2015 CarswellAlta 2237

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Alberta Arbitration

Teck Coal Ltd. and UMWA, Local 1656 (Drug and Alcohol Policy), Re

2015 CarswellAlta 2237

In the Matter of an Arbitration between Teck Coal Limited, (the "Employer") and The United Mine Workers of America, Local 1656, (the "Union")

J. Alexander-Smith Member

Heard: March 3, 2014; March 4, 2014; March 5, 2014; March 6, 2014; March 18, 2014; March 19, 2014; March 20, 2014; March 25, 2014; April 22, 2014; April 23, 2014; April 24, 2014; May 20, 2014; May 21, 2014; May 24, 2014; May 25, 2014; July 16, 2014; July 18, 2014; July 28, 2014; August 18, 2014; August 19, 2014; August 28, 2014; August 29, 2014
Judgment: December 7, 2015
Docket: None given.

Counsel: Peter A. Gall, Q.C., Andrea L. Zwack, for Employer
Patrick Nugent, for Union

Subject: Labour; Public

Headnote
Labour and employment law

***J. Alexander-Smith Member*:**

I. Introduction

1 The Employer operates a number of coal mining ventures at various locations throughout the world. It has approximately four thousand employees at 6 operating mines in Canada; 5 in British Columbia (Fording River, Greenhills, Elkview, Line Creek and Coal Mountain) and an open pit mining operation at its Cardinal River Operation ("CRO"), located near Hinton, Alberta. In 2013, CRO had approximately 340 hourly employees and 100 staff.

2 It is at the CRO location that the substance of this grievance arose, filed May 14th, 2012, in response to the Employer's introduction of a mandatory random drug and alcohol testing program upon members of CRO's bargaining unit (and others) in May 2012.

3 Although the grievance includes both a group and a policy grievance [Exhibit 3] by agreement only the policy grievance was advanced at the arbitration hearing and is the subject of this award. The parties otherwise had no objection to the jurisdiction of the arbitration board (the "Board") to hear and determine this grievance. All time limits applicable to the release of this award were expressly waived by the parties.

4 The hearing required 21 days of testimony and argument both in Hinton and in Edmonton, Alberta, over a 6 month period. During the course of the hearing, 16 lay and expert witnesses testified before the Board and 74 exhibits were entered on the record, representing many hundreds of pages of business records, studies, and other documentary evidence and are listed at Appendix A.

5 The cases and authorities cited by the parties are listed at Appendix B.

6 *All* of the materials, testimony and authorities presented during the course of the hearing have been reviewed and carefully considered in determining the merits of this grievance. I have endeavoured to provide a reasonably detailed overview of the most salient details of that evidence, which is summarized below.

II. Relevant Provisions of the Collective Agreement

> **Article 1 PURPOSE OF AGREEMENT**
>
> It is the intent of the parties and the purpose of this Agreement to preserve and continue the harmonious relations existing between the parties; to insure peaceful adjustment and settlement of grievances, claims, disputes and differences which may arise between the Employer and its employees represented by the Union; to prevent stoppage and interruptions of work, strikes and lockouts; and to establish wages, hours and working conditions which shall prevail during the term hereof for the employees covered by this Agreement.
>
> In this Agreement, wherever the masculine gender is used, the feminine shall also apply,
>
> **Article 2 SCOPE OF AGREEMENT**
>
> 2.01
>
> This Agreement covers all employees of the Employer hired for its mining operations at Cardinal River Operations excluding those employees designated in Section 2.02 of this Article.
>
> 2.02
>
> The following classifications are excluded from this bargaining unit:
>
> > (a) Office staff, unit foremen, safety and security personnel, surveyors and rodmen, janitors, lab technicians, environmentalists, and,
> >
> > (b) Those exercising managerial functions and those employed in a confidential capacity in matters relating to labour relations.
> >
> > (c) Except where it is necessary to instruct company employees, test equipment and facilities and in the case of emergency, foreman and managerial personnel will not perform work or operate equipment normally performed by employees covered by this Collective Agreement,
>
> 2.03
>
> > (a) The following aspects of this Collective Agreement shall govern the conditions of employment which a contractor, subcontractor, assignee, or transferce provides for his employees for work performed for Cardinal River Operations at the minesite:
> >
> > > (i) wage rates in Exhibit "A" (as a minimum)
> > >
> > > (ii) safety regulations
> > >
> > > (iii) cessation of work (Article 6)
> > >
> > > (iv) adjustment of grievances (Article 5 or equivalent procedures)

(v) scope of Agreement as per Article 2,02

(b) Contractors, subcontractors, assignees or transferees engaged by Cardinal River Operations to perform specialized work not normally performed by the employees of Cardinal River Operations shall be exempt from Article 2.03 (a) (i) above,

Article 3 MANAGEMENT OF MINE

The management of the operation is vested in the Employer except that this right shall not supersede any provisions of this Agreement.

Article 14 SAFETY

14.01

Appropriate safety devices and practices for the purpose of protecting the employee from injury, accident or unhealthy conditions of work shall be employed.

14.02

The Employer shall maintain an accident prevention committee comprised of representatives of the Employer and the Union to be known as the "Occupational Health and Safety Committee".

14.03

It is understand and agreed that the parties to this Agreement shall at all times comply with the accident prevention regulations; as they pertain to the coal mining industry, as set by the relevant legislation in the Province of Alberta, and safety regulations instituted by the Employer and the Occupational Health and Safety Committee. Any refusal on the part of an employee to perform an unsafe act in contravention of the said regulations shall not be deemed to be a violation of the Agreement. Nor shall an employee be disciplined for such refusal.

14.04

These members of the Occupational Health and Safety Committee shall be duly elected by their fellow employees.

14.05

The Occupational Health and Safely Committee shall meet once each month. There will be a complete inspection tour of each operation and also an inspection of each bus that transports employees to and from the minesite. The Employer shall supply the Union with a monthly mechanical inspection certificate of each bus.

14.06

The Safety Steward on shift shall immediately be notified of all accidents, and:

(a) Shall have the right to investigate those accidents involving personal injury requiring first aid treatment other than for minor injuries.

(b) Shall have the right to investigate all major accidents or serious happenings in the operation.

(c) Safety Stewards shall be paid by the Employer, at their regular classified rate for all time spent investigating accidents, serious happenings, inspection tours and meetings.

14.07

The Chairman of the Occupational Health and Safety Committee will alternate between the Union and the Employer's representative every six (6) months.

14.08

One copy of the minutes of the monthly meetings shall be retained at the Mine Office, a second copy forwarded to the Local Union and a third copy forwarded to the appropriate governmental agency.

14.09

(a) Where any unsafe condition is found or reported to any Safety Steward on shift; that Safety Steward will have the right to inspect the situation along with the supervisor.

(b) When any significant unsafe condition is reported, it shall be Investigated by a Union member of the Joint Occupational Health and Safety Committee and a

Supervisor. If the Committeeman and the Supervisor do not agree that the condition is unsafe and what remedy, if any, is to be taken, a qualified individual shall be called in to assess the condition and recommend such corrective action as may be necessary.

(c) A worker may refuse to do any particular act or series of acts at work which he has sufficient grounds to believe are dangerous to his health or safely, the health and safety of his co-workers or any one on the mine site and in such circumstances no disciplinary action will be taken against him. If an employee refuses to perform his assigned duties without sufficient grounds he may be subject to discipline. At the time of refusal the employee must specify the unsafe conditions which formed a basis for his refusal to work.

14.10

A standard set of signals be adopted within each Employer's jurisdiction to be employed by dumpmen or dump supervisors while performing their job, Truck drivers are to be instructed on these signals.

14.11

All crews must hold a Safety meeting at least once a calendar month at the beginning of a regularly scheduled shift. The Foreman and Safety Steward shall draw up the agenda for the meeting. The meeting will provide all employees with an opportunity to ask questions pertaining to Health and Safety. These meetings will not exceed one hour in duration. The Foreman or Safety Steward will record the minutes of the meeting.

14.12 Accompanying Injured Employees

(a) When an employee is ordered by the management to accompany an injured employee, he shall be compensated at his regular rate for time necessarily lost.

(b) However, for eight (8) hour shift employees, in the event that an employee is so ordered during the last half of his shift, he shall not be required to return to the mine for the balance of the shift and shall receive payment at his regular rate of the fall shift.

For twelve (12) hour shift employees, in the event that an employee is so ordered during the last third of his shift, he shall not be required to return to the mine for the balance of the shift and shall receive payment at his regular rate for the full shift.

14.13

The Employer shall supply all necessary safety equipment including approved respirators and/or face masks at no cost to the employee. Respirators and/or face masks shall be stored in a convenient, clean and sanitary location on the job site. Respirators and/or face

All shift bus operators shall be designated as such and shall receive training and instruction in such things as: safe vehicle operation, safely rules, and pick-up and delivery procedures. Only those who have completed this training shall be allowed to drive shift buses.

III. Relevant Management Policies:

- Teck Coal Limited Management Policy: No. 27 Alcohol Policy
- Teck Coal Limited Management Policy No. 28 Illegal Drug Policy
- Teck Coal Limited Management Policy No. 29 Medication Use Policy

These policies are attached at Appendix C

IV. Factual Background

CRO's Work Environment

7 The Employer's 24/7 open pit coal mining operation at CRO involves complex methods of excavation and processing often associated with a significant potential for hazards, described as an environment with "no room for error". Ross Wilson, CRO's Mine Operations Superintendent, spoke of the nature of the equipment in operation (haulers, dozers, loaders, backhoes, shovels, light vehicles) in remote areas subject to changing environmental and site conditions. He spoke of the 12-hour shifts worked by many employees, alternating between days and nights, often while working alone with little direct supervision and with communications largely restricted to radio contact. He spoke of the dangers of blasting and drilling activity; the dangers related to the pre-stripping of a mining area, such as from falling trees, cutting logs and pushing topsoil. He spoke of the repetitive nature of the work required of employees over long hours and the associated concern with fatigue. He spoke of the need for measures designed to assist in minimizing or eliminating risks in CRO's work environment.

8 Another component of the Employer's operations was identified as maintenance troubleshooting, performed in the Maintenance Shop or in the processing plant under the direction CRO's Maintenance Supervisor, Glen Ross. The varied environmental conditions under which maintenance work must be performed requires alertness and vigilance. Typical tasks required of maintenance employees involve hoisting, rigging, ladders, slings, scaffolding, hydraulic jacks, welding machines and cranes; many of which require the use of electricity which itself can constitute a hazard. Employees who are assigned to work in the Maintenance Shop or at Cheviot work either twelve hour day shifts or on alternating twelve hour day/night shift on four days on/four days off work schedule rotation.

9 There is no dispute that CRO's bargaining unit employees occupy safety sensitive positions within a safety sensitive work environment.

10 The Employer's historical approach to its operations was described as one which focused on production, costs and processes, along with primarily reactive interventions in response to actual injuries.

11 Commencing in the mid-1990's, the corporate focus underwent a gradual but discernible shift toward preventative measures in response to a broad range of identified risk factors in the conduct of the day-to-day business of its open pit mining operations.

12 Robin Sheremeta, Vice-President of Teck Coal Ltd., utilizing a risk management approach to the enhancement of safety in the workplace, was tasked to develop, lead and achieve a universal "culture of safety" within the Employer. In doing so, efforts, programs and protocols focused on identifying, assessing and mitigating risks to safety in the workplace.

13 This risk identification approach focused on the nature of hazard rather than its frequency; which, in turn, determined the corporate response to the risk within a global environment which had recorded 44 fatalities over the course of the last 25 years.

14 Mr. Barrie, CRO's Human Resources Superintendent, provided an overview of CRO's safety statistics compiled by its Safety Supervisor for the period 1993-2013, detailed in Exhibit 43. In doing so, he explained the various categories for which statistics were recorded, utilized to measure frequency and severity of workplace incidents based upon two hundred thousand man hours worked, as follows:

- LTI: Lost Time Incident: employee unable to return-to-work following injury in the incident;
- MA: Medical Aid: employee requiring medical aid (often from a physician) following a workplace incident;
- FA: First Aid: employee requiring minor aid following a workplace incident;
- DI: Disabling Injury (adopted in 2013): workplace incident requiring the assignment of modified or alternate duties.

15 As of the date of Mr. Barrie's appearance at the hearing (April 22nd, 2014), he stated that CRO had not experienced a single Lost Time Incident since October 2012; a result which he associated with CRO's May 2012 introduction of its random testing program. It was, however, determined during cross-examination that there had been a Lost Time Incident after May 2012 and further, Mr. Barrie testified that there was no evidence linking a Lost Time Incident with either drug or alcohol impairment since the Employer had taken over operation of CRO in 2006.

16 He confirmed that the record illustrated by CRO's safety statistics demonstrated an overall improvement in mine safety over the last 21 years, which he attributed to a variety of reasons, including such things as increased training, the Courageous Leadership Program and improved/increased infrastructure and technology.

17 The Employer's safety performance moved from tracking *actual* injuries [Lost Time Injuries ("LTI")] to tracking the *risk* of injuries through investigations of High Potential Incidents ("HPI").

18 Mr. Sheremeta defined an HPI as "an incident that occurs that has the potential to result in a serious injury or fatality" and explained that the Employer tracked three categories of incidents of increasing severity requiring progressively more significant responses.

19 HPIs are ranked according to the level of seriousness of the incident: the less serious as category 3, Serious Potential Incidents as category 4, and the most serious, Potentially Fatal Occurrences, as category 5. All mine site incidents are recorded and shared throughout its various operations to be reviewed against existing protocols as an additional means of identifying and measuring workplace risk.

20 CRO's HPI record [January 2011 — February 2014] was entered as Exhibit 27. The great majority of documented incidents were ranked category 3 incidents, many reflecting environmental and hazard conditions as well as a variety of human factors. Such incidents included a report of a "snow avalanche" reported to be covering part of the road near the main gate [1/25/11]; a crew bus carrying two people rolling onto its side after striking a bridge [2/23/11]; an excavator exposing an undetonated booster in face [4/29/11]; a piece of steel plate falling four feet striking an employee's hard hat [12/1/12]; and the operator of a haul truck falling asleep at the wheel with the truck coming to rest on the dumped material at the road edge [2/14/14].

21 The breakdown of the categories of the HPI incidents recorded in Exhibit 27 over the reporting period is set out below:

	Category 3	Category 4	Category 5
2011:	12	1	2
2012:	3	1	0
2013:	7	0	0
2014:	2	0	0

22 With respect to HPIs specifically, Mr. Sheremeta explained that such incidents are investigated to establish not just how an event occurred, but to identify all of its contributing factors. He reported that these investigations have established that in the majority of HPIs some element of human judgment was involved in the outcome; whether because a mistake was made, an act of risky behaviour was undertaken, or because an individual engaged in reckless behaviour by consciously disregarding a significant safety rule.

23 Robyn West, CRO's former Human Resources ("HR") Superintendent (2008-2013), confirmed that should drugs or alcohol have been considered a factor in an HPI event, a post-incident test would have been ordered and if positive, would have resulted in the offender's termination of employment.

24 In addition to changes in how incidents and risks were recorded in the workplace, the Employer's response to risk transitioned from reactive to preventive measures, resulting in the adoption of a progression of preventative safety measures, educational programs and training initiatives. Such multi-faceted measures include specifically mandated steps, such as a requirement to hold regular safety meetings, having employees complete field level risk assessments before undertaking assigned tasks, and requiring the reporting, investigation and recording of HPIs.

25 Other risk-responsive measures incorporated periodic reviews of applicable corporate policies, Standard Practices & Procedures ("SP&P") and the use of Computer Based Training modules ("CBT"). The Employer also introduced a variety of educational initiatives by way of presentations and through the distribution of written materials, covering such topics as mental illness, fatigue management, jet lag for shift workers and the use and abuse of alcohol, illegal drugs and medications. In addition, new technologies were acquired; such as those which permit vehicle monitoring, effect collision avoidance, permit slope monitoring and the identification of fatigue events.

26 Mr. Sheremeta reported that actual injuries (LTIs) in coal operations have decreased over the last ten years, with 2013 being the third safest year on record.

27 The collective purpose behind all of these workplace measures was described by several Employer witnesses as: "Everyone going home safe and healthy every day".

28 Each member of the bargaining unit who testified at the hearing individually affirmed a commitment to safety while performing work at CRO; whether in the Shop, the Plant or at the Pit.

29 Union witnesses included a Control Room Operator, a Pit Utility Worker, a Shovel Operator, a Machinist and a Crane Operator/Heavy Duty Mechanic. Each recognized the importance of safety in their work environment. In the words of BUE#1, a sixty-three year old machinist who began work at CRO in 1982: "Safety is very important. Nobody comes down to get hurt. You do what you can to make it as safe as you can".

30 Brent Bish is the President of the United Mine Workers of America, Local 1656, and has occupied this position since 2007. He has been employed at CRO since 1979, having started as a truck driver in the Pit, and later worked as a heavy duty mechanic, a maintenance worker and crane operator before undertaking a series of union roles. He has been actively involved in seven collective bargaining negotiations at the CRO.

31 Safety at the mine was described as the Union's top priority, reflected in the motto: "No job will be done if it can't be done safely". Mr. Bish spoke of the efforts made to instill in union members the right to refuse to perform any unsafe or unhealthy work.

32 Over the years the Union has identified and raised safety concerns with the Employer as a matter of course; many of which were often identified initially through discussions with union members during safety meetings. Such concerns have included the absence of a spring brake on a fuel truck and appropriate training for new hires in the use of service brakes on haul trucks. The Employer has been responsive to safety issues raised by the Union and has taken steps to address Union concerns.

33 The Union has also undertaken a more formal safety role through the development of the Safety, Health and Environment Committee which later transformed into the Occupational Health and Safety Committee ("OH&S Committee"); composed of three Union appointed members and three Employer appointed members. The OH&S Committee undertakes safety initiatives to promote workplace safety. Bargaining unit members are eligible to (and do) participate as members of CRO's Mine Rescue Team.

34 In addition to work on safety committees, safety issues have been raised and successfully negotiated during the collective bargaining process as set out in Article 14 of the Collective Agreement. For example, workers may no longer be subject to disciplinary action for refusing to do unsafe work [Article 14.08(c)]. That said, Mr. Bish testified that the bulk of the safety language contained in the Collective Agreement has been in place since 1981 and changes in the language thereafter were generally described as housekeeping issues.

35 Without doubt, based upon views expressed by all CRO personnel, whether testifying on behalf of the Employer or the Union, it is evident that safety is a shared value at CRO. Both Employer and Union witnesses attested to the priority placed upon safety, described by some as a fundamental "core value". The collective commitment to safety is and has been expressed in the support and sponsorship of a variety of initiatives to enhance safe working conditions.

The Evolution of CRO Drug and Alcohol Policies

36 It is within the context of this safety sensitive work environment that drug and alcohol workplace rules were introduced at CRO.

37 Following a fatality at the mine in 1999, the Employer and the Union collaborated in the introduction of drug and alcohol testing at CRO in 2000. This joint initiative was prepared in large measure by CRO's general manager and Brent Bish, then in the capacity as Vice-President of Local 1656.

38 Mr. Bish described the resulting drug and alcohol policy as a "Joint Memo" which essentially provided that the presence or use of alcohol and illegal drugs on the mine site would not be tolerated. In it, both the Employer and the Union acknowledged that people impaired by drugs or alcohol in the workplace created a safety risk. Prohibitions against the use of drugs or alcohol at work or showing up for work under the influence of drugs or alcohol were adopted. [Exhibit 35]

39 In 2005, a significant methamphetamine problem at CRO and in the local community was identified by both the Employer and the Union; evidenced at CRO, in part, through incidents of absenteeism and disciplinary action. In response, the Joint Memo was updated, resulting in the introduction of the 2005 drug and alcohol policy (the "D&A Policy").

40 The D&A Policy prohibited the use, possession, cultivation, manufacture, sale or distribution of an illegal drug while on duty and the use of an illegal drug while off duty "...in circumstances such that the employee's work performance may be adversely affected....[including] carry-over or hangover effects of an Illegal Drug which may affect work performance." It prohibited the use of alcohol while on duty and required responsible consumption of alcohol during the 24-hours preceding a work shift. Possession or use of a medication without a legally obtained prescription was also prohibited. [Exhibit 10, Section 3.0]

41 The D&A Policy incorporated reasonable cause and post-incident drug and alcohol testing although it did not identify specific cut-off limits designating a positive test result. The Employer also conducted pre-employment drug and alcohol screens. The D&A Policy, updated in 2009, remained in effect at CRO until May 2012.

42 Employees found in violation of the D&A Policy were subject to disciplinary action and those who tested positive could face termination of employment at the Employer's discretion. In the event employment was continued, the Employer could impose "whatever steps are necessary or appropriate to avoid the risk of workplace impairment in the future". Such steps could include return-to-work periodic and/or random testing. [Exhibit 10, 6.0 (b)]

43 In her capacity as CRO's HR Superintendent, Robyn West supervised CRO's Drug and Alcohol Testing Program under the Employer's Health and Safety Department and oversaw the introduction of the mandatory random testing program in May 2012.

44 Ms. West testified about a number of specific incidents during her tenure which resulted in either reasonable cause or post-incident testing; episodes which she said contributed to the Employer's later adoption of the random testing program. These incidents included an employee whose employment was terminated upon testing positive under a post-incident test and another whose employment was terminated upon the discovery of the use of an adulterant in a urine test.

45 She described additional incidents which impacted upon the evolution of CRO's drug and alcohol testing regime. In 2010, a Plant employee who tested positive for methamphetamines, underwent an assessment and was determined to have an addiction. The employee completed a prescribed treatment program as well as a 24-month return-to-work monitoring program. Ms. West reported that the employee expressed gratitude for the support received from the Employer.

46 Ms. West recalled another employee who was chronically late or absent from work and who had declined assistance under the Employer's Employee Family Assistance Program ["EFAP"] a number of times, leading to termination of his employment (date not stated). Although she initially testified that she believed that this employee was an alcoholic, she admitted that she could not recall whether that belief was factually accurate or not.

47 Another incident concerned the discovery of a baggie of methamphetamine on the meeting room floor at Cheviot Dry. Ownership of the baggie was suspected but never determined. In March 2011, the Employer responded with a workplace presentation on Crystal Meth delivered to all employees by area superintendents. On the basis of an anonymous call, a CRO employee BUE #13 was interviewed and asked to undergo a drug test. The employee tested positive for methamphetamine. A subsequent assessment confirmed this employee suffered from an addiction. Following treatment, the employee declined the opportunity to return-to-work on the conditions set out in a Monitoring Agreement. According to Ms. West, this incident was a "big one" in CRO's decision to volunteer as the first Teck Coal site to adopt random testing.

48 Ms. West also identified reports generated by the police, hospital and news agencies which noted a prevalence of drugs and/or alcohol use in the local community as a factor in the Employer's eventual decision to adopt random testing as a deterrence measure.

49 Other CRO managers testified about their knowledge and experience with drug and/or alcohol use or suspicion of use at CRO and at other mine sites prior to the Employer's introduction of its random testing program, some of which include the following:

- Location/Date not provided: An employee reported finding a Ziploc bag of several " $^{3}/_{4}$ inch long blue pills" on a dash, which Ross Wilson understood to be "diet pills". Mr. Wilson was unable to say by whom or what process was used to determine that the pills found were indeed diet pills. Nonetheless finding these pills was a concern because it suggested that someone was improperly using diet pills to stay awake. This incident caused the Employer to focus on the impact of fatigue upon workers resulting in the introduction of strategies to combat fatigue in the workplace.

- October 27th, 1999: During the final hour of a night shift, a collision occurred during which one haul truck rear-ended another, resulting in a fatality; an accident which Glen Ross described as "chilling" and "sobering"; representing what he described as one of the saddest days of his life. Toxicology investigations following the accident identified "...very recent substance use by the deceased, effects of which cannot be quantified by the investigator". [Exhibit 34, p. 05/12]. As a result of this incident, the Union and the Employer jointly created a formal Alcohol and Drug Policy in October 2000 [Exhibit 35].

• 2003 or 2004: A plant production foreman found what he believed to be marijuana in a desk drawer in the dryer panel control room. Ownership of the item was never established.

• August 2004: an employee reported the smell of marijuana in a haul truck under repair, perhaps out of a concern that the maintenance worker would himself be accused of using marijuana at the mine site. Glen Ross investigated but noted no unusual smell in the truck. Still, the incident raised a concern that perhaps there was drug use at the site. A day or two later, a member of a maintenance crew told Mr. Ross he saw someone "toking up" outside of the warehouse but refused to identify the person out of fear of repercussions. Mr. Ross responded by making a presentation to members of the Maintenance Crew about reports of drug and alcohol use and workplace expectations. During the presentation, Mr. Ross said he made comments that he hoped would deter drug/alcohol use [Exhibit 33].

• May 2008: a wash-bay attendant fell off of a ladder during a night shift. The subsequent investigation concluded that human error factored into the incident and the employee was required to undergo a post-incident test, which was positive for an illegal drug although Mr. Ross could not recall what drug was identified. Mr. Ross believed the employee resigned thereafter.

• September 2009: a wash-bay attendant drove through a red light and was involved in a near-miss incident on his way to the Cheviot Pit. It was determined that human error factored into the incident and the employee was asked to undergo a post-incident test; which was positive for THC. The employee was suspended pending further investigation. The employee ultimately remained off work on a WCB claim; whether or not there was any causal connection to the incident was not identified at the hearing.

• Date not provided: a captain of the Mine Rescue Team had a negative drug/alcohol test but disclosed to Glen Ross that he used marijuana for back pain. For that reason, Mr. Ross could not allow him to return-to-work. Human Resources sent him for an assessment. This employee signed a Return-to-Work Agreement but subsequently resigned. Mr. Ross stated that given his important role on the Mine Rescue team, he expected this employee would be a safe worker.

50 In 2011 a review of the effectiveness of Teck Coal Ltd.'s existing D&A Policy throughout its Canadian operations was undertaken by members of its Senior Management Team ("SMT"). At that time, the D&A Policy limited testing to reasonable cause, post-incident and pre-employment situations. According to Glenn Campbell, Teck Coal Ltd.'s Director of Human Resources and a member of the SMT, the review established:

• D&A test results in the previous five-year period identified fifty employees involved in incidents at the various mines had tested positive for drugs.

• Drug paraphernalia and empty liquor bottles had been found on mine sites.

• A number of employees had voluntarily disclosed drug and/or alcohol problems and sought assistance.

• A number of employees had been identified in newspaper publications addressing drug/alcohol use in communities.

• Members of the RCMP had advised the Employer of an ongoing drug/alcohol problem both in Elk Valley and in Hinton.

• Approximately 30-40 applicants for employment failed the drug/alcohol screen each year.

51 Members of the SMT consulted with experts about drug and alcohol use and were informed that performance deficits could be created by the use, "carry-over" effects and/or withdrawal from drug and alcohol use.

CRO's Random Testing Program

52 The Employer accepted the recommendation of its consultants and, effective May 2012; it unilaterally implemented its universal mandatory random testing program at CRO. It did so in an effort to deter substance use, identify those who may have

a dependency problem and in doing so, reduce the risk of (and eventually eliminate) incidents, accidents and/or injuries in the workplace attributed to drug and/or alcohol use.

53 The Union, employees and contractors were provided with twelve weeks' advance notice of the implementation of random testing. Ms. West explained that this notice period was adopted to provide an opportunity for recreational users to "stop" and those with a dependency problem to seek assistance.

54 The random testing program was introduced to employees during Q1/2012 by way of a presentation entitled "Carry-Over and Long-Term Effects of Drugs" [Exhibit 30].

55 The Employer's Policy Objective in adopting random testing was announced via the presentation materials as follows:

> Employees to stop the harmful use of illegal drugs, alcohol and medications before they have an incident.
>
> Carry over effects of illegal drugs create an unacceptable safety risk.
>
> We want a workplace free from these risks.

56 Mr. Campbell explained the random testing program's focus was on "helping" rather than "disciplining" employees; noting that a positive test did not result in termination of employment, but in a referral to an addictions specialist for an assessment and support throughout any recommended treatment process thereafter, at Employer expense.

57 The Employer adopted a 100% random testing rate: meaning that in a year, the number of random tests scheduled should equal the number of employees at any given mine site.

Testing Protocols

58 In October 2011, Denise Thomson, a registered nurse, was hired as CRO's occupational health nurse. Earlier in her career, she had obtained her certification in urine/breathalyzer drug & alcohol collection and screening procedures and gained experience in the legislatively authorized random testing protocols in several Australian locations in which she had been employed. Upon her return to Canada, Ms. Thomson duly registered in her nursing credentials and obtained Canadian accreditations in drug testing and in alcohol testing through ECS Safety Services Ltd.

59 In her role at CRO, Ms. Thomson provided a variety of on-site nursing services and disability management functions for workers. She was tasked with the coordinating the Employer's drug and alcohol testing program in accordance with applicable Employer SP&Ps [Exhibit 7].

60 Ms. Thomson worked with the Employer's Health and Safety Manager in the development of the random testing protocols and procedures, including the selection of the testing laboratory, the adoption of the drug panel screening confirmation level cut-offs in use at CRO, set out in Exhibit 37, and the selection of the Medical Reviewing Officer (MRO). She explained that strict testing protocols were adopted in order to maintain the integrity of the collection process and the chain of custody of the testing samples.

61 Ms. Thomson provided the Board with a detailed description of CRO's testing process, summarized as follows:

- The selected individual is accompanied to the testing facility.

- The testing protocol for both an alcohol and a drug screen is explained and a consent form for both the breath test and urine screen is presented for signature [Exhibit 9].

- The chain of custody form for alcohol is completed by both the nurse and the individual. The breath test is administered. If the test result is over .02, a second (confirmation) test is required. A reading of .02 or more is a positive test result. The individual is asked to sign off on the test result. If the result is disputed or if the employee refuses to sign, the refusal is

recorded by the collector (nurse or a designated Loss Prevention Officer ("LPO"). Copies of the test result are provided to the Designated Employer Representative ("DER"), the HR Superintendent and to the employee.

• The urine screen follows the breath test. The washroom facility is prepared for the testing protocol. All materials are removed. A bluing agent is put into the toilet bowl; the water taps are sealed or shut off (to prevent dilution of the sample).

• A consent form is presented for signature. If obtained, the drug test proceeds.

• Any visibly bulky or layered clothing must be removed and pockets emptied; for reasons of both comfort and security, particularly to ensure that no adulterant (synthetic or other real urine, powders or other paraphernalia) is taken into the washroom to compromise the veracity of the test results. The individual is asked to "pat" him/herself down and then directed to enter the washroom to wash their hands to avoid adulterating the sample.

• A "tox cup" is provided to collect the urine sample. The individual is directed not to flush the toilet. The collector remains outside of the washroom but does not observe the collection of the sample itself. The tox cup is returned to the collector with the sample. A sample of 100 ml is required for the drug screen.

• If the sample is insufficient or if the individual is unable to provide a sample, a "shy bladder protocol" is instituted. The individual is provided with a specified amount of water and up to 3 hours to complete the drug test a second time. If the second sample is insufficient, the result is relayed to the DER, who assumes responsibility for further action.

• If a sufficient sample within a normal temperature range is obtained, it is split into testing cups (30 ml and 15 ml) with the remainder retained in the sample cup.

• A chain of custody form is completed. A preliminary screen is performed on site. The results can either be negative or non-negative.

• If non-negative for opiates, a Medication Protocol will be implemented. The employee will be advised that a substance has been detected in his/her urine and will be asked whether he/she is taking over-the-counter or prescription medication. If yes, the employee is allowed to return-to-work pending lab confirmation of the test result.

• If the on-site test sample is non-negative for THC, the employee is informed of the preliminary test result and the employee's supervisor and the DER are contacted.

• Urine samples are sent by courier to the lab for confirmation testing and review by the MRO. The donor's name is not disclosed on the sample. The MRO interprets the results of the drug screen. The MRO will confirm whether the test is positive or negative, but does not reveal the concentration level of any substance identified in the sample in the event of a positive or a negative test result; only whether the sample was above or below the "cut-off" established under the Employer's testing protocol. Positive results are disclosed to the nurse or to the HR Superintendent for further action.

• The collector's role in the testing protocol is concluded.

62 Ms. Thomson explained that the nurse's role may continue in the event of a positive test result, which might include making arrangements for an assessment or for substance abuse counselling, responding to employee questions or overseeing compliance with a Return-to-Work Agreement ("Monitoring Agreement").

63 In overseeing a Monitoring Agreement (which expressly provides for unannounced testing), Ms. Thomson would determine at her discretion when an employee would be required to undergo "unannounced testing". In doing so, she was not required to consult with anyone in arranging for an unannounced test nor were there any guidelines in place regarding the timing of unannounced tests. Rather, Ms. Thomson testified that it was often a question of manpower; meaning her availability to conduct the test.

64 Test results were compiled on a monthly basis and provided to the HR Superintendent.

65 Mike Barrie replaced Robyn West as CRO's HR Superintendent in October 2013. He testified at length about his duties, responsibilities and experiences in connection with the implementation and operation of the Employer's random testing policies and protocols, primarily while based at CRO. Those duties involved administering the random testing program, identifying, assessing and implementing approved corporate and site specific policies and protocols and related amendments; and implementing approved drug and alcohol testing processes, follow up testing and monitoring protocols and various training and communication initiatives.

66 Early in his new role, Mr. Barrie oversaw a number of changes to established random testing protocols which, he explained, were necessary to improve confidentiality and strengthen the application of deterrence measures within the alcohol and drug testing process.

67 To assuage any concerns about possible "targeted" testing (whether by name or by date), CRO outsourced the scheduling of random tests, thereby reducing the number of Employer personnel with knowledge of who and when individuals had been selected for testing. Randomly generated names and dates for testing of selected CRO personnel were forwarded to Mr. Barrie and to the HR Advisor on a weekly basis, placed in sealed envelopes identified only by testing date and stored in a locked box in the Safety Department. Thereafter, the secured envelopes were accessed only by the Loss Prevention Officer ("LPO") assigned to conduct the testing on the scheduled date. Supervisors were contacted by the LPO and asked to accompany identified personnel for alcohol and drug testing to the testing facility.

68 Another procedural change resulted in the elimination of established fixed time testing (at the start of a shift) in favour of testing at any time during a scheduled work shift. This step was intended to function both as a deterrence measure, generated by the uncertainty of when a random test might be scheduled (date and time), and as a mechanism to enhance the privacy of those selected for testing by eliminating the noticeable "hold back" of all those scheduled for testing at the start of a shift. He conceded that although the new procedure was less visible and less obvious, whenever removing an employee for testing during a shift did not guarantee anonymity from other members of the crew.

69 A number of corporate level changes to drug and alcohol protocols applicable throughout Teck Coal sites were also implemented, the most significant of which was the Employer's response to a non-negative test result for opiates.

70 The Employer's initial response to a non-negative site result, regardless of the category of drug tested (cocaine, THC, amphetamines, methamphetamines and opiates), was to send the employee home, with pay, pending the outcome of the lab confirmation test. However, over time it became evident that a significant number of lab confirmation tests for opiates identified prescription or over-the-counter medications. After consulting with medical advisors, the Employer revised its approach to opiates some 15-18 months prior to the hearing. Thereafter, employees with a non-negative test result for opiates were asked whether they were taking any medication and if so, whether they were taking the medication as prescribed. If an employee responded affirmatively to both questions, the employee was no longer sent home but was instead permitted to return-to-work pending the outcome of lab testing. This change in protocol was intended, in part, to balance the privacy/confidentiality issues associated with employee disclosures regarding medication use arising from a non-negative test result.

71 In the event that a lab confirmation test contradicted the employee's explanation (identifying a mis-use of prescribed or over-the-counter medication or by the use of an opiate other than a medication), the positive test protocols set out in the random testing policies would then be initiated.

72 This revised non-negative opiate protocol was subsequently adapted for use with amphetamines once a preliminary lab confirmation test was positive for medication. In the event of a subsequent non-negative result for amphetamines where a current use of the same medication was disclosed, the employee was permitted to return-to-work pending the lab confirmation result which, in turn, would determine whether any additional steps were indicated.

73 CRO's testing protocol obliged the LPO to inform Mr. Barrie of a non-negative site test. Once informed, Mr. Barrie would contact the employee to outline next steps, both in the lab confirmation process and thereafter. In doing so, it was his practice to specifically address whether the individual would be permitted to return-to-work, or not; referred for assessment, or

not; determine eligibility for paid leave or Short Term Disability ("STD") benefits, or not; and the consequences of agreeing to participate in the random testing protocols, or not.

74 As described above, the revised protocol in the event of a non-negative test result for opiates or amphetamines would, in some cases, permit an employee to return-to-work pending receipt of the lab results. If the lab test confirmed appropriate medication use, the employee simply continued working regular duties as scheduled and there ended the matter.

75 In all other cases, employees with a non-negative result would be escorted home and placed on paid leave.

76 If the lab confirmation test was negative, an unconditional return-to-work was authorized. However, if the confirmation test proved positive for non-permitted drug or medication use, the employee would be referred for an addictions assessment. At that point, the employee was eligible for STD benefits of $700.00/week while participating in the process.

77 To achieve reinstatement to usual job duties, the employee had to commit to following any and all treatment recommendations identified during the assessment process, if any, and agree to undergo unannounced testing for a minimum period of 24 months following the return-to-work. The return-to-work conditions were incorporated into a Monitoring Agreement.

78 Employees who refused to submit a breath/urine sample were removed from the workplace, placed on unpaid leave and referred for an assessment. A refusal to participate in an assessment would result in termination of employment. As such, Mr. Barrie conceded that notwithstanding the express policy provisions for Illegal Drug Use [Exhibit 5, page 2 of 7, clause 3], those who refuse to take a drug test authorized by the policy are not treated as if under positive test protocols but, rather, are subject to entirely different consequences.

79 Employees whose employment has been terminated as a result of failing a post-incident or a demand test are, in theory, eligible for re-hire. However, Mr. Barrie was unable to recall anyone outside of the grievance process whose subsequent application for re-employment had resulted in a job offer.

Drug and Alcohol Testing Experiences at CRO

80 A number of members of CRO's bargaining unit gave evidence at the hearing about their experiences with CRO's random testing program. Given the privacy issues identified in this grievance arising from the requirement that bargaining unit employees submit for random, unannounced testing and provide breath and urine samples on demand, some of those experiences are set out in some detail below.

81 *BUE#1* has been employed by CRO since 1982. He was 63 years old when he testified at the hearing. He works a twelve hour day shift alone in the Maintenance Shop. Coupled with personal travel to the mine site, he estimated that his work day was usually 13-14 hours. After more than three decades with CRO, his disciplinary record is exemplary. BUE#1 said that he does not take illegal drugs and has never been impaired by drugs or alcohol at work. Prior to the Employer's introduction of random testing in May 2012, he had never been required to undergo either a reasonable cause or post-incident drug or alcohol test. As of the date of his attendance at the hearing, he had twice been required to submit to a random test.

82 BUE#1 described his experience with the random testing process. He said he learned that he had been selected for his first random test when his foreman patted his arm and said, "come with me". The foreman accompanied BUE#1 to the testing site (trailer). When he arrived at the trailer, he recalled that a number of Loss Prevention Officers (LPOs) were present as well as some other employees who were leaving the testing area. He was directed to a small office with a lady (LPO) whom he did not know who conducted the alcohol and drug tests.

83 At the time, BUE#1 was taking prescribed medication. The testing protocol was explained to him. Because he had never before been subjected to testing, he estimated that he missed half of the LPO's explanation. He was given some forms and felt that he had "no choice" but to sign the papers because he thought that if he refused it would signify that he was "guilty", and that he would be sent home and fired. He said that he felt essentially blackmailed into signing the forms.

84 An alcohol test was conducted (breathalyzer). BUE#1 blew and his result was "ok". Next the drug test was conducted. Before the test he disclosed to the LPO that he was taking prescribed medication [Tylenol 3 for a recurring work-related injury], and announced that he felt that he would fail the test. The LPO explained that if his use of medication was legitimate, all would be "ok". He was required to empty his pockets and pat himself down. He said he felt like he was in jail. He was required to select a beaker and go to the washroom. He found everything duct taped in the washroom. He urinated and returned his sample to the LPO. As expected, he tested positive on the site drug test, an outcome reported to Ms. West.

85 BUE#1 was sent home with pay. He remained away from work for three weeks thereafter. While at home, he was contacted by the MRO who asked him to provide proof that his medication was prescribed. He did so. About a week later, BUE#1 was authorized to return-to-work. No assessment was conducted upon his return; he went straight back to work in the machine shop.

86 BUE#1 explained that he felt "somewhat ticked off" after the first random test, which he described as an invasive procedure. He said the person who conducted the test was the age of one of his grand-daughters. He felt that the process was not dignified.

87 In BUE#1's view, having to undergo a random test at the age of sixty-three, after more than 30 years of service to the Employer, caused him to wonder why, never having used drugs in his life, the Employer now needed "some proof".

88 In October 2013, BUE#1 was selected for a second random test. At that time, he said that there were rumours on the floor about testing although he did not disclose the nature of those rumours. On this second test he described himself as more agitated and frustrated by his selection. He again felt blackmailed into signing the papers or be "gone". He completed the alcohol test. He was sent to the washroom for a urine sample and was told to wash his hands. He felt insulted at being asked to wash his hands. He did the test. He was told to wash his hands again. In BUE#1's words: "My mother learned me not to pee on my hands." He explained that he was more upset than anything else. He felt like a criminal.

89 BUE#1 described his feelings about being selected for random testing:

> When they come to take you, it spreads like wildfire — we are like an "old ladies club" — everyone knows you went for testing, they're talking about it, complaining about it. I was more agitated after the second test. Again, I felt insulted — I had taken the earlier test and "showed you that I'm not a drug addict". Now they ask him again.

90 *BUE#2* was 59 years old and had 38 years of mining experience, both at the Employer and elsewhere, at the time of the hearing. He had been employed at CRO for the past nine years as a shovel operator. As with many others, he started in mining as a truck driver, both at the Pit and at the Plant, hauling coal and waste rock. As a shovel operator tasked with loading the trucks, he worked twelve hours a day, rotating day and night shifts on a four days on/four days off schedule. He estimated that 30-35 people worked on his shift.

91 Although he had not been disciplined for safety violations at CRO, he testified that he had twice been asked to submit to a post-incident drug and alcohol test (2006, 2010); both of which were negative.

92 On November 21 st , 2013, BUE#2 was selected for a random test following the monthly safety meeting. His foreman informed him, "...it's your turn". BUE#2 refused to undergo the random test. He was advised that a refusal to test would require that he undergo an assessment and once deemed fit to return-to-work, he would be subject to additional drug and alcohol testing "whenever"; something he felt was equivalent to having "no rights" whatsoever. He was driven home by Human Resources personnel. He was not told to return-to-work. His employment was terminated by letter dated December 9 th , 2013 [Exhibit 11].

93 BUE#2 explained that he would not have gone for an assessment. He refused because he felt the test was "stupid, degrading and not right" for someone who does not do drugs or alcohol at the worksite. He was not concerned that he would have tested positive.

94 *BUE#3* was 53 years old and had been employed at CRO for 25 years as a crane operator and as a heavy duty mechanic when he testified at the hearing. His duties fluctuated between these roles as circumstances dictated. As a crane operator he

worked at the Cheviot mine site, referred to as the Pit, where coal is extracted. His duties as a heavy duty mechanic were also largely performed in the field. He worked twelve hour days, on four days on/four days off schedule.

95 During his career at CRO, BUE#3 had never been disciplined for misconduct. He has been a member of the Mine Rescue Team for fifteen years. Upon joining the team he participated in a mine rescue course and undertook recertification testing every couple of years. The team practiced once a month to better respond to incidents on site. BUE#3 was also a designated representative under the Employer's Employee Family Assistance Program ("EFAP") and assisted employees in accessing resources available through the program.

96 In September 2013, BUE#3 was involved in an incident while operating a crane. While backing up he unknowingly drove over an 8 ? 8 block of wood which was within a mound of dirt and snow, causing damage to the crane. He said he should have first confirmed that the proposed path of travel was clear. He reported the incident to the shop foreman. It was determined that the incident warranted a post-incident test, which was negative. He resumed his duties immediately thereafter.

97 As of March 5 th , 2014, BUE#3 had been selected for random testing on four occasions since its introduction at CRO in May 2012.

98 On the first occasion, he recalled that he was in the lunch room when informed that he had been selected for a random test and was escorted to the nurse's station. Present at the test was an LPO and another female whom he could not identify. He went through the testing procedure. He recalled signing a paper, verifying that the information was correct. He patted himself down. He provided a breath sample and then a urine sample, each of which was negative. He returned to work.

99 BUE#3 said his other three random tests followed essentially the same protocol but with different people present on each occasion. When undergoing random testing he occasionally ran into other employees who were waiting outside of the nurse's station. Taking the random tests made him feel as though "they don't trust you". He explained that he likes doing his job. Being required to take the random rests was also an inconvenience as it interrupted and interfered with the performance of his duties. He testified he does not take illegal drugs and has never been at work while impaired by drugs or alcohol.

100 On the day of his testimony, *BUE#4* was 51 years old and had been employed at CRO for approximately 21 years in a variety of positions in the Shop, in the Plant and at the Pit. In his current position as a control room operator in the Plant, he was charged with monitoring the coal processing process from its arrival at the Plant through to its end product. As in the case of many other CRO employees, BUE#4 worked a 4 days on/ 4 days off schedule, alternating between days and nights on a twelve hour shift rotation. Although he worked alone in the Control Room throughout his shift, he routinely communicated with others in the Plant via radio.

101 *BUE#4* has neither been disciplined for safety violations nor subjected to either a post-incident or a reasonable cause drug or alcohol test during his years with the Employer. Since the introduction of random testing, he has been tested on three occasions.

102 On the first occasion, BE#4 recalled that the general foreman came into the Control Room with a relief worker and discreetly asked him to accompany him "to check something". Once alone, he was informed that he had been selected for a random test and was escorted to the nurse's area. Upon arrival at the testing area a LPO, the nurse (Ms. Thompson) and the general foreman were present.

103 He said he felt "uneasy" about undergoing a drug test at the time because he had been prescribed medication and was concerned that he might test positive as a result. He was aware that people who tested positive were sent home pending the outcome of the laboratory tests. He was concerned how it would "look" once other employees became aware that he had been sent home without knowing all the facts; particularly since a positive result in his case would not signify use of illegal drugs. For these reasons, he concluded that it was better to refuse the random test and have the matter sorted out later.

104 BUE#4 recalled there being some confusion as to next steps once he refused the test. He said that everyone was "really good about it" when he explained his reason for refusing the test. After discussions with Employer and with Union personnel,

he decided to take the test and returned to the nurse's station with the LPO. The test results were negative. He returned to his usual duties.

105 A similar format was followed for his other two random tests. On September 25th, 2013 he complied with the request to test but felt he was likely to fail the drug test because he had taken prescription drugs (with codeine) for back pain the night before. As anticipated, he tested positive for opiates. He completed a form disclosing the nature of his prescribed medication which he was told would be sent to the laboratory with his sample. He was informed that he may be contacted by the laboratory for additional information. He was then permitted to return to his regular duties. He was never contacted by the laboratory. On January 30th, 2014 he was selected for a third random test. Although the notification was discreet, he was upset at having been selected so soon after the second test. Nonetheless he took the test, which was negative.

106 Being selected for random tests had caused BUE#4 to feel uneasy and "on the spot". When first selected he accepted it as he understood that random testing was before the Courts. By the third test, he described it as "almost harassment". BUE#4 neither smokes marijuana nor uses other illegal drugs and testified that he has never been impaired at work by alcohol or drugs.

107 *BUE#5* was hired in March 2010, first as a loader, then as an operator and, since August 2013, as a Pit utility worker. In that position she performs a variety of duties which include delivering supplies and operating equipment as circumstances dictate. She summed up her role as doing "....anything they need for their 4 days on". She works 12 hour shifts on 4 days on/4 days off schedule, rotating between day and night shifts, and reports to the shift supervisor and to the general foreman. She is also a member of the Mine Rescue Team.

108 BUE#5 had been disciplined for a safety infraction prior to the implementation of random testing, for operating a water truck without releasing both safety brakes during a night shift. In August 2012, she noticed a burning smell which she promptly reported to her dispatcher. An investigation into the incident revealed that it was "operator error". As a result of this incident she was required to take a post-incident drug and alcohol test. She was accompanied to the First Aid Room at the Main Shop by the shop steward and the general foreman. A male LPO conducted the testing while the general foreman stayed in a waiting room. At the time of the test, BUE#5 was in the second day of her menstrual cycle. She was embarrassed at having to present her urine sample because it contained discernible blood and blood clots. She was then informed that there was a "temperature problem" with her urine sample and was asked to provide a further urine sample. This second sample also proved to have a "temperature reading problem", causing her further embarrassment. She said that the LPO was aware of her embarrassment and chose to keep her second urine test. She was not asked to provide a further sample.

109 For one who is not easily embarrassed, BUE#5 found the experience degrading. She recalled that both the shop steward and the general foreman were upset by her experience and contacted Human Resources and the health nurse in the middle of the night, who in turned contacted the Operations Superintendent. She was permitted to complete her shift on another water truck without incident. Although informed that the brake issue on the water truck was her error, she was not suspended as a result of the incident.

110 BUE#5 was required to take a further post-incident test when she made contact with a shovel while operating a dozer truck on night shift. Again, it was BUE#5 who reported the incident. Once it was determined that the incident was caused by operator error, she was required to undergo a post-incident test, which was negative. She was permitted to return-to-work thereafter.

111 BUE#5 did not like having to provide urine samples in these circumstances but accepted the legitimacy of post-incident testing because she recognized that she was at fault for the incidents.

112 She was also selected for random testing. She recalled being informed at one of the crew's morning meetings of the Employer's decision to implement random testing in May 2012. Since then, she has been subject to random testing several times. The testing protocol of each "selection" was similar: following the morning meeting the foreman had requested that she "stay back"; a term which she understood meant that she had been selected for random testing. She usually waited in the meeting room along with the other employees (usually 3) who had also been selected for random testing. They would proceed

individually into the trailer outside the Dry where they were met by the LPO. Each time BUE#5 has been selected for random testing the test result has been negative.

113 BUE#5 found the random testing experience a little degrading. She explained that she is only trying to earn a living. She has not smoked marijuana since she commenced employment with the Employer and has never been impaired by drugs or alcohol at work.

114 The Union's President, Mr. Bish, identified a number of concerns with CRO's random testing program, one of which involved a refusal to test.

115 The Employer's protocol in the event of a refusal was to send the worker home pending the outcome of an addictions assessment (the "Assessment"), undertaken to determine whether or not the worker had a substance abuse problem. The results of the Assessment are communicated to the Employer and to the Union. As of the date of the hearing, no substance abuse or substance dependence problems had been identified among workers who refused to undergo a random Test. Rather, Mr. Bish was aware of Assessments which confirmed only that there was no indication of a substance dependence problem. Nonetheless, in order for workers who refused a random test to return-to-work, they are now subject to "enhanced conditions of employment" for a two year period. These additional conditions include a requirement that the worker be subject to "demand testing" at the Employer's request (in addition to reasonable cause, post-incident and random testing) for those assessed without a drug or alcohol dependency, and who are subject to termination of employment in the event of a further positive test. Re-employment is possible in the future, on conditions.

116 Mr. Bish also pointed out that Short Term Disability benefits ("STD") are payable under the Employer's insurance plan only to those workers who are disabled. Paid medical leave is a measure fully funded by the Employer which provides affected workers with financial relief while off work in the absence of a disability; such as while undergoing an Assessment. Mr. Bish said that he was aware that there had been positive drug test results since random testing was imposed in May 2012. Individuals who tested positive on a random drug test were placed on paid medical leave, sent for an Assessment and returned to work when authorized to do so under conditions identified by the addictions specialist. Such return-to-work conditions might include attending Alcoholics Anonymous or Narcotics Anonymous meetings.

117 Although Mr. Bish conceded that there are a variety of steps that could be taken to enhance safety in any given situation, he cautioned that any assessment of the reasonableness of any specific measure must properly consider all, and not just some, relevant factors. In his view, privacy concerns represent one such relevant consideration. He said that the intrusiveness of random testing must be weighed against safety interests. He described the feelings generated amongst bargaining unit members by the Employer's adoption of random testing when, in their view, it had no reason to mistrust them.

118 Mr. Bish agreed with a number of theoretical situations put to him: smoking marijuana immediately before coming to work would be a concern; showing up for work with a blood alcohol level over .04 would be a concern; finding drug and alcohol paraphernalia on Employer premises would be a concern; and that a positive post-incident test would be a concern. However, in Mr. Bish's view, before resorting to random testing, it must first be established that there is a sufficient problem to warrant the adoption of such an intrusive policy in the first place and the evidence of the "problem" at CRO, in his view, is lacking.

Random Testing Results

119 In 2013, CRO had three hundred and forty hourly employees and 100 staff.

120 Drug and alcohol test results are compiled at each mine site, forwarded to Mr. Campbell's office and synthesized into charts which set out site-specific test results; coded blue for employees, green for contractors and visitors, and orange for aggregate test results. Random testing at other mine sites other than CRO was implemented on January 1 st , 2013. With respect to drug test results, although the total number of site non-negative tests *should* equal the number of lab confirmed positive and lab/MRO confirmed negatives; the charts do not always demonstrate this result. Mr. Campbell was unable to explain identified

discrepancies. While the differentials do not appear to be significant, they were not explained. Copies of the charts generated for 2012 and 2013 were provided to the Board. [Exhibit 45(a) and (b)]

121 In summary, of the four, 236 random tests scheduled at all sites in 2013, there were 21 refusals, 184 non-negative results at site and sent to the laboratory for confirmation testing; 71 of which were positive and 108 were negative (inclusive of non-negative results determined to be medications). In theory, the site non-negatives should equal the lab positives and negatives. In this case, they do not; the differential is 5 (184 less 179).

122 2013 CRO employee drug and alcohol testing results are set out in Exhibit 45(b). Of the *320* random tests scheduled, 35 were site non-negative (including 3 refusals) and sent for lab testing. The lab/MRO identified 12 positive and 20 negative test results. Of the 24 post-incident tests conducted in 2013, none were positive for drugs or alcohol. No reasonable cause tests were conducted at CRO in 2013. In total, 12 of the 344 drug and alcohol tests conducted at CRO in 2013 were confirmed positive and there were 3 refusals.

123 The Employer also produced random testing data related to CRO in Exhibit 29. At page 2 are the aggregate results of the *374* random alcohol and drug tests conducted on "employees and contractors, visitors" at CRO in 2013. Of those random tests, the chart indicates there were 14 lab confirmed positive drug tests, 2 site alcohol positive tests and 3 refusals. Extrapolating from those named in the chart [names intentionally redacted], excluding the names of contractors and members of management who tested positive, it appears that 8 members of the bargaining unit had positive random tests in 2013; one of whom had 2 positive tests.

124 For 2014, page 2 of Exhibit 29 sets out CRO's aggregate random testing results to March 2014. Of the 104 random tests conducted, there were 5 lab confirmed positive drug tests, 1 site alcohol positive and 1 refusal. Again, extrapolating names disclosed on the chart it appears that 1 member of the bargaining unit tested positive for alcohol and 2 tested positive for drugs. One test rest was described on the chart as "not sent". Thus it would appear that 3 of the 104 positive random tests are those of members of CRO's bargaining unit.

125 While the chart results set out in Exhibits 29 and 45 are not identical, for the purpose of assessing the existence and/or nature of a drug or alcohol problem at CRO, in my view the differential is not of any particular significance.

126 Mr. Campbell believes that the Employer's adoption of random testing has directly resulted in a safer workplace; a sentiment echoed by other Employer witnesses. In his words:

> If there were only a very, very small percentage of people using drugs or alcohol in a manner adversely affecting them in the workplace, [random testing] is still worth it...given the safety-sensitive nature of our workplace.

V. Expert Witnesses

127 One expert gave evidence on behalf of the Union, Dr. Scott Macdonald. Four experts testified on behalf of the Employer, Drs. Francescutti, Kadehjian, Beckson and Li.

128 The dispute amongst the experts is not about the safety risks associated with *impairment* in the workplace. All agree that being "under the influence" of drugs or alcohol in the workplace is properly prohibited. Rather, the dispute focuses on the justification, or lack thereof, for the imposition of "no cause" random testing as a component of a multi-faceted safety program designed to manage, reduce or eliminate workplace risk at CRO.

129 A great number of days were dedicated to the evidence of these experts, the "summary" of which necessarily explores the foundation upon which the various opinions rest, as detailed below.

130 While the evidence of all of the experts was helpful and informative, for the sake of organizational expediency, I have combined the evidence of two of the Employer's experts to avoid undue replication, those of Drs. Kadehjian and Beckson. The evidence of the two epidemiologists who participated in the hearing, Drs. Macdonald and Li, is set out consecutively for ease of contrast and assessment.

Dr. Scott Arthur Macdonald

131 Dr. Macdonald is an epidemiologist who has been employed at the University of Victoria as Assistant Director, Centre for Addictions Research since 2005 and as an assistant professor at the School of Health Information Science (2005-2008), and as a full professor thereafter. After a robust examination of his credentials, he was qualified by the Board to give expert evidence on the role of substance use in injuries, drug testing in the workplace and workplace health, harm reduction, program evaluation and alcohol policy; each from an epidemiological perspective. His curriculum vitae, report of February 21st, 2014 and reply report of March 10th, 2014 were entered as exhibits 46, 47 and 48 respectively. Dr. Macdonald's extensive reference materials are found at Exhibit 49, Vols. 1 & 2, [Tabs 1-91].

132 As a social epidemiologist, Dr. Macdonald's practice areas have focused on the study of how social conditions, such as drug and alcohol use, the influence diseases and injuries in society and, more particularly, in the relationship between drug use and performance through the application of both the descriptive and analytical branches of epidemiology; the former addressing rates and proportions of diseases in a population, the latter examining risk factors which may be associated with the disease under examination.

133 The Board was informed (and accepts) that sound methodology in conducting research into these issues and in interpreting acquired data is essential to the reliability of stated conclusions. Thus an assessment of the methods applied in conducting research was characterized as an essential element of Dr. Macdonald's research evaluations, as epidemiological design and data collection flaws could bias reported results which, in turn, would necessarily impact upon the integrity and validity of conclusions reached in varying degrees.

134 Dr. Macdonald's opinions are based upon the preponderance of the evidence set out in comprehensive literature reviews (including his own research studies) as set out in his report and reply; opinions which were subject to a rigorous cross-examination over a 2 day period.

135 Dr. Macdonald did not dispute that individuals under the acute effects of drugs or alcohol [being "under the influence"] suffer performance deficits and represent an increased safety risk in the workplace, and elsewhere. Accordingly, he agrees that "using" in the workplace represents an increased risk of performance deficits and impairment in the workplace creates enhanced safety risks. Dr. Macdonald also agreed that a dependency on drugs or alcohol is a problem and can affect performance or influence injury risk, as can any withdrawal or hangover effects of heavy long-term chronic cannabis or other drug or alcohol use. He acknowledged that many human factors can create a risk of impairment in perception and response and agreed that managing the risk of impairment in the workplace is "good management".

136 In Dr. Macdonald's view, the real dispute relates to the *risk* of performance deficits associated with a positive test result as opposed to establishing actual impairment in the workplace.

137 He agreed that in managing risk, the reasonableness of workplace safety measures adopted in response to identified safety risks must be assessed. In assessing the reasonableness of CRO's drug testing program, he accepted that one must look at the risk of workplace injuries "*from drugs*" as compared to those Employer measures adopted for other identified risk factors of similar or equal risk: such as from fatigue, depression, nicotine withdrawal or risk-taking behaviours; each of which might be related to an increased risk of accidents or injuries.

138 Dr. Macdonald was of the opinion that the Employer has done a "pretty good job" of establishing a safe work environment, reflected by its very low injury rate as compared to those of many other sectors.

139 Having regard to these factors, Dr. Macdonald's evidence is summarized below.

Alcohol

140 The Breathalyzer's accuracy in detecting concentration levels of alcohol is a very good measurement device for assessing impairment and associated safety risks as there is a strong dose-response relationship between higher blood alcohol concentrations ("BAC") levels and performance; the risk of being in a crash rises exponentially with a person's BAC level.

141 From an epidemiological standpoint, an odds ratio of injury/accident between one and three is considered a "weak effect". At BAC levels of .02 (Employer alcohol testing cut-off), the adjusted relative risk estimates of a crash is 1.03. In other words, it is Dr. Macdonald's opinion that a BAC of .02 is not meaningfully associated with an increased safety risk. At the same time, he conceded that CRO's introduction of a .02 BAC level reduces the risk of impairment at work due to alcohol, whether through deterrence, assistance or a combination thereof.

142 Dr. Macdonald also pointed out that in the studies that looked at crash risk at different BAC levels, a "dip" had been identified [apparent protective factor] at .02 [*Blomberg* study and its reference to the *Borkenstein* study [Exhibit 49, Vol.1, Tab 2] as well as in a number of experimental studies]. He said that these studies did not find an impairment effect at BAC .02. Dr. Macdonald explained that the relationship between BAC levels and impairment it is not simply a linear one but, rather, an expediential or cubic relationship (very minimal effect at first which rises very rapidly with greater alcohol consumption).

Illegal or Prescription Drugs

143 In the Canadian workplace, urine is the most common fluid that is tested for drugs. Drug testing is useful for detecting drug users. Neither form of urine testing (immunoassay (site) and gas chromatography/GCMS (laboratory) identifies impairment; rather, only past use or exposure to a drug.

144 In Dr. Macdonald's opinion, urine testing is not a valid detector of performance deficits or a valid indicator of safety risk. Having reviewed the literature, he found no studies which have established a causal relationship between urine concentration levels and performance deficits; but rather demonstrated the converse [*Longo*, Exhibit, 49, Vol.2, Tab 53; *Movig*, Exhibit 49, Vol.2, Tab 66; *Li et al*, Exhibit 54, Tab 17]. For that reason, he opines that drug-recognition experts are superior to urine drug test results in measuring impairment and performance deficits associated with safety risks.

145 It is the active ingredient of cannabis ("THC") and not its metabolized by-product ("TCH-COOH") that affects performance. The presence of THC is detected in *blood* tests and not in urine tests. The preponderance of epidemiological studies using blood tests have found that those testing positive for THC are more likely to be in crashes; no such relationship has been identified between urine testing and crash risk.

146 Dr. Macdonald acknowledges that detection periods for different drugs vary, as do the elimination periods of corresponding drug metabolites. However, in his view studies demonstrate that detection periods in every instance greatly exceed the acute effects of the drugs. [Table 1, Report, page 29]

147 In his view, the preponderance of the evidence indicates that hangover effect for cannabis is very slight or non-existent. Those studies which conclude otherwise suffer design flaws and noted that often such results can be explained by other differences between cannabis users and members of a control group.

148 There is no evidence in the drug testing literature that random testing is better than post-incident testing in creating a safer workplace.

149 Dr. Macdonald conceded that principles of deterrence do apply to random drug and alcohol testing; however, in his view that fact does not necessarily lead to a safer workplace. Worse yet, he opined, a positive random urine test result "catches" individuals who represent no risk at all but who are thereafter subjected to punitive mandatory interventions: mandatory assessment and unannounced testing (in addition to random testing) even for those determined to be without a dependency (recreational users) for up to 24 months.

150 From an epidemiological perspective, he stated that studies of raw data identifying reduced numbers of positive drug tests over time suggest a deterrent effect in the use of drugs associated with drug testing. For example, *Quest* data [Exhibit 49, Vol.2,

Tab 71] reported a drop in positive urine tests between 1988 and 2011 from a positivity rate of 13.6% to 3.5%, demonstrating a deterrence in drug use. However, Dr. Macdonald pointed out that a mere drop in the number of positive urine test results in the absence of corresponding research demonstrating that a decline in positivity rates signifies that fewer employees are impaired on the job or that workplaces in which random testing has been introduced are thereby safer, undermines any conclusions drawn from the "numbers". In his view, if drug use is a major cause of workplace accidents, one would expect that the percentage of employees testing positive after accidents would be much higher than those from random tests. The *Quest* random testing data 2009-2011 did not establish such a correlation. Rather it demonstrated that 5.3% of the general US workforce tested positive post-accident while random testing rates in those same periods were 5.4%, 5.3% and 5.2% respectively; indicating that reductions in positivity rates have not translated into fewer job accidents.

151 A comparison of *Quest's* random testing data for those in safety sensitive workplaces (1.5%) versus those in the general workforce (5.3%) indicates that drug use itself amongst those in safety sensitive workplaces/industries is significantly less than amongst the general workforce.

152 Dr. Macdonald did identify a differential using *Quest* data to compare odds ratios of positive post-accident and random tests of those in safety sensitive workplaces [1.53 and 1.73 respectively], While acknowledging a higher percentage of positive random tests, Dr. Macdonald opined that it is inappropriate to simply compare "crude odds ratios". Minimally, from an epidemiological standpoint, controls for such things as age, sex, occupation and risk-taking should be identified before correlating the odds ratios between post-incident and random testing.

CRO Testing Results

153 Dr. Macdonald then applied these principles and conclusions to the Employer's data of CRO's random and post-incident testing results set out in Exhibit 29.

154 Although Dr. Macdonald reiterated that comparing crude odds ratios is too simplistic (in this case yielding an odds ratio of 1); he opined that if urine testing had validity in terms of detecting performance deficits related to job incidents, one would expect a higher odds ratio. Instead, the CRO testing results (random: 2.9 and post-incident: 2.3) is equivalent to an odds ratio of .79. Restricting the analysis to the inception of random testing (May 2012), he pointed out that CRO had no positive post-incident test results (as of the date of the hearing); indicating that not a single incident at the workplace was related to a positive drug or alcohol-related test.

155 Based upon the epidemiological evidence available to date, Dr. Macdonald concluded that there is no or insufficient evidence to establish that drugs are a risk factor for accidents or incidents in the CRO workplace or that drug testing is effective in identifying and in reducing such accidents or incidents.

Epidemiological Study Design

156 Dr. Macdonald cautioned against simply accepting conclusions set out in epidemiological studies without first undertaking an assessment of the study design. The design flaws identified by Dr. Macdonald are set out in his reports, the most significant of which include:

- *use of ecological/aggregate data:* compares only crude odds ratios of groups and not individual data and fails to account for confounding variables that could better explain the results.

- *history of rival events:* other workplace safety programs incorporated along with the drug testing initiatives could explain/impact results. In the midst of multi-faceted workplace safety initiatives, one cannot conclude that the adoption of drug testing itself led to a reduction in job accidents. For example, the *Taggert* study [Exhibit 49, vol.2, Tab 80] identified an approximate 50% decline in workplace accidents following the adoption of drug testing, but without addressing confounding variables. Since the random drug testing program established a positivity rate of only 2.3%, that result did not correspond with the percentage decline reported by the author and therefore the reported decline in workplace accident

could not fairly or reasonably be attributed to the adoption of a drug testing regime. Other safety measures (such as educational, technological or training-related) must have had some impact in the workplace accident rates.

• *regression towards the mean:* smaller workplaces have higher variation in yearly injury rates; when rates spike, safety programs such as drug testing might be implemented. When rates go down, the reduction is often attributed to the new program. In the absence of statistical tests, the reduction may be related to other factors.

• *measurement error:* applying studies relating to a reduction of crash risk and per se alcohol limits to the adoption of drug testing programs is faulty. None of the studies reviewed by Dr. Macdonald looked at the critical measure of drug and alcohol-related reductions *after* a program was implemented.

157 Similarly, merely differentiating data into groups (pre-intervention, intervention and post-intervention periods) without accounting for confounding variables is problematic, rendering associated conclusions unreliable.

158 As illustrative of design flaw, Dr. Macdonald identified the *Wickizer* study [Exhibit 49, Vol 2, Tab 84]. This study evaluated the introduction of a 5 component drug testing program in a mining company in which injury rates were compared during three periods: pre-intervention, intervention and post-intervention, on the basis of the application of a number of assumptions particularly during the pre and post intervention periods. Although the study found a jump in injury rates between the intervention period (20.41) and the post-intervention period (50.22), even the study's authors acknowledged that *without knowing whether the company maintained or discontinued the drug testing program in the post-intervention period*, it is unreasonable to attribute the post-intervention increase in reported injury rates to a discontinuance of the drug testing program; such detail was lacking thus undermining the conclusions reached.

CRO's Injury Rate

159 Dr. Macdonald reviewed data compiled and summarized by the Employer the "Safety Stats for CRO for Past 20 Years" [Exhibit 43]. Dr. Macdonald concluded that its injury rate was "very low", as compared to the findings of a mining company in the *Wickizer* study and even as compared to non-safety sensitive workplaces. He noted that reported injury rates in the retail sector were "much, much higher" than those at CRO. Thus, he concluded that the introduction of random testing at CRO in such circumstances is of negligible benefit, commenting that even the *Wickizer* study reported that companies with low injury rates are unlikely to benefit from multi-faceted drug free programs.

160 In summary, Dr. Macdonald opined that neither CROs safety record or random/post-incident test results warrant the unilateral imposition of random testing; nor do its test results establish that the testing program has resulted in a safer workplace at CRO.

161 In response to questions concerning a number of epidemiological studies, Dr. Macdonald commented on the efficacy of various study designs. He accorded less weight to "case crossover" studies than to "case control" studies on the basis of recall bias. For example, in one study [Exhibit 52, Tab 5], injured people in emergency departments were used as their own control subjects (as opposed to having a comparison control group); tasked with reporting on alcohol consumption within the 6 hours (prior to an injury) and their alcohol consumption a week earlier, the results of which were then compared. In Dr. Macdonald's view, one's recall is less reliable over time; meaning participants were more likely to accurately recall recent consumption with greater accuracy, thus undermining the reliability of the data upon which the study's conclusions rested.

162 Similarly, "prevalence studies" [Exhibit 54, Tab 3, Tab 5] are not "accident risk" studies and therefore are less helpful from an epidemiological perspective in the absence of a comparative analysis between two groups [the study group and the control group] that account for confounding variables. Dr. Macdonald suggested that the information [data] obtained through a prevalence study might be used for control data, but that the weight of its conclusions is necessarily limited, again from an epidemiological perspective.

163 With respect to studies in which he and or others were involved [Exhibits 49, 51, 52], he reiterated a number of times that the *acute* effects of drugs and alcohol result in performance deficits, increases in collision risk and increases in safety risks.

Dr. Macdonald, however, disavowed reliance on the less weighty or rigorous studies which found, in particular, that residual effects of marijuana lasted for up to 24 hours. For example, he noted that Couper and Logan's (US) paper, *Drugs and Human Performance Fact Sheets* [Exhibit 51, Tab 5] failed to identify the evidence upon which they relied in attributing periods in which residual effects of various drugs are found, which Dr. Macdonald identified as a "big limitation".

164 In Dr. Macdonald's words:

> ...there is evidence as I've agreed with you this morning, probably one of the first things this morning, is the acute effects increases safety risks. When you go beyond that, then some people may be affected, other people may not be. We don't know the severity of the effects. The studies, the case control studies, using your analysis generally don't find any relationship between testing positive and safety risk. And that's the intervention that is being used. So, if you're using an intervention that is ineffective, that's a waste of time as well.

165 Unlike the Breathalyzer, urine testing does not measure impairment although Dr. Macdonald acknowledged that it is possible that one who tests positive could be under the influence of drugs. At the same time:

> ...there's a probability that you're not under the influence and again, if you look at all the case control studies that look at driver risk associated with cannabis that use urine tests to detect inactive metabolites, they don't find anything. So it has predictive validity.

166 Notwithstanding the Employer's adoption of its risk prevention modality, from an epidemiological perspective Dr. Macdonald opined that such a small effect size (CRO's employee population) will not demonstrate that the implementation of random testing caused any reduction in job accidents or created a safer workplace. Speaking to the reasonableness of the CRO's Random testing program, Dr. Macdonald, citing his own 1985 study, stated:

> Well, I think a lot of, the majority of people that test positive are not a safety risk and if you look at the strength of the effect size, maybe drug users as a group; if you look at the studies, they might be 2 times more likely to have a job accident, but if you look at other factors, relatively speaking, if you look at issues such as stress, fatigue, cigarette smokers, are also twice as likely to have accidents in the workplace. If you use the same criteria to, for other issues, you could find strengths of relationships that are just as strong, but I don't see companies implementing similar types of programs on cigarette smokers, on people experiencing stress, those experiencing sleep problems, right? So again it's kind of a relative thing. So you know I do wonder that the focus seems to be exclusively on drug use, yet the research is just as strong for a host of other factors.

The Effectiveness of Random Testing in Reducing Workplace Accidents

167 Dr. Macdonald refuted Employer expert Dr. Beckson's opinion that random drug testing *is* effective in reducing accidents in the workplace on the basis of the methodological limitations in those studies upon which Dr. Beckson relied in reaching the stated conclusion, which included the following concerns:

- *Effectiveness of mandatory alcohol testing programs in reducing alcohol involvement in fatal motor carrier crashes [2009]* Brady et al. [Exhibit 54, Tab 4]: limitation: use of imputed rather than actual data.

- *Workplace drug testing and worker drug use [2007]* Carpenter [Exhibit 54, Tab 7]: limitation: this is a study on deterrence, not accidents.

- *Cost-effectiveness of interventions to prevent alcohol-related disease and injury in Australia [2009]* Cobiac et al [Exhibit 54, Tab 10]: limitation: This is an Australian economic study looking at alcohol and not drugs.

- *Drug testing in the trucking industry: the effect on highway safety [2003]* Jacobson [Exhibit 54, Tab 13]: limitation: This is a very poor, fundamentally flawed study which categorized American states as "drug testing states" versus "non-drug testing states"; yet most the "drug testing states" implemented policies to *restrict* random testing. The results indicate that states which restricted testing showed a 10% improvement; a conclusion which does not support the stated premise. In addition, this study is not about the adoption of random testing.

• *Do drug-free workplace programs prevent occupational injuries? Evidence from Washington State [2004]* Wickizer et al [Exhibit 54, Tab 27]: limitation: study design fundamentally flawed in the classification of the groups, low quality study of little weight. Study in which the implementation of random testing was not mandatory; only optional; non-equivalent comparative groups.

• *Effectiveness and benefit-cost of peer-based workplace substance abuse prevention coupled with random testing [2007]* Miller et al [Exhibit 54, Tab 21]: limitation: conclusions not supported by the data: at the start of data collection, the study company had slightly lower injury rates than those in the remainder of the industry. After the implementation of the programs, the study company had slightly higher rates of injury. The effectiveness of the adoption of the random testing program is not discernible.

168 Dr. Macdonald also noted other limitations in a number of the studies identified in Dr. Beckson's report, some of which included "grey literature" [papers/presentations not generally available to the public] and a lack of hard data to support the stated conclusions [Exhibit 50, Tab 37]; non-analogous policies [zero tolerance policy not akin to the Employer's policies]; a power point presentation [Exhibit 50, Tab 13], the *Blencowe* study [non-analogous, use of oral fluid testing] [Exhibit 61(a) para. 243].

169 Dr. Macdonald was asked to comment on the reported conclusions in his 2010 study [Exhibit 52, Tab 12] *Testing for cannabis in the work-place: a review of the evidence* in which he stated, at page 412: "*...although no definitive conclusions can be drawn about the deterrent effects of drug testing, the preponderance of the research indicates that the proportion of employees who test positive most probably declines after implementation of random drug testing*". It was suggested to him that that statement was more strongly supported random drug testing that did his evidence during the hearing.

170 The results reported in another study cited in Dr. Beckson's report, *Gerber & Yacoubian* [Exhibit 61(a), para. 252], in which injury rates in the study sample reduced 51% within 2 years of implementation of drug testing were, in Dr. Macdonald's opinion, "unbelievable". He opined that the reported reduction was simply not a credible finding, particularly in contrast to the prevalence of positive drug tests at 10% reported in other studies. He further commented:

> *...this one* [the study] *I believe was a survey of companies and they asked them if they had a drug testing program or not and they asked them about injury rates at different points in time. In their study I believe they had something around a 17% response rate, again check — check my figures, but it was low, it was in that vicinity. Imagine getting a questionnaire about drug testing. Companies that feel very enthusiastic about their drug testing program and that feel that it has an effect on their workplace accidents are more likely to respond, so you're more likely to the get — the study is biased in my opinion — you're more likely to get companies who thought their program was successful.*

171 Dr. Macdonald did not dispute the "strong credentials" of another of the Employer's experts, Dr. Guohua Li, and was asked to respond to a number of Dr. Li's comments and opinions included in his reply report [Exhibit 53].

172 Commenting on the conclusions reached by Dr. Li in a 2011 report concerning the improvement of workplace safety with the adoption of drug testing [Exhibit 49, Vol 2 Tab 51], Dr. Macdonald took exception to Dr. Li's methodological data collection methods. These methods included the use of aggregated ecological data (similar to that which was used in the *Quest Diagnostics* data) in comparing job incidents and the results of post-incident and random testing. The absence of identified confounding variables such as age and sex, the limited sample size; the failure to include co-variates in a "case control study"; and the use of urine samples, in Dr. Macdonald's opinion, all challenged the validity of Dr. Li's stated results. Although the drug results were individually categorized by type of drug, Dr. Macdonald took issue with Dr. Li's election to "group" the data instead of creating odds ratios for the specific drug. Finally and importantly, Dr. Macdonald pointed out that an "association" does not itself establish a "causal" link; a positive post-accident test does not establish impairment at the time of the accident. For these reasons, Dr. Macdonald concluded that Dr. Li's study, having a number of design flaws, should be given limited weight.

173 Dr. Macdonald also disputed some of the conclusions reached by Employer experts Drs. Kadehjian and Beckson in his reply report [Exhibit 48], particularly any reliance on and application of studies of the *acute* effects of drugs and alcohol in the context of positive urine test results. In Dr. Macdonald's opinion, the weight of the literature establishes that urine tests do not

measure impairment and cannot be used to measure performance deficits. He reiterated that there is no established relationship between a positive urine test and crash risk and reiterated that the science does not support the Employer's expert opinions to the contrary which, Dr. Macdonald surmised, relied upon the results of lesser quality studies. He reiterated that the higher quality epidemiological studies looking at urine tests and safety risks find no relationship between them.

174 In weighing the opinions and conclusions of various authors set out in epidemiological studies and, in turn, the conclusions by the various experts rendered during the course of this hearing, Dr. Macdonald was asked to compare those expressed by medical experts as compared to those with degrees in such fields as psychology and sociology. He had this to say:

> *I would, well, let's put it this way: I've worked in the field for a long time, over 30 years. I've worked at the Addiction Research Foundation and the Centre for Addiction and Mental Health, and now the Centre for Addiction Research. We've had a lot of scientists, there's about 60 scientists doing this kind of research at the Centre for Addiction and Mental Health; many of them have* [a] *background in psychology. I'm not aware of anyone that has training to do research that has a background in psychiatry so I, certainly in the field of substance use and abuse, you come across many people...it's an interdisciplinary program and many people with backgrounds in psychology, sociology, epidemiology are the big ones....if you have training in methods and statistics, which psychology does, and typically sociology, there's a high degree of overlap between the two.*

175 He was also asked to respond to a number of Dr. Li's critiques, both specific and general, of the opinions and conclusions expressed in his report [Exhibit 47] and those set out in Dr. Li's reply report [Exhibit 53], some of which are set out below:

• Describing drug use in Canada as "rare" when the prevalence is over 10%; thus Dr. Macdonald's conclusion does not meet the conventional definition for rarity which, in epidemiological and statistics, would generally refer to events with a probability of occurrence near zero.

Dr. Macdonald explained that in his view where 90% of people are not using cannabis, that is a reasonable criterion for rarity; both in absolute terms and in comparison to alcohol use. Dr. Macdonald did not feel "quibbling" about words a useful exercise.

• The *Quest Diagnostics* (US forensic toxicology data) [1988-2012], "definitively" demonstrates that recreational drug users do represent a safety risk in the workplace; undermining Dr. Macdonald's conclusion to the contrary.

Dr. Macdonald expanded upon his earlier evidence about the evidentiary weakness in failing to address the absence of confounders and thus undermining such a blanket conclusion, as follows:

> *We know younger people are more likely to use drugs; younger people are also more likely to be in accidents. We know that males are more likely to be in accidents and also use drugs. So these are two variables that need to be controlled and in the analysis these are...what we call a bivariate analysis, looking at the relationship between two variables* [drugs or no drugs in relation to an incident or a random test (no incident)], *not taking into account anything else and, no, I disagree with this interpretation and I do. I must say I find Dr. Li a little bit soft on the issue of confounders in his studies. He's produced several studies where he hasn't addressed the issue of potential confounders or included them. They're typically included through multi-variate analysis where you control, take out the effect of being male, take out the effect of age and then see if there's a relationship between drug use and the incidents. Those are standard epidemiological approaches that Dr. Li, I'm sure, is aware of and I'm sure that he would agree with me.*
>
> *...once you enter in confounders into the model, the relationship between drug use and incidents disappears.*

• Dr. Macdonald's identification of only three variables to demonstrate causality in epidemiological studies is "incomplete and inaccurate" as academia and government agencies accept that there are nine variables.

Dr. Macdonald refuted this criticism, saying that Dr. Li had indeed adopted the three requirements of causality [suspected cause must precede the suspected effect in time, a statistical relationship two variables of interest must exist, and the

observed empirical relationship cannot be explained by a third variable], and then added "...some approaches that can be used to address these three requirements", which he thought were good and helpful.

• Dr. Li opined that epidemiology cannot prove causation with absolute certainty and that ultimately a subjective judgment made by epidemiologists and others based upon the evaluation and interpretation of existing evidence.

Dr. Macdonald disagreed and responded by explaining that where the preponderance of the evidence consistently shows very strong relationships between the variables [smoking and lung cancer, for example], that is enough evidence from which one can draw an objective conclusion, having adhered and applied epidemiological principles as a guide in weighing available evidence.

• Dr. Macdonald's conclusions are based on dated and highly selective studies and are not supported by the broad and up to date evidence base which he failed to include in his report.

Dr. Macdonald responded by saying that he considered studies using urine tests since it is urine testing that the Employer adopted in its random testing program. Accordingly reporting the results of studies using blood tests (and thereby looking at active THC and not the inactive metabolite identified in urine tests) is unhelpful.

For example, a review of one of Dr. Li's studies, *Drug use and fatal motor vehicle crashes: A case-control study* [Exhibit 54, Tab 18], revealed two weaknesses: bias in the group design and failure to undertake a multi-variate analysis, rendering the stated conclusions unjustifiable. The study compared blood tests of drivers in fatal accidents and comparing to those in a roadside survey; using blood tests in the fatal accidents, oral fluids in the "control" population, being those who agreed to participate. Dr. Li also did not specify whether he was looking at active THC or the inactive metabolite with respect to cannabis. These biases point to over-representation of drug use in cases and under-representation in the controls and working simultaneously increase the odds ratios.

In another study upon which Dr. Li relied, *Hartman and Huestis* [Exhibit 54, Tab 10], supports Dr. Macdonald's opinion that testing people for TCH-COOH [inactive metabolite] is not an accurate approach and that those studies using urine tests have failed to find a relationship or are otherwise fundamentally flawed and therefore unreliable. Dr. Macdonald does not dispute that impaired drug users are a safety risk.

• Dr. Macdonald's reliance upon methodological limitations to discount studies which demonstrate that drug testing, particularly random testing, improves workplace safety amongst safety sensitive employees is misplaced "...and cannot refute the overwhelming evidence that random drug testing is an effective intervention to improve occupational safety".

In response, Dr. Macdonald reiterates that the use of ecological and aggregate data bases is insufficient to support Dr. Li's conclusions. One requires "a lot more" than the number of people testing positive compared to the number tested to demonstrate "causation". The conclusions reached in studies which fail to control for confounders are not reliable or persuasive. In none of the evaluation studies reviewed have the authors looked at drug reductions in drug-related incidents. The study attributing a 51% reduction in accidents due to a drug testing program is not credible, which contrasts decidedly with Dr. Li's calculation of attributable risk at 1.5%. Dr. Macdonald is persuaded that reliable epidemiological evidence establishes that only a very small proportion of job accidents are related to drugs.

176 It was put to Dr. Macdonald that if CRO is reducing drug use through its random testing program, then it is also thereby reducing the chance of workplace accidents caused or contributed to by drug use, to which he replied: "It's a theory that you have, and the theory is not supported by the science or by CRO's injury and testing results". [Exhibits 43 and 29].

177 In Dr. Macdonald's opinion, based upon reliable epidemiological studies and CRO's injury rates, the addition of random testing at CRO does not appreciably (or at all) reduce the risk of accidents caused by drugs or alcohol and for that reason, Dr. Macdonald does not support random testing.

Dr. Guohua Li

178 As detailed in Dr. Guohua Li's curriculum vitae (Exhibit 73), he obtained a medical degree in preventative medicine at Beijing Medical University (1984), a master's degree in biostatistics (MS equivalent) at Tongji Medical University (1987) and a PhD in Public Health (Injury Epidemiology) at Johns Hopkins University School of Hygiene and Public Health (1993). He is currently employed as the M. Finster Professor of Anesthesiology and Epidemiology at Columbia University, New York. Dr. Li was qualified as an expert in these proceedings, without objection, in the following areas: Injury epidemiology and prevention including: identification and evaluation of risk factor for accidents and injuries, the interaction between alcohol and drug use in injury causation, the interaction between alcohol and drug use in trauma outcomes, the evaluation of safety intervention including drug testing programs in terms of their effectiveness in reducing accidents and injuries; epidemiological research methodologies study design and evaluation; and preventive medicine particularly in the areas of anaesthesiology and the health outcome.

179 Dr. Li was asked to prepare a written report in response to Dr. Macdonald's report which, along with supplementary materials, were entered as exhibits 53 and 54 (Tabs 1-27) in these proceedings. While these epidemiological experts generally agreed on the focus and scope of epidemiological research, Dr. Li disputed many of the findings, opinions and conclusions expressed in Dr. Macdonald's report (Exhibit 47). In doing so, Dr. Li described what he viewed as methodological errors or shortcomings, criticized Dr. Macdonald's reliance on outdated research and his faulty interpretation of data, detailed in his evidence set out below.

180 Dr. Li acknowledged that his experience most frequently addressed the US drug-testing studies and laws. He was not particularly familiar with the prevalence of (or lack thereof) of random testing in Canada in general.

181 Dr. Li provided a detailed overview of the study of epidemiology, the details of which are set out in his report. His evidence relating the issues of random testing and, in particular, to CRO's random testing program is set out below.

The Causal Relationship between Drug Use and Occupational Injuries and Accidents

182 Dr. Li testified that recreational drug users *do* represent a safety risk in the workplace and gave little weight Dr. Macdonald's reliance upon older studies that failed to find a statistically significant crash risk associated with a positive urine test (identifying the inactive metabolite TCH-COOH). He did so on the basis not only that the composition/concentration of the drug had changed over the years but also the evolution of the research into these areas, but having regard to more recent areas of research which found a positive correlation between drug use and accident risk.

183 He explained that incidents of recreational drug use in specific risk in safety sensitive workplaces resulted in the adoption of alcohol and drug testing programs in the United States and in other countries; perhaps precipitated, in part, by such 1980's "disasters" as the Exxon Valdez, in which pilots or operators directly responsible for operational safety were found to be "under the influence" of drugs or alcohol.

184 He referenced one of his own epidemiological studies that examined drug violations and accident risk and determined an increased risk of accidents associated with drug use. *[Drug violations and aviation accidents: findings from the US mandatory drug testing programs (2011)*: Exhibit 54, Tab 17].

185 Another of his studies found that all drugs, including marijuana and other stimulants/narcotics, are associated with "significant increase risk for fatal crash involvement". Marijuana is associated with doubling the crash risk in drivers. Marijuana and alcohol use suggests an odds ratio in this study of 23. [*Drug use and fatal motor vehicle crashes (2013)*: Exhibit 54, Tab 18].

186 In Dr. Li's opinion "any increased risk should be a concern" and suggested for that reason those US states which permit the use of medical marijuana have also prohibited driving under its influence. He also referenced *Quest Diagnostics* 2012 drug testing data of US employees in safety sensitive roles which reported that 1.4% tested positive for illicit drugs in random testing and 2.4% under post-accident testing. In Dr. Li's view, the prevalence of drug use in those in safety sensitive positions being above zero means that drug users are a safety risk for occupational accidents, and noted that even Dr. Macdonald calculated a significant odds ratio using this data at 1.6 or 1.8.

187 Dr. Li testified:

> I think if you look at the entire body of relevant evidence...it's clear that there is a causal relationship between drug use and occupational injuries and accidents. I think that statement is a general causal statement and is widely accepted in the research community at this time. You can always point to something elusive, alternate explanations but we can falsify any plausible alternate examinations...but if you don't give a specific alternative explanation which is a very verifiable or testable, then we're falling in sort of a trap...the discussion would not go anywhere.

Use of Urine Tests

188 Dr. Li opines that a positive urine test is an appropriate measure to demonstrate the causal relationship between drug use and occupation injury and accident. In doing so, he referred to the findings in *Marijuana use and motor vehicle crashes* (2012) [Exhibit 54, Tab 19, Table 1 Page 68] which lists the source of the exposure data whether from self-reports, urine tests, blood test or urine and/or blood tests. He noted that urine test results in the *Brault* study did find an increased risk of motor vehicle crashes associated with marijuana use and pointed out that more recent studies have also found a positive association between marijuana/drug use and crash risk, as in his 2013 study of *Drug use and fatal motor vehicle crashes* [Exhibit 54, Tab 18].

189 Dr. Li agreed with Dr. Macdonald that a urine based marijuana test does not detect impairment, however, he explained, that is not its purpose. Random testing of drugs based upon urine samples is a risk management prevention program. It is not designed or intended to measure "impairment" per se. Impairment is not demonstrated by a per se number but is rather defined by different methods and different considerations (dose, weight, tolerance level, for example).

190 In direct examination, Dr. Li took issue with Dr. Macdonald's conclusion that "studies using urine tests have failed to find that those with positive tests are significantly more likely to be in collisions that those with negative tests". In doing so, he reference a number of studies that supported his view. However, in cross examination, he conceded that a number of the studies that he had referenced had either not conducted urine tests or had not demonstrated an association between cannabis and crash risk. Those studies included: *Callaghan* [Exhibit 54, Tab 6], *Asbridge* [Exhibit 54, Tab 2], *Asbridge* [Exhibit 54, Tab 1 — only 3/9 studies did not use urine testing], *Hartmann* [Exhibit 54, Tab 11].

191 In several studies, where the findings reported by the authors were put to Dr. Li, he refuted the expressed findings on the basis of his calculations of the raw data identified by the studies' authors. [For example, *Movig*, Exhibit 49, Vol. 2 Tab 66 and *Wickizer*, Exhibit 54, Tab 27].

192 When questioned on his opinions of the *Wickizer* study [Exhibit 54, Tab 27], Dr. Li acknowledged that random testing was a voluntary aspect of the drug-free workplace program. However, he stated that the authors' purpose was to evaluate the program itself, and not its individual components. He also acknowledged that this study did not identify companies that already had a drug testing program in place in the pre-implementation period or those which continued the drug testing program upon the "expiry" of the incentive program; each of which might impact upon the findings reported by the authors.

Drop In Positive Random Test Results

193 Dr. Li opined that a decline in positive drug tests over time within a random testing program is a reflection of its deterrent effect, nothing more. He found implausible that the drop in positive test results could result from other explanations in the absence of cogent evidence to support an alternate conclusion.

194 In particular, Dr. Macdonald's suggestion that the use of adulterants or substitution products could account for reduced positive drug tests did not "make sense" to Dr. Li. In his own study of aviation employee drug testing data, Dr. Li found only 1% of the positive drug tests were due to adulterated or substituted urine samples.

195 Dr. Li also noted that the prevalence of drug use in the general population over the same time period did not demonstrate a parallel to the observed decrease in the prevalence of positive employee drug tests. In Dr. Li's opinion drug use among the

general population has remained fairly stable although the use of specific drugs has changed. He reported that marijuana use is now the most commonly detected substance in a positive drug test.

Drug Testing Improves Workplace Safety

196 In Dr. Li's opinion, the deterrent effect of drug testing is demonstrable. Companies who drug test their employees are less likely to have employees who use drugs than companies who do not test, particularly amongst employees in safety sensitive roles. [*Workplace drug testing and worker drug use (2007)*: Exhibit 54, Tab 7].

197 He opined that to the extent that Dr. Macdonald found no persuasive evidence to link drug testing and increased workplace safety on the grounds of methodological study limitations, that analysis is based upon two fundamental misconceptions. In the first place, Dr. Li stated that Dr. Macdonald improperly applied individual data based upon a single employee's performance or drug use behaviours (specific causation) to the general causation (population data) question: does drug testing improve workplace safety? He explained that the specific causation question would only arise in an analysis of a particular workplace accident or injury. He identified Dr. Macdonald's second misconception as his use of ecological fallacy to refute what Dr. Li referred to in his report as "...overwhelming evidence that random drug testing is an effective intervention to improve occupational safety". Dr. Li stated that any suggestion that a causal inference can only be made using individual data is misplaced. In his view, ecological fallacy (referencing the possibility of error when an inference is made about an individual based upon population data) simply does not apply in this context because the question remains one of general causation.

198 Dr. Li also responded to Dr. Macdonald's criticism of the *Wickizer* study: *Do drug-free workplace programs prevent occupational injuries? Evidence from Washington State* (2004) [Exhibit 54, Tab 27]. He believed that Dr. Macdonald mis-read the paper and its results. The study reviewed 3 periods: before (2 years prior), during (3 years of the program) and after (3 years following "expiry" of the program) in connection with implementation of the particular intervention (the drug-free workplace program). Reasonable comparisons would be before and during the intervention or between during and after the interventions. Dr. Macdonald instead interpreted the pre and post data as a comparison; periods in which the drug-free program was not in place.

199 Dr. Li also relied upon the *Snowden* (Exhibit 54, Tab 25) and *Brady* (Tab 4) studies which found that the introduction of mandatory alcohol testing saw a reduction in alcohol involvement in fatal commercial truck crashes and in fatal motor vehicle crashes. Dr. Li conceded that fatal crashes represent only 1% of crashes and suggested further study into non-fatal crashes would be useful.

200 The Board was referred to the findings of the *Miller* study: *Effectiveness and benefit-cost of peer-based workplace substance abuse prevention coupled with random testing* (2007) [Exhibit 54, Tab 21], in which it was reported that injury rates in those trucking companies that implemented the workplace substance abuse program in combination with random alcohol and drug testing significantly reduced injury rates in those companies.

201 On the issue of the effectiveness of random testing in reducing job accidents and injuries, Dr. Li opined:

> Among all the testing programs (pre-employment testing, random testing, follow-up testing and so on), random testing represents the most important or powerful deterrence effect, and the observed sort of decline, remarkable decline of positive drug tests among employees in the past 25 years, I would say the vast majority of that reduction would be attributable to random testing because...over 90 percent of actual alcohol and drug tests on employees were done on the random alcohol and drug testing program. Secondly, random test has several other advantages. First, it is non-discriminative...regardless of your age, your gender, your position, as one of the employee group you have an equal opportunity to be selected for testing....Secondly, random testing is essential to provide baseline under surveillance data for evaluation and for monitoring of the drug use problem in the workforce. There is no alternative way or testing programming to provide the necessary data other than random testing to accurately understand the prevalence rate or the magnitude of the drug use problem in the defined employee population.

Alcohol

202 According to Dr. Li, within the context for a "zero tolerance policy" adopted to prevent injuries and to manage potential risk, a .02 BAC level refers to the minimum reliable testing result based upon existing technology to identify an employee who is at increased risk. Thus the purpose of testing at this level is to eliminate potential and not actual risk of injuries or accidents. In his view, this is a reasonable cutoff limit to achieve the policy goals. Alcohol involvement and the effect of alcohol on injury depends on the severity of the injury; studies demonstrate the more severe the injury, the greater the effect of alcohol. Thus studies will have differing results depending upon whether fatal or non-fatal injuries are under review.

203 The *Blomberg* study, *The Long Beach/Fort Lauderdale relative risk study (2009)* [Exhibit 49, Vol. 1 Tab 2] cited in Dr. Macdonald's report, was raised in connection with CRO's adoption of a .02 BAC cutoff for alcohol testing. Dr. Li stated in his report [Exhibit 43] that the *Blomberg* study suggested that a BAC of .02 is associated with a 3% increase risk of being in a motor vehicle crash as compared to a BAC of .00. That conclusion was challenged by the author's finding, which reads in part:

> *When adjusted for nonparticipation and missing data bias, the results suggest that the small dip observed at .01-.03 BAC in the unadjusted risk calculations (columns 2 or 3 in Table 3) may be an artifact of sampling errors and small sample biases. The magnitude of the adjusted risk elevations is too small in relation to the standard errors of the model, however, to reject either the hypothesis of no increase or even a hypothesis of slight decreases in risk at .01 - .03.* ***Regardless of the direction of the risk change at these low BACs, however, the size of the relative risk deviation from unity is sufficiently small to be of no practical consequence.***
>
> [emphasis added].

204 Dr. Li explained that his comments/conclusions were again based upon the raw data reported in the study and not the author's interpretation of that data. At the same time, Dr. Li conceded that he did not say whether that increase was statistically significant and that "....clearly, it's not statistically significant."

CROs Injury Rates

205 Dr. Li concluded that the injury rates in the mining industry in Washington State identified in the *Wickizer* study [Exhibit 54, Tab 27] were similar to those reported at CRO [Exhibit 43]. However that conclusion was based upon his understanding that the "TRIF" injury rate at CRO was equivalent to the "4 days lost time" injury rate recorded by *Wickizer*. He also opined that Dr. Macdonald calculated injury rates at CRO "...based on the most restrictive standard criteria and compared [it] to all reported injuries presented in *Wickizer's* study, Table 1", which Dr. Li felt was inappropriate because it ignored the severity of injury in computing injury rates.

Other Risk Factors

206 Dr. Li acknowledged that other risk factors can impact upon the safety of a workplace; such as job/spousal/family/financial stress, smoking and fatigue. However, he opined that only those risk factors which are amenable to modification without extraordinary effort are the focus in risk assessments. Factors that are not easily changeable (gender, age, sex) are not generally incorporated into a risk management response.

Dr. Louis Hugo Francescutti

207 Dr. Francescutti is an emergency room physician at the Royal Alexandra Hospital and at the Northeast Community Health Centre Emergency Departments in Edmonton, Alberta.

208 Dr. Francescutti was ultimately qualified as an expert witness in this proceeding, without objection, in the following areas of injury; injury control and prevention; the role of alcohol and drug use in injuries; and, the manner in which random testing can contribute to reduction of injuries due to alcohol and drug use. His report and supplemental materials were entered as Exhibits 13 and 15 respectively.

209 The substance of Dr. Francescutti's opinion is set out below:

- Injuries and substance abuse are major problems in our society and in Alberta.

- There are ways to prevent injuries from occurring: through education, engineering, enforcement and economic incentives.

- Substance abuse is the third leading cause of injury deaths in Alberta.

- Random testing is the greatest deterrent. The only people who have to worry about the adoption of random testing are those who are using drugs/alcohol and testing positive, which is an indication they may have a problem. Those who test positive are offered help which will reduce the likelihood of injury and make it less likely he will see them in the Emergency Department.

- The Teck program is very, very important and can contribute significantly to the literature and injury prevention.

210 Dr. Francescutti discussed the distinction between accidents and injuries; the former being a random chance event while the latter, whether intentionally or unintentionally caused, being a largely preventable disease of widespread consequence. He estimated the cost of injuries to the economy at $15-$18 billion dollars each year, comprised of direct costs to the health care system and the indirect costs of lost time, lost productivity and lost taxes. According to his review of the literature, he estimated that 95% of all injuries that occur are both predictable and preventable.

211 In his view, the focus should shift to one of injury control: prevention, acute care and rehabilitation.

212 Dr. Francescutti identified the policy elements of prevention: education, engineering solutions, enforcement (rules and regulations) and economic incentives/disincentives. In his experience, enforcement is usually the option with the greatest deterrent effect. Although he was cognizant of the ongoing debate between "personal freedom" and risk-reduction measures, he is of the view that steps to reduce injury are generally not issues of individual liberty in any event, but ones of societal benefit; for the greater good.

213 Dr. Francescutti stated that Alberta regularly records amongst the highest potential years of life lost (PYLL) rates due to injury across Canada. He noted, by way of example, that only Alberta has failed to adopt provincial regulations for farm workers and has amongst the highest farm injury rates; was the last province to adopt mandatory seatbelt legislation and the last province to ban riding in the back of a pickup truck. In his view, Alberta is still the "wild west", a place of greater risk tolerance and one in which people do not wish government to tell them what to do. He suggested that we need to get over the attitude that "it's my business", as we are spending considerable tax dollars to support people's choices.

214 Dr. Francescutti testified that the effects of alcohol are present much earlier than merely when one is approaching 0.08 BAC ("Legal Limit"). In his opinion, noticeable effects can be recognized at 0.02 BAC, and which increase incrementally thereafter. He spoke of the "pleasure zone" that people aim for at BAC concentrations of 0.02 - 0.059 but said once consuming alcohol, it is difficult to discern the zone. He opined that once at the Legal Limit, it is assumed that you cannot drive. He also explained that because of the scientific evidence of noticeable impacts upon driving performance at BAC's of 0.05, both BC and AB introduced road side suspensions at that blood alcohol concentration level.

215 Dr. Francescutti opined that without question, there is drug and/or alcohol use in the workplace. He said that people are consuming a lot of drugs and alcohol and if they are working, then it is not surprising to find it there. In support of his opinion, he referenced a 2006 USA Report [National Center for Health Statistics, Exhibit 15, TAB 14]] in which reported that 12.7 million out of 20.6 million adults with substance abuse or dependence were employed full-time, which Dr. Francescutti said tells us you will find drug/alcohol use in the workplace. He said that without doubt, choosing to show up for work impaired can cause injury to oneself and to others.

216 At the same time he acknowledged that factors other than alcohol or drugs can cause impairment in the workplace; factors such as fatigue, and believes that policies should be assessed, consider, weighted and, where appropriate, adopted in similar fashion to address any identified risk elements present in a work environment.

217 In Dr. Francescutti's view, the role and purpose of random testing is to identify those who may have a drug and/or alcohol problem and to offer help. He opined that "it is the best of all worlds" where an Employer makes an effort to identify individuals who may have an issue with drugs or alcohol and offer an opportunity for assessment and provide an opportunity to get better.

218 In Dr. Francescutti's experience, random testing is illustrative of a culture of safety; one in which an employer does whatever it can to make sure no one gets hurt on the job. He believes that random testing is an effective tool because people do not know when they might be tested and thus it can effect behavioral change around the use of drugs and/or alcohol. In his words: If you pay someone 100% of their salary, you expect 100% of that person to show up at work; not 75%, not 65%. An employer is entitled to 100% of the employee being at work that day; nothing less.

219 While acknowledging that random testing is much less common in Canada than in other jurisdictions such as the United States, Dr. Francescutti feels that workplace policies that support random drug and alcohol testing show "great promise" as a means to improve workplace safety.

Dr. Mace Beckson

220 Dr. Beckson is currently certified by the American Board of Psychiatry & Neurology in psychiatry, addiction psychiatry and forensic psychiatry and has obtained additional certifications as detailed in his curriculum vitae, entered along with his report and reply report as Exhibit 61 in these proceedings. He is currently Medical Director, Psychiatric Intensive Care Unit, Veterans Affairs Greater Los Angeles Healthcare System, carries on a private practice and acts as a medical-legal consultant. He was qualified as an expert in these proceedings, without objection, in the areas of forensic psychiatry, addiction psychiatry, addiction medicine in the areas of the assessment and treatment of drug and alcohol abuse and addiction in patients, cognitive and behavioural psychology, pharmacology, psychopharmacology as it relates to alcohol and drugs of abuse; forensic Toxicology of substances of abuse in the areas of DUI results, workplace drug testing and post-mortem toxicology for alcohol and drugs of abuse; risk assessment and risk management in relation to addiction, violence and suicide and clinical research in relation to alcohol and drugs of abuse.

Dr. Leo J. Kadehjian

221 Dr. Kadehjian earned undergraduate degrees in Chemistry (Harvard University, 1967) and in Organic Chemistry (Massachusetts Institute of Technology, 1972), and a Ph.D. in Biochemistry (Stanford University, 1977). Dr. Kadehjian was qualified as an expert witness without objection in the areas of the pharmacology and toxicology of drugs of abuse and alcohol; the psychomotor and cognitive effects of alcohol and drugs including in relations to safety risks flowing from and incidental to his expertise in pharmacology and toxicology; the neurobiology of addiction; the scientific methods of drug and alcohol testing and the interpretation of drug and alcohol test results; and the design and evaluation of workplace drug testing programs policies and procedures. His curriculum vitae, report of February 7 th , 2014 and reply report of March 10 th , 2014, along with an extensive binder of supplemental materials were entered as Exhibits 66, 67, 68 and 69 [Tabs 1-40] respectively.

222 The Board was provided with a helpful overview of the elements and characteristics of substances of abuse and addiction by Drs. Beckson and Kadehjian, a summary of the most relevant particulars of which are set out below.

Pharmacology and Toxicology of Substances of Abuse

223 Being legal, available and culturally accepted, *alcohol* is the most commonly used substance of abuse or addiction. As alcohol consumption increases and continues a central nervous system depression develops which undermines the "executive functioning" of the brain. Cognitive impairment can arise during periods of intoxication or its after-effects.

224 Alcohol is eliminated from the body at a population average linear rate approximately .019 percent per hour; or one drink per hour. Accordingly, it would take approximately 4 hours to eliminate a blood alcohol concentration (BAC) of .08.

225 Alcohol tolerance generally increases with use, thus a particular blood alcohol concentration level itself is not necessarily a measure of impairment. Effects on cognition vary; some will manifest changes at relative low levels of alcohol consumption while others may continue to perform routine tasks without obvious difficulty.

226 These experts agree that alcohol consumption impacts on one's ability to respond to unexpected events. Dr. Beckson explained that it was for this reason the US Department of Transportation (DOT) adopted a .02 BAC cutoff; it operates both to reduce risk and act as a deterrent as people will change their behaviour to avoid a positive test result. Those who do not (or cannot) are indicative of having an "alcohol problem".

227 Dr. Kadehjian opined that "there is no safe amount" of alcohol consumption; impairment of safety-related functions can result after a single drink. He reported that a voluminous amount of the literature clearly shows the effects of some degree of impairment of safety-related functions at BAC levels as low as 0.01 or 0.02, and explained that some countries have adopted "zero" as a cutoff in response. He disagreed with Dr. Macdonald's conclusion that a cut-off of 0.02% is too low to represent a meaningful increased safety risk. In doing so he pointed to contrary findings of the more recent studies and concluded that the Employer's alcohol cut-off at 0.02% BAC is "absolutely sound" and that, in his view, Dr. Macdonald's position on this issue is "untenable".

228 These experts also identified cognitive deficits associated with an alcohol "hang-over", which generally arise the "morning after" drinking to a high BAC level. The severity of the cognitive deficits correlates with the severity of the hang-over; this is so even in the absence of any Breathalyzer reading at that time.

229 These cognitive deficits include headache, reduced attention and reduced concentration in sufficient degree to interfere with one's ability to perform routine work activities. Dr. Beckson reported that alcoholics may continue to experience cognitive dysfunction up to a year from abstinence. In such circumstances, clearance to return-to-work (when and under what conditions) would necessarily need to be assessed on an individual basis without reliance on average outcomes reported on population-level studies.

230 *Amphetamines* were described as potent stimulants that are abused for their stimulant effect. Dr. Kadehjian explained that lower doses can enhance alertness and attention, reportedly used by pilots, truck drivers and students to stay awake. Therapeutic effects have also been reported for disorders such as ADHD and obesity. He described acute effects as "highly rewarding" and easily addictive, through the dramatic release of a neural transmitter (dopamine) in the brain which can last from 8-12 hours (or longer), depending upon the dose; and like cocaine, is followed by a "crash" that can last 2-3 days. Dr. Kadehjian said that the "crash" effects can be worse than the acute effects of the drug; both of which create a safety risk in a safety sensitive workplace.

231 Studies of the use/misuse of amphetamines have identified cognitive, psychomotor and performance effects which have also been associated with increased crash risk. Dr. Kadehjian said that amphetamines are highly damaging to the brain's neural pathways that govern impulse-control and weighing consequences of behaviour. Neuronal damage can persist for months, depending upon the extent of use. He reported that those addicted to methamphetamines generally have poor treatment outcomes as a result.

232 The cut-off level for amphetamines and methamphetamines used at CRO is designed to identify use within the previous day or two. How long an individual might "stay positive" is dosage dependant.

233 *Cocaine* was described as a very addictive stimulant which changes how the brain works. Effects of a high adrenaline state cause different impacts amongst individuals; some are euphoric while others are agitated, which Dr. Beckson described as analogous to a "fight or flight response". While studies have demonstrated that low doses of stimulant drugs improve attention; the same is not true of higher doses. Because its acute effects are "short-lived", users often take one or more doses over the course of an evening; following a "crash" which was estimated to endure into the next day. This is true for even casual or recreational users.

234 Because cocaine is quickly metabolized in the body, it will be identified in a urine test as a metabolite, similar to marijuana. According to Dr. Beckson, the presence of a cocaine metabolite in a urine test will demonstrate that the donor has used cocaine recently, something you would not otherwise know unless use was disclosed by the donor. Even with abstinence, elements of cognitive impairment can continue for several weeks. During a "crash" period, the user would test positive by urine but negative by blood.

235 Dr. Kadehjian said that drug tests are designed to identify recent use; within the previous 1-2 days or so which, in his opinion, correlates to the time frames of increased risk of deficits whether as a result of the drug's acute effects or the subsequent "crash".

236 Dr. Beckson opined that abuse/addiction to prescription pain medications to get high is becoming a greater problem than that for illicit opiate use. Like alcohol, *opiates* act as a central nervous system depressant which can result in a physical dependence and once established, can cause significant physical and cognitive withdrawal effects as the effects of the drug wanes and the user's attention shifts to relieving the stress of withdrawal. Thus the greatest level of "impairment" may occur with a blood level of zero. Dr. Kadehjian concurred.

237 *Marijuana* is a widely used fat-soluble drug whose main psychoactive ingredient is THC. Dr. Kadehjian explained that it has been prescribed as a therapeutic use for glaucoma/ocular hypertension and AIDS wasting syndrome. Medical marijuana use has been approved in nineteen US states and has been legalized in Colorado and in Washington State. Because marijuana is stored in fat cells, it is not quickly eliminated from the body. Dr. Beckson estimated that it takes approximately 2-4 hours before metabolized THC is detected in the urine and, depending upon the dosage taken, low levels of THC can be detected in the blood for 6-24 hours after the "subjective high" has ended.

238 Several metabolites of parent drug THC are picked in an initial urine test screen, only one of which is examined in a confirmation test, THC-COOH.

239 Both experts agree there are acute and sub-acute/carry-over effects with marijuana use. They did not, however, agree on the duration of those effects. Dr. Beckson estimated the acute period of intoxication at 4-5 hours, causing significant cognitive effects and residual effects for 4-24 hours thereafter. In Dr. Kadehjian's opinion, the literature demonstrates that the *acute* effects of marijuana last 8, 12, even 24 hours after use and also documents both the withdrawal and abstinence effects of marijuana. In support of his opinion, Dr. Kadehjian referenced a May 2014 study out of the Netherlands [Hunault, *Acute subjective effects (May 2014)*, Exhibit 71] and the *Brenneisen* study [Exhibit 69, Tab 6], the latter dealing with marijuana detection times.

240 Dr. Beckson opined that both acute and residual effects of marijuana use can generate a degree of "impairment", particularly in circumstances demanding maximal cognitive use such as in an emergency situation. He referenced a number of studies in support of his opinion. *[Marijuana carry-over effects on aircraft pilot performance: Leirer (1991)* [Exhibit 50, Tab29]; [*Acute and residual effects of marijuana: profiles of plasma THC levels, physiological, subjective and performance measures: Heishman (1990)* [Exhibit 50, Tab 18].

241 Dr. Beckson conceded that most studies do not establish a relationship between a positive urine test for marijuana and risk of accident and injury, but explained that the pharmacokinetics of marijuana factor into that result. He explained that if a person is at peak marijuana concentration at the time of an accident that level will have dropped very significantly by the time blood work is done in an emergency department. Thus, if below the cut-off testing level, the test will be negative. Similarly, if conducting a urine test for marijuana, the metabolite will not be detected in urine at the period of greatest intoxication. These factors impact upon the outcome of studies examining urine testing and crash risk. That said, it was acknowledged that there is a greater odds ratio of between a positive marijuana blood test in crash drivers study groups.

242 During cross-examination, Dr. Kadehjian was asked to comment on a study that concluded that detection of the major marijuana metabolite (THC-COOH) in urine was not a reliable indication of recent cannabis use or impairment and that the detection of the active ingredient THC in the blood was the only safe method to determine recent exposure to cannabis. [*Raemaker's* study [Exhibit 49, Vol 2, Tab 72]. Dr. Kadehjian did not accept the author's because of adequate particulars to

support the statement. In his opinion, the *Raemaker* study applies too broad a brush. While he agrees that urine testing will likely not pick up marijuana use an hour or two earlier, when one would be most impaired; but it may. It may also pick up the chronic user who did not use marijuana within the last several hours. However, it will show up within hours and during a period in which users have shown psychomotor cognitive impairment. The urine test will identify an at-risk employee.

CRO's Random Testing Program

243 Both experts reiterated that CRO's testing program is not measuring risk, it is identifying risk. In Dr. Beckson's view, a positive urine test, using statistical probabilities, indicates someone with a drug problem and, more likely than not, is someone who has come to work impaired at least some of the time and is an elevated safety risk at work as a result. In his opinion, once a random testing program is understood by the workforce, those who test positive are more likely those who have a substance abuse problem. In essence, it separates those who use compulsively from recreational users. Its purpose is to prevent or lower the risk of impairment; and not to prove impairment. Its goal is zero percent positive random tests. By continuing to detect and remove those who test positive from the workforce, the probability of a substance-related accident is also reduced. Thus low or zero post-incident positive test results is not an indication that the random testing program is ineffective or unnecessary.

244 Dr. Kadehjian concurred. He described the goal of random testing programs is to minimize risk from drug-using employees in a manner which reflects the realities of those often working on their own in a safety sensitive workplace. In his view, CRO's testing program is an accurate and reliable tool for identifying users and for deterring drug use.

245 Accordingly to Dr. Beckson, Dr. Macdonald failed to address the fundamental feature of a random testing program which, in essence, is a behavioural risk reduction program and reiterated that neither urine nor blood laboratory tests establish impairment. Rather, a positive test establishes recent use (during the outer limit of the window of detection for that particular drug) and therefore identifies someone at an elevated risk of performance deficits in the workplace.

246 He was asked about the justification for random testing in circumstances where a majority of those with positive test results were determined to be without dependency or addiction; in short, the recreational user. Dr. Beckson commented that at the beginning of the dynamic process of the implementation of the intervention (random testing); people are still getting used to the process and learning to take it seriously. In time, recreational users will change their behaviour to avoid a positive test result, leaving only compulsive or chronic users who test positive.

247 Under CROs drug and alcohol protocols, those identified with a substance dependency or addiction are referred to mandatory treatment programs (whether residential or outpatient) and returned to work under the terms and conditions of a monitoring agreement, which includes periods of unannounced testing of up to 24-months, aimed to reduce the risk of relapse. In Dr. Beckson's opinion, these drug-free workplace protocols create deterrence and accountability, elements which assist in overcoming dependency/addiction problems and together with the other components of comprehensive drug and alcohol treatment policies, decrease risk in the workplace.

248 Dr. Kadehjian opined that CRO's screening and confirmation test protocols, utilizing standard test cut-offs designed to detect recent use, covering periods of both acute and withdrawal/crash effects, are both accurate and reliable; meeting approved FDA standard /DOT standards and utilizing a recognized laboratory for its confirmation tests. It is only in the case of chronic users of marijuana who could test positive using these cut-offs for up to three weeks.

> So I would say that the tests demonstrate sufficiently recent use that an employer has a justified concern that at least at some point in time over the previous 1 to 2 days there is an overlap with their being at work and therefore a risk that there was/were effects of this drug.

249 In his view, urine testing reflects the practical realities of workplace testing; no invasive punctures to the body but rather a waste product that people voluntarily relinquish.

Performance Deficits

250 In Dr. Beckson's view there is no question that drug and alcohol use/abuse cause performance deficits which can cause or contribute to injury or accident in the workplace, moreso in a safety sensitive work environment. That said, he conceded that ridding a workplace of drug/alcohol related deficits will not prevent injury or accidents in the workplace. He agreed that cognitive deficits in the workplace can arise from a host of factors other than substance use; factors such as fatigue, family stressors, custody issues, caffeine intoxication.

251 Dr. Beckson disputed Dr. Macdonald's conclusions concerning timeframes for being "under the influence" of a number of drugs and the corresponding detection periods, set out in Dr. Macdonald's report [Exhibit 47, page29].

252 In Dr. Beckson's view, the period of impairment extends beyond periods of acute intoxication which he presumed was what Dr. Macdonald referred to as being "under the influence". He opined that it is not necessary to ingest drugs or alcohol in the workplace in order to suffer from sub-acute performance deficits. It is therefore necessary to incorporate into period of performance deficits the safety risks caused by "crashes" following the use of stimulants, for example, which in his view is worse that than the actual period of intoxication. [Exhibit 61 (c), page 27]

253 Dr. Beckson distinguished his assessment of the time periods for drug detection and increased risk of performance deficits from Dr. Macdonald's comparison of periods of impairment with the period during which one might test positive on a urine test.

254 Dr. Beckson opined that using only periods of acute intoxication to signify impairment is inadequate. In any event, he also disputed the reliability of the studies upon which Dr. Macdonald relied in identifying drug detection periods in urine [Exhibit 61(c), para. 55].

255 In Dr. Beckson's opinion, the realistic timeframe for a period of *increased risk* of deficits correlates to the period of testing positive for drugs with either blood or urine. Anything which impairs cognition is risk-elevating, whether through a one-time or through chronic use.

256 He is similarly not persuaded by what he referred to as "Dr. Macdonald's academic exercise" of simply calculating odds ratios of risk of injury with a consideration of potential confounding variables which, in turn, might even further reduce the odds ratio of risk to "no increased odds". He pointed out that urine testing for marijuana will in any event artificially *depress* an odds ratio since one would achieve a "false negative" during the period of acute intoxication because the presence of THC is not detectable in urine. Instead, Dr. Macdonald stressed only the "false positive"; meaning one who tests positive for urine is not acutely intoxicated and therefore no greater safety risk merely by virtue of a positive test result.

257 Similar, during cross-examination Dr. Kadehjian was asked to clarify whether those who test positive through a urine test represent a greater risk of crash or workplace accident than those who do not. In response, he stated testing negative does not mean "no risk". However he confirmed that that in his view a positive test result corresponds with an increased risk.

VI. Submissions of the Parties

The Union:

258 The grounds upon which the Union relies in challenging the Employer's Policies are threefold:

- The Policies constitute an unreasonable work rule.

- The Policies are discriminatory in violation of the *Alberta Human Rights Act, RSA 2000, c.A-25.5, s.* 7 and are not justifiable as a *bona fide occupational requirement* pursuant to s. 3.

- The Policies constitution an unreasonable invasion of privacy in breach the provisions of the *Personal Information Protection Act, RSA 2003, c P-6.5* and/or constitute a tortious invasion of privacy.

259 The Union seeks a declaration that the Policies are void or unenforceable, in whole or in part.

260 The Union submits that in determining the merits of this grievance concerning the Employer's unilateral imposition of random testing under the Policies I am bound to apply the Supreme Court of Canada's analysis in *Irving Pulp & Paper Ltd. v. CEP, Local 30*, 2013 SCC 34 (S.C.C.) ("*Irving Pulp*") analysis in *Irving Pulp*.

261 The Union notes that, to the date of its submissions, Canadian arbitral jurisprudence, collectively and individually, has failed to uphold random drug testing and has also failed to uphold random alcohol testing with a testing threshold below 0.04 BAC, on the basis that is falls outside of any legitimate Employer interest, including deterrence and the enforcement of safe practices.

262 It also submits that *Irving Pulp* is not a "standard of review case" and notes that two important arbitration decisions have subsequently applied the framework set out in *Irving Pulp* and in doing so quashed unilaterally imposed random drug and alcohol testing in *Mechanical Contractors Assn. Sarnia and UA, Local 663 (Alcohol and Drug Testing), Re*, supra, and in *Suncor Energy Inc. and Unifor, Local 707A (Random Alcohol and Drug Testing Policy), Re*, *supra*.

263 The Union submits that although there was considerable expert evidence in this case, expert evidence is not the core of the grievance, particularly since a positive *urine* test for marijuana does not establish an increased accident risk. Specifically, the Union noted that the expert evidence established that a positive urine test does *not* identify or establish any level of impairment; does *not* signify an increased crash risk and in fact, even fails to identify a user at one's maximum level of impairment because the THC metabolite is not present in urine within the first four to five hours after use.

264 It also submits that no reliable evidence was presented which established that the adoption of random testing will improve workplace safety.

265 The Union submits that Dr. Macdonald's evidence should be preferred over that of the Employer's experts. In doing so it noted that neither Drs. Beckson nor Kadehjian conducted independent study or research; nor did they publish any papers on the efficacy of drug testing upon workplace safety or the impairing effects of THC or the duration of such effects. In contrast, Dr. Macdonald's opinions on urine testing and crash risk have been published in peer-reviewed scientific journals, suggesting enhanced reliability as a result.

266 While the Union acknowledged Dr. Li's independent published research related to the impact drug and alcohol use in airline crashes and motor vehicle crashes, it pointed out that Dr. Li had not published a paper addressing the relationship between urine testing or a .02 BAC and crash or accident risk. It further noted that Dr. Li's research has focused on recent drug and alcohol use, demonstrated by blood or oral fluid tests.

267 With respect to the impact of random testing upon bargaining union members, the Union called six witnesses who testified about how random testing made them feel untrusted in the workplace and that the testing protocols adopted by the Employer made them feel humiliated and embarrassed. None of these bargaining unit witnesses came to work impaired by drugs or alcohol or were aware of fellow employees doing so. Each witness testified that safety was important in the workplace both on an individual basis and for others but felt that random testing did nothing to add to this process.

268 The Union submits that CRO's safety record as depicted in Employer records including the evidence set out in Exhibit 43 [Safety Stats for CRO for Past 20 Years - 1993 - 2013] demonstrate not only the absence of a problem with employees being impaired by drugs or alcohol at work but also the absence of risk, given the frequency of workplace injuries has reduced over the last 15 years.

269 The Union noted that the testing statistics set out in Exhibits 45(a) and (b) included other sites and did not differentiate between bargaining unit and other employees. The Union submits that in order to justify the Policies, the Employer is restricted to CRO statistics of bargaining unit employees.

270 The Union submits that the drug and alcohol testing statistics fail to establish a problem in the workplace. It also submits that if a positive drug test is associated with an increased risk of workplace injury or accident, then one would equally expect to see a higher-rate of post-incident positive test results than for random positive test results.

271 The Union cautioned reliance on CRO's Drug and Alcohol Summary (2005 - 2011) Exhibit 29 as it fails to specifically identify which of the positive test results relate to bargaining unit members (as opposed to contractors, non-bargaining unit employees or visitors).

272 The Union submits that the Employer's use of anecdotal evidence to establish a drug or alcohol problem at CRO is insufficient and unreliable; such as finding a bag of diet pills, finding a marijuana cigarette in 2003 or 2004, or, in 2004 one person smelling marijuana in a haul truck which could not be detected by another senior management employee.

273 Some of the Employer's witnesses testified that the decision to introduce random testing was not a response to CRO's site but rather a risk management measure to improve safety at all Employer sites.

274 In the Union's view, the Employer has failed to reasonably justify the introduction of random testing at CRO and as a result, the Policy Grievance must succeed.

Summary

275 It is the Union's position that the Employer's unilateral imposition of a highly invasive random testing policy upon members of CRO's bargaining unit is an unacceptable and unwarranted incursion on employee privacy rights. It submits that random testing is neither a necessary or proportionate response in a workplace without a demonstrated substance problem.

276 For these reasons, the Union submits that the grievance must be allowed.

The Employer:

277 The Employer states that it has the management right under the Collective Agreement to implement safety measures, including those set out in the random testing policies.

278 It submits that those who seek employment in safety sensitive industries must expect that conduct in relation to drug and alcohol use will be of interest and scrutiny by the employer, particularly in light of the potentially catastrophic consequences of accident and/or injuries in a mine environment.

279 Accordingly, the exercise of its management right to impose the random testing intervention was described as a relatively costly safety intervention to simply enhance the safety of employees. It reiterated that it is neither intended to be nor is it a mechanism to impose discipline upon proof of impairment.

280 In assessing the reasonableness of random testing, the Employer submits that I am bound to assess both the evidence of its effectiveness in reducing accidents as well as the extent of the invasion of privacy interests of employees.

281 The Employer submits that within an inherently dangerous work environment, its adoption of random testing as but one component of a larger safety program is a reasonable and realistic non-disciplinary safety intervention in an effort to prevent workplace accidents and assist "risky employees" through rehabilitation.

282 It is the Employer's position that within this context safety interests constitute a critical first priority to which individual privacy interests are necessarily subordinate in order to achieve and maintain a safe and healthy work environment for all.

283 The Employer's implementation of a random testing program in May 2012 was described as its response to the history and the ongoing use of drug and alcohol use by employees and contractors throughout its various work sites, including CRO, despite its adoption of the drug and alcohol policies in 2000 [Exhibit 10]. It was also described as its response to concerns of the potential for workplace accidents caused by risky drug and alcohol use by some employees.

284 The Employer had concluded that other types of testing (particularly reasonable cause and post-incident testing) did not sufficiently deter employees from using drugs and alcohol in a manner which created a safety risk in the workplace. It expressed confidence in the opinions of its experts that random testing deters at least some risky behaviour and identifies and assists others who fail to discontinue risky behaviours in relation to drug and alcohol use.

285 The Employer acknowledged that employees who test positive on a random test may or may not be impaired at the time but, according to its experts, still pose a risk of being impaired at work.

286 It is the *risk* of impairment and not the detection of impairment that the Employer seeks to reduce or eliminate through the deterrent effect of random testing to reduce or eliminate one of the factors which can cause or contribute to workplace accidents.

287 It also submits that the evidence of its experts is to be preferred over that of Dr. Macdonald and establishes that random testing is a reasonable, reliable and effective measure to enhance safety in a safety sensitive workplace.

288 Unlike other random testing policies, the Employer submits that its random testing program does not result in discipline or discharge under the Alcohol, Illegal Drug and Medication Use policies (the "Policies") [Exhibits 4, 5 and 6, Appendix C].

289 The Employer states that since no punishment is imposed in response to a positive random test result, its Policies are distinguishable from those considered in previous random testing cases, including the Supreme Court of Canada's ruling in the *Irving Pulp* case. It also submits that its Policies do not violate human rights laws. It submits that in the absence of disciplinary consequences arising from a positive test result, it is not necessary to first establish a drug and alcohol problem in the workplace as a precondition to the implementation of random testing.

290 The Employer acknowledged the existence of employee privacy interests in relation to their own bodies and submitted that its random testing protocols protect those privacy interests as much as possible in the circumstances. At the same time it was suggested that employee privacy interests do not extend to risky drug or alcohol use which could pose a safety risk in the workplace.

291 In describing its random testing protocols, the Employer submits that it has adopted a respectful best practices approach of minimal intrusion into employee privacy interests while taking active steps to minimize risky drug and alcohol use which it believes may pose a threat to workplace safety.

292 In an effort to reasonably respond to employee privacy concerns, the Employer initiated measures to limit disclosure of the identity of those selected for testing by a third-party contractor; of on-site non-negative test results; of laboratory/Medical Review Officer confirmation test results; and of the results of the assessment and treatment recommendations, to those on a need-to-know basis.

293 It is the Employer's position that the reduction of the safety risk of impairment from drugs or alcohol in the workplace that justifies the negative impact upon the privacy interests of employees. In short, the balancing of interests favour the safety benefits of random testing.

294 The Employer submitted that the number of fatalities (44 over 25 years, Exhibit 40) throughout its mining operations is a telling illustration of the dangers associated with open pit mining.

295 It also pointed to the evidence of fatalities, injuries and "near misses" presented to the Board throughout the arbitration hearing [Exhibits 27, 34, 38, Glenn Ross, Ross Wilson, Robin Sheremeta] at CRO and at other Employer coal mines, further illustrating the safety sensitive nature of the work performed by all members of bargaining unit; whether in the pit, the Maintenance Shop or the processing plant.

296 While the Employer conceded that it has a "very good safety record", its stated goal is zero accidents or injuries in its coal mining operations. To achieve that goal, it operates an "integrated safety program" which includes such things as training in mine safety and accident prevention; training and education in all human factors which can affect workplace safety (nutrition,

fatigue, stress management, wellness); medical monitoring; and safety orientations about mine operations, everything from equipment use and the random testing Policies.

297 The Employer submits that since drug and alcohol use/misuse continued to be a problem throughout its mining operations despite the adoption of reasonable cause, post-incident and pre-employment drug and alcohol testing, it was necessary and reasonable to adopt the random testing program.

298 It noted that 6 of about 50 positive post-incident drug tests between 2005 - 2011 in Alberta and in British Columbia occurred at CRO. There was 1 reasonable cause positive drug test in 2012 at CRO.

299 With the implementation of random testing in 2012, amongst employees, there were 2 positive drug tests at CRO [Exhibit 45]. There were also 3 employees at CRO who refused to test in 2012.

300 In 2013 there were 71 positive random drug tests and 21 refusals at various Employer sites in Alberta and British Columbia, of which 37 were employees. At CRO there were 12 positive employee drug and 2 positive employee alcohol tests and 3 refusals. [Exhibit 45B]

301 The Employer states that "several" of those who tested positive at CRO under random or reasonable cause testing over the past 2 years were determined to have a drug or alcohol addiction and referred for mandatory treatment. Those found to be without a dependency were provided with education and counselling and all of whom were thereafter subject to monitoring agreements to abstain from risky drug or alcohol use in order to return-to-work. Positive tests thereafter result in discharge with an opportunity for re-employment.

302 It noted the evidence of incidents over the last 10 years in which drugs or drug paraphernalia was found on the CRO site or in which the smell of marijuana was detected even though ownership was not established.

303 The Employer submits that the evidence demonstrates the efficacy of the random testing program.

304 It identifies, removes and assists those with substance abuse problems. It identifies, removes and assists those use drugs or alcohol in a manner which creates a safety risk.

305 It deters at least some from continued risky drug and alcohol use.

306 The Employer's experts established that:

- anyone testing positive represent an increased safety risk even if not impaired when taking the test;
- drug or alcohol use is a significant contributor to accidents and injuries in society and in workplaces;
- random testing has a significant deterrent effect and thereby reduces the risk of accidents or injuries caused or contributed by impairment from drugs or alcohol;
- random testing is a beneficial risk reduction strategy and safety intervention at CRO.

307 The Employer states that the evidence of its experts should be preferred over that of Dr. Macdonald in light of his absence of medical, pharmacology toxicology, substance abuse and risk management training.

308 The Employer submits that Dr. Macdonald admitted to a bias against random testing and restricted his literature review to studies which supported his opinions. He misconstrued the goal and purpose of random testing as well as the operation of the Employer's policies; particularly his suggestion that there were disciplinary consequences imposed in the event of a positive test.

309 The Employer states that the Supreme Court decision in *Irving Pulp* is of little or no application to this grievance as it is merely a "standard of review" case applied to an arbitration award in which it determined that the "reasonableness" standard and not the "correctness" standard was to be applied to all aspects of the arbitrator's decision.

Summary

310 It is the Employer's position that safety interests outweigh privacy interests in a safety sensitive work environment and, accordingly, the implementation of random testing is a reasonable and effective exercise of management rights.

311 It further submits that even if it were necessary to first establish a drug and alcohol problem at CRO in order to justify random testing, sufficient evidence of just such a problem was presented during the course of the hearing.

312 In either event, the Employer submits that the grievance should be dismissed;.

VII. The Decision

313 In determining the merits of the policy grievance before the Board, it is necessary to assess the evidence within the context of applicable legal principles, having regard to developed arbitral consensus as set out in relevant, leading and binding authorities.

314 At the outset, the Employer submits that the Supreme Court of Canada's decision in *Irving Pulp* has little or no application to this policy grievance as it is but a standard of review case. While admittedly there have been some decisions which have adopted such a view, I am not persuaded that *Irving Pulp* either has or was intended to have so limited an application. In my view, the majority of the Court (the "Court") itself suggested otherwise in reiterating (and not determining), at para. 6, that the applicable standard of review of a labour arbitrator's decision has been one of reasonableness since its decision in *New Brunswick (Board of Management) v. Dunsmuir*, 2008 SCC 9, [2008] 1 S.C.R. 190 (S.C.C.).

315 While clearly a standard of reasonableness was applied to the Court's review of the labour arbitrator's decision in *Irving Pulp*; the decision in issue was the unilateral imposition of a random alcohol testing program within the framework of a collective bargaining regime. The Court approved the framework for analysis applied by the arbitrator to this particular workplace rule, which included both recognition and a balancing of the workplace safety and privacy interests impacted by random testing; workplace interests assessed by the Court at the outset as both highly sensitive and significant.

316 The workplace rule in issue in *Irving Pulp* was the unilateral introduction of a mandatory random alcohol program, which the arbitrator found exceeded the scope of the employee's management rights clause under the collective agreement. The workplace rule in issue in this grievance is also the unilateral imposition of a random testing program. In my opinion, on its face, not only am I guided by the Court's decision in *Irving Pulp*, I am bound by it.

317 In reaching this conclusion I have considered a number of arbitration decisions which have applied the principles approved and applied in *Irving Pulp* in assessing the reasonableness of a workplace rule through a balancing of interests and proportionality approach to the imposition of safety measures and attendant intrusions on privacy rights. [*Mechanical Contractors Assn. Sarnia and UA, Local 663 (Alcohol and Drug Testing), Re* [2013 CarswellOnt 18985 (Ont. Arb.)] (2013 CanLII 54951 (Surdykowski); *Suncor Energy Inc. and Unifor, Local 707A (Random Alcohol and Drug Testing Policy), Re* [2014 CarswellAlta 457 (Alta. Arb.)], (March 25, 2014) (Hodges); *Health Employers Assn. of British Columbia and HSA BC (Influenza Control Program Policy), Re* (2013), 237 L.A.C. (4th) 1, [2013] B.C.C.A.A.A. No. 138 (B.C. Arb.); and *Bombardier Transportation and Teamsters Canada Rail Conference, Division 660, Re* [2014 CarswellNat 240 (Can. R.O.A.)], CROA&DR Case No. 4277, 2014 CanLII 5318 (Schmidt)., *Lumber & Sawmill Workers' Union, Local 2537 v. KVP Co.* (1965), 16 L.A.C. 73 (Ont. Arb.) *(Robinson)], Agrium Vanscoy Potash Operations and USW, Local 7552 (16-10), Re*, 2015 CarswellSask 1, 249 L.A.C. (4th) 185 (Sask. Arb.) *(Norman)]*

318 However, the Employer also submits that under its mandatory random testing program the absence of punitive consequences (discharge or discipline) in response to a positive test or a refusal to test distinguishes it from the random alcohol testing program struck down in *Irving Pulp* as well as those in other random testing cases considered to date. In contrast, the consequences of a positive test or refusal under its random testing policies are rehabilitative, imposed upon those whose conduct

has been identified as a safety risk; unlike other cases in which disciplinary consequences were imposed in response to employee possession, use or impairment in the workplace.

319 Accordingly, the Employer submits I ought not to follow *Irving Pulp* on the basis that it is the disciplinary context which dictates the *Irving Pulp* analysis and the justification required for the random testing policies; neither of which in the Employer's view, apply in this case.

320 A more thorough review of the Employer's testing policies and protocols is required in order to evaluate the nature of the consequences arising thereunder.

321 The Employer's random testing policies are identified as Exhibits 4, 5 and 6, and attached hereto at Appendix C. While the substance in issue is distinguished amongst the policies, its common stated principles are these:

> • Teck Coal has an obligation and responsibility to provide a safe workplace.
>
> • The use of alcohol, illegal drugs, whether casual, recreational or arising from a dependency or the use of prescription medication and over-the-counter medications can create unacceptable safety risks to everyone on a safety-sensitive work site.
>
> • Given the carry-over effects of alcohol and illegal drugs, these risks occur regardless of whether the alcohol or illegal drugs are used while at work or when employees are off work.
>
> • Teck Coal considers it imperative to take the steps set out in this Policy to reduce safety risks arising from the use of alcohol, illegal drugs or medications.
>
> • These steps are intended to assist employees to stop using alcohol or illegal drugs and to avoid using medications in breach of this Policy, by providing for treatment and counselling and by making it clear that if they don't stop using alcohol or illegal drugs on or off the job and have an incident or near-hit with alcohol, illegal drugs or medications in their system, their employment will be terminated.
>
> • The presence of illegal drugs and medications in an employee or other persons system will be determined by the provision of a urine sample and urinalysis or by some other means. The presence of alcohol will be determined by observation, smell or by use of an alcohol testing device, such as a breathalyzer, or the provision of a urine sample and urinalysis, or by other means. A blood alcohol concentration above 00.02 while at work is considered a safety risk and a "positive" test and is prohibited by this Policy, whether or not such concentration would be considered impairment for other purposes.

322 In May 2012, the random testing was introduced as one more component of the Employer's multi-faceted safety program. It was described as a risk management tool, imposed to deter the misuse of alcohol and medication and the use of illegal drugs in a risky manner within a safety sensitive work environment *and* to identify employees who are deemed to be a safety risk on the basis of a positive alcohol test or a non-negative and positive drug test result.

323 I accept that the Employer's assertion that its random testing program is not concerned with identifying, assessing or establishing employee impairment in the workplace. Rather, its focus is on elimination of any risk of impairment in a dangerous work environment.

324 In reviewing the random testing policies and protocols, it is unclear whether a random alcohol test result is considered "positive" at a BAC level *over* 0.02 as set out in the alcohol policy or *at or over a* BAC level of 0.02, as described by Denise Thomson, the Employer's occupational health nurse, during the course of her testimony concerning positive test protocols. Although perhaps not much will turn on this issue in order to resolve the ambiguity, I accept that the detection of alcohol at a BAC of 0 .02 or more in an on-site breathalyzer test constitutes a positive test result.

325 Employees with a positive alcohol test result are sent home with pay, pending the outcome of an Assessment by an addictions specialist. A refusal to submit to an Assessment results in termination of employment.

326 Those who attend the Assessment and who are determined to suffer from alcohol abuse, addiction or a dependency problem are then required to undergo and successfully complete any prescribed or recommended treatment in order to permit a return-to-work. During treatment, provided at the Employer's expense, employees are eligible for the STD benefits of $700.00 per work in accordance with the provisions of the collective agreement. Once treatment has been successfully completed, employees are permitted to return-to-work under the terms of a Monitoring Agreement which generally extends for a 24 month period. Employees under a Monitoring Agreement are subject to unannounced alcohol and drug testing in addition to random, post-incident and reasonable cause testing. A refusal to return to work under a Monitoring agreement or a breach of the Monitoring Agreement results in termination of employment.

327 Those identified by the addictions specialist to be without an alcohol abuse, addiction or dependency problem are eligible for an immediate return-to-work upon agreeing to the altered terms and conditions of employment, also set out in a Monitoring Agreement. Those terms include a requirement that the employee undergo unannounced and random testing in addition to "for cause" testing for a 24-month period. As in the case of those prescribed treatment for an alcohol addiction or dependency, employees who refuse to return-to-work under a Monitoring agreement or who breach a provision during its term are terminated from employment.

328 It is the detection of the presence of an illegal drug or medication in an on-site urine test which constitutes a non-negative result, triggering laboratory confirmation protocols.

329 Initially, all employees with a non-negative random drug test result were sent home with pay, pending laboratory confirmation testing results. This protocol was later adjusted in cases of a non-negative result for opiates and later for amphetamines, in response to the number of lab confirmation tests which identified use of prescribed or over the counter medication. Under the amended protocol, those employees who declare that they are taking medication as prescribed are permitted to resume work, pending laboratory confirmation. When the employee's explanation is confirmed by the MRO, the employee simply continues working without conditions. When the employee's explanation is contradicted by the MRO, the employee is sent home under positive test protocols.

330 In respect of all other non-negative test results, employees remained at home pending the outcome of laboratory confirmation testing.

331 As in the case of those who test positive for alcohol, employees with a confirmed positive drug test result are required to undergo an Assessment. Those identified with a substance abuse, dependency or addiction problem are required to complete any treatment recommended or prescribed, during which weekly STD benefits are payable. Again, upon completion of treatment, employees are permitted to return-to-work under the terms of a Monitoring Agreement, a breach of which results in the termination of employment.

332 Those assessed without a dependency or addiction (being the casual or recreational user) for whom no treatment has been recommended or prescribed, are permitted to return-to-work under altered conditions of employment as set out in a Monitoring Agreement, but not otherwise. A refusal to agree to its terms or in the event of a breach of one or more of its terms results in termination of employment.

333 Employees who refuse to undertake a site alcohol or drug test are removed from the workplace. According to Mr. Barrie, they are placed on unpaid leave, unlike those under positive test protocols, and referred for an assessment. If prescribed, once treatment is completed employees are eligible to return-to-work under the terms of a monitoring agreement. As in the case of all others who refuse to undergo an assessment, employment is terminated.

334 During the course of the hearing, the Board was informed that employees whose employment has been terminated for testing positive while under a Monitoring Agreement are conditionally eligible for rehire. Mr. Barrie was unable to recall anyone outside of the grievance process who successfully secured re-employment in such circumstances.

A Punitive or Disciplinary Consequence

335 It has long been accepted that the imposition of a safety measure outside of the collective bargaining process which incorporates disciplinary consequences for those subject to its terms must fit within the reservation of management rights in a collective agreement; a principle affirmed by the Court in *Irving Pulp* at para.4, expressed as follows:

> *A substantial body of arbitral jurisprudence has developed around the unilateral exercise of management rights in a safety context, resulting in a carefully calibrated 'balancing of interests' proportionality approach.* ***Under it, and built around the hallmark collective bargaining tenet that an employee can only be disciplined for reasonable cause, an employer can impose a rule with disciplinary consequences only if the need for the rule outweighs the harmful impact on employees' privacy rights.***
>
> [emphasis added]
>
> And at para. 23:
>
> > *...an employer may only discharge or discipline an employee for 'just cause' or 'reasonable cause' — a central protection for employees. As a result, rules enacted by an employer as a vehicle for discipline must meet the requirement of reasonable cause*. [citations listed intentionally omitted].

336 In identifying the attributes of a disciplinary sanction, Brown & Beatty provided a helpful overview in Donald J. M. Brown & David M. Beatty, *Canadian Labour Arbitration*, 4th ed. (Aurora, Ont.: Canada Law Book, 2006) (loose-leaf updated 2014, release 39) ch 7 at 7:4210

> In some cases, employers deny that the action they took was disciplinary, in lieu of defending the appropriateness of the penalty imposed.
>
> . . .
>
> A disciplinary sanction must at least have the potential to prejudicially affect an employee's situation, although immediate economic loss is not required.

337 *Discipline*, in its ordinary meaning, has been defined as:

> • *Control or order exercised over people or animals, e.g. over members of an organization; system of rules for this*. [The Pocket Oxford Dictionary, 8th Ed., p.245]
>
> • *Instruction, comprehending the communication of knowledge and training to observe and act in accordance with rules and orders. Correction, chastisement, punishment, penalty. Rules and regulations*. [Black's Law Dictionary, 5th Ed., p. 417]
>
> • *To punish or penalize for the sake of discipline*. [Webster's New Collegiate Dictionary, page 322]
>
> • *Bring under control, train to obedience and order, drill; punish; chastise*. [The Concise Oxford Dictionary of Current English, 7th Ed, p. 273].

338 Clearly discipline contemplates a range of employer responses to a breach of workplace rules, policies and protocols; responses which can include termination for cause or other adverse employment consequences short of termination of employment.

339 For the purpose of this assessment of the nature of the consequences under the Employer's random testing policies, although I recognize that human rights issues relating to accommodation of a disability can and do arise in drug and alcohol testing cases, I have concluded that it is unnecessary to extend the analysis to such ancillary considerations in order to determine this issue.

340 In many cases the disciplinary response to a refusal or a positive random test is significant, often dismissal. [See: *Irving Pulp & Paper Ltd. v. CEP, Local 30,* [2009] N.B.L.A.A. No. 28 (N.B. Arb.); *Imperial Oil Ltd. v. C.E.P., Local 900,* [2006] O.L.A.A. No. 721, 157 L.A.C. (4th) 225 (Ont. Arb.) (Picher) *C.E.P., Local 777 v. Imperial Oil Ltd.* [(May 27, 2000), Christian Member (Alta. Arb.)], (May 27, 2000) (Chair: Timothy J. Christian); *Greater Toronto Airports Authority v. P.S.A.C., Local 0004,* [2007] C.L.A.D. No. 243, 90 C.L.A.S. 177 (Ont. Arb.),. *Mechanical Contractors Assn. Sarnia and UA, Local 663 (Alcohol and Drug Testing), Re* 2013 CanLII 54951 (Surdykowski).]

341 Discipline or disciplinary action is not defined under the collective agreement at issue in this case. Article 21.02 refers only to disciplinary procedures.

342 It is clear that the Employer's random testing policies do not mandate immediate termination or appear to apply immediate negative financial consequences in the event of either a non-negative or positive drug test or a positive alcohol test. In each case, affected employees are removed from the workplace and placed on leave pending a referral to an addictions specialist. The referral for an Assessment may be delayed for those subject to laboratory confirmation testing. These policy provisions are consistent with the express rehabilitative purpose set out in the random testing program.

343 An assessment of whether or not disciplinary consequences arise in the application of the Employer's random testing policy, in my opinion, includes those measures imposed in, during and after the testing process which result in adversely altered employment terms and conditions of employment in a sufficient degree as to constitute discipline.

344 Having carefully reviewed the various components of the Employer's random testing program, I am persuaded that there are disciplinary consequences, in varying degrees of severity, attached to other of its mandatory provisions; consequences which arise in the following circumstances:

- A refusal to attend a mandatory referral to an addictions specialist for an Assessment results in immediate termination of employment.

- Although it has long been accepted that those diagnosed with substance abuse problems are properly subject to the terms of a Monitoring Agreement in order to be permitted to return-to-work. However, under CRO's mandatory testing protocols, even those who participate in an Assessment and who are determined to be *without* symptoms of drug or alcohol abuse, dependency or addiction and for whom no treatment was been prescribed or recommended, are not permitted to return-to-work under existing terms and condition of employment. Rather, such employees are subject to the terms of a Monitoring Agreement which includes unannounced testing in addition to random, post-incident and reasonable cause testing and provides for immediate termination of employment in the event of a subsequent positive test on the basis of a deemed safety risk. Thus, employees who do not require rehabilitation or other assistance are nonetheless subject to altered adverse terms and conditions of employment.

- Those without a substance abuse problem, addiction or dependency who refuse to participate in a Monitoring Agreement are terminated from employment.

- The Employer practice in the event of a refusal to submit to a random test results in the employee's removal from the workplace on an unpaid basis contrary to the express provisions of the policies as described by Mike Barrie. Accordingly

the positive test protocol contemplated under the random testing policy is not honoured; constituting, in my view, an unauthorized negative financial and a disciplinary consequence.

345 In addition, having regard to the broader context of the Employer's random testing protocols, I note that attendant upon a CRO employee's participation in the Assessment process conducted by an addictions specialist selected by the Employer, is a mandatory requirement that on pain of termination of employment, an employee reveal to a stranger highly sensitive personal information the nature of which Sopinka, J. referred to in *R. v. Plant*, [1993] 3 S.C.R. 281 (S.C.C.) at 293], "... *tends to reveal intimate details of the lifestyle and personal choices of the individual*." Again, in my view, the Assessment incorporates a disciplinary component into the assessment process.

346 Having regard to all of these factors and notwithstanding that neither a positive random test nor a refusal to test triggers immediate dismissal, I am persuaded that the Employer's random testing program incorporates and applies a number of disciplinary consequences to those subject to its terms. As such, I am also persuaded that the framework for analysis set out in *Irving Pulp* is applicable to this grievance.

Unilateral Introduction of Random Testing: The Irving Pulp Paradigm

347 The Court in *Irving Pulp* had occasion to consider the interpretation of a management rights clause of a collective agreement within the context of an employer's unilateral introduction of a mandatory random alcohol testing program/policy. This random testing policy provided for disciplinary consequences in the event of a positive test at a BAC cutoff of 0.04% or in the event of a refusal.

348 In undertaking this analysis, the Court identified and approved the legal framework to be incorporated into a consideration of an employer's exercise of management rights which results in the introduction of a workplace place rule with disciplinary consequences. In assessing the scope of that authority, the Court approved the considerations set out in the "*KVP test*": the rule must be reasonable; the rule must satisfy a reasonable cause constraint where discharge or discipline can be imposed for its violation; and the rule must be consistent with the collective agreement. It also noted with approval, at para. 27, the "balancing of interests" approach to an assessment of "*KVP* reasonableness" of a unilaterally imposed safety rule or policies that affect employee privacy within a random testing context.

349 Abella J. discussed this "balancing of interests proportionality approach" within a random testing context and outlined, with approval, those necessary steps to the analysis at paras 4-6:

> *Under it, and built around the hallmark collective bargaining tenet that an employee can only be disciplined for reasonable cause, an employer can impose a rule with disciplinary consequences only if the need for the rule outweighs the harmful impact on the employee's privacy rights.* ***The dangerousness of the workplace is clearly relevant, but this does not shut down the inquiry, it begins the proportionality exercise.***
>
> *This approach has resulted in a consistent arbitral jurisprudence whereby arbitrators have found that when a workplace is dangerous, an employer can test an individual employee if there is reasonable cause to believe that the employee was impaired while on duty, was involved in a workplace accident or incident, or was returning to work after treatment for substance abuse. In the latter circumstance, the employee may be subject to a random drug or alcohol testing regime on terms negotiated with the union.*
>
> *But a unilaterally imposed policy of mandatory, random and unannounced testing for* ***all*** *employees in a dangerous workplace has been overwhelmingly rejected by arbitrators as an unjustified affront to the dignity and privacy of employees unless there is reasonable cause, such as a general problem of substance abuse in the workplace.*
>
> [emphasis added]

350 The *Irving Pulp* arbitration board's decision in striking down the company's random alcohol testing policy was held to be reasonable by the majority of the Court and was thus upheld. In determining that the policy was unjustified, the board relied

in part upon the evidence of low positive test percentages plus an absence of evidence to establish "...any significant degree of incremental safety risk attributable to employee alcohol use" in the workplace [para.120].

351 An important component of the board's analysis was its consideration of the nature of random testing regime in the particular workplace, having regarding to the competing interests at stake, quoted by the Court, [with the Court's emphasis noted], at para. 14, as follows:

> Rights to privacy and to the related right of security of the person are important and prized incidents of Canadian citizenship. Reactions to invasions of them tend to be prompt, visceral, instinctive and uniformly negative. When the testing is random — that is — without articulable cause — as it is here, an already high bar is raised even higher. This considerably increases the burden of justification on the employer.
>
> **The invasion of that privacy by the random alcohol testing policy is not a trifle.** It effects a significant inroad. Specifically, **it involves a bodily intrusion and the surrender of bodily substances.** It involves coercion and restriction on movement. Upon pain of significant punishment, the employee must go promptly to the breathalyzer station and must co-operate in the provision of breath samples. As we saw with Mr. Day, **there can be an element of public embarrassment.** Taking its results together, **the scheme effects a loss of liberty and personal autonomy. These are at the heart of the right to privacy.**

352 In establishing justification for the intrusion on privacy interests generated by random testing, the Court also accepted that the employer must do so on the basis of the "*...particular risks in a particular workplace*".

353 The Court noted with approval Arbitrator Picher's helpful summary of those circumstances in which drug and alcohol testing in a safety sensitive workplace is generally accepted within the "Canadian Model", which he discussed in *Nanticoke*, *supra*, at paras. 100 - 101:

> At the risk of oversimplification, the 'Canadian Model' for alcohol or drug testing in a safety sensitive workplace as developed in the arbitral jurisprudence generally contains a number of elements as summarized below:
>
> • No employee can be subjected to random, unannounced alcohol or drug testing, save as part of an agreed rehabilitative program.
>
> • An employer may require alcohol or drug testing of an individual where the facts give the employer reasonable cause to do so.
>
> • It is within the prerogatives of management's rights under a collective agreement to also require alcohol or drug testing following a significant incident, accident or near miss, where it may be important to identify the root cause of what occurred.
>
> • Drug and alcohol testing is a legitimate part of continuing contracts of employment for individuals found to have a problem of alcohol or drug use. As part of an employee's program of rehabilitation, such agreements or policies requiring such agreements may properly involve random, unannounced alcohol or drug testing. This is the only exceptional circumstance in which the otherwise protected employee interest in privacy and dignity of the person must yield to the interests of safety and rehabilitation, to allow for random and unannounced alcohol or drug testing.
>
> • The cases general recognize that an employee's refusal or failure to undergo an alcohol or drug test in the three circumstances described above may properly be viewed as a serious violation of the employer's drug and alcohol policy, and may itself be grounds for serious discipline. The failure or refusal to take an alcohol or drug test, however, like the registering of a positive test, does not necessarily justify automatic termination. The appropriate disciplinary sanction in such a case remains subject to the general just cause provisions of the collective agreement and is an issue to be determined on a case by case basis, having regard to all of the relevant facts.

> As set out above, a key feature of the jurisprudence in the area of alcohol or drug testing in Canada is that arbitrators have overwhelmingly rejected mandatory, random and unannounced drug testing for all employees in a safety sensitive workplace as being an implied right of management under the terms of a collective agreement. Arbitrators have concluded that to subject employees to an alcohol or drug test when there is no reasonable cause to do so, or in the absence of an accident or near miss and outside of the context of a rehabilitation plan for an employee with an acknowledged problem is an unjustified affront to the dignity and privacy of employees which falls beyond the balancing of any legitimate employer interest, including deterrence and the enforcement of safe practices. In a unionized workplace, such an extraordinary incursion into the rights of employees must be expressly and clearly negotiated. It is not to be inferred solely from general language describing management rights or from language in a collective agreement which enshrines safety and safe practices.

354 Arbitrator Picher also pointed out that neither the federal nor provincial governments have enacted statutory or regulatory authority to authorize employers to conduct drug or alcohol testing; unlike in other jurisdictions. This is still the case in Canada.

355 On the issue of the deterrence factor in random testing, the Court in *Irving Pulp* agreed with the arbitration board that an expert's testimony which speaks to random testing's main theoretical goal of deterrence is not persuasive in the absence of accompanying information about this specific workplace.

356 Accordingly, in conducting an assessment of whether there was reasonable cause for the Employer's unilateral introducing universal mandatory random testing in May 2012, the framework of analysis contemplates the following steps:

- an assessment of the nature of the work environment;

- an assessment of evidence of enhanced safety risks in that work environment, such as evidence of a workplace problem with drugs and alcohol, whether determined through the application of statistical data of use, accident or injury rates or measured through the application of risk-avoidance strategies; and,

- an assessment of the reasonableness of the measure imposed in response to the problem, including its proportionality in the context of the conflicting workplace interests.

CRO's Work Environment

357 The nature of CRO's work environment is not in dispute. Bargaining employees occupy safety sensitive positions in a safety sensitive industry and within a work environment that has inherent dangers. The repetitive nature of the work performed in changing environmental conditions during long shifts is acknowledged by the parties. The scope of the operation, the size of the equipment, the isolation within in some of the work is performed, the nature of the duties and the conditions in which the duties must be performed are all important components of CRO's work environment. Thus the first step in the analysis is readily established; CRO constitutes a safety sensitive workplace.

Evidence of a Workplace Problem with Alcohol and Drugs at CRO

358 The Employer reiterated throughout the course of the hearing that its decision to introduce random alcohol and drug testing at CRO was a reflection of its earlier adoption of a risk management approach to workplace safety, described at some length by Robin Sheremeta. It did so in part in response to the nature of its work environment as well as having regard to its statutory obligation under the Alberta *Occupational Health & Safety Code* to create and maintain a safe and healthy work environment.

359 Random testing was aimed at reducing and/or eliminating risk associated with the risky use of drugs or alcohol, whether at home, at work, recreationally, casually, or as a result of abuse, dependency or addiction. The Employer asserts that to the extent its safety measures may or do intrude upon individual privacy rights at CRO, safety interests necessarily trump privacy interests in the context of a dangerous work environment.

360 While I accept the Employer's stated risk reduction goal in implementing random testing, the goal itself does not satisfy the risk threshold necessary to justify the introduction of random testing under the *Irving Pulp* paradigm approved by the SCC. Rather, there must first be sufficient evidence of an alcohol and drug problem at CRO to justify its introduction in May 2012.

361 A workplace rule to enhance safety serves a broad and significant interest. Witnesses without exception, regardless of seniority, age, employment status or role at CRO, reiterated personal support for and adherence to safe work practices in the workplace. This shared commitment to a safe workplace is also evident in the evolution of drug and alcohol testing initiatives at CRO which, prior to 2012, represented either a joint initiative of the Employer and the Union or one introduced with Union support [See paras. 35-41 above].

362 CRO's Drug & Alcohol Summary of the aggregate test results of employees, contractors and visitors 2005 — February 4, 2014 is set out in Exhibit 29. These results include those obtained through the Employer's random testing program which is the subject of this grievance.

363 For the purpose of establishing evidence of a drug and alcohol problem prior to the introduction of random testing, the combined test results recorded in Exhibit 29 during the 7 year period (2005-2012) demonstrate that of the 232 reasonable cause and post-incident tests, CRO employee test results are:

Site alcohol positive tests:	0
Reasonable cause:	3 confirmed positive
Post-incident:	7 confirmed positive (including 1 positive for Tylenol)

364 These positive test results do not indicate where or when a substance was ingested or identify a sample's concentration level. Accordingly there is no evidence either establishing or eliminating any degree of impairment associated in any the positive drug test results identified above.

365 Company-wide aggregate drug and alcohol test results and site-specific drug and alcohol test results for 2012 and 2013 are set in Exhibits 45(a) and (b) [Appendix D]. It is only the CRO drug and alcohol test results which have relevance to a determination of the outcome of this grievance.

366 In 2012, 4 HPIs were documented. During this period 44 post-incident drug tests were conducted, none of were confirmed positive in laboratory testing. There were no post-incident positive site alcohol tests. Of the reasonable cause tests conducted in 2012, none related to alcohol. Of the 4 reasonable cause drug tests conducted, 1 was confirmed positive. This data persuasively establishes that neither drugs nor alcohol factored into any of the HPIs in 2012. [Exhibit 45(a)]

367 In 2013, there were 24 post-incident tests, none of which were confirmed positive. No reasonable cause tests were ordered. The 2013 data also establishes that neither drugs nor alcohol factored into any of the 7 HPIs at CRO. [Exhibit 45(b)]

368 In summary, only 1 of the 72 reasonable cause and positive incident drug or alcohol tests conducted in 2012 and 2013 was confirmed positive.

369 Additional evidence about drugs and alcohol at CRO was introduced through Employer witnesses, some of which includes:

- October 27th, 1999: During the final hour of a night shift, a collision occurred during which one haul truck rear-ended another, resulting in a fatality; an accident which Glen Ross described as *"chilling"* and *"sobering";* representing what he described as one of the saddest days of his life. Toxicology investigations following the accident identified *"very recent substance use by the deceased"*. [Exhibit 34-13.4]. As a result of this incident, the Union and the Employer jointly created a formal Alcohol and Drug Policy in October 2000 [Exhibit 35].

• A baggie of what was determined to be methamphetamine (crystal meth) was discovered on the floor of the meeting room at Cheviot Dry. Ownership was suspected but never confirmed. The Employer responded with a workplace presentation on crystal meth to all employees. [Exhibit 28]

• October 2004: the smell of marijuana in a haul truck was reported but not confirmed. An employee later reported seeing someone "toking up". It is unknown if the individual described was a member of the bargaining unit. [Glen Ross]

• Sometime in 2008 (estimate), an operator reporting finding what was believed to be marijuana in a haul truck at the beginning of a day shift. Two people who had operated the truck during the prior two shifts were identified; one of whom was required to take a drug test (negative). The second operator could not be located. Ownership of the substance was never established.

• Date unknown: a Ziploc bag of "blue pills" was found on a dash, which may have been diet pills. Ownership of the substance was not determined. This incident caused the Employer to focus on worker fatigue [Ross Wilson].

• A chronically late or absent employee who declined assistance several times under the Employer's Employee Family Assistance Program was terminated from employment [date unstated]. It was suspected that the employee may have an alcohol dependency or addiction, which was not confirmed. [Robyn West]

370 A number of arbitral decisions have had occasion to consider the nature and sufficiency of evidence of a substance problem among members of the bargaining unit as part of an assessment of the justification of the imposition of random testing. For example, in *Irving Pulp*, *supra*, the board considered the sufficiency of evidence which included 8 documented alcohol-related incidents over a 15 year period, representing an average of 1 incident every 3 years. Five of those incidents represented employees who were determined to be "under the influence" in the workplace. The board concluded, at para 109:

> This evidence is not to be dismissed, and I do not do so, but it cannot be said to be indicative of a significant problem with alcohol-related impaired performance at the plant. As well, such as it is, it is not tied in with what the actual experience has been in the plant, with accident, injury and near-miss history, and with what group or groups of employees. I therefore have no idea of what the elements of any such record are; still less whether any lapses have been causally linked to the abuse of alcohol.

371 The board concluded that the employer's evidence did not meet the necessary risk threshold and struck the policy, a decision later upheld by the Court. In reaching this conclusion, the board considered the following additional factors:

• Dated general evidence on on-site alcohol abuse was not persuasive [para 108];

• In an almost 10 year period (to the date of the hearing), there had been 2 incidents in which an employee was "under the influence" at work;

• As only 10% of those in safety sensitive positions were subject to random testing per year, a percentage which the employer estimated would achieve deterrence, suggest it did not regard alcohol as a significant risk in the workplace;

• Since the implementation of the random testing policy, there had been no positive random tests and no positive reasonable cause tests within a 22 month period.

372 In *Imperial Oil Ltd. v. C.E.P., Local 900*, [2006] O.L.A.A. No. 721, 157 L.A.C. (4th) 225 (Ont. Arb.) (Picher) "*Nanticoke*", the board considered the introduction of a mandatory random drug testing program which was represented, at para. 58, as one *"...intended to create a safe work environment by the reduction of any risks of accidents or incidents which could be contributed to by drugs and alcohol, and to deter the use of such substances where their use might negatively affect work performance and safety"*. The testing protocol provided for the use of oral swabs to detect actual impairment through cannabis use and urine testing to detect the presence of drugs or their metabolites. Those in safety sensitive positions were subject to random testing

using buccal swabs. The policy was struck by the board as the evidence did not establish "reasonable cause" for its introduction. In doing so, the board assessed the evidence introduced to support random testing, noting at para. 88:

> In a period spanning more than fifteen years there has never been a case of an employee being found to be impaired by drugs at work. Indeed, there was only one instance of a positive urinalysis test, said to have occurred prior to the certification of the Union in 1995, a case which because it involved a urinalysis test, could not confirm impairment while at work, although it did indicate that the employee in question had used marijuana at some point in his personal life. Since then, through thousands of drug tests, there has not been a single positive result, whether through urinalysis or through the current use of the buccal swab. While the evidence before us supports the conclusion that there has been some increase in the frequency of use of cannabis generally in Canadian society over the last two decades, there is no evidence whatsoever of any significant degree of cannabis use among the workforce at the Nanticoke refinery. Indeed, the evidence tends to the contrary, revealing a picture of a mature and safety conscious workforce with almost no record of drug use or abuse.

373 In *Mechanical Contractors*, *supra*, the introduction of universal mandatory pre-access alcohol and drug testing was assessed, albeit on the basis of "will say" statements. The board concluded, at para. 196, that the evidence was insufficient (or non-existent) to demonstrate a substance abuse problem *"....which demonstrably justifies the need for personally invasive pre-access alcohol and drug testing"*.

374 In *Suncor Energy Inc. and Unifor, Local 707A (Random Alcohol and Drug Testing Policy), Re*, (March 25, 2014) (Hodges), the board also considered evidence to justify the unilateral introduction of mandatory random alcohol and drug testing for all those in safety sensitive positions. In this case evidence of fourteen positive alcohol tests over a nine year period among a significant workforce population was also determined to be insufficient to meet the risk threshold mandated by the Court in *Irving Pulp*.

375 In contrast, the evidence of a workplace alcohol problem in *Greater Toronto Airports Authority v. P.S.A.C., Local 0004*, [2007] C.L.A.D. No. 243, 90 C.L.A.S. 177 (Ont. Arb.), ("GTAA") included not only test results and evidence of *use* of alcohol in the workplace and evidence of its *recent use*, as in immediately prior to attendance at the workplace, a sampling of which is found at paras. 256-259, including:

- evidence of members of the bargaining unit consumed alcohol at work or during meal breaks;
- evidence of employees who appeared to be inebriated;
- evidence that it was common to smell alcohol on the breath of some employees;
- evidence of empty beer or alcohol bottles in vehicles or in the garage
- evidence of employees who kept alcohol in their lockers, lunch pails and coveralls;
- evidence of employees who took beer into snow-clearing equipment;
- evidence that employees assigned to the dafter shift often spent afternoons in bars near the airport; drinking and playing cards; some of whom reportedly returned to snow-clearing operations the same day.

376 Accordingly the board in *GTAA* concluded the random alcohol testing policy was reasonable in the circumstances. It did not, however, reach a similar conclusion with respect to the random drug testing policy, which it found to be an unreasonable exercise of management rights contrary to the collective agreement.

377 I note that the evidence submitted to establish or refute a drug problem at GTAA is not dissimilar some of the evidence presented in this case. In concluding the evidence of a drug problem at GTAA insufficient to warrant random drug testing, it commenced that analysis at paras. 269 - 270:

> *Turning then to the issue of drug use at Pearson Airport, the evidence indicates that there were two instances where employees were actually observed smoking marijuana at work, one in the 1980's and the other in 1989 or 1990. Reference was also made to an employee who appeared to be "stoned" after going for a drive with another employee and one management witness recalled seeing the butt of a joint in snow-clearing equipment. A number of management witnesses also testified that at various times, they smelled marijuana in the workplace. Although reference was also made to an employee who frequently snapped his fingers and was given a nickname b his co-workers because he was believed to be high, the evidence is not sufficient to reach any reliable conclusion in that regard. Moreover, however ill-advised it may have been for that employee to have smoked a joint when driving home from work, again, that evidence does not indicate that he was impaired or under the influence of drugs at work. Similarly, although Ms. Maack gave evidence regarding a number of employees who tested positive for particular drugs both before and after the introduction of the GTAA's policy, that evidence does not establish that those employees were impaired at work.*
>
> *It is apparent that over the course of many years in respect of which evidence was introduced, there have been some incidents of drug use among employees at Pearson Airport. However, in contrast, to the use a calibrated breathalyzer for alcohol testing, drug testing under the GTAA's policy involves urinalysis.* ***Not only must the requirement to provide a urine sample be regarded as highly intrusive but, as noted repeatedly, this method of testing does not demonstrate impairment, which is significant in the case of random testing.*** *In reasonable cause or post-accident/incident testing, there is some conduct on the part of the employee or a significant accident or incident in the workplace which may suggest that the employee is impaired and in respect of which a positive drug test may provide corroborative evidence.* ***In the case of random testing, in contrast, an employee is selected for testing on the basis of a computer program. Accordingly, there is no conduct, accident or incident on which the employer may rely but only the results of a drug test. As such a test cannot detect impairment, considerable evidence was introduced by the GTAA to indicate that individuals may be affected not only be the acute effects of drugs but also by their sub-acute effects.***
>
> [emphasis added].

378 The board in *GTAA* went on to consider the evidence of the experts concerning the duration of acute of sub-acute effects of drugs as well as the longer period in which cannabis metabolites and other can be detected in urine. It also considered the disputed evidence of hang-over and withdrawal effects *and* the disputed evidence of a correlation between a positive drug test and a positive drug test based on urine. Indeed, a number of the epidemiological studies referenced in *GTAA* were also introduced in this matter. In addition, the board considered evidence introduced to demonstrate the efficacy of its random drug testing program, at para. 284:

> I note, as well, that in this case the evidence introduced by the GTAA regarding the effectiveness of its random drug testing program consisted of a chart indicating a reduction in positive drug tests following the implementation of the policy. Similar evidence was considered in the **Trimac** case and found to be irrelevant. In this regard, Arbitrator Burkett commented as follows:
>
> > The Company's reliance on the decline in positive test results over time, following the implementation of mandatory random testing is a "bootstrap" argument. If the technology is such that mandatory random drug testing is incapable of determining whether an employee is under the influence at work at the time the test is administered, as is undisputed, and if the evidence does not establish that the residual effects of drug-taking pose a risk that justifies mandatory random drug testing, then any decline in positive test results is irrelevant. It is relevant to the issue of an employee's off-work lifestyle choices. However, it is not relevant to the issue of whether the Company has a business interest in implementing mandatory random testing that is sufficient to override the employee's privacy interest in not being subjected to mandatory random drug testing.

379 The evidence presented to the Board to establish the existence of a drug and alcohol problem or enhanced safety risk in CRO's workplace prior to May 2012, included LTI injury rates, HPIs, post- incident and reasonable cause drug testing results and reports of drugs or suspicions of drugs in the workplace.

380 Dr. Macdonald assessed CRO's documented safety record at page 28 of his report, as follows:

> *The Total Recordable Injury Frequency (TRIF = Number of Fatalities plus Medical Aid (MA) plus Lost Time Injuries *200,000/hours worked) for Cardinal River Operations, is equivalent to the number of injuries per 100 person years, assuming 2,000 hours equals one person year. TRIF for 2013 was reported at 2.48 per 100 person years, which has been trending downward from a high of 18.32 in 2001. (Note: Hours worked for 2013 can be translated into person years as follows: 967,823/2,000 = 483.9 person years, and 2.48 injuries per 100 person years (12 MAs/483.9 ? 100). This rate of injuries is very low. This rate is closest to the Finance, Insurance and Real Estate Sector (1.87) reported in Wickizer's study, the work sector with the lowest injury rate and not considered safety sensitive. It is substantially lower than the average injury rate for the intervention companies (26.79) and higher than the non-intervention companies (14.66).* [Exhibit 47]

381 Dr. Li also had an opportunity to comment on CRO's safety record. Although he initially concluded that the injury rates reported at CRO were similar to those reported in the *Wickizer* study of the mining industry in Washington State [Exhibit 54, Tab 27], it was established on cross examination that Dr. Li's conclusion was based upon a misunderstanding of how CRO injury rates were recorded. It was pointed out to Dr. Li that, unlike how injuries were recorded in *Wickizer*, CRO's injury rates were calculated on the basis of total reportable injury frequency; which included both the less serious "medical aid" injuries and those which are more severe, the "lost time" injuries. Although Dr. Li offered comment on what he viewed as a significant distinction between "reportable injury" and "recorded injury", he conceded that he no independent knowledge about how CRO kept its injury statistics.

382 I accept Dr. Macdonald's opinion that CRO's documented injury rates have steadily reduced since 2001: from a TRIF of 18.32 to 2.48 per 100 person years in 2013; representing a lower rate than at for other mining companies; a lower rate than even documented in non-safety sensitive sectors, notwithstanding the nature of CRO's work environment. This result is consistent with shared commitment to safety expressed throughout the hearing. This result is also consistent with the Employer's adoption of a multi-faceted safety program in its effort to reduce perceived or actual risk in the workplace. It has invested heavily in risk-reduction measures to combat employee fatigue, stress, and problems with diet, nutrition, health and wellness; as well those which arise with the use or misuse of drugs and alcohol, whether in workplace or elsewhere.

383 Accordingly, I am persuaded that Dr. Macdonald's assessment of CRO's injury rates is based upon a more thorough understanding of CRO's methodology in measuring the severity and frequency of its workplace incidents and as such, I prefer Dr. Macdonald's opinion over that of Dr. Li on this issue.

384 Even if were otherwise, on the issue of whether there is a drug and alcohol problem at CRO, Mr. Barrie testified that there was *no* evidence linking a LTI with either drug or alcohol impairment since the Employer had taken over operation of CRO in 2006. This, too, is consistent with the decline in injury accidents at CRO. I accept Mr. Barrie's evidence on this issue.

385 Similarly, even the Employer's move to tracking High Potential Incidents (HPIs) rather than simply recording actual workplace injuries (TRIFs), has not, in my opinion, demonstrated a sufficient nexus to drug and alcohol use to establish a drug and alcohol problem at CRO. According to Ms. West, had drugs or alcohol been considered a factor in an HPI event, a post-incident test would have been ordered and if positive, would have resulted in termination of employment. I accept Ms. West's evidence on this issue. Of the 223 post-incident tests conducted over a 7 year period, CRO employees had 7 positive test results, including 1 positive for Tylenol; 5 of which resulted in termination of employment. [Exhibit 29]

386 However, of the 6 post-incident positive test results, *none* were linked to either a LTI or to a HPI, during a time in which the CRO's workplace safety statistics have steadily reflected increased worker safety notwithstanding the dangers associated with this safety sensitive work environment.

387 The reports of drugs use at CRO have also been considered. In 1999 there was an incident at CRO which resulted in fatality; recent drug use was identified in the post-mortem toxicology report. In October 2004, the smell of marijuana was reported but not confirmed. An employee reported seeing someone "toke up"; no other information was introduced on this issue. The identity of the individual was not established; the substance reported was never recovered or confirmed to be a drug. In

2008, a substance believed to be marijuana (but not confirmed) was found in a haul truck; ownership was never established. It is unclear whether the substance was tested. A baggie of crystal meth was found at Cheviot Dry, date uncertain but estimated to be late 2010; ownership was suspected but never established.

388 I accept that the Employer has also experienced drug and alcohol use at other of its site operations. I have been provided with aggregate drug and alcohol test results, and information relating to injuries and fatalities outside of CRO. All such evidence does not assist in the scope of the inquiry before me, which is restricted to evidence of a drug and alcohol problem at CRO.

389 This conclusion applies equally to Mr. Campbell's summary of the findings of the Senior Management Team's review and assessment of drug and alcohol incidents leading to the adoption of random testing fails to identify, which he described as:

- D&A test results in the previous 5 year period identified 50 employees involved in incidents at the various mines had tested positive for drugs.
- Drug paraphernalia and empty liquor bottles had been found on mine sites.
- A number of employees had voluntarily disclosed drug and/or alcohol problems and sought assistance.
- A number of employees had been identified in newspaper publications addressing drug/alcohol use in communities.
- Members of the RCMP had advised the Employer of an ongoing drug/alcohol problem both in Elk Valley and in Hinton.
- Approximately 30-40 applicants for employment failed the drug/alcohol screen each year.

390 In my opinion, Mr. Campbell's summary of the drug and alcohol incidents set out above is too ambiguous is assist in the scope of the inquiry before me as it fails to identify which incidents are related to members of CRO's bargaining unit or which incidents, if any, occurred at CRO.

391 The lack of particularity of this evidence is similar to some of that which was submitted by the employer submitted to the arbitration board in *Suncor*, discussed at para 253:

> In addition to its positive "for cause" testing experience, the Employer relied heavily on Exhibit 63 as demonstrating further evidence of the "problem" with alcohol at its Oil Sands Operations. This is a document relating to what the Employer considers are "Alcohol and Drug Security Incidents" between 2004 and September 2013 — a nine year period. It includes reference to alcohol "finds" such as empty bottles and also drug paraphernalia and drug finds. The Employer argues the evidence is "profound", "pervasive" and "more compelling" than any evidence in any other case. **Another adjective could be added to that list: "unrefined".** The evidence from Suncor's witness is that security was interested in recording incidents, rather than breaking them down by specific employee or contractor group, seniority, specific location, follow up results.

392 However, I am satisfied that refined evidence of positive drug or alcohol test results at CRO identify employees in whom the presence of a prohibited substance has been detected. That evidence also established:

- Of the 6 positive post-incident tests in a 7 year period [2005-2012], none of which were linked to a workplace injury, accident or incident.
- 1 of 72 reasonable cause and post-incident tests conducted in 2012-2013 was positive, which, too, was not linked to workplace accident, injury or incident.
- In 2012, there were forty-four incidents at CRO in which a "human factor" was identified, requiring a post-incident drug and alcohol test; not one of which was positive.

393 Aside from the drug and alcohol testing data, both Mr. Barrie and Ms. West confirmed that there was no other evidence suggesting or establishing a link between workplace incidents and the use of drugs or alcohol. In addition I have considered

CRO's safety statistics and the steady decline in LTIs, reflecting the success of the Employer's efforts to maintain or enhance workplace safety.

394 I am in no way minimizing the significance of the forty-four workplace incidents in 2012 or the 24 workplace incidents in 2013 in which one or more human factors was identified. However, it is clear that based upon CRO's data, neither drugs nor alcohol were involved in a single incident over the course of this 2 year period. It may be that other human factors are or could be linked to some or all of these incidents, but that assessment is outside the scope of this inquiry.

395 As for the remaining evidence of reported smells of marijuana, finding what was believed to be marijuana, finding blue pills which were believed to be diet pills and finding a baggie of crystal meth is, in my view, much less persuasive, particularly when weighted against the objective evidence identified above. Even including the 3 refusals to test in 2012 in my view does not alter the conclusions that I have reached. With respect to evidence of other incidents and drug testing data compiled in respect mining operations other than at CRO, that evidence in my view is neither sufficient nor persuasive in establishing a substance problem at CRO.

396 Notwithstanding the inherent dangers of open pit mining operations, CRO safety record is laudable. Although the Employer conceded that it has a "very good safety record", its stated goal is zero accidents or injuries in its coal mining operations.

397 Having regard to evidence presented by the Employer to satisfy the onus of establishing that the random policy was introduced, in whole or in part, in response to an evident drug and alcohol problem at CRO, I am not persuaded that the risk threshold set out in *Irving Pulp* has been met in this case. As Abella J. pointed out in *Irving Pulp*, at paras. 29-30:

> *The balancing of interests approach was subsequently applied in assessing the reasonableness of unilaterally imposed employer policies calling for universal random drug or alcohol testing of all employees performing safety sensitive work. Universal random testing refers to the testing of individual employees randomly selected from all or some portion of the workforce. As in the search cases, arbitrators rejected unilaterally imposed universal random testing policies as unreasonable* ***unless*** *there had been a workplace problem with substance abuse and the employer had exhausted alternate means for the dealing with the abuse.*
>
> *In a workplace that is dangerous, employers are generally entitled to test individual employees who occupy safety sensitive positions without having to show that alternative measures have been exhausted if there is 'reasonable cause' to believe that the employee is* ***impaired while on duty,*** *where the employee has been directly involved in a workplace accident or significant incident, or where the employee is returning from treatment for substance abuse.* [citations omitted].
>
> [emphasis added]

398 The Employer's onus is a stringent one which must be satisfied in order to allow the unilateral introduction to a no-cause random, unannounced testing regime based upon a risk management approach to safety in the workplace; one which impinges upon employee privacy rights. To date, such an approach has been overwhelming rejected by arbitrators in Canada.

399 The Employer submits that *Irving Pulp* was decided on the basis of limited evidence of a problem with alcohol use in the workplace, an absence of any positive random alcohol tests in 2 years of testing, an absence of evidence related to alcohol use and no expert evidence of the efficacy of random testing before the arbitrator.

400 In my view, here, as in *Irving Pulp*, very limited cogent evidence of a problem with drug or alcohol use in the workplace was presented; whether through the introduction of Employer records or through the testimony of its witnesses immediately prior to the introduction of random testing at CRO.

401 On the basis of all of the evidence tendered, I have concluded that in totality, it does not meet the risk threshold set out in *Irving Pulp* necessary to establish a workplace problem with drugs or alcohol prior to the Employer's unilateral introduction of random testing in May 2012.

402 The Employer submits that I ought to include CRO's random testing results in that assessment.

403 It seems to me that in order to justify the introduction of random testing, it must first be established that a workplace problem exists *prior* to its introduction. That is what the proportionality exercise approved by the Court in *Irving Pulp* requires. Nonetheless, I am cognizant of the very significant interests at stake in this matter and in response, in the event that I ought to have included CRO's random testing results in the assessment of whether CRO has a workplace substance use problem, I will continue the assessment on that basis.

CRO's Random Testing Results

404 The random testing results are summarized again below for ease of reference.

405 As of May 2012, CRO's random testing program provided for testing of 100% of its workforce in any given year. As of August 2014, that testing protocol had not changed although the possibility of a future reduction was under consideration.

406 Random testing data for 2012 and 2013 is found in Exhibits 45(a) and (b).

407 Of the 170 random tests conducted at CRO in 2012, there were zero site alcohol positives and 10 site non-negative drug results; 2 of which were lab confirmed positive, with 2 refusals; representing a confirmed positive test result of 1.2% or of 2.4 %, including refusals.

408 Random testing was introduced at the Employer's remaining Canadian mine sites in January 2013. The aggregate testing data is set out in Exhibit 45(b). Of the 4, 236 random tests scheduled at all sites in 2013, there were 21 refusals, 184 non-negative results at site; 71 of which were lab confirmed positive and 108 were negative (inclusive of non-negative results determined to be medications). In theory, the board was informed that the site non-negatives should equal the lab "positives" and "negatives". In this case, they do not; the differential is 5 (184 less 179). Although no one was able to explain the differential, it is of no particular significance.

409 In 2013, CRO had approximately three hundred and forty hourly employees and 100 staff. CRO employee drug and alcohol testing results are also set out in Exhibit 45(b). Of the *320* random tests scheduled, 35 were site non-negative (including 3 refusals) and sent for lab testing. The lab/MRO identified 12 positive and 20 negative test results. Of the 24 post-incident tests conducted in 2013, none were positive for drugs or alcohol. No reasonable cause tests were conducted at CRO in 2013. In total, 12 of the 344 drug and alcohol tests conducted at CRO in 2013 were confirmed "positive" and there were 3 refusals.

410 The Employer also produced random testing data related to CRO in Exhibit 29. At page 2 are the aggregate results of the *374* random alcohol and drug tests conducted on "employees and contractors, visitors" at CRO in 2013. Of those random tests, the chart indicates there were 14 lab confirmed positive drug tests, 2 site alcohol positive tests and 3 refusals. Extrapolating from those named in the chart [names intentionally redacted], excluding the names of contractors and members of management who tested positive, it appears that 8 members of the bargaining unit had positive random tests in 2013; one of whom had 2 positive tests. At the same time, of the 24 incidents in which human error was identified as a possible contributor at CRO, none were associated with a positive drug or alcohol post-incident test result.

411 For 2014, page 2 of Exhibit 29 sets out the aggregate random testing results to March 2014. Of the 104 random tests conducted, there were 5 lab confirmed positive drug tests, 1 site alcohol positive test and 1 refusal. Again, extrapolating names disclosed on the chart it appears that 1 member of the bargaining unit tested positive for alcohol and 2 tested positive for drugs. One test rest was described on the chart as "not sent". Thus it would appear that 3 of the 104 positive random tests are those of members of CRO's bargaining unit.

412 In assessing CRO's 2012-2014 random testing results, I am persuaded that when comparing its positive test rates with those in other random testing cases, it is important to keep in mind the differentials in both the percentage of the workforce designed to be tested in any given year (100% at CRO), as well as in the applicable cut-off levels constituting a positive test.

413 The experts who testified in this case disagreed whether a positive random test itself identifies someone with a substance problem or someone with a risk of a substance problem, or neither.

414 The experts also disagreed whether or not a positive test result itself constitutes evidence of someone with performance deficits in the workplace and therefore an enhanced workplace safety risk, or not.

415 The Employer witnesses and experts testified that the testing cut-offs adopted in the random testing program do not, nor are they intended to, identify, establish, evaluate or constitute evidence of impairment in the workplace but rather, those with a *risk* of impairment.

416 Accordingly, the traditional analysis applied to determine the existence and/or extent of a workplace substance problem through incidents of substance use in the workplace or impairment in the workplace; whether established through drug test results or other cogent evidence of substance use, does not, in my opinion, easily translate to a risk avoidance protocol.

417 Under the Employer's random testing protocols, a positive alcohol test result is established with a breathalyzer reading of .02 or more; a positive drug test result is established by the detection of the presence of the certain of the parent drug metabolites in a urine sample and confirmed by a laboratory.

Alcohol:

418 According to Dr. Li, within the context of a "zero tolerance policy" adopted to prevent injuries and to manage potential risk, a .02 BAC level refers to the minimum reliable testing result based upon existing technology to identify an employee who is at increased risk. Thus the purpose of testing at this level is to eliminate potential and not actual risk of injuries or accidents. In his view, this is a reasonable cutoff limit to achieve the policy goals.

419 CRO's random alcohol testing data contained in Exhibits 29 and 45 demonstrates that between May 2012 and March 2014, of 716 random alcohol tests (employees and contractors) conducted at CRO, only 1 employee tested positive for alcohol. During this same period there were no positive post-incident or reasonable cause alcohol test results.

420 Although Dr. Li did not specifically comment on CRO's random alcohol testing data, his evidence is consistent with CRO's low injury rates as well as the absence of workplace incidents linked to alcohol use or to positive alcohol test results. I accept Dr. Li's opinion that a .02 BAC cut-off is imposed to eliminate a risk of injury.

421 Dr. Macdonald specifically assessed CRO drug and alcohol testing data. He stated that the CRO testing results (random: 2.9 and post-incident: 2.3) is equivalent to an odds ratio of .79. Restricting the analysis to the inception of random testing (May 2012), he noted that CRO had *no* positive post-incident test results (as of the date of the hearing); indicating that not a single incident at the workplace was related to a positive drug or alcohol-related result.

422 In addition to the random alcohol testing data, there was no other evidence introduced establishing alcohol use in the workplace and no evidence suggestive of alcohol use in the workplace. Accordingly, I am satisfied that based upon the totality of the evidence, including CRO's alcohol testing data both prior to and following the introduction of random testing establishes both an *absence* of an alcohol "problem" at CRO, and an absence of any real risk of an alcohol problem at CRO.

Drugs:

423 CRO employees had lab confirmed positive drug tests in 16 out of 594 random drug tests between May 2012 and March 2014, and 5 refusals, representing 2.7% of those tested, or 3.5% including refusals, broken down as follows:

> 2012: 2 of 170 random tests were confirmed positive, 2 refusals; representing 1.2% of those tested or 2.4%, including refusals.

2013: 12 of 320 random tests were confirmed positive, 3 refusals; representing 3.8% of those tested or 4.7% including refusals.

2014: 2 of the 104 random tests were lab confirmed positive. One test result was "not sent" to the lab so has been excluded from this summary; representing 1.9% of those tested.

424 Accordingly, lab confirmed positive urine drug test results provide evidence of drug use prior to a random drug test of 3.5% of those tested at CRO (including refusals). All experts agree that a positive urine test does not prove impairment.

425 The experts disagreed about what a positive urine test does signify; an issue which is necessary to resolve in order to determine whether or not the random drug testing results meaningfully establish the existence of a drug "problem" at CRO.

426 Dr. Francescutti opined the role and purpose of random testing is to identify those who *may* have a drug and/or alcohol problem and to offer help.

427 According to Dr. Li, the prevalence of drug use in those in safety sensitive positions *above zero* means that drug users are a safety *risk* for occupational accidents. He opined that "any increased risk should be a concern".

428 In Dr. Beckson's view, a positive urine test, using statistical probabilities, indicates someone with a drug problem and, more likely than not, is someone who has come to work impaired at least some of the time and is an elevated safety risk at work as a result. By way of example, he said the presence of a cocaine metabolite in a urine test will demonstrate that the donor has used cocaine recently and even if in a "crash" period at the time of the test, as the user would test positive by urine but negative by blood.

429 Dr. Kadehjian testified that the cut-off level for amphetamines and methamphetamines used at CRO is designed to identify use is generally within the previous day or two, but acknowledged how long an individual might "stay positive" is dosage dependant.

430 Drs. Li, Kadehjian and Beckson are all of the view that a positive test result, regardless of the drug, reflects an individual with an increased risk of performance deficits and therefore constitutes a safety risk in the workplace.

431 In contrast, Dr. Macdonald focused on the use of prohibited substances in the workplace and impairment in the workplace; each of which is associated with performance deficits during periods of being "under the influence" of the acute effects of drugs; periods not necessarily caught by a positive urine test.

432 In his reply report [Exhibit 48], Dr. Macdonald disputed some of the conclusions reached by Drs. Kadehjian and Beckson regarding what a positive urine test establishes. He noted, in particular, that their conclusions were based, in part, upon studies of the *acute* effects of drugs and alcohol in which the active ingredient of the drug has been identified, and not the drug's metabolites that are detected in urine.

433 In Dr. Macdonald's opinion, the weight of the literature establishes that urine tests do not measure impairment and cannot be used to measure performance deficits. He reiterated that there is no established relationship between a positive urine test and crash risk and that the science does not support the Employer's expert opinions to the contrary. Dr. Macdonald surmised they relied upon the results of lesser quality studies or failed to rely solely on results of urine tests in expressing their conclusions. In his opinion, the higher quality epidemiological studies looking at urine tests and safety risks find no relationship between them.

434 Dr. Li and Dr. Macdonald were particularly at odds over whether a positive urine test for marijuana identifies someone at an increased risk in injury/accident in the workplace. The debate focused on whether epidemiological studies have demonstrated an increased crash risk on the basis of a positive urine test identifying the presence not of THC, the active ingredient associated with acute effects, but the parent drug metabolite, THC-COOH.

435 Dr. Macdonald is strongly of the view that urine testing is not a valid detector of performance deficits or a valid indicator of safety risk. Having reviewed the literature, Dr. Macdonald found no studies which have established a causal relationship between urine concentration levels and performance deficits.

436 Dr. Macdonald opined that it is the active ingredient of cannabis (THC) and not its metabolized by-product (THC-COOH) that affects performance. He explained that the presence of THC is detected in *blood* tests and not in urine tests. He stated that the preponderance of epidemiological studies using blood tests have found that those testing positive for THC are more likely to be in crashes; but that no such relationship has been identified between urine testing and crash risk.

437 Dr. Li took issue with Dr. Macdonald's conclusion that "studies using urine tests have failed to find that those with positive tests are significantly more likely to be in collisions that those with negative tests". In doing so, Dr. Li referenced a number of studies in support of his opinion, some of which he later conceded either had not conducted urine tests or had not demonstrated an association between cannabis and crash risk. Those studies included: *Callaghan* [Exhibit 54, Tab 6], *Asbridge* [Exhibit 54, Tab 2]; *Asbridge* [Exhibit 54, Tab 1, 3 of 9 studies did not use urine testing], *Hartmann* [Exhibit 54, Tab 11].

438 Dr. Li testified that even recreational drug users represent a safety risk in the workplace. He gave little weight to Dr. Macdonald's reliance upon older studies that failed to find a statistically significant crash risk associated with a positive urine test (identifying the inactive metabolite THC-COOH). He did so on the basis not only that the composition/concentration of the drug had changed over the years but also on the evolution of the research into these areas, but having regard to more recent areas of research which found a positive correlation between drug use and accident risk.

439 In support of his views, Dr. Li referenced one of his studies in which he found that all drugs, including marijuana and other stimulants/narcotics, are associated with "significant increase risk for fatal crash involvement". He opined that marijuana is associated with doubling the crash risk in drivers. He added that marijuana and alcohol use in combination suggests an odds ratio in this study of 23. [*Drug use and fatal motor vehicle crashes (2013)*: Exhibit 54, Tab 18].

440 Dr. Macdonald confirmed that in preparing his reports and as expressed in his testimony before the board, he restricted his analysis to studies using *urine* tests because it is urine testing that the Employer adopted in its random testing program.

441 Accordingly, he opined, reliance upon studies using or incorporating blood test data are unhelpful because they include in the reported results those obtained from THC (acute effects), which would necessarily skew the results of any crash risk associated with the inactive metabolite (THC-COOH) identified in urine tests.

442 Dr. Macdonald asserts that Dr. Li did just that; rendering his conclusions unreliable. He commented on one of Dr. Li's own studies that Dr. Li spoke of during his testimony, *Drug use and fatal motor vehicle crashes: A case-control study* [see para.434]. Dr. Macdonald identified two weaknesses in this study: bias in the group design and failure to undertake a multivariate analysis, rendering the stated conclusions unjustifiable. Dr. Li's study compared *blood* tests of drivers in fatal accidents with individuals who agreed to participate in a roadside survey. Blood tests were used for those in the fatal accidents while oral fluid tests were applied to the "control" population, being those who agreed to participate. Dr. Macdonald also pointed out that Dr. Li failed to specify whether he was looking at active THC or the inactive metabolite with respect to cannabis. These biases point to over-representation of drug use in the fatal accident group and under-representation in the controls and working simultaneously increase the odds ratios.

443 Dr. Macdonald also referenced another study upon which Dr. Li relied, *Hartman and Huestis* [Exhibit 54, Tab 10], which, in his view, actually supports Dr. Macdonald's opinion that testing people for THC-COOH [inactive metabolite] is not an accurate approach and that those studies using urine tests have failed to find a relationship or are otherwise fundamentally flawed and therefore unreliable.

444 Dr. Macdonald also referenced Dr. Li's reliance on the *Wickizer* study [Exhibit 49, Vol 2, Tab 84]. This study evaluated the introduction of a five component drug testing program in a mining company in which injury rates were compared during three periods: pre-intervention, intervention and post-intervention, on the basis of the application of a number of

assumptions particularly during the pre and post intervention periods. Although the study found a jump in injury rates between the intervention period (20.41) and the post-intervention period (50.22), even the study's authors acknowledged that without knowing whether the company maintained or discontinued the drug testing program in the post-intervention period, it is unreasonable to attribute the post-intervention increase in reported injury rates to a discontinuance of the drug testing program; such detail was lacking thus undermining the conclusions reached.

445 In responding to Dr. Macdonald's criticism of the *Wickizer* study, Dr. Li acknowledged that random testing was a voluntary aspect of the drug-free workplace program. However, he stated that the authors' purpose in *Wickizer* was to evaluate the program itself, and not its individual components. He also acknowledged that this study did not identify companies that already had a drug testing program in place in the pre-implementation period or those which continued the drug testing program upon the "expiry" of the incentive program; each of which might impact upon the findings reported by the authors.

446 In assessing the appropriate weight to be applied to the evidence of the various experts, I note that Dr. Li's assessment that a positive test results represents an increased *risk* for occupational accidents has not translated into actual occupational accidents as demonstrated by CRO's post-incident and reasonable cause test results.

447 Similarly, Drs. Beckson and Kadehjian's opinions that a positive urine test reflects a period of performance deficits is similarly not reflected in CRO's injury statistics, HPI statistics or its post-incident test or reasonable cause test results. While the theory may be well-established, the reality of CRO's injury/accident/injury experience simply does not reflect the "likelihood" or statistical probability that employees who test positive are or have been impaired in the workplace.

448 The Employer urged me to discount Dr. Macdonald's evidence on the basis that he demonstrated or admitted a bias against random testing. In my view, there is no cogent evidence to support such an assertion. In carefully considering and evaluating the expert testimony of Drs. Macdonald, Beckson, Kadehjian, Francescutti and Li, I am satisfied that each expert, who I accept is highly regarded in their respective fields, appeared in a professional capacity and provided their expertise to assist the Board in its deliberations. While some of the experts did concede to being "advocates" in one fashion or another, in such areas as injury prevention for example, such assertions in my view are illustrative of candour and not of bias. In my opinion, even if personal views were expressed during the course of the hearing, such personal opinions would carry no weight in this context in any event.

449 Where Dr. Li and Dr. Macdonald's opinions diverge, I prefer the evidence of Dr. Macdonald because I am persuaded it is the more reliable of the two in assessing the matters before me. I reached this conclusion having regard to the following:

- Dr. Macdonald restricted his opinions to studies which reflected the random testing regime adopted by CRO. Dr. Li's opinions were based, in part, upon studies which included in the reported assessment of crash risk, those reflected by the acute effects of drugs and not solely just those which identified the inactive metabolite.

- Dr. Macdonald more specifically addressed CRO's injury, accident, near-miss and testing rates, which is preferable to the broader analysis provided by Dr. Li.

- Dr. Macdonald's published assessment of an absence of crash risk based solely on urine testing has survived the scrutiny of peer-reviewed journals. [Exhibit 49, Tab 58, p. 413]

- Upon examination of some of the studies on which Dr. Li relied to refute Dr. Macdonald's opinions, he later acknowledged some of the limitations in his expressed opinions, *Wickizer* for example.

450 According to Dr. Macdonald from an epidemiological perspective, if drug use is a major cause of workplace accidents, one would expect that the percentage of employees testing positive after incidents or accidents would be much higher than those from random tests. This, too, is not demonstrated by CRO's drug test results.

451 Dr. Macdonald assessed CRO drug and alcohol testing data. He stated that the CRO testing results (random: 2.9 and post-incident: 2.3) is equivalent to an odds ratio of .79. Restricting the analysis to the inception of random testing (May 2012),

he noted that CRO had no positive post-incident test results (as of the date of the hearing); indicating that not a single incident at the workplace was related to a positive drug or alcohol-related result. At the same time he reiterated that comparing crude odds ratios is too simplistic (in this case yielding an odds ratio of 1); he opined that if urine testing had validity in terms of detecting performance deficits related to job incidents, one would expect a higher odds ratio.

452 Based upon the epidemiological evidence available to date, Dr. Macdonald concluded that there is no or insufficient evidence to establish that drugs are a risk factor for accidents or incidents in the CRO workplace. The weight of the evidence submitted to this Board to demonstrate risky drug use at CRO, in my opinion, failed to reach the necessary risk threshold and accords with Dr. Macdonald's risk assessment. Accordingly, I accept Dr. Macdonald's opinion on this issue.

453 I accept that there is some evidence of drug use among CRO bargaining unit members on the basis of a positive urine test. I find the historical data of substance use at CRO less compelling and persuasive than is the more current evidence of drug or alcohol use, particularly at the time that the Employer sought to introduce random testing.

454 Even including positive random test data, I find that the evidence failed to establish a correlation to workplace accidents, injuries or to high potential incident experience rates at CRO. I reach this conclusion having also considered the evidence of the Employer's experts who opined that a positive test result identifies an individual who is at risk of performance deficits or who is experiencing performance deficits in such a degree as to constitute an unacceptable risk in a dangerous workplace. I can only conclude that the performance deficit risks identified by these experts are not demonstrated in CRO's documented LTI and HPI incidents and accidents, having particular regard to those which caused the Employer to require either a reasonable cause or a post-incident drug and alcohol test. The notable absence of *any* positive reasonable-cause and post-incident test results associated with any LTI and HPI incidents at CRO undermines, in my view, the causative correlation or association between a positive urine test and unacceptable risk that the experts sought to establish.

455 The requirement of sufficient evidence of a workplace substance problem to justify mandatory universal drug and alcohol testing in Canada has been consistently identified in the majority of the arbitration decisions touching on this issue. [See: *Provincial-American Truck Transporters v. Teamsters, Local 880* (1991), 18 L.A.C. (4th) 412 (Ont. Arb.) *(Brent)]; Esso Petroleum Canada v. C.E.P., Local 614*, [1994] B.C.C.A.A.A. No. 244, 56 L.A.C. (4th) 440 (B.C. Arb.) [hereinafter IOCO] (McAlpine); *Metropol Security v. U.S.W.A., Local 5296*, [1998] O.L.A.A. No. 1052, 69 L.A.C. (4th) 399 (Ont. Arb.) (Whitake); *Trimac Transportation Services - Bulk Systems v. T.C.U.* (1999), 88 L.A.C. (4th) 237, [1999] C.L.A.D. No. 750 (Can. Arb.) (Burkett); *Petro-Canada Lubricants Centre (Mississauga) v. C.E.P., Local 593*, [2009] O.L.A.A. No. 400, 186 L.A.C. (4th) 424 (Ont. Arb.) (Kaplan).]

456 Accordingly, on the basis of the totality of the evidence before me, I have concluded that the Employer has failed to establish either a drug or alcohol problem or enhanced safety risks at CRO in sufficient degree in order to justify its imposition of random drug and alcohol testing in May 2012.

457 This conclusion is consistent with the arbitration board's decision in *Irving Pulp* upheld by the Court:

> *...applying the arbitral consensus, concluded that the employer, Irving Pulp & Paper, Limited, exceeded the scope of its management rights under a collective agreement by imposing random alcohol testing* ***in the absence of evidence of a workplace problem with alcohol use.*** *In my view, based on the board's findings of fact and its reliance on the arbitral consensus for determining the scope of the employer's rights under the collective agreement in such circumstances, the decision was a reasonable one*. [para.8]
>
> [emphasis added]

458 Accordingly, I have concluded that the Employer's random testing policies are an unreasonable exercise of management rights contrary to the collective agreement. On this basis alone, I would allow the grievance.

459 However, the Employer submits that unlike other random drug and alcohol cases, its purpose in introducing random testing is also a risk reduction exercise to enhance workplace safety through its identification of those it perceives to create enhanced safety risks within a safety sensitive work environment, evidenced by a positive drug or alcohol test.

460 The Employer submits that it is the establishment of that *risk* which justifies its random testing policy and that employee privacy rights are necessarily subordinate to its enhanced workplace safety objective.

461 To the extent that it may be prudent or necessary to include in the proportionality assessment approved in *Irving Pulp*, an evaluation of the reasonableness of a risk reduction objective in the adoption of a random testing program, even in the absence of a demonstrated substance use problem and regardless of the presence or absence of disciplinary consequences, that assessment follows.

462 In commencing its proportionality analysis in *Irving Pulp*, the Court had this to say:

> *At the outset, it is important to note that since we are dealing with a workplace governed by a collective agreement that means that the analytical framework for determining whether an employer can unilaterally impose random testing is determined by the arbitral jurisprudence. Cases dealing with random alcohol or drug testing in* ***non-unionized*** *workplaces under human rights statues are, as a result, of little conceptual assistance* (*Entrop v. Imperial Oil Ltd.* (2000), 50 O.R. (3d) 18 C.A.)).
>
> *It may be tempting to suggest that dangerous unionized workplaces should be beyond the reach of the collective bargaining regime, freeing an employer both from the duty to negotiate with the union and from the terms of the collective agreement. This suggests, Cassandra-like and evidence-free, that collective bargaining is the altar on which public and workplace safety is sacrificed and that only employers have the capacity to address these concerns.*
>
> *But the reality is that the task of negotiating workplace conditions, both on the part of unions and management, as well as the arbitrators who interpret the resulting collective agreement, has historically — and successfully — included the delicate, case-by-case balancing required to preserve public safety concerns while protecting privacy.*
>
> *....And, as we saw in* ***Entrop,*** *even in a non-unionized workplace, an employer must justify the intrusion on privacy resulting from random testing by reference to the particular risks in a particular workplace.* [paras.17-20]

463 As noted earlier in this Award, the predecessor drug and alcohol policies implemented at CRO in 2000 and in 2005, were either a joint Employer/Union initiative or introduced with Union support. In each case, the Union acknowledged the existence of a substance use problem in the workplace and participated in the adoption of safety measures in response.

464 Arbitration boards have long permitted reasonable cause and post-incident drug and alcohol testing in a safety sensitive workplace. [See: *Nanticoke*, *supra; Fording Coal Ltd. v. U.S.W.A., Local 7884*, [2002] B.C.C.A.A.A. No. 9 (B.C. Arb.) (Hope); *Fording Coal Ltd. v. U.S.W.A., Local 7884* (2001), 97 L.A.C. (4th) 289 (B.C. Arb.) (Devine); *Bullmoose Operating Corp. v. C.E.P., Local 443*, [1999] B.C.C.A.A.A. No. 254 (B.C. Arb.) (Greyell).].

465 It is equally evident that "for cause" alcohol and drug testing has long been in place at CRO and accepted by the Union and members of its bargaining unit, even with its attendant disciplinary consequences. As BUE# 5 explained, although she did not like having to provide urine samples in a post-incident drug test and although the drug test was negative, she accepted its legitimacy because she was not only involved in an incident, she admitted that she was at fault for the incident.

466 Accordingly, in this particular work environment, negotiating workplace conditions which balance safety and privacy interests has had repeated success in the past.

467 Such is not the case with the Employer's introduction of random testing. The Union submits that random testing constitutes an unreasonable, unjustified and unwarranted intrusion upon significant employee privacy rights; moreso in light of CRO's safety record and in the absence of a demonstrated workplace problem with substance abuse.

468 The "universally accepted" analysis of a unilaterally imposed workplace rule, referred to as the *"KVP test"* is summarized in Donald J. M. Brown & David M. Beatty, *Canadian Labour Arbitration*, 4th ed. (Aurora, Ont.: Canada Law Book, 2006) (loose-leaf updated 2014, release 39) ch 4 at 4:1520 as follows:

> A rule unilaterally introduced by the company, and not subsequently agreed to by the union, must satisfy the following requisites:
>
> 1. It must not be inconsistent with the collective agreement.
>
> 2. It must not be unreasonable.
>
> 3. It must be clear and unequivocal.
>
> 4. It must be brought to the attention of the employee affected before the company can act on it.
>
> 5. The employee concerned must have been notified that a breach of such rule could result in his discharge if the rule is used as a foundation for discharge.
>
> 6. Such rule should have consistently enforced by the company from the time it was introduced.

469 In my view, the Employer has met the *KVP* test with respect to items 3, 4, 5, and 6. In terms of the collective agreement, I note there is nothing in its current terms which expressly prohibits random testing. As such, on its face, random testing cannot be said to be "inconsistent" with its terms.

470 The focus of the balance of this analysis is to determine whether random testing is a reasonable exercise of management rights, even in the absence of a demonstrated workplace substance problem. That exercise requires an assessment of proportionality of the intrusions into employee privacy rights triggered by the mandatory policy provisions, as compared to its actual or anticipated gains in the CRO work environment.

The Proportionality Analysis

471 A safe workplace is without doubt an important and desirable goal. However, it is not the goal that is in issue in this case but, rather, the means imposed to lawfully achieve that goal.

472 The framework for analysis of the scope of unilateral employer responses to substance use of members of a bargaining unit, actual or perceived, and to random testing in particular, has been considered in a number of arbitration cases. In doing so, arbitrators have identified and articulated a number of significant distinctions between the Canadian and American approaches to safety and privacy interests in the workplace.

473 Arbitrator McAlpine in *IOCO*, *supra*, considered an employer's unilateral imposition of a drug and alcohol policy pursuant to a management rights clause under a collective agreement. In that context he had occasion to consider how some of those distinctions arose, at paras. 38-40:

> The impetus in the United States for mandatory testing was provided by President Reagan's executive order of 1986 requiring all Federal Agencies to establish compulsory drug testing for current and prospective employees. It is reported that be September of 1992 some forty Federal Agencies had established mandatory testing programs. There is no parallel to this history in Canada.
>
> In Canada in 1987 Prime Minister Mulroney announced a national drug strategy. An all party committee of the House of Commons was established. The Committee's Report of 1988, left it to the government to delineate the circumstances in which mandatory testing be permitted. It was the Committee's view that mass or random testing ought to be prohibited.
>
> ...In Canada, unlike the United States, there is no legislation addressing the issue of mandatory testing in Canada.

474 He also noted the importance of acknowledging the essential context in which workplace rules are applied, citing with approval at para. 74, Chief Justice Dickson's thoughtful statement about the importance of work [*Reference re Public Service Employee Relations Act (Alberta)*, [1987] 1 S.C.R. 313 (S.C.C.) at p. 368:

> *Work is one of the most fundamental aspects in a person's life, providing the individual with a means of financial support and, as importantly, a contributory role in society. A person's employment is an essential component of his or her sense of identity, self-worth and emotional well-being.* ***Accordingly, the conditions in which a person works are highly significant in shaping the whole compendium of psychological, emotional and physical elements of a person's dignity and self-respect...***
>
> [emphasis added]

475 Similarly, Arbitrator Picher in *Nanticoke*, supra, spoke of the distinctions between the north-south divide in approaches to drug testing in a safety sensitive workplace, at para. 103:

> In approaching this highly sensitive issue we consider it important to bear in mind the overall legal context within which the preponderant arbitral principles, as reflected in cases such as **CN, Dupont** and **Trimac,** gradually emerged. Neither the Parliament of Canada nor any of the provincial legislatures has legislated to grant to employers the statutory or regulatory authority to conduct alcohol or drug testing. That is to be contrasted with the drug testing regime in the Unites (sic) States, which is highly legislated and regulated, essentially allowing much broader scope for the alcohol or drug testing of employees than is the case in Canada. It is not unreasonable to conclude that Canadian legislators have recognized the right of an employer, particularly in a safety sensitive industry, to conduct alcohol or drug testing of its employees where there is reasonable cause to do so, or where an incident or accident would justify it, or as part of rehabilitation, continuing employment.

476 While the Employer acknowledges that a privacy infringement arises in the context of random testing, it characterizes the infringement as relatively minimal; and suggests that it is similar to undergoing a urine test in a doctor's office. In that vein, Dr. Kadehjian opined that urine testing reflects the practical realities of workplace testing, replacing invasive punctures to the body with the surrender of a waste product voluntarily relinquished. The weight of arbitral jurisprudence on this issue does not accord with these views.

477 A no-cause random testing protocol mandating the delivery of bodily fluids has been assessed in a number of arbitration decisions throughout Canada; a sampling of which follows:

- *The invasion of that privacy by the random testing policy is not a trifle. It effects a significant inroad. Specifically, it involves a bodily intrusion and the surrender of bodily fluids. It involves coercion and restriction on movement. Upon pain of significant punishment, the employee must go promptly to the breathalyzer station and must co-operate in the provision of breath samples*. [*Irving Pulp* board decision, cited with approval by Abella, J, at para.14].

- In comparing the intrusions occasioned by camera surveillance or searches in the workplace to that which is required in drug and alcohol testing cases, the board in *Nanticoke*, supra at para. 126 considered *"....the surrender of bodily substances, whether by breath, urine, fluids or otherwise*, [was viewed] *as a far more serious matter."*

- In *Health Employers Assn. of British Columbia and HSA BC (Influenza Control Program Policy), Re*, [2013] B.C.C.A.A.A. No. 138, 237 L.A.C. (4th) 1 (B.C. Arb.), a case which considered the reasonableness of a unilaterally imposed policy requiring employees in acute care settings to either have a flu shot or wear a mask, noted at para. 163: *"The privacy interest in Irving was especially significant, because it involved bodily intervention. The majority cited prior Supreme Court of Canada authority that consider mandatory drug and alcohol testing by urine, blood or breath sample "highly intrusive" and therefore subject to stringent standards*.

- Cited by Abella J. in *Irving Pulp* at para. 50:

> *And in R. v Shoker*, 2006 SCC44, [2006] 2 S.C.R. 399, *it* [the court] *notably drew no distinction between drug and alcohol testing by urine, blood or breath sample, concluding that the "seizure of bodily samples is highly intrusive and, as this Court has often affirmed, it is subject to stringent standards and safeguards to meet constitutional requirements"* (para. 23).

478 The arbitration board in *Trimac Transportation Services - Bulk Systems v. T.C.U.* (1999), 88 L.A.C. (4th) 237, [1999] C.L.A.D. No. 750 (Can. Arb.), had occasion, some 16 years ago, to consider the introduction of a mandatory drug and alcohol testing program on the basis of a "risk avoidance" management approach; a consideration somewhat analogous to the circumstances before me. I find that its analysis remains germane, some of which is set out below [paras. 41, 42, 43]:

> Because the objective of providing a safe and productive work environment is unassailable and because privacy interests are somewhat nebulous, it is easy to weigh in on the side of mandatory random drug testing, especially in a safety sensitive industry. It is easy to support the implementation of any policy that is designed to promote a safe and productive work environment and, on its face, has the potential to do so. However, when the privacy interest is understood, the debate takes on another dimension. It becomes not just a question of the efficacy of mandatory random testing, vis-à-vis the objective of a safe and productive work environment but rather a debate concerning the reconciliation of two competing interests. The "best" reconciliation of two legitimate but competing interests is achieved by measuring their competing impacts. Accordingly, an assessment of the extent to which mandatory random drug testing furthers the objective of a safe and productive workplace and a corresponding assessment of the extent to which it invades individual privacy is required.
>
> Against this background it is useful to discuss in broad terms the meaning and importance of privacy in the Canadian setting. The right to one's privacy is the right to protection from the unwarranted intrusion of others in one's life. The underlying premise is that in a democratic society, an individual is free to live as he/she pleases without interference or monitoring, so long as there is no adverse impact upon another nor breach of the law. The Canadian acceptance of the right to privacy is traced through legislation, international and constitutional law, scholarly writings and judicial statements by Oscapella in Drug Testing and Privacy, Vol. 2, Canadian Labour Law Journal 325. The conclusion there is that privacy, as protected under Section 8 of the Charter, is "an essential value in Canadian society".
>
> . . .
>
> The recognition of employee privacy is a core workplace value, albeit one that is not absolute.....

479 In conducting this proportionality exercise, I am mindful that the evidence of the experiences of long-term CRO bargaining-unit members in the random testing process is relevant to an assessment of the degree of its encroachment upon privacy rights. Those members who testified invariably felt mistrusted; while some felt disrespected, coerced and without rights. Others felt the process undignified and embarrassing. These feelings are, in my view, an important consideration when juxtaposed against no-cause random testing and its mandatory sequelae for those deemed to be an enhanced workplace risk by virtue of a confirmed positive test result. These feelings are equally an important consideration in evaluating the proportionality of the Employer's response to its risk assessment.

480 In summary, universal no-cause random testing has been consistently described as an intrusive process and a significant infringement upon employee privacy interests within the workplace. I agree. In my opinion, it is not just the requirement to surrender bodily fluids that infringes upon privacy rights. Rather, that infringement extends and endures, in varying degrees, throughout the testing protocols, some of which include: removal from the workplace; escorted attendance for mandatory testing; the nature of the mandatory steps required throughout the testing protocols; the nature and extent of personal disclosures required throughout the Assessment process; and, for those without a substance abuse, dependence or addiction problem, the further encroachments required under a Monitoring Agreements for a 2 year period.

481 In explaining the basis of its introduction of random testing, the Employer identified its legal, moral and ethical obligation to take all reasonable measures to enhance the safety of its workplace and avoid accidents and injuries. In its efforts to meet

those obligations in a dangerous work environment, it feels it must continually strive to improve upon existing safety practices and adopt best practices in risk management.

482 The Employer states that through its random testing program, it identifies, removes and assists those with substance abuse problems. It also identifies, removes and assists those who use drugs or alcohol in a manner which creates a safety risk. It deters at least some from continued risky drug and alcohol use.

483 It submits that its experts established that:

- anyone testing positive represent an increased safety risk even if not impaired when taking the test;
- drug or alcohol use is a significant contributor to accidents and injuries in society and in workplaces;
- random testing has a significant deterrent effect and thereby reduces the risk of accidents or injuries caused or contributed by impairment from drugs or alcohol;
- random testing is a beneficial risk reduction strategy and safety intervention at CRO.

484 The Employer also submits that random testing is consistent with pre-employment, reasonable cause and post-incident testing that is already in place; it is only the frequency and extent of testing that has changed.

485 During the course of the hearing the Employer introduced evidence of the difficulty in identifying employees who may have engaged in a risky use of alcohol or drugs without random testing. It related incidents in which drugs or suspected drugs had been found on site, causing a suspicion that drugs may have been ingested. That evidence has been outlined throughout this Award.

486 It also introduced evidence of the deterrent effect associated with random testing, largely introduced through its experts and through reports and studies in jurisdictions outside of Canada. That evidence included Dr. Li's assessment that of all of the testing programs, he described random testing as having the most important or powerful deterrence effect. He spoke of the decline in positive drug tests in the United States over the 25 year period in which mandatory drug testing had been in place following President Reagan's Executive Order in 1986. Dr. Li attributed the reduction to random testing on the basis that "...over 90 percent of actual alcohol and drug tests on employees were done on the random alcohol and drug testing program."

487 In contrast, Dr. Macdonald pointed out that a mere drop in the number of positive urine test results in the absence of corresponding research demonstrating that a decline in positivity rates signifies that fewer employees are impaired on the job or that workplaces in which random testing has been introduced are thereby safer, undermines any conclusions drawn from the "numbers".

488 The deterrent effect attributed to random testing was also considered in *Irving Pulp*, which Abella, J. summarized at para. 48:

> While the employer had argued that deterrence was a major benefit of random alcohol testing, the board was not satisfied that there was any evidence of a deterrent effect at the mill. The only evidence supporting the employer's view was that of its expert witness, who described deterrence as the main theoretical goal of random alcohol testing policies, but had no information about this particular workplace. In the board's view, the lack of any positive test results in almost two years of random alcohol testing was equally consistent with the opposite conclusion: that there was no workplace alcohol abuse to deter.

489 The Employer pointed out that less intrusive measures are inadequate to identify those at risk and it urges me to adopt the approach applied by the arbitration board in *U.A., Local 488 v. Bantrel Constructors Co.*, 2009 ABCA 84 (Alta. C.A.), [2007] A.G.A.A. No. 33 (Alta. Arb.) *(Bantrel)* even though the *Bantrel* decision was later quashed on other grounds on appeal [*U.A., Local 488 v. Bantrel Constructors Co.*, 2009 ABCA 84 (Alta. C.A.)].

490 Commenting on the short-comings of measures other than random testing in identifying risk, the Board in *Bantrel* stated at p.32:

> *With respect to the availability of less intrusive measures, we are not satisfied that other measures are available which can accomplish the same risk management objectives. In particular we do not agree with the arbitrator in* Sarnia Cranes *that peer and supervisory observation is at least as effective. Evidence before us was to the effect that its effectiveness was questionable at best (except in the perhaps most obvious cases). We note that this is not a circumstance where employment testing was the first option. In fact, it appears that was the last option to be exercised. Numerous safety programs were in place on the Bantrel site. Risk management was a priority from the first day of construction on the EDD site. Yet 4 of the 6 post incident tests prior to the adoption of the drug and alcohol policy were positive. These are individuals who were required to meet with a supervisor at the start and end of their shifts.*

491 In my view, amongst the hurdles the Employer must overcome in this analysis is not only that its unilateral imposition of random testing in the absence of a workplace substance problem is a reasonable and proportionate safety measure, but that it does so in the absence of cogent evidence that the "for cause" testing protocols already in place do not adequately respond to the risks to which random testing is intended to respond. This point is particularly illustrated in the absence of a correlation between risky drug or alcohol use and CRO's post-incident and reasonable cause test results.

492 I have no doubt or any reservation about the sincerity of the Employer's expressed desire to achieve an accident-free workplace. I recognize its considerable efforts to achieve this goal in part through its investment in a multi-faceted workplace safety program.

493 However, the Canadian approach to random testing requires cogent evidence of enhanced workplace risk, such as evidence of a workplace substance use problem, in order to justify its unilateral imposition within a collective bargaining framework.

494 Having regard all of the evidence, I am persuaded that the Employer has failed to meet that risk threshold; having failed to reasonably establish either an enhanced safety risk at CRO on the basis of drug or alcohol use by members of the bargaining unit or a substance use problem at CRO. While I do not propose to repeat the assessment of the evidence, I would point out that in reaching this conclusion considerations included:

- CRO's safety records and statistics;
- the steady decline in injury rates at CRO;
- low positive alcohol and drug test results;
- an absence of *any* link between TRIF rates and alcohol or drug use since the Employer took over CRO in 2006;
- an absence of *any* link between a High Potential Incident and alcohol or drug use;
- an absence of *any* link between a workplace incident in which a "human factor" was identified and a positive drug or alcohol test.

495 In my respectful opinion, these conclusions equally demonstrate the absence of any link between incidents, accidents or HPIs at CRO and actual or anticipated "performance deficits" which the Employer's experts associated with sub-acute, hang-over or residual effects of drug and alcohol use, on the basis of a positive urine drug test or a positive alcohol test under the Employer's random testing program. Thus, I also find an absence of sufficient cogent evidence to establish that any *risk* of impairment or that the *risk* of performance deficits constitutes an enhanced safety risk in the CRO work environment.

496 Accordingly, based upon these findings and conclusions, I am persuaded that the Employer's anticipated or expected safety gains from random testing are, in my view, uncertain or minimal. As such, the Employer has failed to justify the need for its unilaterally imposed safety measure which I find so significantly intrudes on employee privacy interests.

497 For these reasons, the grievance is allowed. The Board finds the Employer's mandatory universal random drug and alcohol testing program and its associated protocols and related policy provisions set out Teck Coal Limited Management Policy No. 27: Alcohol Policy; Teck Coal Limited Management Policy No. 28: Illegal Drug Policy and Teck Coal Limited Management Policy No 29: Medication Use Policy are an unreasonable exercise of its management rights under the collective agreement in violation of the collective agreement, and are declared null and void and of no force or effect.

498 I note that the ancillary statutory grounds upon which the grievance was filed as set out in Exhibit 3 were not explored or pursued during the hearing. In light of the findings and conclusions set out herein, I am persuaded that it is unnecessary to determine these ancillary grounds.

499 I wish to acknowledge the efforts and abilities of counsel throughout the course of the hearing, which rendered considerable assistance to the Board.

500 I reserve jurisdiction to resolve any issues which arise in connection with the interpretation or implementation of the award as well as with respect to other outstanding grievances or disputes of which I am seized.

Appendix A

List of Exhibits

No.	*Description*
1.	Collective Agreement between Cardinal River Operations and the United Mine Workers of America Local 1656, Effective: July 1, 2007 - June 30, 2012 (63 pages)
2.	Collective Agreement between Teck Coal Limited and the United Mine Workers of America Local 1656, Effective: July 1, 2012 - June 30, 2017 (89 pages)
3.	United Mine Workers of America Local 1656 Grievance, filed May 14, 2012 (2 pages)
4.	Teck Coal Limited Management Policy No. 27: Alcohol Policy (6 pages)
5.	Teck Coal Limited Management Policy No. 28: Illegal Drug Policy (7 pages)
6.	Teck Coal Limited Management Policy No. 29: Medication Use Policy (7 pages)
7.	Teck Coal Limited Standard Practices & Procedures — Alcohol and Drug Testing (27 pages)
8.	Branan Medical Corporation — Toxcup ® Drug Screen Cup Package Insert (6 pages)
9.	Testing process consent forms and documents (14 pages)
10.	Teck Coal Limited Standard Practices & Procedures Alcohol, Illegal Drugs & Medication Policy Pre-2012 (11 pages)
11.	Letter from Teck Coal Limited, dated December 9, 2013 (1 page)
12.	United Mine Workers of America, letter to Mike Barrie, December 12, 2013 (1 page)
13.	Statement of expert opinion by Dr. Louis Hugo Francescutti (26 pages)
14.	Curriculum Vitae of Louis Hugo Francescutti dated October 2013 (86 pages)
15.	Tab 1 Alberta Centre for Injury Control & Research — Preventing Injuries in Alberta: A Resource for Decision Makers (48 pages)
	Tab 2 Alberta Health Services — Copyright Notice (8 pages)
	Tab 3 Alberta Centre for Injury Control & Research — Preventing Injuries in Alberta: Alberta Injuries 2012 (112 pages)
	Tab 4 Sweden's experience in reducing childhood injuries — Abraham B. Bergmen and Frederick P. Rivara, *Pediatrics* 1991; 88: 69-74 (8 pages)
	Tab 5 The health of adolescents and youth: A global overview — Herbert L. Friedman, *World Health Statistics Quarterly* 1985; 38(3): 256-266 (11 pages)
	Tab 6 A nation of suspects: Drug testing and the Fourth Amendment — Leonard H. Glantz, *Am J Public Health* 1989; 79(10): 1427-1431 (5 pages)
	Tab 7 Workplace alcohol-testing programs: Prevalence and trends — Tyler D. Hartwell, Paul D. Steele, and Nathaniel F. Rodman, *Monthly Labor Review* 1998: 27-34 (8 pages)

Tab 8 The Economic Burden of Unintentional Injury in Canada (63 pages)
Tab 9 Insurance Institute for Highway Safety Highway Loss Data Institute — Alcohol-impaired driving (5 pages)
Tab 10 Accidents in children, adolescents and young adults: A major public health problem — Michel Manciaux and Claude J. Romer, *World Health Statistics Quarterly* 1986; 39(3): 227-231 (5 pages)
Tab 11 The prevalence of work-related deaths associated with alcohol and drugs in Victoria, Australia, 2001-6 — Briohny McNeilly, Joseph Elias Ibrahim, Lyndal Bugeja, and Joan Ozanne-Smith, *Injury Prevention* 2010; 16(6): 423-428 (7 pages)
Tab 12 The effectiveness of workplace drug prevention policies: Does 'zero tolerance' work? — Stephen L. Mehay and Rosalie Liccardo Pacula, *NBER Digest* 2000; Working Paper No. 7383:1-37 (37 pages)
Tab 13 Effectiveness and benefit-cost of peer-based workplace substance abuse prevention coupled with random testing — Ted R. Miller, Eduard Zaloshnja, and Rebecca S. Spicer, *Accident Analysis & Prevention* 2007; 39(3): 565-573 (9 pages)
Tab 14 Results from the 2006 National Survey on Drug Use and Health: National findings — Substance Abuse and Mental Health Services Administration (271 pages)
Tab 15 Cost of injury in the United States: A report to Congress 1989 — Dorothy P. Rice, Ellen J. Mackenzie and Associates, University of California and John Hopkins University, 1989 (316 pages)
Tab 16 Independent Inquiry into Drug Testing at Work — Drug Testing in the Workplace (102 Pages)
Tab 17 Social control through deterrence: Drinking-and-driving laws — H. Lawrence Ross, *Annual Review of Sociology* 1984; 10: 21-35 (16 pages)
Tab 18 Handle life with care; Prevent violence and negligence — Hiroshi Nakajima, *World Health* 1993; 46(1): 3 (1 pages)
Tab 19 Do drug-free workplace programs prevent occupational injuries? Evidence from Washington State — Thomas M. Wickizer, Branko Gary Franklin, and Jetta Joesch, *HSR: Health Services Research* 2004; 39(1): 91-110 (20 pages)
Tab 20 Report No. 53 — Traffic law enforcement: A review of the literature — Dominic Zaal, Monash University Accident Research Centre, 1994 (212 pages)

16. Documents for filing a grievance (5 pages)
17. *Human Rights Tribunals of Alberta — Bish v. Elk Valley Coal Corporation*, 2012 AHRC 7(42 pages)
18. Teck Coal Limited Cardinal River Training History System for New Employee (3 pages)
19. SP&P Title (5 pages)
20. Teck Coal Limited — Course Library for 2013 — Current (3 pages)
21. Teck Coal Limited — CRO Contractor Site Specific Orientation (4 pages)
22. Cardinal River Procedures — Visitor and Vendor Orientation (31 pages)
23. Shift Work and Fatigue — Working the Nightshift (10 pages)
24. Teck Coal Limited Safety Share — Jet Lag — (4 pages)
25. What is Mental Illness? (10 pages)
26. How to get the sleep you need (3 pages)
27. 2011 - 2014 HPI Incidents — Cardinal River Operation (5 pages)
28. March 2011 — A baggie of Crystal Meth was found on site at Cardinal River Operations (13 pages)
29. CRO Drug & Alcohol Summary — Based On Site Testing Log of February 4, 2014 and CRO Lab Positive Drug Testing and Alcohol 2005-2014 as of April 16, 2015 (2 pages)
30. Teck Coal Limited Quarterly Review CRO — Q1 2012 (40 pages)
31. Teck Coal Limited Drug and Alcohol Testing April 2013 (14 pages)
32. Teck Coal Limited Field Level Risk Assessment (2 pages)
33. Drug/Alcohol Talk — Maintenance Dept. August 2004 (1 page)
34. Workplace Health & Safety — Driver Involved In Truck Collision — Date of Incident: October 27, 1999, Type of Incident: Fatal (21 pages)
35. Cardinal River Coals Ltd. Alcohol and Drug Policy, October 23, 2000 (12 pages)
36. "Solutions at Work-Responding to Employee Substance Abuse" — Presented by Cardinal River Coals Ltd. & The United Mine Workers of America, Local 1656, Facilitated by Kris Robins Training & Consulting Services
37. Email from Carm Fiorillo of Monday, February 4, 2013 to Larson Lisa SPO — Subject: Drug panel screening/ confirmation (1 page)
38. Teck Coal Limited — 2011 High Potential Incidents (51 pages)
39. Teck Coal Limited: Line Creek — July 22, 2010 - Nov 1, 2012 — DSS (21 pages)
40. Managing Fatal Risk, March 16, 2014 by Miles Lorenz (7 pages)

41. ICMM Leadership Matters: The elimination of fatalities (6 pages)
42. ICMM Leadership Matters: Managing Fatal Risk Guidance (12 pages)
43. Safety Statistics for CRO for Past 20 Years (1 page)
44. A. Teck Coal Limited Management Policy — No. 24: Alcohol Policy (6 pages)
    B. Teck Coal Limited Management Policy — No. 25: Illegal Drug Policy (7 pages)
    C. Teck Coal Limited Management Policy — No. 26: Medication Use Policy (7 pages)
45. A. Statistics Drug Testing 2012 (2 pages)
    B. Statistics Drug Testing 2013 (3 pages)
46. Curriculum Vitae of Scott Arthur Macdonald, dated January 10, 2013 (33 pages)
47. Submission on Re: *UMAW v. Teck Coal Ltd.* — Drug and Alcohol Policy Grievance — to Nugent Law Office, February 21, 2014 by Scott Macdonald (35 pages)
48. Response to the Feb 7{th} report by Leo Kadehjian and the Feb 21{st} report by Mace Beckson By Scott Macdonald March 10, 2014 (5 pages)
49. Scott Macdonald References Vol. 1
    - Tab 1 Alberta Employment and Immigration fact sheet: Lost-time claim rate, September 2008 (2 pages)
    - Tab 2 The Long Beach/Fort Lauderdale relative risk study — Richard D. Blomberg, Raymond C. Peck, Herbert Moskowitz, Marcelline Burns, and Dary Fiorentino, *Journal of Safety Research* 2009; 40: 285-292 (8 pages)
    - Tab 3 Age related differences in work injuries and permanent impairment: A comparison of workers' compensation claims among adolescents, young adults, and adults — C Breslin, M Koehoom, P Smith, and M Manno, *Occup Environ Med* 200; 60(e10): 1-6 (7 pages)
    - Tab 4 Experimental and quasi-experimental designs for research — Donald T. Campbell and Julian C. Stanley from *Handbook of Research on Training*, Rand McNally College Publishing Company: Chicago, 1963 (44 pages)
    - Tab 5 Alternative specimens for workplace drug testing — Yale H. Caplan and Bruce A. Goldberger, *Journal of Analytical Toxicology* 2001; 25: 396-399 (4 pages)
    - Tab 6 Workplace drug testing and worker drug use — Christopher S. Carpenter, *HSR: Health Sciences Research* 2007; 42(2): 795-810 (16 pages)
    - Tab 7 Urine drug concentrations: The scientific rationale for eliminating the use of drug test levels in drug court proceedings — Paul L. Cary, *National Drug Court Institute Drug Court Practitioner Fact Sheet* 2004; IV(1): 1-8 (8 pages)
    - Tab 8 Subjective and behavioral effects of marijuana the morning after smoking — L. D. Chait, *Psychopharmacology* 1990; 100: 328-333 (6 pages)
    - Tab 9 Proficiency testing (external quality assessment) of drug detection in oral fluid -Joe Clarke and John F. Wilson, *Forensic Science International* 2005; 150: 161-164 (4 pages)
    - Tab 10 Chapter 4 — Drugs in the Workplace: The effects of psychoactive substances on workplace performance — Robert B. Coambs and Mary Pat McAndrews from *Research Advances in Alcohol and Drug Problems, Volume II: Drug testing in the workplace* edited by Coambs, et al., Plenum Press: New York, 1994 (14 pages)
    - Tab 11 Cost-effectiveness of interventions to prevent alcohol-related disease and injury in Australia — Linda Cobiac, Theo Vos, Christopher Doran, and Angela Wallace, *Addiction* 2009; 104:1646-1655 (10 pages)
    - Tab 12 Legal, workplace, and treatment drug testing with alternate biological matrices on a global scale — Edward J. Cone, *Forensic Science International* 2001; 121: 7-15 (9 pages)
    - Tab 13 Interpretation of oral fluid tests for drugs of abuse — Edward J. Cone and Marilyn A. Huestis, *Ann. N. Y. Acad. Sci*. 2007; 1098: 51-103 (52 pages)
    - Tab 14 National Highway Traffic Safety Administration — Drugs and Human Performance Fact Sheets (103 pages)
    - Tab 15 A critical evaluation of the Utah Power and Light Company's Substance Abuse Management Program: Absenteeism, accidents and costs — Dennis J. Crouch, Douglas O. Webb, Paul F. Buller, and Douglas E. Rollins from *In Drugs in the Workplace: Research and evaluation data* edited by Steven Gust and J. Michael Walsh, 1989 (13 pages)
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    - Tab 17 Use of investigations in the diagnosis and management of alcohol use disorders-Colin Drummond and Hamid Ghodse, *Adv. Psychiatr. Treat*. 1999; 5: 366-375 (11 pages)

Tab 18 The contribution of alcohol and other drugs among fatally injured drivers in Quebec: Some preliminary results — C. Dussault, M. Brault, J. Bouchard, and A. M. Lemire (9 pages)

Tab 19 The detection of illicit drugs in oral fluid: Another potential strategy to reduce illicit drug-related harm — Kyle R. Dyer and Catherine Wilkinson, *Drug and Alcohol Review* 2008; 27: 99-107 (9 pages)

Tab 20 Effectiveness of sobriety checkpoints for reducing alcohol-involved crashes — Randy W. Elder, Ruth A. Shults, David A. Sleet, James L. Nichols, Stephanie Zaza, and Robert S. Thompson, *Traffic Injury Prevention* 2002; 3(4): 266-274 (10 pages)

Tab 21 Risk of road accident associated with the use of drugs: A systematic review and meta-analysis of evidence from epidemiological studies (article in press) — Rune Elvik, *Accident Analysis and Prevention* 2012; xxx: xxx-xxx (14 pages)

Tab 22 Drug testing as a strategy to reduce occupational accidents: A longitudinal analysis — Dale M. Feinauer and Stephen J. Havlovic, *Journal of Safety Research* 1993; 24:1-7 (7 pages)

Tab 23 Psychoactive substances and driving: State of the art and methodology — S. D. Ferrara, R. Giorgetti, and S. Zancaner (55 pages)

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Tab 26 *Alcohol and illicit drug use in the workforce and workplace* — Michael R. Frone, American Psychological Association: Washington D. C, 2013 (284 pages)

Tab 27 Evaluation of drug testing in the workplace: Study of the construction industry-Jonathan K. Gerber and George S. Yacoubian Jr., *Journal of Construction Engineering and Management* 2001: 438-444 (7 pages)

Tab 28 Drug testing and social control: Implications for state theory-Jurg Gerber, Eric L. Jensen, Myron Schrek, and Ginna M. Babcock, *Contemporary Crises* 1990; 14: 243-258 (16 pages)

Tab 29 Pharmacokinetics and pharmacodynamics of cannabinoids — Franjo Grotenherman, *Clin Pharmacokinet* 2003; 42(4): 327-360 (34 pages)

Tab 30 Developing limits for driving under cannabis — Franjo Grotenhermen, Gero Leson, Gunter Berghaus, Olaf H. Drummer, Hans-Peter Kruger, Marie Longo, Herbert Moskowitz, Bud Perrine, Johannes G. Ramaekers, Alison Smiley, and Rob Tunbridge, *Addiction* 2007; 102:1910-1917 (9 pages)

Tab 31 Is cognitive functioning impaired in methamphetamine users? A critical review-Carl L. Hart, Caroline B. Marvin, Rae Silver, and Edward E. Smith, *Neuropsychopharmacology* 2012; 37: 586-608 (24 pages)

Tab 32 Cannabis dependence as a primary drug use-related problem: The case for harm reduction-oriented treatment options — A. D. Hathaway, R. C. Callaghan, S. Macdonald, and P.G. Erickson, *Substance Use & Misuse* 2009; 44: 990-1008 (19 pages)

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Tab 34 Acute and residual effects of marijuana profiles of plasma THC levels, physiological, subjective, and performance measures-Stephen J. Heishman, Marilyn A. Huestis, Jack E. Henningfield and Edward J. Cone, *Pharmacology, Biochemistry & Behavior* 1990; 37: 561-565 (5 pages)

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Tab 40 Ensuring validity in urine drug testing — William B. Jaffee, Elisa Trucco, Christian Teter, Sharon Levy, and Roger D. Weiss, *Psychiatric Services* 2008; 59(2): 140-142 (3 pages)

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Appendix C

Teck Coal Limited Management Policy

No. 27: Alcohol Policy

I. Statement of Principles

1. Teck Coal has an obligation and responsibility to provide a safe workplace.

2. The use of alcohol, whether casual, recreational or arising from a dependency, can create unacceptable safety risks to everyone on a safety-sensitive work situ.

3. Given the carry-over effects of alcohol, these risks occur regardless of whether alcohol is used while at work or when employees are off work.

4. Teck Coal considers it imperative to take the steps set out in this Policy to reduce safety risks arising from the use of alcohol.

5. These steps are intended to assist employees to stop using alcohol in breach of this Policy, by providing for treatment and counseling and by making it clear that if they don't stop using alcohol in breach of this Policy and have an incident or near-hit with alcohol in their system, their employment will be terminated.

6. The presence of alcohol in an employee's or other person's (see definition below) system will be determined by observation, smell or by the use of an alcohol testing device, such as a breathalyzer, or the provision of a urine sample and urinalysis, or by other means.

7. A blood alcohol concentration above 0.02 while at work is considered a safety risk and a "positive" test, and is prohibited by this Policy. That is to say, for purposes of this Policy, a person with an alcohol concentration above 0.02 will be considered to have alcohol in his/her system and to be unfit for work, whether or not such concentration would be considered impairment for other purposes.

II. Purpose

The purpose of this Policy is to provide a safe workplace for employees of Teck Coal in a manner that promotes the well-being of Teck Coal employees.

III. Application

This Policy applies to all employees of Teck performing duties at the work sites of Teck Coal or while working off-site. It also applies to contractors, sub-contractors and any other persons performing duties at the work sites of Teck Coal.

IV. Definitions

1. "Confidential Addiction Assessment" means an assessment of the nature of the Individual's substance abuse problem(s). It includes recommendations for treatment, such as residential or outpatient treatment programs, and/or counselling. It also includes recommendations about the timing and conditions for the employee's return to work, and development of a Monitoring Agreement. The assessment will be performed by an addictions specialist selected by Teck Coal and Teck Coat will pay for all costs of the assessment.

2. "Monitoring Agreement" means an agreement between the employee and Teck Coal that sets out the terms and conditions under which the employee may return to work at Teck Coal, and shall include random alcohol and drug testing and mandatory recovery maintenance activities for a fixed term, as appropriate to the individual circumstances.

3. "positive" means a test result which indicates a blood alcohol concentration above 0.02 where a breathalyzer is used.

4. "other person(s)" includes Teck contractors, sub-contractors and any other persons performing duties at the work sites of Teck Coal.

V. Prohibited Conduct

1. No employee or other person shall possess, use or distribute alcohol at any of Teck Coal's work sites:

a. Employees who possess, use or distribute alcohol at any of Teck Coal's work sites will be terminated.

b. Other persons who possess, use or distribute alcohol at any of Teck Coal's work sites will result in their removal from Teck Coal work sites.

2. No employee or other person shall report to the work site or be at a work site with alcohol in their system. Accordingly, employees or other persons are advised not to consume alcohol at least 8 hours prior to their shift and must allow sufficient time for the alcohol they consume to be metabolized before attending the work site.

a. Employees who test positive following a post-incident/near-hit drug test shall be terminated from employment (see Section VIII, 3.b). Terminated employees will be considered for re-employment at a subsequent date if certain conditions are met (see Section VIII, 3.b).

b. Employees who test positive following a reasonable cause alcohol lest (or have the smell of alcohol on their breath) or random alcohol test will be placed on a paid medical leave of absence and referred to an addictions specialist, and be required to meet certain conditions (see Section VIII, 1.b, 1.c, 1.d, 1.f & 2.b, 2.c, 2.d, 2.f).

c. Other persons who test positive following any alcohol test will result in those persons not being permitted to perform duties at Teck Coal sites. If this occurs, these persons will be considered for access at a subsequent date if certain conditions are met (see Section IX).

3. No employee or other person shall refuse to test through an alcohol testing device that is authorized by this Policy. Any employee or other person who refuses to submit to an alcohol test shall be treated as if they tested positive, with the following consequences:

a. If an employee refuses to submit to an alcohol test following a post-incident/near/hit alcohol teat, his/her employment will be terminated (see Section VIII, 3.b). Terminated employees will be considered for re-employment at a subsequent date if certain conditions are met (see Section VIII, 3.b),

b. If an employee refuses to submit to a reasonable cause or random alcohol test, he/she will be referred to an addictions specialist, and be required to meet certain conditions (see Section VIII, 1.b, 1.c, 1.d, 1.f & 2.b, 2.c, 2.d, 2.f).

c. If an other person refuses to submit to an alcohol test, they will not be permitted to perform duties at Teck Coal sites. If this occurs,' these persons will be considered for access at a subsequent date if certain conditions are met (see Section IX).

4. No employee or other person shall tamper with a sample provided for alcohol testing. This prohibition includes, but is not limited to, using masking agents, other devices or diuretic drugs, substituting other fluids, and water-loading.

a. Any employee who has adulterated/tampered with a testing sample will be terminated from employment.

b. Other persons who have adulterated/tampered with a testing sample will not be permitted to perform duties at a Teck Coal site.

5. No employee shell refuse to comply with recommended treatment plans, including Monitoring Agreements, authorized by this Policy. If an employee fails to comply, his/her employment will be terminated with the opportunity to apply for re-employment at a subsequent date if certain conditions are met (see Section VI, 9; Section VIII, 1.f; Section VIII, 2.f; Section VIII, 3.b).

VI. Voluntary Disclosure

1. The use of alcohol, whether on or off work, can affect the safe performance of work.

2. Therefore, Teck Coal strongly encourages employees who use alcohol to use it appropriately within the restrictions of this Policy and to seek assistance if they are having problems doing so *before* they have an incident or near-hit with alcohol in their system, which as set out below, will result in the termination of their employment.

3. If requested, Teck Coal will provide assistance to employees who want to stop alcohol in violation of this Policy (voluntary disclosure). An employee who wishes to make a voluntary disclosure should speak to their supervisor or a member of the Human Resources department. This information will be kept strictly confidential.

4. No employee shall be disciplined for making a voluntary disclosure provided the disclosure is made before a workplace incident occurs.

5. Upon making a voluntary disclosure, the employee shall be placed on a paid medical leave of absence and shall be referred to an addictions specialist for a Confidential Addiction Assessment, which the employee will be required to attend. Reasonable travel costs will be paid by Teck Coal. The paid medical leave of absence will be for a reasonable period to permit the Confidential Addiction Assessment to occur and to permit the operation of paragraph 6 below.

6. An employee will he allowed to return to work niter making a voluntary disclosure if he/she complies with the treatment recommendations (if any) of the addictions specialist, completes a recommended treatment program (if one is recommended) within a reasonable time frame, is cleared to work by an addictions specialist, and signs a Monitoring Agreement (if one is recommended).

7. The employee must immediately comply with any recommended treatment.

8. Teck Coal will pay for the cost of the recommended treatment and treatment program.

9. An employee who fails to adhere to a Monitoring Agreement or to paragraph (7) above will be terminated from employment. Employees whose employment has been terminated under this clause will be considered for re-employment at a subsequent date if they are the most suitable candidate for the position, tests negative on a pre-employment alcohol test, conclusively establish that they have received appropriate treatment for their alcohol use if necessary and sign a Monitoring Agreement.

VII. Unscheduled Work/Emergency Call-In

An employee who is contacted to report to work in an emergency or for other unanticipated reasons shall refuse the assignment if he/she has alcohol in his/her system.

VIII. Alcohol Testing and Assessments

1. *Reasonable Cause Alcohol Testing*

(a) Teck Coal may require an employee or other person to undergo alcohol testing where it has reasonable cause to suspect the employee or other person has alcohol in his/her system. Reasonable cause may be based on, but is not limited to, the following:

(i) the employee or other person's demeanour or behaviour at the workplace, or other indications of use;

(ii) the smell of alcohol on an employee's breath; or

(iii) information that the employee or other person is using alcohol inappropriately or possessing alcohol at one of Teck Coal's work sites.

(b) An employee who tests positive following a reasonable cause determination shall be placed on a paid medical leave of absence and shall be referred to an addictions specialist for a Confidential Addiction Assessment, which the employee wit! be required to attend. Reasonable travel costs will be paid by Teck Coal. The paid medical leave of absence will be for a reasonable period to permit the Confidential Addiction Assessment to occur, and to permit the operation of paragraph (c) below.

(c) The employee will be returned to work subject to specified terms and conditions which shall include but are not limited to successful completion of treatment recommendations (if any), compliance with a treatment program (if one is recommended) within a reasonable time frame, clearance to return by the addictions specialist, and the employee signing a Monitoring Agreement (if one is recommended).

(d) The employee must immediately comply with any recommended treatment.

(e) Teck Coal will pay for the cost of the recommended treatment and treatment program.

(f) An employee who fails to adhere to a Monitoring Agreement or to paragraph (d) above will be terminated from employment. Employees whose employment has been terminated under this clause will be considered for re-employment at a subsequent date if they are the most suitable candidate for the position, tests negative on a pre-employment alcohol test, conclusively establish that they have received appropriate treatment for their alcohol use if necessary and sign a Monitoring Agreement.

2. *Random Alcohol Testing*

(a) All employees or other persons are subject to random alcohol testing in accordance with Teck Coal's testing protocols.

(b) An employee who tests positive shall be placed on a paid medical leave of absence and shall be referred to an addictions specialist for a Confidential Addiction Assessment, which the employee will be required to attend. Reasonable travel costs will be paid by Teck Coal. The paid medical leave of absence will be for a reasonable period to permit the Confidential Addiction Assessment to occur, and to permit the operation of paragraph (c) below.

(c) The employee will be returned to work subject to specified terms and conditions which shall include but are not limited to successful completion of treatment recommendations (if any), compliance with a treatment program (if one is recommended) within a reasonable time frame, clearance to return by the addictions specialist, and the employee signing a Monitoring Agreement (if one is recommended).

(d) The employee must immediately comply with any recommended treatment.

(e) Teck Coal will pay for the cost of the recommended treatment and treatment program,

(f) An employee who falls to adhere to a Monitoring Agreement or to paragraph (d) above will be terminated front employment. Employees whose employment has been terminated under this clause will be considered for re-employment at a subsequent date if they are the most suitable candidate for the position, tests negative on a pre-employment alcohol test, conclusively establish that they have received appropriate treatment for their alcohol use if necessary and sign a Monitoring Agreement

3. *Post-Incident/Near-Hit Alcohol Testing*

(a) Teck Coal will require an employee or other person to undergo alcohol testing where it considers that an act or omission by an employee or other person may have caused or contributed to an incident or near-hit incident at the workplace or while working off-site.

(b) *Employees who test positive on a post-incident or near-hit alcohol test shall be terminated from employment*. Employees whose employment has been terminated under this clause will be considered for re-employment at a subsequent date if they are the most suitable candidate for the position, tests negative on a pre-employment alcohol test, conclusively establish that they have received appropriate treatment for their alcohol use if necessary and sign a Monitoring Agreement.

4. *Policy Implementation*

A copy of this Policy will be distributed to and endorsed by each employee through an acknowledgement form, which new employees will sign at the commencement of employment.

IX. Breach by Other Persons

A breach of this Policy by other persons at Teck Coal sites who are not employees (e.g. contractor or sub-contractor) will result in those persons not being permitted to perform duties at any Teck Coal site. These persons will be considered for access of Teck Coal's sites at a subsequent date if they test negative on an alcohol test, conclusively establish that they have received appropriate treatment and sign a Monitoring Agreement.

Prepared by:	Authorized by:	Original Date of Issue:	Date of Reissue:
Original Signed By Dean Winsor HUMAN RESOURCES DEPARTMENT	Original Signed By Ian Kilgour SENIOR VICE PRESIDENT Teck Coal Limited	December, 2004	August, 2012

No. 28: Illegal Drug Policy

I. Statement of Principles

1. Teck Coal has an obligation and responsibility to provide a safe workplace.

2. The use of illegal drugs, whether casual, recreational or arising from a dependency, can create unacceptable safety risks to everyone on a safety-sensitive work site.

3. Given the carry-over effects of illegal drugs, these risks occur regardless of whether the illegal drugs are used while at work or when employees are off work,

4. Teck Coal considers it imperative to take the steps set out in this Policy to reduce safety risks arising from the use of illegal drugs,

5. These steps are intended to assist employees to stop using illegal drugs in breach of this Policy, by providing for treatment and counselling and by making it clear that if they don't stop using illegal drugs on or off the job and have an incident or near-hit with illegal drugs in their system, their employment will be terminated.

6. The presence of illegal drugs in an employee or other persons (see definition below) system will be determined by the provision of a urine sample and urinalysis or by some other means.

II. Purpose

The purpose of this Policy is to provide a safe workplace in a manner that promotes the general well-being of Teck Coal employees.

III. Application

This Policy applies to all employees of Teck performing duties at the work sites of Teck Coal or while working off-site. It also applies to contractors, sub-contractors and any other persons performing duties at the work sites of Teck Coal.

IV. Definitions

1. "Illegal drug" means any drug listed in Schedules I-VI of the *Controlled Drugs and Substances Act*, except a drug prescribed by a physician to an individual that is being used by that individual as prescribed. Prescription drugs are dealt with in a separate policy entitled "Medication Use Policy".

2. "Confidential Addiction Assessment" means an assessment of the nature of the individual's substance abuse problem(s). It includes recommendations for treatment, such as residential or outpatient treatment programs, and/or counselling. It also includes recommendations about the timing and conditions for the employee's return to work, and development of a Monitoring Agreement. The assessment will be performed by an addictions specialist selected by Teck Coal and Teck Coal will pay for all costs of the assessment.

3. "Monitoring Agreement" means an agreement between the employee and Teck Coal that sets out the terms and conditions under which the employee may return to work at Teck Coal, and shall include random drug and alcohol testing and mandatory recovery maintenance activities for a fixed term, as appropriate to the individual circumstances.

4. "positive" means a test result which indicates the presence in the employee's body of an illegal drug or an illegal drug metabolite.

5. "other person(s)" includes Teck Coal contractors, sub-contractors and any other persons performing duties at the work sites of Teck Coal.

V. Prohibited Conduct

1. No employee or other person shall possess, use or distribute illegal drugs at any of Teck Coal's work sites;

    a. Employees who possess, use or distribute illegal drugs at any of Teck Coal's work sites will he terminated.

    b. Other persons who possess, use or distribute illegal drugs at any of Teck Coal's work sites will result in their removal from Teck Coal work sites.

2. No employee or other person shall report for work with illegal drugs in their system:

    a. Employees who test positive following a post-incident/near-hit drug lest shall be terminated from employment (see Section VIII, 4.b). Terminated employees will be considered for re-employment at a subsequent date if certain conditions we met (see Section VIII, 4.b).

    b. Employees who test positive following a reasonable cause or random drug test will be placed on a paid medical leave of absence and referred to an addictions specialist, and be required to meet certain conditions (see Section VIII, 2.b, 2.c, 2.d, 2.f & 3.b, 3.c, 3.d, 3.f).

    c. Other persons who test positive following any drug test will result in those persons not being permitted to perform duties al Teck Coal sites. If this occurs, these persons will be considered for access at a subsequent date if certain conditions are met (see Section IX).

3. No employee or other person shall refuse to take a drug test that is authorized by this Policy. Any employee or other person who refuses to submit to a drug test shall be treated as if they tested positive, with the following consequences:

a. If an employee refuses to submit to a drug test following a post-incident/near/hit drug lest, his/her employment will be terminated (see Section VIII, 4.b). Terminated employees will be considered for re-employment at a subsequent date if certain conditions are met (see Section VIII, 4.b).

b. If an employee refuses to submit to a reasonable cause or random drug test, he/she will be referred to an addictions specialist, and be required to meet certain conditions (see Section VIII, 2.b, 2.c, 2.d, 2.f & 3.b, 3.c, 3.d, 3.f).

c. If an employee refuses to take a pre-employment drug test, his/her application for employment will not be considered (see Section VIII, 1.b). These employees will be considered for employment at a subsequent date if certain conditions are met (see Section VIII, 1.c).

d. If an other person refuses to submit to a drug test, they will not be permitted to perform duties at Teck Coal sites. If this occurs, these persons will be considered for access at a subsequent date if certain conditions are met (see Section IX).

4. No employee or other person shall tamper with a bodily fluid sample provided for drug testing. This prohibition includes, but is not limited to, using masking agents, other devices or diuretic drugs, substituting other fluids, and water-loading,

a. Any employee who has adulterated/tampered with a testing sample will be terminated from employment.

b. Other persons who have adulterated/tampered with a testing sample will not be permitted to perform duties at Teck Coal sites.

5. No employee shall refuse to comply with recommended treatment plans, including Monitoring Agreements, authorized by this Policy. If an employee fails to comply, his/her employment will be terminated with the opportunity to apply for re-employment at a subsequent date if certain conditions are met (see Section VI, 9; Section VII, 1.c; Section VIII. 2.f; Section VIII, 3.f; Section VIII, 4.b).

VI. Voluntary Disclosure

1. The use of illegal drugs, whether on or off work, can affect the safe performance of work.

2. Therefore, Teck Coal strongly encourages employees who use illegal drugs to seek assistance to slop using illegal drugs *before* they have an incident or near-hit with drugs in their system, which as set out below, will result in the termination of their employment.

3. If requested, Teck Coal will provide assistance to employees who want to stop using illegal drugs (voluntary disclosure). An employee who wishes to make a voluntary disclosure should apeak to their supervisor or a member of the Human Resources department. This information will be kept strictly confidential.

4. No employee shall be disciplined for making a voluntary disclosure provided the disclosure is made before a workplace incident occurs.

5. Upon making a voluntary disclosure, the employee shall be placed on a paid medical leave of absence and shall be referred to an addictions specialist for a Confidential Addiction Assessment, which the employee will be required to attend. Reasonable travel coats will be paid by Teck Coal. The paid medical leave of absence will be for a reasonable period to permit the Confidential Addiction Assessment to occur and to permit the operation of paragraph 6 below.

6. An employee will be allowed to return to work after making a voluntary disclosure if he/she complies with the treatment recommendations (if any) of the addictions specialist, completes a recommended treatment program (If one is recommended) within a reasonable time frame, is cleared to work by an addictions specialist, and signs a Monitoring Agreement.

7. The employee must immediately comply with any recommended treatment.

8. Teck Coal will pay for the cost of the recommended treatment and treatment program,

9. An employee who fails to adhere to a Monitoring Agreement or to paragraph (7) above will be terminated from employment. Employees whose employment has been terminated under this clause will be considered for re-employment at a subsequent duty if they are the most suitable candidate for the position, tests negative on a pre-employment drug test, conclusively establish that they have received appropriate treatment for their drug use if necessary and sign a Monitoring Agreement.

VII. Unscheduled Work/Emergency Call-In

1. An employee who is contacted to report to work in an emergency or for other unanticipated reasons shall refuse the assignment if he/she has illegal drugs in his/her system.

VIII. Drug Testing and Assessments

1. *Pre-Employment Drug Testing*

(a) Applicants for employment at Teck Coal will be requested to take a drug test,

(b) If an applicant refuses to take a drug test, his/her application for employment will not be considered.

(c) Any candidate who tests positive tor an illegal drug will not he offered employment but may re-apply for employment at a subsequent date. The candidate will be considered for employment in the future if they are the most suitable candidate for the position, test negative on a pre-employment drug test, conclusively establish that they have received appropriate treatment for their illegal drug use and that they have not used illegal drugs over a period of time deemed appropriate by Teck Coal, and sign a Monitoring Agreement.

2. *Reasonable Cause Drug Testing*

(a) Teck Coal may require an employee or other person to undergo drug testing where it has reasonable cause to suspect the employee or other person has been or is using illegal drugs. Returnable cause may be based on, but is not limited to, the following:

(i) the employee or other person's demeanour or behaviour at the workplace, other indications of use; or

(ii) information that the employee or other person is using, possessing, offering for sale, selling or distributing illegal drugs or illegal drug paraphernalia on or off the work site.

(b) An employee who tests positive shall be placed on a paid medical leave of absence and shall be referred to an addictions specialist for a Confidential Addiction Assessment, which the employee will be required to attend. Reasonable travel costs will be paid by Teck Coal. The paid medical leave of absence will be for a reasonable period to permit the Confidential Addiction Assessment to occur, and to permit the operation of paragraph (c) below.

(c) The employee will be returned to work subject to specified terms and conditions which shall include but are not limited to successful completion of treatment recommendations (if any), compliance with a treatment program (if one is recommended) within a reasonable time frame, clearance to return by the addictions specialist, and the employee signing a Monitoring Agreement.

(d) The employee must immediately comply with any recommended treatment.

(e) Teck Coal will pay for the cost of the recommended treatment and treatment program.

(f) An employee who fails to adhere to a Monitoring Agreement or to paragraph (d) above will be terminated from employment. Employees whoso employment has been terminated under this clause will be considered Tor re-employment at a subsequent date if they are the most suitable candidate for the position, tests negative on a pre-employment drug test, conclusively establish that they have received appropriate treatment for their illegal drug use and that they have not used illegal drugs over a period of time deemed appropriate by Teck Coal, and sign a Monitoring Agreement.

3. *Random Drug Testing*

(a) All employees or other persons are subject to random drug testing in accordance with Teck Coal's testing protocols.

(b) An employee who tests positive shall be placed on a paid medical leave of absence and shall be referred to an addictions specialist for a Confidential Addiction Assessment, which the employee will be required to attend. Reasonable travel costs will be paid by Teck Coal. The paid medical leave of absence will be for a reasonable period to permit the Confidential Addiction Assessment to occur, and to permit the operation of paragraph (c) below.

(c) The employee will be returned to work subject to specified terms and conditions which shall include but are not limited to successful completion of treatment recommendations (if any), compliance with a treatment program (if one is recommended) within a reasonable time frame, clearance to return by the addictions specialist, and the employee signing a Monitoring Agreement.

(d) The employee must immediately comply with any recommended treatment.

(e) Teck Coal will pay for the cost of the recommended treatment and treatment program.

(f) An employee who falls to adhere to a Monitoring Agreement or to paragraph (d) above will be terminated from employment. Employees whose employment has been terminated under this clause will be considered for re-employment at a subsequent date if they are the most suitable candidate for the position, tests negative on a pre-employment drug test, conclusively establish that they have received appropriate treatment for their illegal drug use and that they have not used illegal drugs over a period of time deemed appropriate by Teck Coal, and sign a Monitoring Agreement.

4. *Post-Incident/Near-Hit Drug Testing*

(a) Teck Coal will require an employee or other person to undergo drug testing where it considers that an act or omission by an employee or other person may have caused or contributed to an incident or near-hit incident at the workplace or while working off-site.

(b) *Employees who test positive on a post-incident or near-hit drug test shall be terminated from employment.* Employees whose employment has been terminated under this clause will be considered for re-employment at a subsequent date if they are the most suitable candidate for the position, tests negative on a pre-employment drug test, conclusively establish that they have received appropriate treatment for their illegal drug use and that they have not used illegal drugs over a period of time deemed appropriate by Teck Coal, and sign a Monitoring Agreement.

5. *Policy Implementation*

A copy of this Policy will be distributed to and endorsed by each employee through an acknowledgement form, which new employees will sign at the commencement of employment.

IX. Breach by Other Persons

A breach of this Policy by other persons working at a Teck Coal site who are not employees (e.g. contractor or sub-contractor) will result in those persons not being permitted to perform duties at Teck Coal sites. These persons will be considered for access of Teck Coal's sites at a subsequent date if they test negative on a drug test, conclusively establish that they have received

appropriate treatment and that they have not used illegal drugs for a period of time deemed sufficient by Teck Coal, and sign a Monitoring Agreement.

Prepared by:	Authorized by:	Original Date of Issue:	Date of Reissue:
Original Signed By Dean Winsor HUMAN RESOURCES DEPARTMENT	Original Signed By Ian Kilgour SENIOR VICE PRESIDENT Teck Coal Limited	December, 2004	August, 2012

No. 29: Medication Use Policy

I. Statement of Principles

1. Teck Coal has an obligation and responsibility to provide a safe workplace.

2. The use of prescription Medications and over-the-counter medications ("Medications") (see definition below) can create unacceptable safety risks to everyone on a safety-sensitive work site.

3. Teck Coal considers it imperative to take the steps set out in this Policy to reduce safety risks arising from the use of Medications.

4. General responsibilities of employees and "other persons" (see definition in Section IV, below):

a. An employee or other person who is prescribed a Medication by a physician is responsible for consulting with his or her physician about the potential adverse effects which the use of the Medication could have on the employee's or other person's ability to perform his or her work safely.

b. If the Medication prescribed by the physician could adversely affect the employee's or other person's ability to work safely, and there is no alternative to the Medication that would be safe, the employee or other person must advise Teck Coal and provide a physician's note stating the period of time that the employee must take the Medication and be absent from work.

c. An employee or other person who is intending to take an over-the-counter Medication must read the directions and warnings on the Medication and determine whether using the Medication could adversely affect his or her ability to work safely. If the employee or other person is uncertain about whether he or she will be able to perform his or her work safely while using the Medication, the employee must consult with a physician or pharmacist.

d. Whenever possible, an employee or other person must choose an over-the-counter Medication that will allow the employee or other person to meet his or her work obligations.

5. This Medication Use Policy is intended to assist employees to avoid or discontinue using Medications in breach of this Policy, by providing for treatment and counseling and by making it clear that if they do use Medications in breach of this Policy and have art incident or near-hit with Medications in their system, their employment will be terminated.

6. The presence of Medications in an employee or other person's system will be determined by the provision of a urine sample and urinalysis or by some other means.

II. Purpose

The purpose of this Policy is to provide a safe workplace in a manner that promotes the general well-being of Teck Coal employees.

III. Application

This Policy applies to all employees of Teck performing duties at the work sites of Teck Coal or while working off-site. It also applies to contractors, sub-contractors and any other persons performing duties at the work sites of Teck Coal.

IV. Definitions

1. "Medications" includes:

a. a Medications prescribed by a physician to an individual that is being used by that individual as prescribed,

b. a Medications for which a prescription is required but is being used without a legally obtained prescription, or

c. over-the-counter medications

that could adversely affect the employee's ability to work safely.

2. "Confidential Addiction Assessment" means an assessment of the nature of the individual's substance abuse problem(s). It includes recommendations for treatment, such as residential or outpatient treatment programs, and/or counselling. It also includes recommendations about the timing and conditions Tor the employee's return to work, and development of a Monitoring Agreement. The assessment will be performed by an addictions specialist selected by Teck Coal and Teck Coal will pay fur all costs of the assessment.

3. "Monitoring Agreement" means an agreement between the employee and Teck Coal that sets out the terms and conditions under which the employee may return to work at Teck Coal, and shall include random Medications testing and mandatory recovery maintenance activities for a fixed term, as appropriate to the individual circumstances.

4. "positive" means a test result which indicates the presence in the employee's body of a Medication or a Medication metabolite.

5. *"other person(s)"* includes Teck contractors, sub-contractors and other persons performing duties at the work sites of Teck Coal.

V. Prohibited Conduct

1. No employee or other person shall use Medications or report to work with Medications in their system that could adversely affect the employee's ability to work safely:

a. Employees who lest positive following a post-incident/near-hit Medications test may be terminated from employment (see Section VIII, 3.b). Employees who are terminated will be considered for re-employment at a subsequent date if certain conditions are met (see Section VIII, 3.b).

b. Employees who test positive following a reasonable cause or random Medications test may be placed on a paid medical leave of absence and referred to an addictions specialist, and be required to meet certain conditions (see Section VIII, 1.b, 1.c, 1.d, 1.f & 2.b, 2.c, 2.d, 2.f).

c. Other persons who test positive following any Medications test may result in those persons not being permitted to perform duties at Teck Coal work sites. If this occurs, these persons will be considered for access at a subsequent date if certain conditions art met (see Section IX).

2. No employee or other person shall refuse to take a Medications test that is authorized by this Policy. Any employee or other person who refuses to submit to a Medications test shall be treated as if they tested positive, with the following consequences:

a. if an employee refuses to submit to a Medications test following a post-incident/near-hit Medications test, his/her employment may be terminated (see Section VIII, 3.b). Employees who are terminated will be considered for re-employment at a subsequent date if certain conditions are met (see Section VIII, 3.6).

b. If an employee refuses to submit to a reasonable cause or random Medications test, he/she may be referred to an addictions specialist (see Section VIII, 1.b, 2.b), and be required to meet certain conditions (see Section VIII, 1.b, 1.c, 1.d, 1.f & 2.b, 2.c, 2.d, 2.1).

c. If an other person refuses to submit to a drug lest, they may not be permitted to perform duties at Teck Coal work sites. If this occurs, these persons will be considered for access at a subsequent date if certain conditions are met (see Section IX).

3. No employee or other person shall tamper with a bodily fluid sample provided for Medications testing, This prohibition includes, but is not limited to, using masking agents, other devices or diuretic drugs, substituting other fluids, and water-loading.

a. Any employee who has adulterated/tampered with a testing sample will be terminated from employment.

b. Other persons who have adulterated/tampered with a testing sample will not be permitted to perform duties at Teck Coal work sites.

4. No employee shall refuse to comply with recommended treatment plans, including Monitoring Agreements, authorized by this Policy, If an employee fails to comply, his/her employment will be terminated with (he opportunity 10 apply for re-employment at a subsequent date if certain conditions are met (see Section VI, 9; Section VIII, 1.f; Section VIII, 2.f; Section VIII, 3.b).

VI. Voluntary Disclosure of Medication Abuse

1. The use of Medications, whether on or off work, can affect the safe performance of work,

2. Therefore, Teck Coal strongly encourages employees who use Medications to use them appropriately within the restrictions of this Policy,

3. In circumstances where an employee has become dependent on a Medication and seeks assistance from Teck Coal, they most do so *before* they have an incident or near-hit with Medication in their system, which as set out below, may result in the termination of their employment.

4. If requested, Teck Coat will provide assistance to employees who want to stop using Medications inappropriately and in violation of this Policy (voluntary disclosure). An employee who wishes to make a voluntary disclosure should speak to their supervisor or a member of the Human Resources department. This information will be kept strictly confidential.

5. No employee shall be disciplined for making a voluntary disclosure provided the disclosure is made before a workplace incident or near-hit occurs.

6. Upon making a voluntary disclosure, the employee shall be placed on a paid medical leave of absence and shall be referred to an addictions specialist for a Confidential Addiction Assessment, which the employee will be required to attend. Reasonable travel costs will be paid by Teck Coal. The paid medical leave of absence will be for a reasonable period to permit the Confidential Addiction Assessment to occur and to permit the operation of paragraph 6 below.

7. An employee will be allowed to return to work after making a voluntary disclosure if he/she complies with the treatment recommendations (if any) of the addictions specialist, completes a recommended treatment program (if one is recommended) within a reasonable time frame, is cleared to work by an addictions specialist, and signs a Monitoring Agreement if appropriate.

8. The employee must immediately comply with any recommended treatment (if recommended).

9. Teck Coal will pay for the cost of any recommended treatment and treatment program.

10. An employee who fails to adjure to a Monitoring Agreement or to paragraph (7) above will be terminated from employment. Employees whose employment has been terminated wider this clause will be considered for re-employment at a subsequent

date if they are the most suitable candidate for the position, tests negative on a pre-employment Medications test, conclusively establish that they have received appropriate treatment for their Medication abuse if necessary and sign a Monitoring Agreement.

VII. Unscheduled Work/Emergency Call-In

1. An employee who is contacted to report to work in an emergency or for other unanticipated reasons shall refuse the assignment if he/she has Medications in his/her system that could adversely affect his or her performance.

VIII. Medications Testing and Assessments

1. *Reasonable Cause Medications Testing*

(a) Teck Coal may require an employee or other person to undergo Medications testing where it has reasonable cause to suspect the employee or other person has been or is using Medications in violation of this Policy. Reasonable cause may be based on, but is not limited to, the following:

(i) the employee or other person's demeanour or behaviour at the workplace, other indications of use; or

(ii) information that the employee or other person is using, possessing, offering for sale, selling or distributing prescription Medications on or off the work site in violation of this Policy.

(b) An employee who tests positive for Medications may be placed on a paid medical leave of absence and may be referred to an addictions specialist for a Confidential Addiction Assessment, which the employee would be required to attend if referred. Reasonable travel costs will be paid by Teck Coal, The paid medical leave of absence will be tor a reasonable period to permit the Confidential Addiction Assessment to occur, and to permit the operation of paragraph (c) below.

(c) The employee will be returned to work subject to specified terms and conditions which shall include but are not limited to successful completion of treatment recommendations (if any), compliance with a treatment program (if one is recommended) within a reasonable time frame, clearance to return by the addictions specialist, and, if recommended, the employee signing a Monitoring Agreement,

(d) The employee must immediately comply with any recommended treatment.

(e) Teck Coal will pay for the cost of any recommended treatment and treatment program.

(f) An employee who fails to adhere to a Monitoring Agreement or to paragraph (d) above will be terminated from employment. Employees whose employment has been terminated under this clause will be considered for re-employment at a subsequent date if they are the most suitable candidate for the position, tests negative on a pre-employment Medications test, conclusively establish that they have received appropriate treatment for their Medication use if necessary and sign a Monitoring Agreement.

2. *Random Medications Testing*

(a) All employees or other persons are subject to random Medications testing in accordance with Teck Coal's testing protocols.

(b) An employee who tests positive for Medications may be placed on a paid medical leave of absence and may be referred to an addictions specialist for a Confidential Addiction Assessment, which the employee would be required to attend if referred. Reasonable travel easts will be paid by Teck Coal, The paid medical leave of absence will be for a reasonable period to permit the Confidential Addiction Assessment to occur, and to permit the operation of paragraph (e) below.

(c) The employee will be returned to work subject to specified terms and conditions which shall include but are not limited to successful completion of treatment recommendations (if any), compliance with a treatment program (if one is

recommended) within a reasonable time frame, clearance to return by the addictions specialist, and, if recommended, the employee signing a Monitoring Agreement.

(d) The employee must immediately comply with any recommended treatment.

(e) Teck Coal will pay for the cost of any recommended treatment and treatment program.

(f) An employee who fails to adhere to a Monitoring Agreement or to paragraph (d) above will be terminated from employment. Employees whose employment has been terminated under this clause will be considered for re-employment at a subsequent date if they are the most suitable candidate for the position, tests negative on a pre-employment Medications test, conclusively establish that they have received appropriate treatment for their Medication use if necessary and sign a Monitoring Agreement.

3. *Post-incident/Near-Hit Medications Testing*

(a) Teck Coal will require an employee or other person to undergo Medications testing where it considers that an act or omission by an employee or other person may have caused or contributed to an incident or near-hit incident at the workplace or while working off-site.

(b) *Employees who test positive on a post-incident or near-hit Medications test for Medications may be terminated from employment.* Employees whose employment has been terminated under this clause will be considered for re-employment at a subsequent date if they are the most suitable candidate for the position, tests negative on a pre-employment Medications test, conclusively establish that they have received appropriate treatment for their Medication use if necessary and sign a Monitoring Agreement.

4. *Policy Implementation*

A copy of this Policy will be distributed to and endorsed by each employee through an acknowledgement form, which new employees will sign at the commencement of employment.

IX. Breach by Other Persons

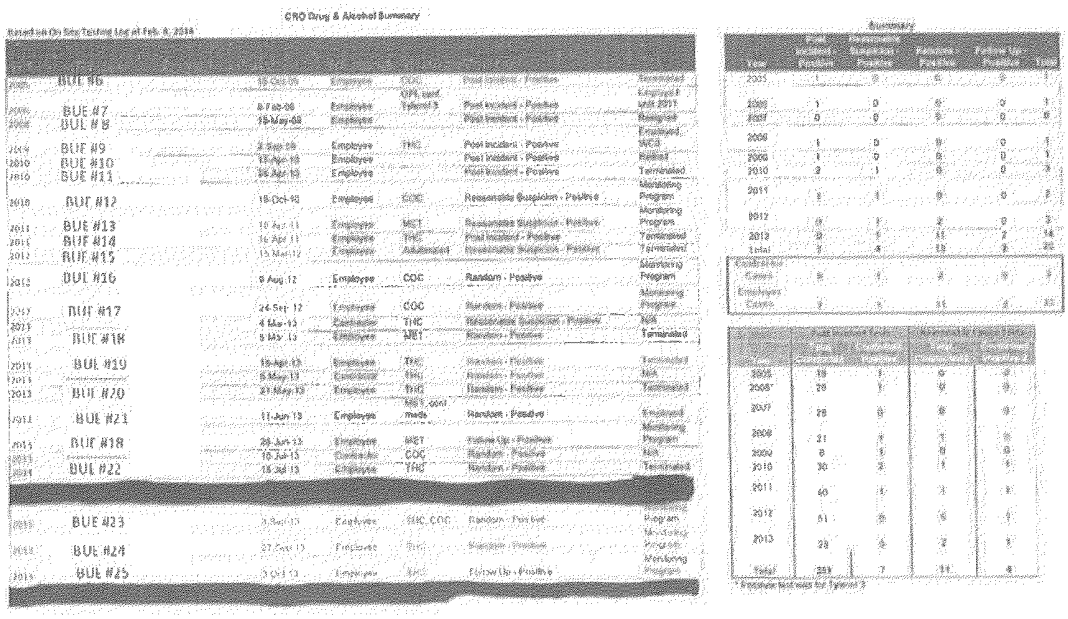
A breach of this Policy by other persons working at a Teck Coal site who are not employees (e.g. contractor or sub-contractor) may result in those persons not being permitted to perform duties at Teck Coal sites. If this occurs, these persons will be considered for access of Teck Coal's sites at a subsequent date if they test negative on a Medications test, conclusively establish that they have received appropriate treatment if necessary and sign a Monitoring Agreement.

Prepared by:	Authorized by:	Original Date of Issue:	Date of Reissue:
Original Signed By Dean Winsor HUMAN RESOURCES DEPARTMENT	Original Signed By Ian Kilgour SENIOR VICE PRESIDENT Teck Coal Limited	December, 2004	August, 2012

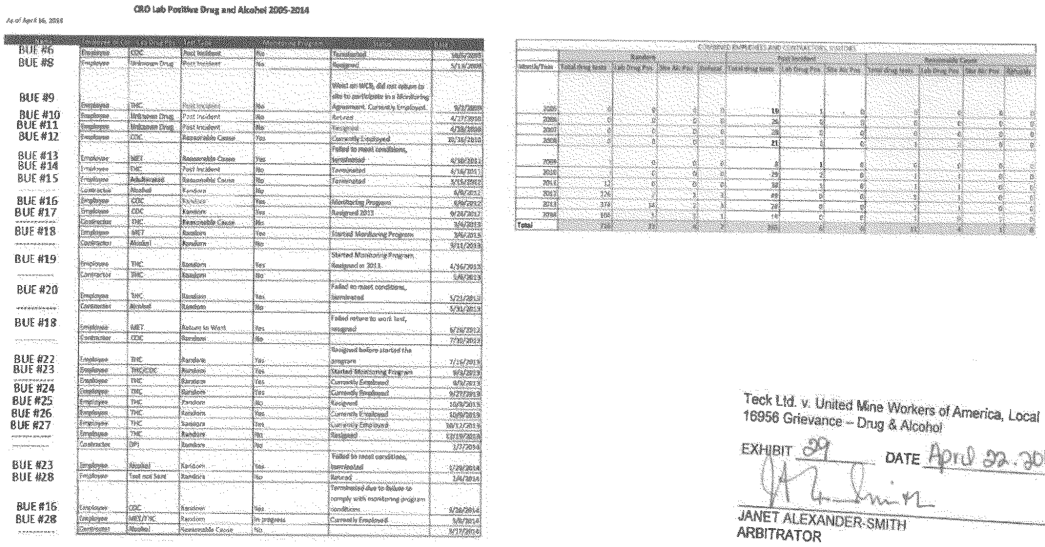
Appendix D

2015 CarswellAlta 2237

Appendix "D"



Graphic 1



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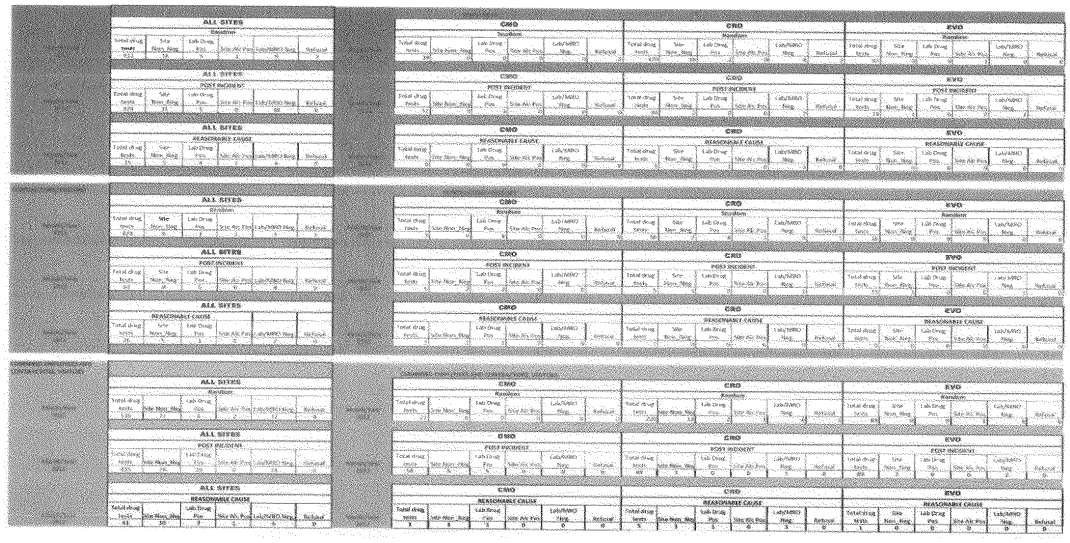

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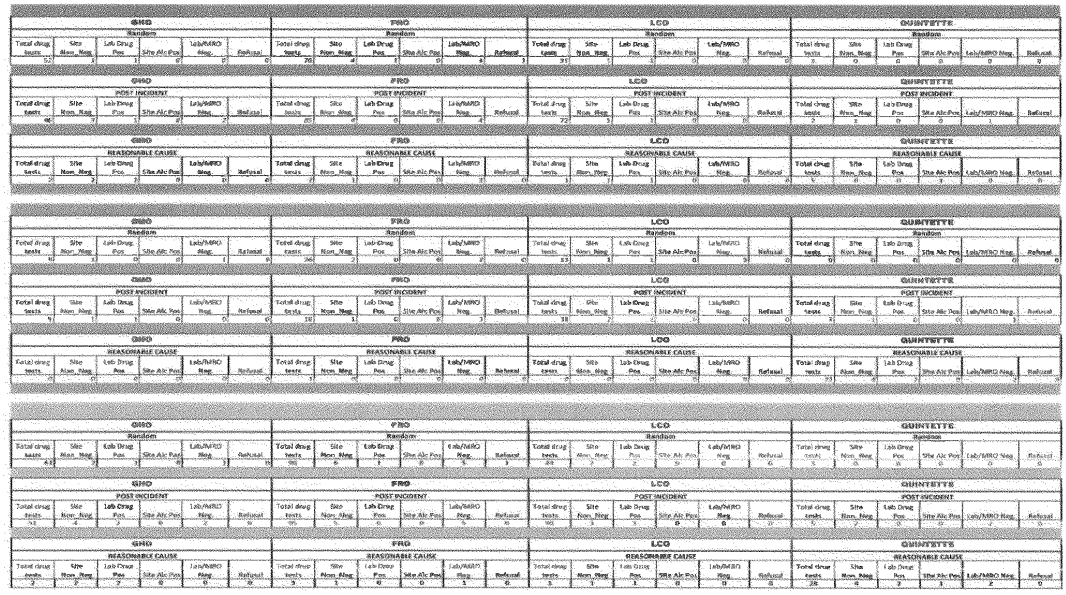

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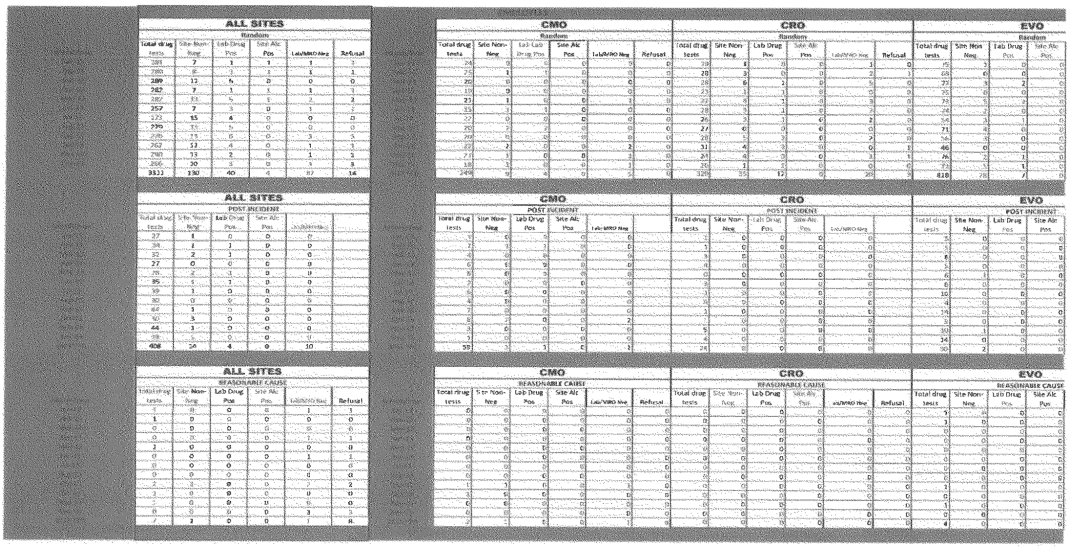

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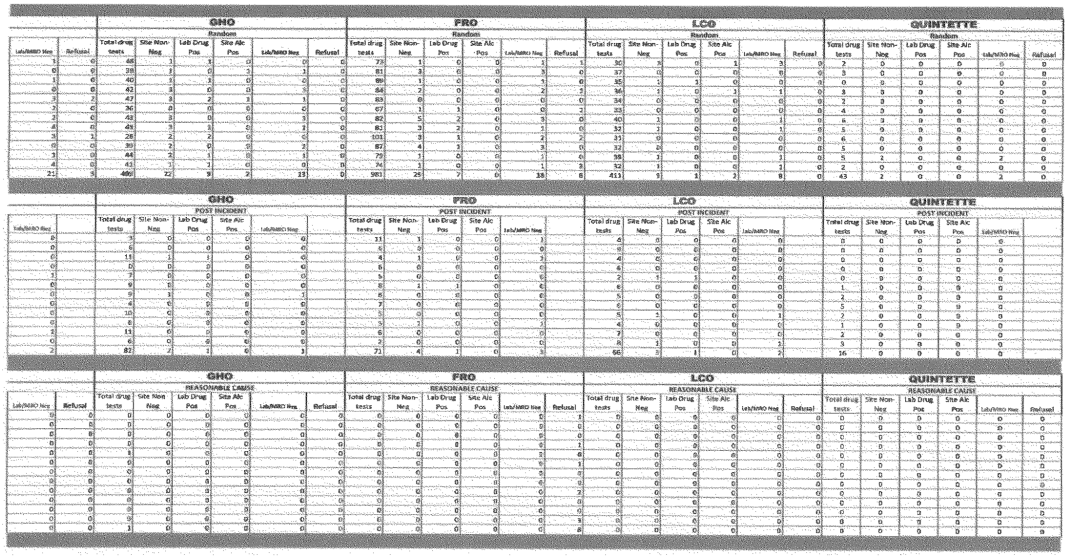

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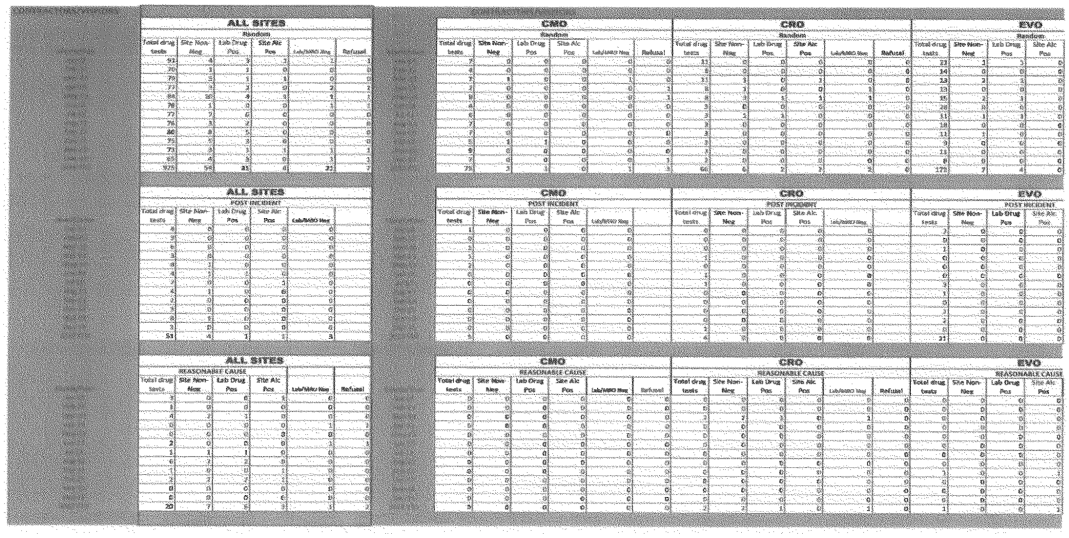

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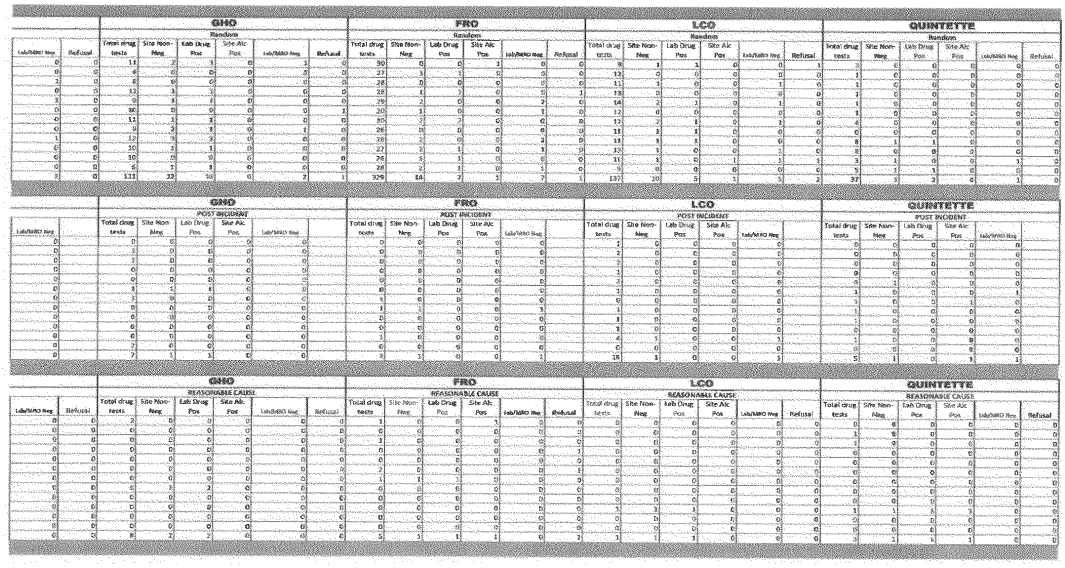

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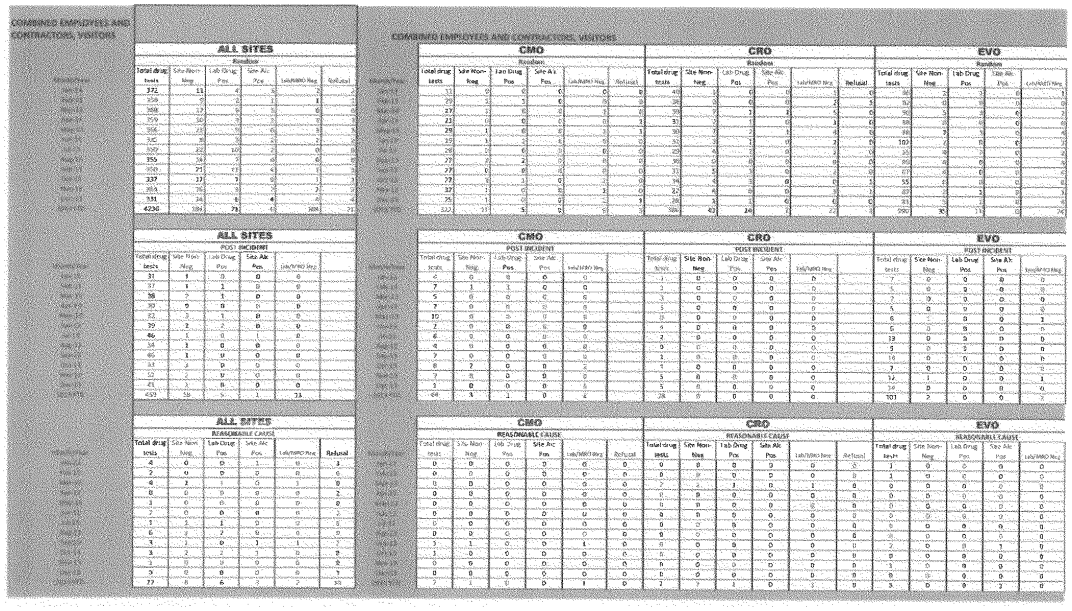

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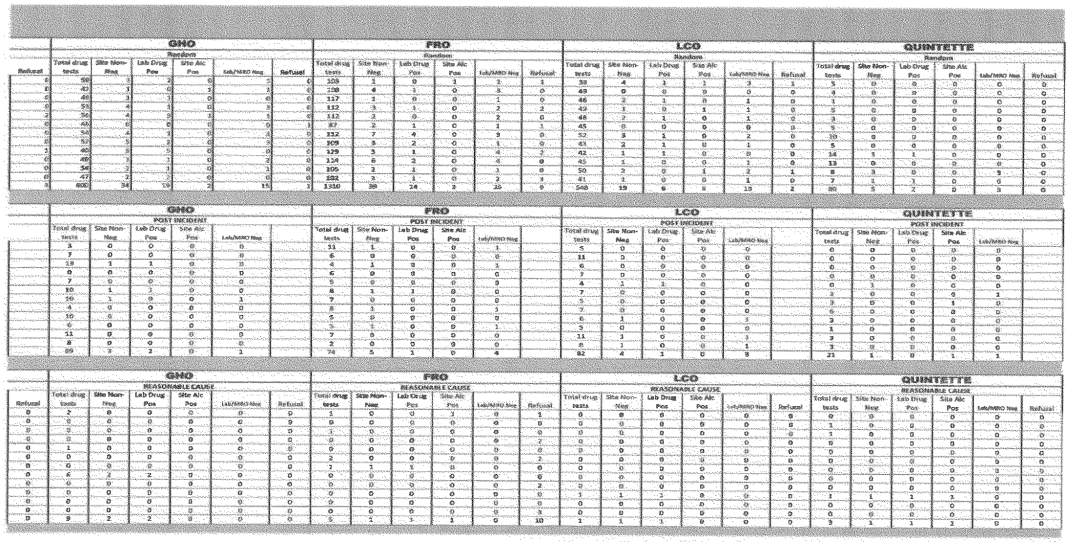

Graphic 10

End of Document