

Figure 1.B.a Chicago Mercantile Exchange Website

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**Figure 1.B.b Natural Gas and Crude Oil Prices, 2002-2012**

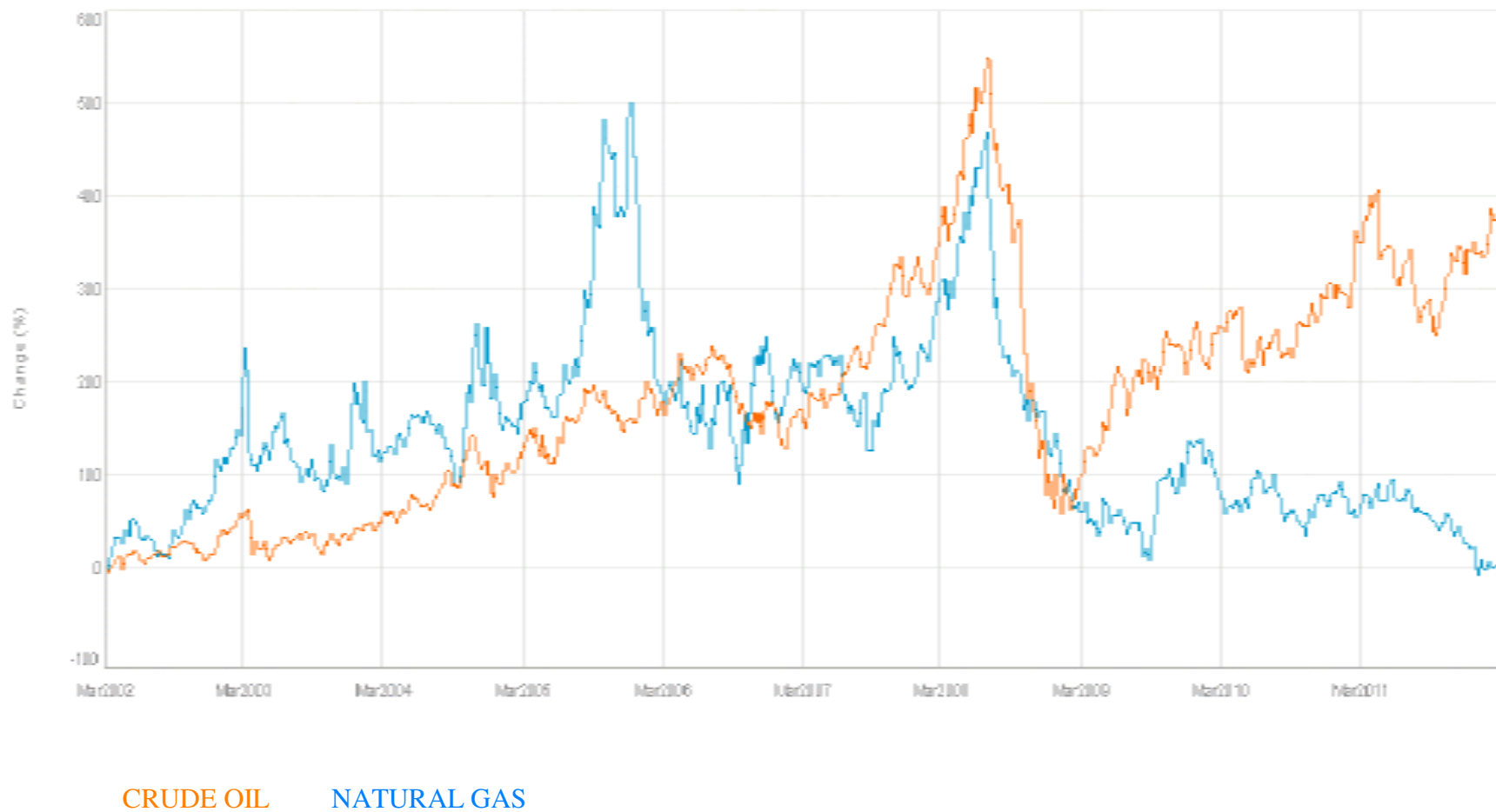


Figure 1.B.c

Impact of Events on WTI Crude Oil Prices, 2000-2010

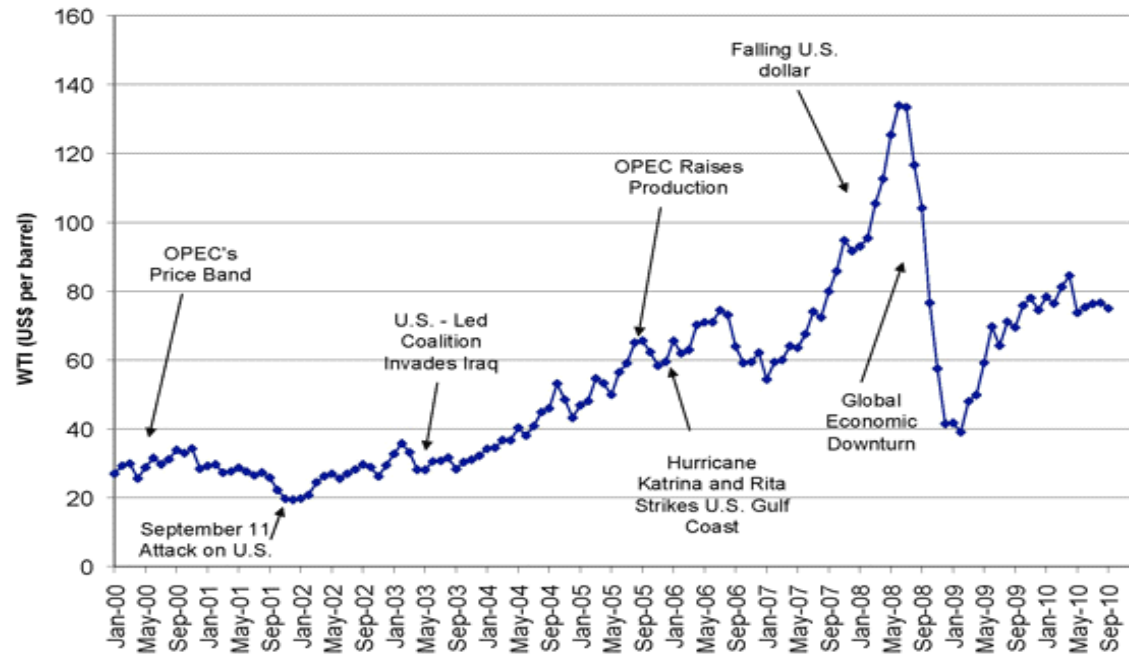
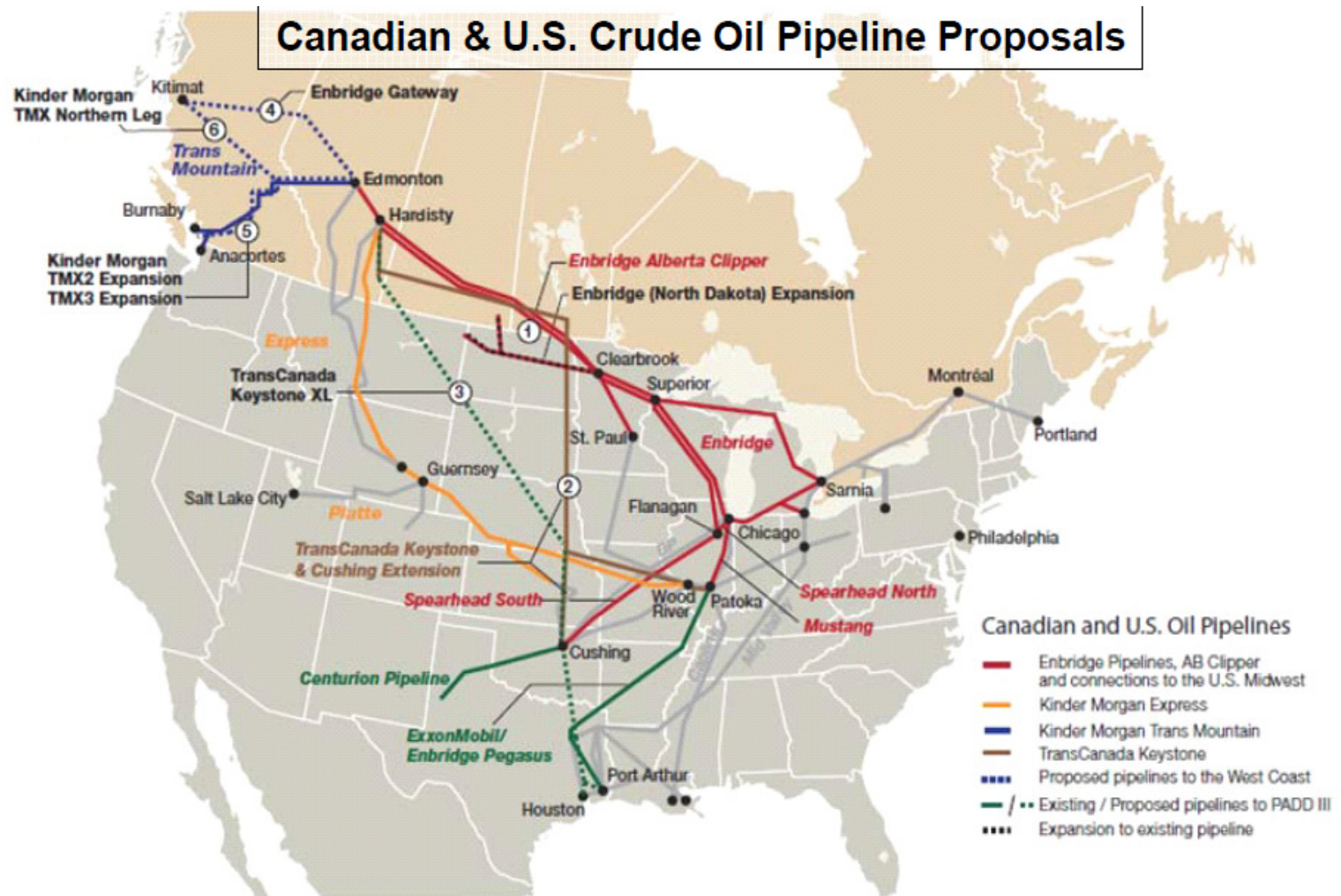
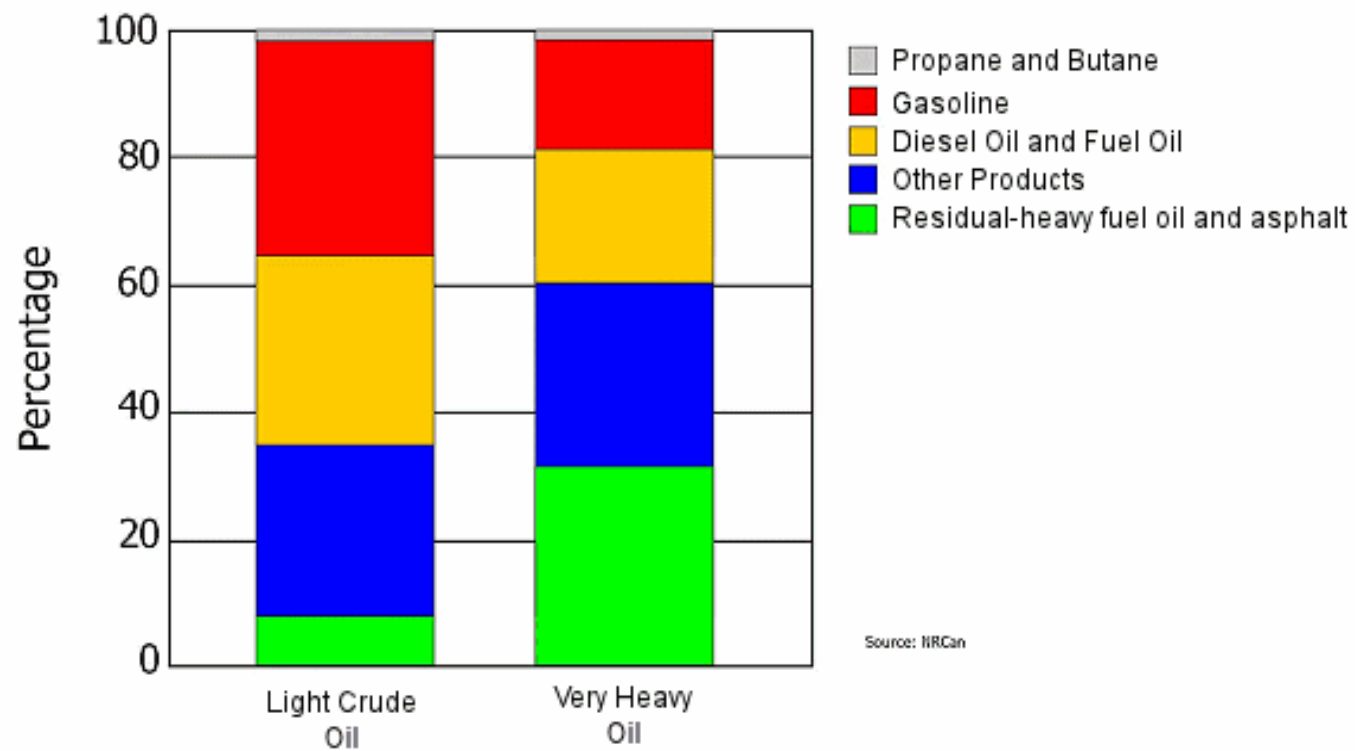


Figure 1.B.d Oil Pipeline Infrastructure and Proposals

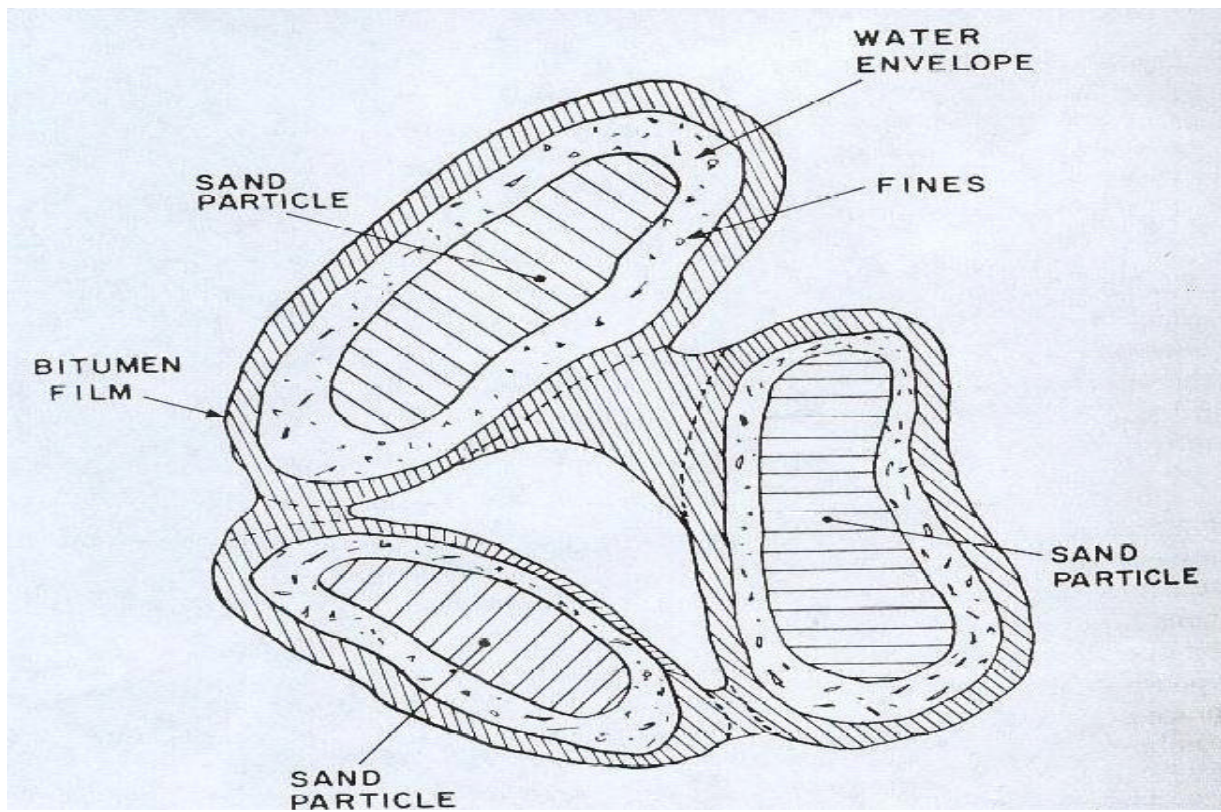


**Figure 1.B.e Composition of Refined Output, Light and Heavy Oil**





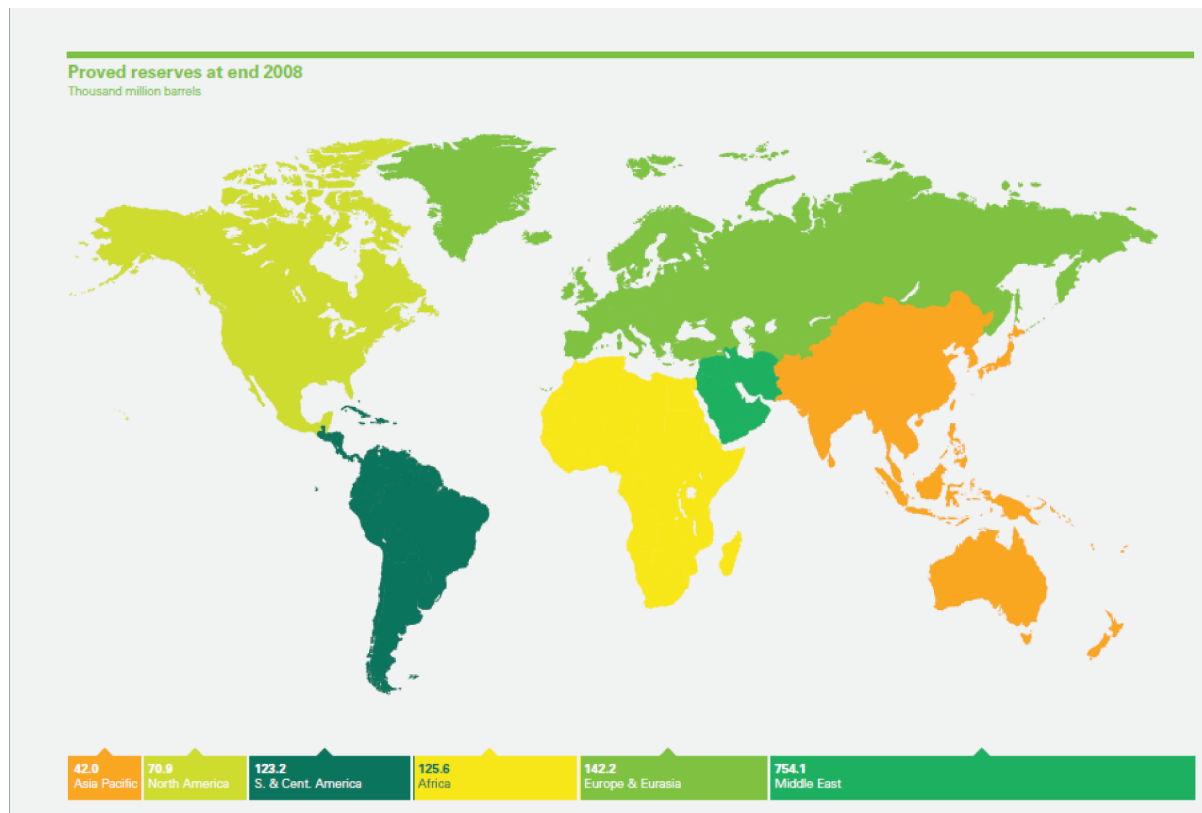
**Figure 1.B.f    Physical Composition of Oil Sands**



**Map 1.A      Bitumen in Alberta**




**Figure 1.B.g BP Global Oil Reserves, 2009**

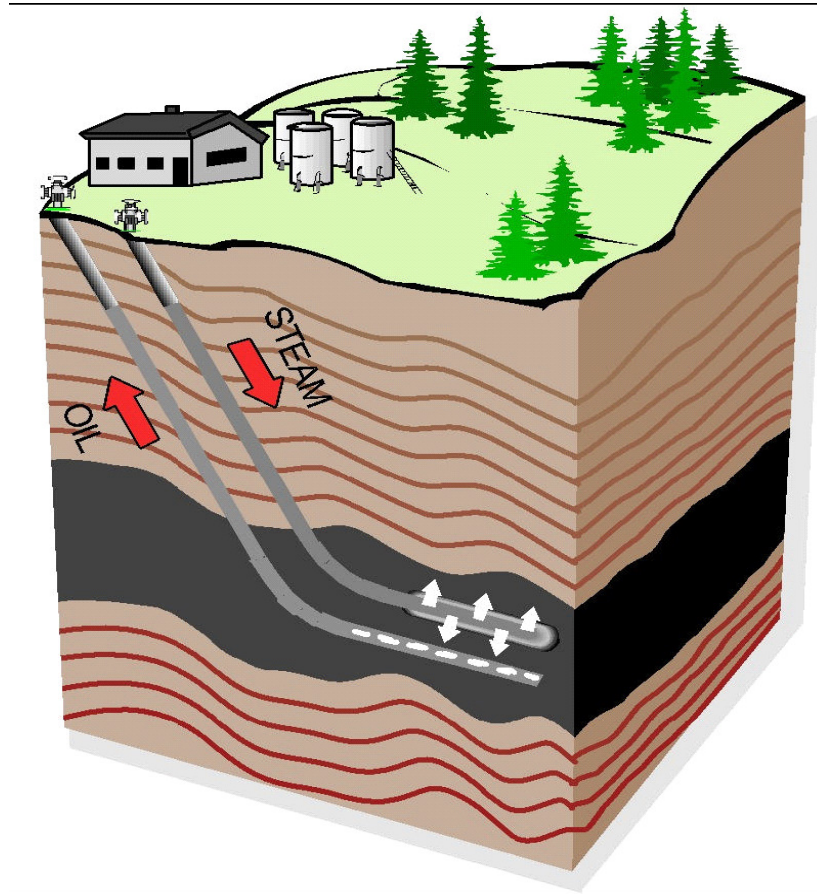




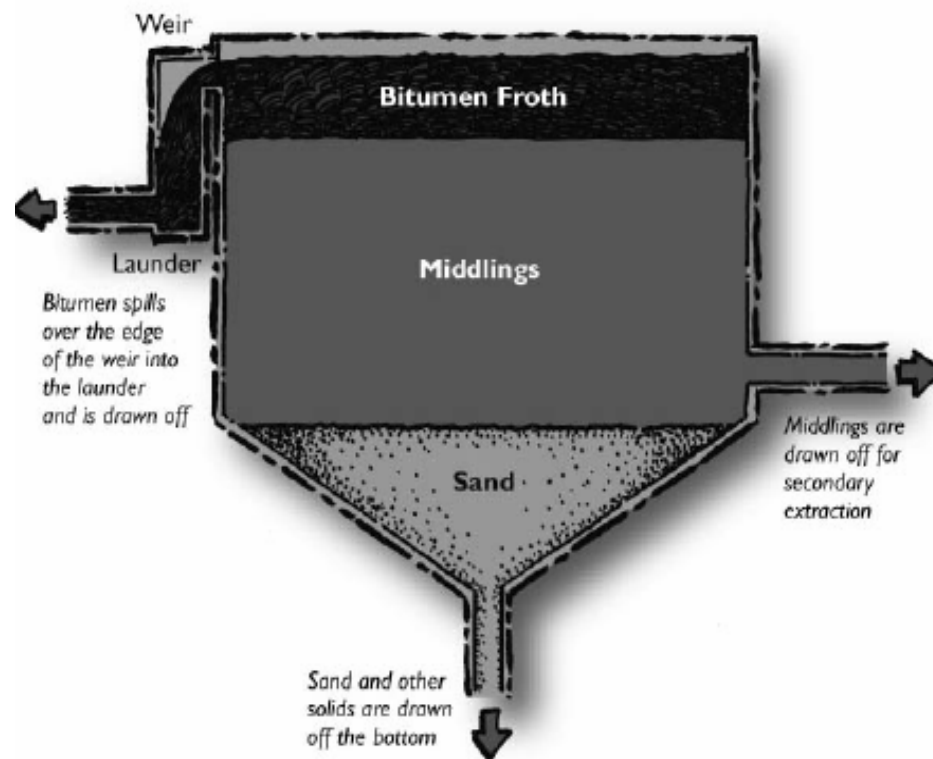
**Table 1.B.h BP proven oil reserves, 2009**

| <div>  <b>Oil</b> </div> |   |   |   |                               |                                |                   |              |
|---|---|---|---|-------------------------------|--------------------------------|-------------------|--------------|
| Proved reserves   |   |   |   |                               |                                |                   |              |
|   | At end 1988<br>Thousand<br>million<br>barrels | At end 1998<br>Thousand<br>million<br>barrels | At end 2007<br>Thousand<br>million<br>barrels | Thousand<br>million<br>tonnes | At end 2008                    |                   |              |
|   |   |   |   |                               | Thousand<br>million<br>barrels | Share<br>of total | R/P<br>ratio |
| US  | 35.1  | 28.6  | 30.5  | 3.7                           | 30.5                           | 2.4%              | 12.4         |
| Canada  | 11.9  | 15.1  | 28.6  | 4.4                           | 28.6                           | 2.3%              | 24.1         |
| Mexico  | 53.0  | 21.6  | 12.2  | 1.6                           | 11.9                           | 0.9%              | 10.3         |
| <b>Total North America</b>  | <b>100.0</b>                                  | <b>65.3</b>                                   | <b>71.3</b>                                   | <b>9.7</b>                    | <b>70.9</b>                    | <b>5.6%</b>       | <b>14.8</b>  |
| Argentina   | 2.3   | 2.8   | 2.6   | 0.4                           | 2.6                            | 0.2%              | 10.5         |
| Brazil  | 2.8   | 7.4   | 12.6  | 1.7                           | 12.6                           | 1.0%              | 18.2         |
| Colombia  | 2.1   | 2.5   | 1.5   | 0.2                           | 1.4                            | 0.1%              | 6.0          |
| Ecuador   | 1.5   | 4.1   | 4.0   | 0.5                           | 3.8                            | 0.3%              | 20.3         |
| Peru  | 0.9   | 0.9   | 1.1   | 0.2                           | 1.1                            | 0.1%              | 25.5         |
| Trinidad & Tobago   | 0.6   | 0.7   | 0.9   | 0.1                           | 0.8                            | 0.1%              | 15.2         |
| Venezuela   | 58.5  | 76.1  | 99.4  | 14.3                          | 99.4                           | 7.9%              | *            |
| Other S. & Cent. America  | 0.6   | 1.1   | 1.4   | 0.2                           | 1.4                            | 0.1%              | 27.7         |
| <b>Total S. &amp; Cent. America</b>   | <b>69.2</b>                                   | <b>95.6</b>                                   | <b>123.5</b>                                  | <b>17.6</b>                   | <b>123.2</b>                   | <b>9.8%</b>       | <b>50.3</b>  |
| Azerbaijan  | n/a   | n/a   | 7.0   | 1.0                           | 7.0                            | 0.6%              | 20.9         |
| Denmark   | 0.5   | 0.9   | 1.1   | 0.1                           | 0.8                            | 0.1%              | 7.7          |
| Italy   | 0.8   | 0.8   | 0.9   | 0.1                           | 0.8                            | 0.1%              | 21.1         |
| Kazakhstan  | n/a   | n/a   | 39.8  | 5.3                           | 39.8                           | 3.2%              | 70.0         |
| Norway  | 7.3   | 11.7  | 8.2   | 0.9                           | 7.5                            | 0.6%              | 8.3          |
| Romania   | 1.2   | 1.2   | 0.5   | 0.1                           | 0.5                            | ♦                 | 13.3         |
| Russian Federation  | n/a   | n/a   | 80.4  | 10.8                          | 79.0                           | 6.3%              | 21.8         |
| Turkmenistan  | n/a   | n/a   | 0.6   | 0.1                           | 0.6                            | ♦                 | 8.0          |
| United Kingdom  | 4.3   | 5.1   | 3.4   | 0.5                           | 3.4                            | 0.3%              | 6.0          |
| Uzbekistan  | n/a   | n/a   | 0.6   | 0.1                           | 0.6                            | ♦                 | 14.6         |
| Other Europe & Eurasia  | 63.2  | 2.1   | 2.1   | 0.3                           | 2.1                            | 0.2%              | 13.4         |
| <b>Total Europe &amp; Eurasia</b>   | <b>77.3</b>                                   | <b>104.9</b>                                  | <b>144.6</b>                                  | <b>19.2</b>                   | <b>142.2</b>                   | <b>11.3%</b>      | <b>22.1</b>  |
| Iran  | 92.9  | 93.7  | 138.2   | 18.9                          | 137.6                          | 10.9%             | 86.9         |
| Iraq  | 100.0   | 112.5   | 115.0   | 15.5                          | 115.0                          | 9.1%              | *            |
| Kuwait  | 94.5  | 96.5  | 101.5   | 14.0                          | 101.5                          | 8.1%              | 99.6         |
| Oman  | 4.1   | 5.4   | 5.6   | 0.8                           | 5.6                            | 0.4%              | 20.9         |
| Qatar   | 4.5   | 12.5  | 27.4  | 2.9                           | 27.3                           | 2.2%              | 54.1         |
| Saudi Arabia  | 255.0   | 261.5   | 264.2   | 36.3                          | 264.1                          | 21.0%             | 66.5         |
| Syria   | 1.8   | 2.3   | 2.5   | 0.3                           | 2.5                            | 0.2%              | 17.2         |
| United Arab Emirates  | 98.1  | 97.8  | 97.8  | 13.0                          | 97.8                           | 7.8%              | 89.7         |
| Yemen   | 2.0   | 1.9   | 2.7   | 0.3                           | 2.7                            | 0.2%              | 23.9         |
| Other Middle East   | 0.1   | 0.2   | 0.1   | †                             | 0.1                            | ♦                 | 10.6         |
| <b>Total Middle East</b>  | <b>653.0</b>                                  | <b>684.3</b>                                  | <b>755.0</b>                                  | <b>102.0</b>                  | <b>754.1</b>                   | <b>59.9%</b>      | <b>78.6</b>  |
| Algeria   | 9.2   | 11.3  | 12.2  | 1.5                           | 12.2                           | 1.0%              | 16.7         |
| Angola  | 2.0   | 4.0   | 13.5  | 1.8                           | 13.5                           | 1.1%              | 19.7         |
| Chad  | –   | –   | 0.9   | 0.1                           | 0.9                            | 0.1%              | 19.4         |
| Republic of Congo (Brazzaville)   | 0.8   | 1.7   | 1.9   | 0.3                           | 1.9                            | 0.2%              | 21.3         |
| Egypt   | 4.3   | 3.8   | 4.1   | 0.6                           | 4.3                            | 0.3%              | 16.4         |
| Equatorial Guinea   | –   | 0.6   | 1.7   | 0.2                           | 1.7                            | 0.1%              | 12.9         |
| Gabon   | 0.9   | 2.6   | 3.2   | 0.4                           | 3.2                            | 0.3%              | 37.0         |
| Libya   | 22.8  | 29.5  | 43.7  | 5.7                           | 43.7                           | 3.5%              | 64.6         |
| Nigeria   | 16.0  | 22.5  | 36.2  | 4.9                           | 36.2                           | 2.9%              | 45.6         |
| Sudan   | 0.3   | 0.3   | 6.7   | 0.9                           | 6.7                            | 0.5%              | 38.1         |
| Tunisia   | 1.8   | 0.3   | 0.6   | 0.1                           | 0.6                            | ♦                 | 18.5         |
| Other Africa  | 1.0   | 0.7   | 0.6   | 0.1                           | 0.6                            | ♦                 | 12.0         |
| <b>Total Africa</b>   | <b>59.0</b>                                   | <b>77.2</b>                                   | <b>125.3</b>                                  | <b>16.6</b>                   | <b>125.6</b>                   | <b>10.0%</b>      | <b>33.4</b>  |
| Australia   | 3.4   | 4.1   | 4.2   | 0.5                           | 4.2                            | 0.3%              | 20.4         |
| Brunei  | 1.2   | 1.0   | 1.1   | 0.1                           | 1.1                            | 0.1%              | 16.9         |
| China   | 17.3  | 17.4  | 16.1  | 2.1                           | 15.5                           | 1.2%              | 11.1         |
| India   | 4.5   | 5.4   | 5.5   | 0.8                           | 5.8                            | 0.5%              | 20.7         |
| Indonesia   | 9.0   | 5.1   | 4.0   | 0.5                           | 3.7                            | 0.3%              | 10.2         |
| Malaysia  | 3.4   | 4.7   | 5.5   | 0.7                           | 5.5                            | 0.4%              | 19.8         |
| Thailand  | 0.1   | 0.4   | 0.5   | 0.1                           | 0.5                            | ♦                 | 3.9          |
| Vietnam   | 0.1   | 1.9   | 3.4   | 0.6                           | 4.7                            | 0.4%              | 40.8         |
| Other Asia Pacific  | 1.0   | 1.3   | 1.1   | 0.1                           | 1.1                            | 0.1%              | 12.8         |
| <b>Total Asia Pacific</b>   | <b>39.9</b>                                   | <b>41.3</b>                                   | <b>41.3</b>                                   | <b>5.6</b>                    | <b>42.0</b>                    | <b>3.3%</b>       | <b>14.5</b>  |
| <b>Total World</b>  | <b>998.4</b>                                  | <b>1068.5</b>                                 | <b>1261.0</b>                                 | <b>170.8</b>                  | <b>1258.0</b>                  | <b>100.0%</b>     | <b>42.0</b>  |
| of which: European Union  | 8.3   | 8.9   | 6.7   | 0.8                           | 6.3                            | 0.5%              | 7.7          |
| OECD  | 118.3   | 89.2  | 90.3  | 12.0                          | 88.9                           | 7.1%              | 13.2         |
| OPEC  | 764.0   | 827.2   | 957.1   | 129.8                         | 955.8                          | 76.0%             | 71.1         |
| Non-OPEC‡   | 173.5   | 157.6   | 174.7   | 23.6                          | 174.4                          | 13.9%             | 14.8         |
| Former Soviet Union   | 60.9  | 83.8  | 129.2   | 17.4                          | 127.8                          | 10.2%             | 27.2         |
| Canadian oil sands*   | n/a   | n/a   | 150.7   | 24.5                          | 150.7                          |                   |              |
| <b>Proved reserves and oil sands</b>  | <b>n/a</b>                                    | <b>n/a</b>                                    | <b>1411.7</b>                                 | <b>195.3</b>                  | <b>1408.7</b>                  |                   |              |

**Figure 1.B.j Steam Assisted Gravity Drainage (SAGD)**



**Figure 1.B.k Bitumen Recovery Process**



**Map 1.B Syncrude Oil Sands Lease Map**

