the perceived reduction in threats to global oil supply which currently prevails, in addition to reduced demand for gasoline, have influenced the current decline in crude oil prices.

Edmonton Par crude oil prices decreased the week ending September 22<sup>nd</sup> reaching approximately \$433 per cubic metre (\$69 Cdn per bbl) down \$26 per cubic metre from the previous week. This was \$45 per cubic metre lower than the price recorded two weeks ago.

West Texas Intermediate (WTI) also registered \$433 per cubic metre on September 22nd, a decrease of \$18 per cubic metre from the previous week and \$54 per cubic metre lower than the levels at this time last year.

The Brent crude oil benchmark declined to approximately \$427 per cubic metre (\$68 per bbl), almost an \$8 per cubic metre decrease from last week and \$40 per cubic metre lower than last year.

Figure 6: Crude Oil Price Comparisons



#### **Changes in Crude Oil Prices**

Crude Oil Prices	Week ending: 2006-09-22		Change from:			
(\$Can)			Previous Week		Last Year	
	\$/m3	\$/bbl	\$/m3	\$/bbl	\$/m3	\$/bbl
Edmonton Par	433.20	68.87	-25.60	-4.07	-61.19	-9.73
WTI	433.03	68.84	-17.64	-2.80	-54.25	-8.62
Brent	426.59	67.82	-7.96	-1.27	-40.00	-6.36

Source: NRCan

### **Financial Performance of the Oil** and Gas Industry in 2005

Profits of the Canadian oil and gas producers, buoyed by high crude oil prices, increased to \$30 billion from \$21 billion in 2005. As a result, the amount of income tax paid also increased to \$7.5 billion in 2005 from \$4.5 billion paid in 2004, a 65% increase. Increased cash flow spurred more investments as capital spending between 2004 and 2005 increased by more than 16% at \$37 billion up from \$32 billion.

However, crude oil production was down 2.3% in 2005 from the year before, the first time in six years. This was due to lower output from the conventional oil sector in addition to unplanned shutdowns in the non-conventional sector in Alberta, in particular a fire at a major oil sands processing facility. Newfoundland and Labrador production (Terra Nova oil field) was also down due to maintenance operations.

Crude oil flows from seven provinces and by far the largest player is Alberta. High oil prices and strong demand have contributed to the expansion of the province's oil sands industry. About twothirds of Canada's crude oil comes from Alberta and the oil sands account for 42% of the province's total production.



### **HOME HEATING OIL - Part Three**

# **How to Manage Your Heating Expenses**

Heating oil is generally purchased in large quantities periodically throughout the heating season. The average capacity of a household oil tank is about 1000 litres so even half a tank full can cost \$400-\$500 per delivery. Although these expenses are only incurred for a few months, some homeowners can find it difficult to make the payments. Most heating oil suppliers offer a number of payment options to help consumers manage their heating costs.

In the last issue of Fuel Focus we examined fixed and capped price contracts. In this issue we look at the equal billing option.

## **Equal Billing Plans**

Qualified customers can opt for an equal billing plan. The supplier will estimate the annual consumption of oil for a household, based on average temperatures and historical use, and spread the costs out over 10 or 12 months of equal monthly payments. This allows consumers to anticipate their monthly heating bills and have more certainty in their monthly expenses.

Payments begin in the fall and the account builds up a credit to help offset the higher costs in the peak winter months. Each monthly bill reports on the actual consumption for that billing period and tells the consumer what the current status of their balance is. In the spring, a final adjustment is made to bring the account into balance with either a final payment or a refund to the customer.

If colder or warmer than normal temperatures result in increased or decreased consumption from the estimated volumes, the equal payment may be adjusted partway through the winter. This ensures that neither the supplier nor the customer needs to make a large final payment in the spring.

Other parts of this Series:

Part 1 – August 15, 2006 Introduction

Part 2- – September 12, 2006 Fixed Price and Capped Price Contracts

Part 4 – October 10, 2006 Impact of higher heating oil prices on consumers

Related Links:

Heating Cost Calculator

http://oee.nrcan.gc.ca/equipment/english/page31.cfm?attr=4



