

IN THE ALBERTA COURT OF JUSTICE (CRIMINAL)

Between:

HIS MAJESTY THE KING

- and -

IMPERIAL OIL RESOURCES LIMITED

**AGREED STATEMENT OF FACTS**

1. Imperial Oil Resources Limited ("Imperial") stands charged:

Count 5

On or between the 28<sup>th</sup> day of January, 2023 and the 4<sup>th</sup> day of February, 2023, both dates inclusive, at or near Fort McKay, in the Province of Alberta, did contravene a term or condition of an approval issued to them: to wit, Approval No. 46586-01-00. Condition 4.2.1 which states:

“The approval holder shall not release any substances from the plant to the surrounding watershed, except as authorized by the approval”:

and did thereby commit an offence contrary to section 227(e) of the Environmental Protection and Enhancement Act.

*Summary*

2. This matter involves the release of approximately 5,193 m<sup>3</sup> of industrial wastewater from a drainage pond located at the Kearl Oil Sands Processing Plant and Mine (the “Site”) contrary to authorizations held by Imperial (the “Incident”).

*Imperial*

3. Imperial is a Canadian integrated petroleum company headquartered in Calgary, Alberta that has operated throughout Canada since 1880. Imperial is a producer of diluted bitumen, crude oil, natural gas and other products including refined products.

***Background Information***

4. Imperial operates the Site located approximately 70km north of Fort McMurray, Alberta. The current operational footprint of the Site is approximately 132 km<sup>2</sup> and includes an open-pit oil sands mine, processing plant for bitumen extraction, tailing areas and disposal areas. The Site has been in operation since 2013 and employs approximately 1700 fulltime employees and 1200 contractors with 12% of those employees and contractors identifying as Indigenous.
5. The Site was constructed in accordance with applications found to be in the public interest and approved by the Government of Alberta and the Government of Canada following public hearings held by a Joint Review Panel established pursuant to an agreement between the Alberta Energy and Utilities Board (now the Alberta Energy Regulator) and the Minister of Environment for Canada. The Site is subject to an authorization issued under the *Environmental Protection and Enhancement Act* (the “Approval”) that authorizes and regulates the construction, operation and reclamation of the Site. The Approval is administered by the Alberta Energy Regulator (the “AER”) and incorporates various operational plans approved by the AER.
6. The Site is located on public land owned by the Government of Alberta. Imperial operates the Site under a lease with the Government of Alberta.
7. An External Tailings Area (the “ETA”) is located in the northeast part of the Site. The ETA is approximately 19 km<sup>2</sup> of the overall Site. Around the ETA, Imperial utilizes a system of ditches and ponds to collect and store water from various on lease sources, including surface water runoff, precipitation and the ETA dyke drain system. Water from the ditch systems collects in drainage ponds, where it is pumped back to the ETA, for storage and reuse in production processes. A seepage interception system (“SIS”) monitors for, collects and pumps seepage water back into the drainage ponds. The SIS is modified and enhanced based on data collected during the operational phase of the Site. Water collected from the SIS is directed to on-lease drainage ponds, including Drainage Pond 4 (“DP4”). DP4 is one of 14 ponds used to collect water in a similar manner at the Site.

***DP4 Description***

8. DP4 is located on-lease towards the east end of the north lease boundary of the Site and just north of the ETA. The public lands to the north of the Kearl lease boundary are forest and muskeg lands and are currently leased to another operator for the purposes of potential future oilsands mining.
9. The purpose of the DP4 is to collect, store and recycle industrial wastewater and pump it to the ETA for reuse.
10. The composition of the water collected in the DP4 is sampled and analyzed on a semi-annual basis in accordance with the Lined Ponds Monitoring and Response Plan, which is appended in the Groundwater Monitoring Plan (“GMP”). The GMP is a plan approved by the AER and required under the Approval. Water contained within the DP4 includes precipitation, water from the processing of bitumen and water collected by the SIS. Certain substances within the water were present in concentrations that exceed applicable guidelines and natural background concentrations.
11. DP4 has a total capacity of 38,400 m<sup>3</sup> which includes both active storage for industrial wastewater and inactive storage for potential sediment buildup within the pond. At the time of the Incident, DP4 was equipped with a sump, which includes 2 pumps, 2 fluid level indicators that measured the level of water in the pond, a liner to prevent its contents leaching into the groundwater, and a control system that transmitted the results of the 2 fluid level indicators back to computer terminals that Site systems operators could view and manipulate. The control systems allowed Imperial to electronically monitor DP4. The pumps and other equipment in DP4 were designed to ensure that any water collected in DP4 is recycled back to the process.
12. DP4 is constructed with a spillway designed so that if the pond ever became too full and overflowed, the overflowing water would discharge along the spillway. The spillway was built of riprap rock to minimize erosion that could result from an overflow event and direct any overflowing water into a known location. The spillway was intended to be used as part of the emergency plans to minimize the effect of any overflow release and prevent the pond

wall from breaching in an uncontrolled fashion. The spillway was designed and approved to use gravity to direct overflowing water from the pond.

13. The Firebag River is located approximately 2.5 kilometres north of the DP4 Pond. Substances that were released from the DP4 Pond during the Incident were not detected in concentrations above applicable regulatory guidelines or natural background concentrations beyond approximate 150m from DP4 Pond and there was no evidence of any impact to the Firebag River based on comprehensive testing done by both Imperial and the AER.

#### ***DP4 Pond Operations***

14. The DP4 had operated for approximately 8 years prior to the Incident.
15. The operating philosophy for DP4 was to minimize the use of active storage of industrial wastewater. As such, the electronic monitoring and control system settings were based on an active storage volume that was lower than the total storage capacity of DP4. Pond level sensors, monitored in the control room, were intended to measure the total liquid level in DP4 and trigger alarms if certain level thresholds were exceeded. However, the sensors were designed, installed and configured such that the sensors would indicate water levels over the 100% measurement scale despite DP4 not actually being at maximum capacity. This led to confusion regarding the actual water level in DP4 at times and resulted in a perception amongst operations staff that the water level reported by sensors did not reliably reflect water level in the pond.
16. To address concerns with the alarm system, Imperial began physically inspecting water levels in DP4, typically twice per day. If water levels were observed to be high, manual interventions would be taken to reduce water levels within DP4. This method of water level monitoring and pond operation was successfully used by Imperial for approximately 8 years.
17. The pumps in DP4 could be set to either automatically start and stop based on the level sensor readings, or operated 'manually', such that starting and stopping the pumps was initiated by the control room operator via the control system. While on automatic control, the pumps would activate to lower the water levels in DP4, as designed. For many years, Imperial operated the DP4 using the fully automatic setting. However, as the volume of

water in the DP4 regularly rose above the intended operational level, due to the perceived unreliable sensor readings at higher pond levels, Imperial operational staff began using the manual setting more frequently. Operations staff believed that the automatic setting was not working accurately enough to reliably indicate when pumping should begin. Once manual pumping was adopted, it was done in conjunction with visual inspections of DP4 by Imperial operations staff.

18. Over time, the amount of sediment in DP4 increased, and the rate of sediment accumulation also rose. As a result, the available active storage volume for water decreased, while the inactive storage volume increased due to sediment buildup in DP4. Prior to the Incident, Imperial dredged the pond on two occasions, each dredging program requiring several weeks, to maintain appropriate active storage volume. Originally, Imperial did not intend to dredge the pond regularly, and were actively pursuing options for new systems, such as sedimentation traps to reduce sedimentation challenges at DP4 prior to the Incident.

### ***The Incident***

19. On January 28, 2023, Imperial operations staff manually activated the pumps to lower the water level in DP4. The pump was turned off at 11:09 am. The high-level alarm went off 21 minutes later. On January 29, the sensors in DP4 started recording an invalid reading at 1:20 am. As stated above, the high-level alarm and maximum capacity measurement sensors had been calibrated to trip well below capacity levels for the DP4.
20. On January 31, 2023, an Imperial operator manually activated the DP4 Pumps at 8:57 pm to lower the water level.
21. On February 4, 2023, Imperial operations staff observed that DP4 appeared to have overflowed along the DP4 spillway and off-lease north of the Site. Imperial reported the release to AER shortly thereafter. The released water did not enter the Firebag River which is located 2.5 kilometres from the north boundary of the Site. Instead, the water froze and AER required Imperial to remediate areas up to 200 metres from the boundary.
22. The exact timing of when DP4 started overflowing is not known with precision. However, Imperial reported that that release began at approximately 8:03 pm on January 30, 2023 and

concluded at approximately 8:57 pm on January 31, 2023 when Imperial staff turned on the pump. Imperial ultimately reported that approximately 5,193 m<sup>3</sup> of industrial wastewater had been released.

***Post Incident***

23. The AER issued an Environmental Protection Order (“EPO”) to Imperial on February 6, 2023 requiring Imperial to delineate the nature and extent of the release and to develop a remediation program under the direction of the AER. The EPO required Imperial to, among other things, prepare and implement the following plans subject to AER approval:
  - (a) A Source Control and Containment Plan, to be implemented as authorized by the AER, required to address source delineation, control and containment of substances released during the Incident with the following specific requirements:
    - (i) To be prepared and implemented by a qualified professional detailing interception of impacted groundwater and surface water in the impacted area;
    - (ii) Include methods and techniques for delineation of substances released during the Incident;
    - (iii) Include monitoring of soil, surface water and groundwater necessary to evaluate the effectiveness of source control/containment measures; and
    - (iv) Include a schedule for implementation.
  - (b) A Communications Plan for notification of and regular updates to potentially affected parties including local Indigenous communities;
  - (c) A Sampling and Monitoring Plan prepared to the satisfaction of the AER and following Alberta’s Environment Site Assessment Standards, March 2016 for Phase II Environmental Site Assessments, that included, among other things, the following:
    - (i) The location and sampling frequency of all surface water and groundwater samples;

- (ii) A broad range of sample parameters for substances that may have been released during the Incident using laboratory analytical techniques with detection limits below the relevant environmental standards; and
  - (iii) Confirmation that all samples will be analysed at a laboratory accredited through the Canadian Association of Laboratory Accreditation.
- (d) A Fish and Wildlife Mitigation and Monitoring Plan;
- (e) A Remedial Action Plan prepared to the satisfaction of the AER that included, among other things, the following:
- (i) Details of measures that will be taken to remove or remediate substances released during the Incident designed to ensure that soil, surface water and groundwater meet the applicable guidelines (i.e. Alberta Tier 1 and 2 Soil and Groundwater Remediation Guidelines, as amended);
  - (ii) A risk management/exposure control plan;
  - (iii) Monitoring necessary to evaluate the effectiveness of remedial measures and exposure control/containment measures; and
  - (iv) A schedule for implementing the Remedial Action Plan.

(collectively, the “**Assessment and Remedial Plans**”).

24. Imperial worked cooperatively with the AER and complied with the requirements of the EPO.

***Imperial’s Assessment and Remediation of the Incident***

25. Imperial commenced remediation of areas impacted by the Incident on February 6, 2023, and by March 7, 2023 collected and removed approximately 10,000m<sup>3</sup> of snow, ice, and soil from the site. Between August 28, 2024 and September 4, 2024, approximately 4,500m<sup>3</sup> of additional soil was removed as part of a subsequent remediation of areas impacted. Soil samples were collected after both remediations were completed.

26. Imperial retained third party environmental consultants, Millennium EMS Solutions Ltd. (“**Millennium**”), to delineate the nature and extent of the released material, to prepare and implement a remediation plan and to confirm that remediation had been completed in accordance with the Assessment and Remedial Plans. Millennium prepared a series of reports concerning the remediation of the site including the following which were filed with the AER for review:
- (a) Kearl Oil Sands Processing Plant and Mine Remedial Action dated February 28, 2023 included in the Assessment and Remedial Plans discussed above;
  - (b) Kearl Oil Sands Processing Plant and Mine. Soil Assessment Plan for Impacted Area 1 and 2 dated April 2023 (the “**Soil Assessment Plan**”);
  - (c) Kearl Oil Sands Processing Plant and Mine. Groundwater Delineation Plan dated April 2023 (the “**Groundwater Delineation Plan**”);
  - (d) Proposed Additional Soil and Groundwater Assessment – IOL Kearl Oil Sands Processing Plant and Mine dated August 2023 (the “**Additional Assessment Plan**”);
  - (e) Kearl Oil Sands Processing Plant and Mine 2023 Preliminary Conceptual Site Model Interim Report dated November 2023 (the “**Conceptual Site Model**”);
  - (f) Kearl Oil Sands Processing Plant and Mine Phase 2 Environmental Site Assessment dated December 2024 (the “**Phase 2 ESA**”);
  - (g) Kearl Oil Sands Processing Plant and Mine Site-Specific Risk Assessment dated March 2025 (the “**SSRA**”); and
  - (h) DP4 Remediation Completion Summary Report Kearl Oil Sands Processing Plant and Mine dated January 2025 (the “**Remediation Report**”).
27. Under the direction of the AER, and in accordance with the Assessment and Remedial Plans, Imperial remediated approximately 0.576 hectares of affected land during the 2023 remediation.

28. The 2024 remediation process undertaken by Imperial was summarized in the Remediation Report which confirmed the following:
- (a) Approximately 4,500 m<sup>3</sup> of soil was excavated and removed from the site over an area of 4,685 m<sup>2</sup> during the remediation process.
  - (b) Confirmatory soil samples were collected from within the excavated area and were analysed for over 85 analytical parameters including general chemistry, inorganics, total metals, PHCs and PAHs.
  - (c) Analytical results were compared for screening purposes to known natural background concentrations in the area and to the AB Tier 1 Guidelines.
  - (d) The AB Tier 1 Guidelines are generic guidelines that are set at levels that provide protection of humans and ecosystems in almost all situations by including many “worst case” assumptions that do not necessarily reflect the situation at the site under consideration.
  - (e) The natural minimum pH values of soil in the area were found to be more acidic than the AB Tier 1 Guideline.
  - (f) The natural maximum concentrations of PHCs and some metals in the soils in the area were found to exceed the AB Tier 1 Guidelines.
  - (g) Extensive confirmatory samples taken from the sides and base of the excavated area confirmed the following:
    - (i) All salinity parameters were below the AB Tier 1 Guidelines;
    - (ii) Trace metals were primarily below AB Tier 1 Guidelines or were interpreted as naturally occurring – overall metals found to be in the soil above the applied screening guidelines were determined to be marginal and localized and were not expected to be a significant driver of risk;
    - (iii) PHCs were not detected above natural background levels in excavated areas;

(iv) All other sample parameters were either non-detect or below natural background or AB Tier 1 Guidelines.

29. Imperial has been monitoring water quality in the Firebag River since 2013 (including prior to starting operations) and has seen no evidence of adverse impact to the river as a result of the Incident or otherwise as a result of its Kearn Operations.
30. The costs incurred by Imperial to remediate the release were approximately \$2,000,000.00

***Solutions to Prevent Recurrence***

31. Imperial undertook a post-Incident root cause analysis for the purposes of determining why the overflow occurred and to identify enhancements to its management of the DP4 to minimize the risk of a future release.
32. Enhancements implemented by Imperial included the following:
  - (a) Instrumentation – given design discrepancies between the level instrumentation in the DP4 wet well and the elevation of the engineered spillway, level sensors were modified to increase the measurement range to provide level indication near the total pond capacity.
  - (b) Alarm Systems - to better alert control room operators of elevated pond levels, a high-high-level critical alarm has been added to the control panel for DP4.
  - (c) Automated Pumps – the normal operation of the DP4 pumps has been changed from manual to automatic, eliminating reliance on control room operators to start the pumps.
  - (d) Surveillance and Monitoring – a CCTV camera has been added to assist in monitoring and operator surveillance rounds have been updated such that pond level readings and trends have been added to regular engineering surveillance processes and tracking and reporting with applicable updates to Imperial's Operating, Maintenance and Surveillance Manual.

- (e) Human Performance - training has been and will continue to be provided to Operations personnel on an annual basis and will include a discussion of the overflow risk and consequence, and expectations for surveillance rounds.
  - (f) Sediment Removal and Mitigation - a dredging program was completed from June to October 2023 removing approximately 42,000m<sup>3</sup> of sediment at a cost of \$1.6M. Additional dredging was completed in 2024 and 2025 and sediment retention traps were installed in 2024 to reduced amount of sediment entering the DP4.
  - (g) Upgrades to Ditch System – ditches were lined and other upgrades were made in 2023 and 2024 to reduce erosion and further control sediment at a cost of \$21M.
  - (h) Risk Assessment and Risk Management Process – a post-incident risk assessment was conducted that identified 27 actions, 26 of which have been completed, and Imperial’s risk assessment worksheet was updated to consider the reliability, effectiveness, and history of safeguard / mitigations in the assessment process.
  - (i) Updated Maintenance – added preventative maintenance program to instrumentation and annual sump clean out, stocking of additional sump pump.
  - (j) Back-Up Diesel Driven Pump Staged - portable pump available with permanent tie-in point to provide back-up to permanent pumps (for use in the event of an equipment failure or power failure)
33. Imperial was cooperative during the investigation including:
- (a) Providing documents to the AER investigators upon request;
  - (b) Answering a series of AER investigator information requests; and
  - (c) Making Imperial personnel available for interviews by the AER investigators in a timely and efficient manner.

**Agreement of Parties**

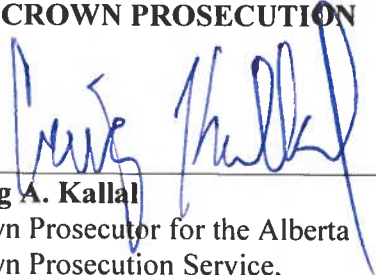
34. The parties agree:

- (a) Imperial Oil Resources Limited will plead guilty to Count 5 (s.227(e) of EPEA) on Information #250036472P1 (the “**Information**”). All remaining charges on the Information will be withdrawn upon the Court pronouncing sentence upon Imperial;
- (b) The facts contained within the Agreed Statement of Facts are fully admitted and acknowledged by Imperial and will solely form the facts to be considered by the Judge pronouncing sentence upon Imperial;
- (c) The parties will jointly submit that Imperial should receive a penalty of \$120,000 for Count 5 on Information #250036472P1; and
- (d) 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.

All of which is respectfully submitted this 29 day of May, 2026


**ALBERTA CROWN PROSECUTION SERVICE**

Per:

  
\_\_\_\_\_  
**Craig A. Kallal**  
Crown Prosecutor for the Alberta  
Crown Prosecution Service,  
Appeals and Specialized  
Prosecutions Office

**OSLER, HOSKIN & HARCOURT LLP**

Per:

  
\_\_\_\_\_  
**Brad S. Gilmour**  
Solicitor and Agent for Imperial Oil  
Resources Limited