

IN THE PROVINCIAL COURT OF ALBERTA  
CRIMINAL DIVISION

Between:

HER MAJESTY THE QUEEN

and

APACHE CANADA LTD.

**AGREED STATEMENT OF FACTS**

***January 20-21, 2014 Incident***

**Background**

1. On Information 160063319P1, Apache Canada Ltd. ("Apache") stands charged that:

On or between the 20<sup>th</sup> day of January 2014 and the 21<sup>st</sup> day of January 2014, at or near Swan Hills, in the Province of Alberta, did release or permit the release into the environment of a substance in an amount, concentration or level or at a rate of release that causes or may cause a significant adverse effect contrary to section 109(2) 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. Apache is a Canadian company, headquartered and managed in Calgary. Apache employs in excess of 500 people in Canada. Apache's business includes crude, condensate liquids and natural gas gathering facilities and facilities to separate and market these products. Apache entered the Canadian market in 1995 and currently holds nearly 3.6 million gross acres across the provinces of British Columbia, Alberta, and Saskatchewan. Apache owns and/or operates approximately 14,000 kilometers of active pipelines in all three Provinces.

### **Description of the Pipeline**

3. The pipeline that failed was one part of the Belloy Battery water injection system. The Belloy Battery is located in the Virginia Hills region of central Alberta and is approximately 40km NW of Whitecourt, AB. The site at which the pipeline failed is located at LSD 09-30-63-13W5 (the "09-30 Site"). Both the Belloy Battery and the 09-30 Site are remote.
4. The pipeline that failed at the 09-30 Site (the "Pipeline") was a steel pipeline in which a plastic liner of high-density polyethylene was inserted. The liner was designed to maintain a tight seal between the outer wall of the plastic liner and the inner wall of the steel pipeline.
5. Valves were installed on the Pipeline to maintain pressure in the inner liner to ensure the seal was maintained between the liner and the steel wall of the Pipeline. Examination of one of these valves after the failure found it was of a different size to what was specified in the original design documents and that this valve would not function as intended in the original design.
6. Vents were installed on the Pipeline to vent any gases that might permeate through the inner plastic liner into the seal between the liner and steel wall of the Pipeline. Venting the gases prevented gas from accumulating between the liner and the inner wall of the steel Pipeline. The vents were also used to check for the

possibility that a hole or tear might develop in the liner allowing liquids to leak between the liner and steel wall of the Pipeline.

7. A contractor was hired to check the vents for pressure and fluids and to provide the results of those checks to Apache. Apache did not always analyze or react to the resulting reports. Apache had people within certain parts of the company who knew how to analyze the reports but the reports were not forwarded to those people. Subsequent analysis of the vent check reports show that the vent checks never indicate the liner had failed.
8. The water injection system and the Pipeline were fitted with various flow and pressure gauges and transmitters to monitor the operation of the system and the Pipeline. The data from these gauges was transmitted to the facilities and offices at the Belloy Battery and at the Hope Creek Gas Plant. The primary program used to monitor this information was located at Hope Creek (the "Primary Program"). The Primary Program was able to trend and display the results of the data in multiple ways. A large cache of data was retained by the program and that data could be displayed in multiple ways. The operators of the Hope Creek and Belloy facilities had received extensive training with respect to and had significant experience using the Primary Program.
9. In addition to the Primary Program, the water injection system and the Pipeline could be monitored and controlled locally using the gauges fitted to the pumps and wells and by a backup program located at the Belloy Battery. Shutting in or opening wells locally as well as starting, changing or stopping the water injection pumps locally was a normal part of the operators' duties and routines. While the data displayed on the backup program was similar in many respects to the Primary Program the operators had no need to use the backup program in the past and had not been formally trained in its use. The backup program at Belloy stored less data, required an operator to attend at a fixed terminal to view the data, and did not have all of the types of trending display capabilities the Primary Program did.

### **January 20, 2014 Event**

10. On January 15, 2014 unusually strong winds in the Virginia Hills area damaged the communications tower at the Hope Creek Gas Plant. This disrupted telecommunications between the Belloy facilities and the Hope Creek Gas Plant including the transmission of operational data between the two plants. The disruption continued until approximately 4:30 pm on January 20, 2014. As a result, the Primary Program could not collect, collate and display the information the operators routinely used to monitor the operation of the Pipeline. The loss of telecommunications between the two facilities in this manner had never been experienced before. During the disruption, the operators used the local controls and the back-up program that was installed at the Belloy Battery to monitor the operation of the water injection system including the operation of the Pipeline.
11. On January 20, 2014 the water injection pumps at the Belloy Battery tripped off-line or shutdown at approximately 2.15pm. The operator attended at the pumps and restarted them at about 2.20pm. Shortly after restarting the pumps a high flow alarm sounded on a well located close to the Belloy Battery (the "12-32 Well"). The 12-32 Well was not connected to the Pipeline. The operator had experienced this alarm before when the water injection pumps were restarted.
12. At 4.30 pm on January 20, 2014 telecommunications between the Belloy facilities and the Hope Creek Gas Plant were reestablished and the Primary Program came back online. The high-flow alarm on the 12-32 Well continued to alarm. Based on his past experience, the operator continued to consider that the alarm was associated with restarting the pumps. During the night of January 20th, the night shift operator had telephone discussions with the day shift operator and the maintenance technician. As a result of these discussions, the night shift operator ran a test on the pipeline to the 12-32 Well where the high-flow alarm was sounding. The test proved there was no leak on the pipeline to the 12-32 Well. After the test at approximately 11.53 pm, the night shift and day shift operators

again spoke on the phone. They discussed the results of the test as well as the high flow alarm to the 12-32 Well. The day shift operator continued to relate the alarm to having restarted the pumps. It was agreed the day-shift operator would investigate the alarm in the morning.

13. On arriving at the Belloy facility on January 21, 2014 at approximately 06.30 am, the day-shift operator noticed the pressure on the water injection system was low and that the volume of water being injected at some of the wells was also low. The day-shift operator recognized the possibility that the system had developed a leak. The operator drove to the various wells that make-up the water injection system to check for a leak. At approximately 07.15 am the operator discovered the release and steps were immediately taken to shut the system down, isolate the leak, and de-pressure the Pipeline.
14. Apache reported the release shortly after the operator had located the leak.
15. The direct cause of the release appears to have been the result of internal corrosion developing in the wall of the steel outer pipeline at a point where a fold or crease had developed in the liner. Over time, a weak spot developed in this fold or crease that eventually developed into a small hole or tear. This tear enabled produced water in the Pipeline to leak through the tear and come in contact with the steel wall of the outer pipeline. Over time, the steel pipeline corroded until the release occurred on January 20, 2014.
16. A review of various alarms, the pressure profile of the water injection system, and the flow or volume of water the water injection system was transporting indicated the Pipeline most likely failed sometime between 2:24 pm and 4:30 pm on January 20, 2014. The volume of produced water released was calculated to be approximately 1,978 m<sup>3</sup>. This volume is based on the most likely time of the failure (sometime between 2.24 pm and 4.30 pm on January 20, 2014) and the shutdown of the water injection system at approximately 8:10 am on January 21, 2014.

17. Some of the produced water from the release flowed downstream through an ephemeral drainage channel into an unnamed tributary. Significant amounts of the released produced water were contained behind culverts located upstream of the unnamed tributary. These culverts were promptly blocked in by Apache following the release. No indication was found that any people, animals, or benthic organisms were harmed as a result of the release. The chlorides in the produced water were such that the vegetation in the area of the release would have been affected. Apache treated large amounts of water using a Reverse Osmosis process and returned it to the environment in order to reduce the impact upon the environment. As a result of Apache using the Reverse Osmosis treatment process, the amount of clean water necessary to remediate the site was greatly reduced.
18. Apache rapidly mobilized resources to the 9-30 Site to assist with the containment efforts in first instance and throughout the remediation of the impacted area.
19. The site was cleaned to a standard meeting or exceeding that required by the Alberta Energy Regulator

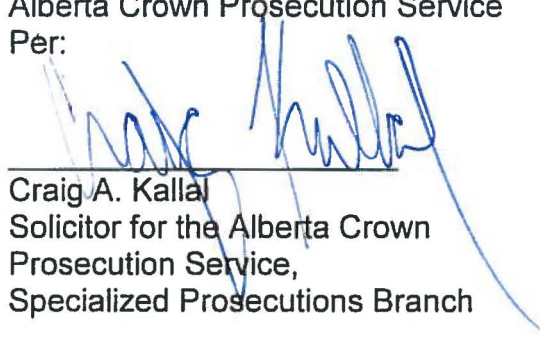
#### **Agreements**

20. The parties agree:
  - a. Apache Canada Ltd. will plead guilty to Count 1 on Information 160063319P1 described in paragraph 1 of this Agreed Statement of Facts.
  - b. The facts contained within this Agreed Statement of Facts are fully admitted and acknowledged by Apache Canada Ltd. and will solely form the facts to be considered by the Judge pronouncing sentence upon Apache Canada Ltd. The parties will be at liberty to make further submissions about those facts to the Court.

- c. Apache Canada Ltd. agrees to be sentenced on all the facts pursuant to s. 725(1)(c) of the Criminal Code of Canada.
- d. The parties will jointly submit that Apache Canada Ltd. should receive a penalty of \$190,000.00 for Count 1 on Information 160063319P1.
- e. This Agreed Statement of Facts may be filed and relied upon even if signed in counterpart or by facsimile copies of the signatures of any person or both.

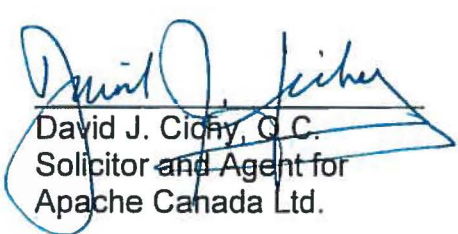
CONSENTED TO WITH RESPECT TO FORM AND SUBSTANCE this 26<sup>th</sup> day of September, 2016.

Alberta Crown Prosecution Service  
Per:



Craig A. Kallal  
Solicitor for the Alberta Crown  
Prosecution Service,  
Specialized Prosecutions Branch

Miller Thomson LLP  
Per:



David J. Cichy, Q.C.  
Solicitor and Agent for  
Apache Canada Ltd.