

**IN THE PROVINCIAL COURT OF ALBERTA**

**CRIMINAL DIVISION**

**BETWEEN:**

**HER MAJESTY THE QUEEN**

**- and -**

**SINOPEC DAYLIGHT ENERGY LTD.**

**STATEMENT OF AGREED FACTS**

1. Sinopec Daylight Energy Ltd. (SDEL) stands charged that:

*Count 1 On or between the 2<sup>nd</sup> day of February 2012 and the 4<sup>th</sup> day of February 2012, at or near the Town of Fox Creek, in the Province of Alberta, did deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water, in violation of subsection 36(3) of the Fisheries Act R.S.C. 1985, c. F-14, as amended, and did thereby commit an offence under subsection 40(2) of the said Act.*

*Count 4 On or between the 2<sup>nd</sup> day of February 2012 and the 4<sup>th</sup> day of February 2012, at or near the Town of Fox Creek in the Province of Alberta, being a person responsible for a substance that is released into the environment and that may cause, is causing or has caused an adverse effect, did fail, as soon as that person became aware or ought to have become aware of the release, to take all reasonable measures to repair, remedy and confine the effects of the substance contrary to section 112(1)(a)(i) of the Environmental Protection and Enhancement Act and did thereby commit an offence contrary to s. 227(j) of the Environmental Protection and Enhancement Act .*

2. SDEL was at all material times an Alberta corporation created by the December 2011 acquisition of Daylight Energy Ltd. by Sinopec International Petroleum Exploration and Production Corporation. It is involved in the exploration, development and production of oil and gas in Alberta, British Columbia and

Saskatchewan. SDEL's annual report for 2012 reported total assets of about \$4.3 billion and in 2013 reported total assets of about \$17 billion.

3. On February 2, 2012, SDEL was the owner and licensee of a well (the "6-19 well") and pipeline ("the pipeline") located near Fox Creek Alberta. The 6-19 well produced a mixture of natural gas, liquid hydrocarbons and saline water from underground reservoirs. The saline water was separated from the gas and liquid hydrocarbons and was known as "process water". In addition to the saline water, process water contained trace amounts of hydrocarbons and hydrogen sulphide (H<sub>2</sub>S). Process water is potentially harmful to fish and aquatic plants and animals.
4. Process water from the 6-19 well is sent through the pipeline to a compressor ("11-2 compressor") where gas was separated from the water. The remaining process water was sent to an injection well where it was disposed of into an underground formation.
5. The pipeline crossed under Marsh Head Creek, which is a tributary of the Athabasca River. Marsh Head Creek is known to contain fish.
6. The pipeline was equipped with emergency shutdown devices ("ESDs"). The ESD located at the 6-19 well was designed to shut down the well and pipeline if the pipeline pressure exceeded the pressure at which the pipeline could rupture (4839 kPa) or fell below the pressure at which a leak in the pipeline could be indicated (2100 kPa). Similar ESDs were located at the 11-2 compressor and other equipment connected to the pipeline. The normal operating pressure of the pipeline was 2400 kPa.
7. The SDEL Employee Safety Handbook stated that "...under normal field operating conditions, safety devices such as pressure safety valves (PSV) and emergency shutdown equipment must not be bypassed." The handbook provided instructions on what to do when there was no alternative to bypass safety devices and bypassed devices must be returned to original service.
8. At all material times, the pipeline and associated equipment were operated by a contractor ("the operator") who was employed through his own numbered company. The operator was the sole employee of this numbered company. The numbered company was required by the terms of its contract to complete well and facility inspections daily unless the well or facility was shut in.
9. On the morning of February 1, 2012, the operator was called to the 11-2 compressor to investigate a high discharge pressure shutdown. The ESD on the pipeline at the 6-19 well was also triggered shutting down the well and pipeline. The operator restarted the compressor several times during the night of February 1 but it kept shutting down.

10. At about 8 am on February 2, 2012, the operator was again told he could try to restart the compressor and was successful in doing so. Because the 6-19 well's ESD was closed, the pressure in the pipeline decreased to the point where another ESD was triggered at the next piece of equipment downstream on the pipeline (the "15-25 header") and the pipeline was again shut down.
11. The operator then went to the 6-19 well and restarted it. In order to restart it, the operator had to temporarily bypass the ESD at the well however forgot to reset the ESD at the 6-19 well and it was therefore left in a bypass state. The operator then went to the 15-25 header where he slowly opened the ESD because the pressure was higher on the upstream side of the 15-25 header ESD than the downstream side. It was later determined that pressure in the pipeline upstream of the header could have reached as high as 6895 kPa for a short period of time. When the ESD at the header was opened, this 6895 kPa pressure could have travelled down the pipeline which had a maximum operating pressure of 4026 kPa. The operator did not check the pressure in the pipeline nor did he check the 6-19 well, pipeline or associated facilities that day or on the following day, February 3, 2012.
12. At about 3 pm on February 4, 2012, the operator checked the injection well associated with the pipeline and discovered that there had been no flow into the injection well for about a day and a half. He then checked the 6-19 well and discovered that the operating pressure of the pipeline was 400 kPa, well below its normal operating pressure of 2400 kPa. He also discovered that there was still process water being put into the pipeline and then realized that the pipeline must be leaking. He immediately shut the pipeline down and notified his foreman.
13. SDEL personnel began searching for a leak in the pipeline and at about 7 pm on February 4, 2012, a leak was discovered about 200 meters upstream from where the pipeline crossed under Marsh Head Creek. The leak was reported to what was then Alberta Environment and Water (now Alberta Environment and Sustainable Resource Development) shortly after 7 pm. The release consisted of 391 cubic meters (391,000 liters) of process water. It came to the snow covered ground surface at the site of the pipeline leak and flowed overland into Marsh Head Creek. The process water contaminated soil in the area near the release site and water in Marsh Head Creek. SDEL's internal investigation confirmed that internal pipeline pressure was a contributing factor in the failure of the pipeline.
14. The chlorides contained in the process water were deleterious to fish and other aquatic life including plants and animals. The Canadian Council for Ministers of the Environment ("CCME") has set a freshwater aquatic acute toxicity limit for chlorides of 640 mg/l and a chronic toxicity limit for fish of 120 mg/l. The chloride concentration in the process water in the pipeline were 20,800 mg/l. Exceedances of the 640 mg/l limit were observed up to 7.4 km downstream from

where the process water entered Marsh Head Creek. The maximum recorded chloride concentrations were measured as follows:

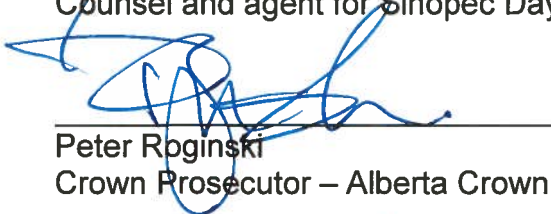
Location	Chloride Concentration (mg/l)
entering Marsh Head Creek	4790
1.3 km downstream	1300
3.14 km downstream	3480

15. No dead fish were actually observed because Marsh Head Creek was covered with snow and ice at the time of the release.
16. In addition to the deleterious effect on fish, the process water contaminated soil with chlorides, caused harm to both terrestrial and aquatic plants and to aquatic animals in Marsh Head Creek.
17. SDEL began cleanup of the release on Feb 5, 2012 and continued for four months. A groundwater remediation system was installed in September 2012 and winterized in November 2012. It operated until June 2013 when it was determined that the remediation was complete. SDEL spent about \$9.7 million on the remediation activities.

AGREED TO THIS 6<sup>th</sup> DAY OF November , 2014



Alan Harvie  
Counsel and agent for Sinopec Daylight Energy Ltd.



Peter Roginski  
Crown Prosecutor – Alberta Crown Prosecution Service



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